



Data Science & Law Forum 3.0:

Operationalizing Responsible AI



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Foreword

Casper Klynge, Vice-President,
European Government Affairs, Microsoft

The technology agenda has become a key driving force of the European Union's (EU) global position. This is especially relevant in the field of Artificial Intelligence (AI) as it will contribute to the development of beneficial, trustworthy and robust AI worldwide, grounded in Europe's democratic values. Europe's place in the world is unique in that sense: its cultural diversity, traditions and perspectives are crucial in building and maintaining a cutting-edge research and innovation community. It is for that same reason that the EU is uniquely suited to establish an ecosystem of excellence around AI.

The European Commission's vision for AI regulation is an important and ambitious step to making trustworthy AI the norm in Europe and beyond, and speaks for its leadership in developing a regulatory framework for the responsible development and use of AI.

At Microsoft, we welcome the European Commission's proposed AI Act and share¹ the Commission's goal to ensure that the vast potential of AI can be realized by all in ways that are safe, respectful of fundamental rights, and aligned with European values.

We are committed to developing and deploying technology that supports Europe's ambitions to become Fit for the Digital Age. Companies like ours have a tremendous responsibility in ensuring that our technology is in line with EU values. And it is for that same reason that we are committed to making TechFit4Europe. This is our acknowledgement of the particular role the tech sector needs to play in helping Europe realize its digital ambitions; we in the tech industry are the ones that need to adapt to European rules and values, not the other way around.

In April 2021, our third annual Data Science & Law Forum took place. This year's Forum focused on operationalizing responsible AI, and explored the rules and structure that will be needed to shape the development and application of robust and reliable AI technology. Just days after the Forum began, the European Commission published its proposed AI regulation framework, adding to the topical and timely nature of the Forum.

With pandemic measures still in place, the Forum was held online and attracted over 1,000 participants from 42 countries. They heard opinions, insights, and aspirations from more than 60 European and global AI experts as well as national and EU policymakers, including MEPs.

¹Read our response here: <https://lnkd.in/g3U2BV5>

We were delighted to be able to bring together such a varied and knowledgeable selection of panellists and speakers who brought the benefit of their experience and insights to an appreciative audience. As the vitally important discussion on the most effective and acceptable approach to AI regulation continues, we are sure many of the themes and ideas we heard talked about will continue to shape the decisions of the future.

AI is among the most powerful technologies of our time. It is having nothing less than a transformational impact on our increasingly digital lives in the 21st century. With the AI Act now in the legislative process, discussions on how to translate data science into law and the other way around are critical. We need the right guardrails to accompany the development and deployment of AI, and we need to foster innovation to utilize the technology for critical societal challenges of our times. The hard question is how to do it. We feel this report is a timely contribution to that question.

A handwritten signature in black ink, appearing to read 'Casper Klygne', written on a light blue horizontal line.

Casper Klygne

Vice President,
European Government Affairs,
Microsoft

Section A: Data Science & Law Forum - at a Glance

In Numbers: The Data Science & Law Forum 3.0



7 regional events covering
12 European capitals



Over 1000 participants from
42 countries



60+ European and global AI
experts, national and EU
policymakers



Starting with a series of regional panel discussions across Europe featuring more than 25 sessions, the Forum heard from speakers in the Netherlands, Germany, Switzerland, France, Denmark, Czech Republic, Hungary, Poland, Slovakia, Portugal, and Spain. These policy-centric discussion panels debated the challenges and opportunities of operationalizing AI, offering practical insights into responsible AI governance, and were therefore a timely precursor to the AI Act announcement.

The Forum also introduced the Microsoft Envision AI Workshop to the public. We use the Envision workshop – which was developed by the [Project Tokyo team from Microsoft Research, Engineering Learning & Insights](#) and the Office of Responsible AI² – as part of onboarding employees into the necessary culture shift for responsible AI.

In the book talk, [The Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence](#), Kate Crawford³ offered a critical policy and political perspective on the AI lifecycle, and its impact. The session also featured Lorena Jaume-Palasi, founder of the Ethical Tech Society. [Watch the video of this session here.](#)

² Developed by the Project Tokyo team from Microsoft Research, Engineering Learning & Insights and the Office of Responsible AI, See appendix

³Dr Crawford is a principal researcher at Microsoft Research who holds prestigious teaching positions at universities on three continents.

