

The Alan Turing Institute

AI, ethics and the law

What challenges and
what opportunities?

18 January 2018

The Alan Turing Institute

The Alan Turing Institute is the National Institute for Data Science and Artificial Intelligence. We pursue research which tackles the big challenges in data science, with lasting effects for science, the economy and the world we live in. The Turing applies data science research to real-world problems, working with partners in industry, government and third sector.

The Institute was founded in March 2015 as a registered charity (1162533) and Company Limited by Guarantee (09512457). It is governed by its Articles of Association and Charitable Object, which is the furtherance of education for the public benefit, particularly through research, knowledge exchange and public engagement in the field of data science.

Public panel report: AI, ethics and the law: What challenges and what opportunities?

At a public panel event on 'AI, ethics and the law', organised by Turing Fellows and Oxford Internet Institute researchers, Corinne Cath and Dr Sandra Wachter, academic, industry, civil society and EU Commission representatives came together to debate the challenges and opportunities presented by the deployment of AI systems across key areas of public life.

Corinne Cath chaired the session, which took place at The Alan Turing Institute, and asked panellists to focus their thoughts and contributions on ethical and legal frameworks which exist or should be potentially developed to regulate AI. She also asked panellists to consider the feasibility of the development and implementation of such frameworks and reflect on the role of ethics and law in the governance of AI systems. Finally, panellists were asked to think about the most exciting aspects of AI and share their views on the potential ways it could benefit society.

In her opening introduction, she set the context:

“AI is everywhere and shaping crucial spheres of many aspects of our society. As these systems are being developed it is also important to take into account the potential impacts this has for various social groups - in particular disadvantaged and minority communities. We need to understand the societal impacts across the board, but at the moment there is a lack of shared understanding, and this seems to be generating apprehension about the use of these technologies.”

What are the main concerns about AI and what regulatory frameworks already exist?

Alan Winfield, Professor of Robot Ethics at the University of West of England, was first to respond and said; “I’m a professional worrier, but I decided to do something about it, so I am currently working on the IEEE’s global initiative on ethically aligned design, which seeks to develop standards for autonomous systems and AI.

“My worries and biggest fears about AI relate to wealth distribution and inequality. I am also concerned about who is designing AI systems. Let’s face it these are being designed by mainly young white men, which I think is dangerous because it reflects the values and priorities of a very small sub-set of society.”

Dr Monica Beltrametti, Director of NAVER LABS Europe, shared concerns relating to her customer base. She said:

“Customers seem not to be aware of the dangers and biases that can be embedded in AI, as such there isn’t currently a demand for it to be explainable and accountable. We have a diverse customer base in term of understanding and what to expect.”

Vidushi Marda, Policy Advisor in Article 19’s Team Digital, articulated concerns relating to human rights. She said: “I am most concerned about the effects of AI on free expression. I want to find out how to make AI and algorithmic decision-making a driver for the protection and promotion of human rights. As part of this effort Article 19 has been responding to recent House of Lords consultations on AI.”

Dr Wachter expressed concerns about AI's broad societal impacts. She said: "I worry about the ethical and legal implications for society. My main concern is how to make machine learning fair, transparent and accountable."

Paul Nemitz, Principal Advisor in the EU Commission Directorate General for Justice and Consumers concluded: "My concern about AI is to gain a clear understanding of what can be left to ethics and what can be left to law."

Should AI systems be regulated by ethics or law?

Paul Nemitz responded first and his focus was on democracy. He said "When it comes to fundamental individual rights or human rights, it should be governed by law.

"If AI social media bots and chat bots are now influencing people unwittingly during elections, then the law needs to be enforced."

He added: "The problem with AI is the lack of transparency – the black box. Is it real? What do we actually know about AI? It's a case of who knows what. We need clarity on all this to really understand the challenges and opportunities."

Following on, academic lawyer, Dr Wachter said: "Ethics should lead the way to inform the law. Law should be grounded in ethics."

Similarly, but focusing on the relationship between ethics and law, Vidushi Marda said: "I think law and ethics inform one and other. There shouldn't be a trade off between the two as I think this is artificial. There is a much closer relation between the two. Both should be grounded in international law."

Drawing on her experience in commercial settings, Dr Beltrametti focused on corporate responsibility. She said: "Companies should have a set of values that they are governed by and there needs to be accountability. Law is important, and I do think there should be state regulation. I also think that there should be industry-led self-regulatory bodies in place, since they are the experts and have a better understanding of the priorities and what is most effective."

Professor Winfield was certain the principle consideration should be safety. He said: "We need safety critical AI. If it can cause serious harm it needs to be regulated. A clear example of this is driverless cars. The same applies to medical diagnosis AI and some areas of the financial sector.

