

Reflections on AI

Q&A with

Prof. Sven Nyholm



"I think the most important question in AI ethics right now is the question of human responsibility."

The <u>TUM IEAI</u> had the pleasure of speaking with Sven Nyholm, Professor of the Ethics of Artificial Intelligence at LMU Munich. Read his reflections on AI.

Q: What is the biggest misconception about AI?

A: I don't know that there is one and only one biggest misconception about AI. I think there are many. People, in general, overestimate what AI can do. For example, what exactly can Chat GPT or something like that do? I think this is an evolving concept. The modern discussion about AI has gone on for about 70 years or so it started in the 50s. If you look at what's happened in the 50s, 60s, 70s, 80s and onwards, the concept has evolved. For some periods, people were talking about certain technologies and techniques for processing information, and now everyone is talking about machine learning. In the future, we may talk about something else. Some researchers say we should use mixed approaches, a little bit of rule-based and a little bit of machine learning. The big message here is that AI isn't just one thing; it's a very broad category in which a lot of different things fit, and we shouldn't get too hung up on a particular understanding of what we think AI is at the moment, because that might all change, and it has changed in the past.

Q: What is the most important question in AI ethics right now?

A: I think the most important question in AI ethics right now, as well as in the past and maybe also moving into the future, is the question of human responsibility. If these

technologies produce good outcomes, who exactly can take credit for that? Who is praiseworthy? The more we give over tasks to AI technologies, and the less we have to do ourselves, the more we have to worry about weakening human responsibility.

Q: Is there a specific urgency to address the development and use of Generative AI?

A: The simple answer is yes, there's an urgency, partly because these technologies are being released into society before society has had a chance to think about whether we want them, for what purposes we want them and who should be allowed to use them. How should they be allowed to be used? We're in an educational context. All universities all over the world are now thinking about it. What things should the students be allowed to do using generative AI? Which things shouldn't they be allowed to do? For example, different faculties within my university have different policies about this - my faculty is working on policy. So generative AI is creating all these problems and challenges for people, and it was just released into society as a kind of big social experiment. Whenever there's an experiment, people are usually supposed to consent to it, be informed, and think about it before entering the experiment. But here we are in this big, in a certain sense, non-consensual experiment. Generative AI can do a lot of good, but it can also cause a lot of problems. We're in a bit of a crisis in one way because we have all these issues, but we're also in an exciting situation because, of course, this technology has a lot of potential. But we have to think about it from an ethical and social point of view, not just from a technical point of view.



Reflections on AI

Q&A with

Prof. Sven Nyholm



"I think the most important question in AI ethics right now is the question of human responsibility."

Q: What is the role of academia when it comes to the ethics of governance and of AI?

A: I think the role of academia when it comes to ethics, on the one hand, and when it comes to governance of AI, on the other hand, might be rather different. In a certain sense, governing AI, I guess, is the job of our elected representatives in a democratic society. Of course, they should ideally be informed by research about all aspects of AI - not just the technical but also social, ethical, and legal aspects. That is something academics are very well placed and situated to do. You sometimes hear big tech companies saying that they are the ones that have expertise in how AI works. They are the ones developing these technologies, so they should be regulating these things, and for that scope, all the big tech companies are also hiring people to work on ethics. But the ethics researchers who work for companies are restrained constrained in a way that we, the academic researchers, aren't. When I write ethics books or papers, I don't have to give them to a company. I have academic freedom. If I were working for one of the big tech companies, I would have to show my ethics research and get approval first, which has a constraining effect, at least to some degree.

Q: What does it mean to "live well" in a society that is increasingly driven by AI tools?

A: AI may seem great because it takes over lots of tasks that we might find boring or not enjoy so that we can do other things instead. But in so doing, we might actually have fewer opportunities to practice and develop certain skills. Think about analytical thinking, the ability to express oneself in writing and speech, etc. Suppose you have again generative AI to go back to that example, writing our texts for

us, maybe even doing some of our thinking for us. In that case, that might mean that we have fewer opportunities to develop some skills that we associate with living a good human life: thinking for oneself and developing a certain amount of wisdom. The more technology we have, the more AI we have; we sometimes think life will be better. But on the other hand, when we ask people in surveys, etc., what is the best part of their lives, that is usually human relationships - perhaps with pets or with nature and all sorts of things. Sometimes, the best parts of life have little to do with technology. We might have to be mindful that the more we use technology in every single part of life, the more perhaps we're giving ourselves fewer opportunities to do some of the things that usually bring the most deepest satisfaction, such as interacting with our near and dear other human beings. We shouldn't assume that more AI means a better life or way of living, even though it might mean better living conditions in certain respects. Still, it doesn't necessarily mean better relationships, more happiness, etc. So, one has to be careful not to use too much AI. Also, the human touch has to be there.

Q: We often say that AI is changing the world. To what extent is AI changing us as humans?

A: There will be certain new skills that we may acquire by using AI, but we may also lose certain capacities. Some of those capacities that we might lose, we might not worry about losing. We might not care about them. We might not enjoy having those capacities. But we should worry, I think, about things like analytical thinking or the capacity to express oneself in writing or speech. The more we hand over these tasks to AI technologies that do them for us, the more we might become what you might call artificially intelligent. It might



Reflections on Al



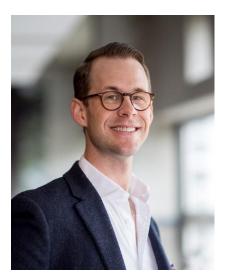




"I think the most important question in AI ethics right now is the question of human responsibility."

look like we have all sorts of intellectual skills from the outside, but we're not doing these things anymore. It's being done for us by a computer program. Let's say I'm a student and hand in a paper. It might look like I'm really smart and I understand the topic. But let's say Chat GPT actually wrote the paper. My academic skills could be decreasing, and at the same time, I'm getting better and better at prompting, let's say, Chat GPT or some other large language model at writing what appears to be my essay. So, from the outside, it may look as if I'm intelligent, but I may not have that intelligence that I appear to have. And that's a definition that is sometimes used for artificial intelligence - appearing to have intelligence and be able to do things that require human intelligence. My worry is that if we use artificial intelligence too much in our lives, we might become artificially intelligent. And that's to say we may not have some of the intelligencerelated skills we appear to have because we've outsourced these tasks to technologies so that we no longer have to have that natural intelligence. Now, this is a bit of a horror scenario, but I think that's something we have to think about, and we forget that that's one possible risk or consequence of outsourcing more tasks to AI within our lives.

Meet the Expert:



Sven Nyholm is Professor of the Ethics of Artificial Intelligence at LMU Munich. He is also a Principal Investigator at the Munich Centre for Machine Learning, a member of the Ethics Advisory Board of the Human Brain Project, and an Associate Editor of Science and Engineering Ethics journal. His books include "This is Technology Ethics: An Introduction, " published by Wiley-Blackwell in 2023. Nyholm's research is about how modern technologies – such as artificial intelligence – force society to reconsider and update traditional ethical norms and values as well as our human self-conception.

Disclaimer: Please note that the text version of this interview has undergone slight edits for clarity and conciseness.