"I think there is a sub-set of AI that needs regulation, but I also agree with Dr Beltrametti's view that we need a soft set of ethical frameworks which should inform responsible research and innovation. Ethical principles should be in place which encourage transparent and ethical governance."

What is AI and how is it different from other technologies?

Vidushi Marda said: "I think the main concern is the inscrutability of AI – the black box. It's new and pervasive and we're still in catch-up mode in terms of how to regulate it, but it's already everywhere."

Dr Beltrametti followed: “In terms of a definition, I think it’s that AI mimics our brains, how we reason, how we plan, how we see the world, how we think. There is a long way to go, but we are making progress in the perception side of things, through developments in machine vision.

“I think AI is different to other technologies in the sense that we don’t know how they make decisions. In future, we need to find a way to make them explain themselves.”

Dr Wachter viewed the autonomy of AI systems as key. She said:

“The difference is that AI systems act autonomously. They act on their own. The challenge for the legal system is how to make such systems accountable. Also, the unpredictability of AI is a distinct feature. AI systems can be risky. I also agree that inscrutability and opacity is a problem. We don’t understand the systems and how it reaches decisions.”

Paul Nemitz added: “I agree the challenge is autonomy. AI is not classic automation. AI systems carry implications for data protection, liability and responsibility. Systems developed to act autonomously present problems for accountability.

“I think what also causes concern is that the technology is being developed behind closed doors. Also the concentration of power is an issue since just five or six companies increasingly control the automated public sphere.

“Nowadays people are not proactively buying and reading newspapers and these companies know about us in a way they have not known before. In the context of power, via online algorithms that can target citizens, AI has implications for the functioning of the political system. My question is: do we really want to live in a democracy where AI is the main influencer of voters’ choice?”

What responsibility does each sector have regarding the development of ethical and legal frameworks?

Professor Winfield said: “It’s simple, engineers should accept responsibility for what they create. AI are human-engineered systems, so there is no reason why they can’t be transparent. We need to educate and empower all technologists so that ethics are embedded in developments.

“In the 70s and 80s you couldn’t have innovation without robust quality management and everyone involved at all levels shared responsibility. Similarly, with AI we need to move to a model where everyone shares responsibility for what they are doing.”

Dr Beltrametti added: “We should get the ethical principles from customers and transfer these across to algorithms and test the outcomes. It has to be transparent and explainable and accountable to the customer.”

Vidushi Marda followed with thoughts on the role and responsibilities of civil society actors. She said: “Civil society representatives need to bring clarity to the debate. At the moment AI means nothing and everything. Civil society can provide conceptual clarity.

“Part of our responsibility is to act as a conduit between technical, policy and government actors and facilitate an exchange of views.

“Human rights organisations perform a function that is inherently ethical and our work is grounded in international law. Our job is to make sure that AI systems are aligned with existing human rights frameworks and ensure that policymakers on all sides speak to each other.”

Dr Wachter provided the view from academia. She said: “Academics have a responsibility to provide objective analysis of the issues. However shedding light on the problems is not enough, I think we also have a duty to work with policymakers to develop solutions.”

Finally, focusing on the socio-economic and political implications AI systems pose for member states, with a sense of urgency Paul Nemitz set out the Commission’s responsibilities. He said: “The EU needs to catch up with the US. The issue of growth and industrial policy is pressing and we need to make sure that citizens across members states benefit from the good that AI can bring.

“The challenge is to make sure that constitutional rights are observed. The basic guiding principles should be fundamental human rights. The concentration of economic and political power among a few companies needs to be mitigated. The internet age was supposed to free and empower the individual so there is a need to decentralise power again.”

What are the opportunities and most exciting aspects of AI?

Professor Winfield said: “What excites me is not the technology itself, but people and life in general. I think robots are exciting in the sense that they can be used as a microscope for gaining a better understanding of human beings.”

Dr Beltrametti added: “I believe that AI can enrich our lives and that’s what it should be used for. I’m not interested in technology which exists for its own sake.”

Vidushi Marda followed: “I am sceptical about the technology but do see that AI can bring benefits *if* it is intentionally used to add value to people’s lives.”

Specifically focusing on the deployment of AI systems in healthcare, Dr Wachter said: “I’m particularly excited by the amazing breakthroughs that AI can potentially bring to medicine and health. I mean in terms of disease prediction, I think these can bring enormous benefits to society and future generations.”

Last but not least, and closing the discussion, Paul Nemitz said: “I see AI as an enabling technology. What is crucial to understand is why it is being developed and what it will be used for. I think it has the potential to bring greater transparency to technology itself. It has the potential to help us understand our cities better, it could help to revive democracy and deliver other socio-economic benefits to our societies. If AI is used for this purpose it can lead to a fairer and better world.”