Two invitation-only workshops were also part of the Forum's schedule this year. The first was organized by Professor Théodore Christakis, Professor of International and European Law, Université Grenoble Alpes, Switzerland, on [Regulating the Use of Facial Recognition Technology in Europe: State of the Art and the Way Forward](#). This session followed the closed-door session of last year's DSLF, and a future workshop is planned in the context of a forthcoming study. The second workshop gathered representatives from civil society and NGOs, where the topic of discussion was responsible AI.

We also introduced a new session for 2021, the [Young European Scholars Program](#), with the aim of giving PhD students a platform to present their research into the operationalization of robust and responsible AI.

Ensuring trust and responsibility are hardwired into the creation and use of AI is vital. This is a point around which there seems to be general consensus among the technology community and regulatory bodies. To take a closer look at what that entails, and how it is already happening at Microsoft, we created a series of Inside Out keynotes. Here, a selection of AI experts from within Microsoft shared their expertise and opinions.

Natasha Crampton, Chief Responsible AI Officer at Microsoft, put it succinctly:

"Trust in technology must be earned every day, in the big and the small decisions that we take about which systems we build and how we deploy them."



Natasha Crampton,
Chief Responsible AI
Officer at Microsoft

"Trust in technology must be earned every day, in the big and the small decisions that we take about which systems we build and how we deploy them."

You can find a detailed summary of these sessions in the appendix to this report.

The Forum concluded with a full plenary week hosted in Brussels. It featured keynote speeches by the [European Commission's Executive Vice-President Margrethe Vestager](#) and the [Slovenian Minister of Public Administration Boštjan Koritnik](#).

There were corresponding policy panels on regulating AI, accountability mechanisms and transatlantic cooperation, plus fire-side chats on some of the human aspects of AI.



Section B: Balancing AI with People and Regulation

Discussions on AI can be polarized. Can AI be trusted, or should it be feared? Will it be a force for good or a source of problems? Getting to the answers requires an acceptance of more nuanced perspectives.

Some of Europe's leading experts in technology, law, privacy, and regulation from the Netherlands, Germany, Portugal, France, Spain, and the Visegrád Four group of nations – Czech Republic, Hungary, Poland, and Slovakia – talked through many of the most pressing questions and considerations on the adoption of AI.

REGIONAL PERSPECTIVES ON RESPONSIBLE AI VS. INNOVATION

Across Europe, panellists demonstrated a great deal of insight and consensus on how to move forward with the ideas and themes introduced by the keynote speakers⁴. Two main areas of concern emerged from the panels: responsible AI, and innovation and growth.

REGULATORS AND BUSINESSES MUST BE FLEXIBLE

Older, more established industries have already been able to strike a balance between regulation and freedom. The panel from the Netherlands expressed the view that even within the technology sector, innovation continues to deliver revenue streams, delight customers, and stay within the bounds of the law. Finding that balance can only be achieved if the regulatory framework allows for it.

In Germany, the panel said policymakers must be flexible and suggest solutions that will work with the inherent uncertainty that accompanies AI system development. Plus, businesses must be ready to compromise if ethical principles conflict with organizational goals.

⁴ see appendix

ENABLE DEVELOPMENT AND REGULATE USE

In Portugal, the panel suggested that rather than attempt to regulate AI, it is the way the technology might be used that ought to be under the regulatory spotlight. To do that, and to do it well, there will need to be a detailed understanding of use-cases that ought to be regulated.

This view was also expressed by the panel in Denmark, which felt the proposed regulations should differentiate between high-risk and low-risk application of AI, as well as between possible types of harm.

FIT FOR PURPOSE

Laws will need to be clear and easily understood if they are to be practical, in the view of the Visegrád panel who also stressed that AI solutions must be based on solid and reliable data. That will be an important part of helping position AI as an opportunity for people and businesses rather than a threat.

For those working on the creation of AI, there will be concerns that regulation might restrict their work. The panel from Denmark picked up on that point, saying that it is a major concern for start-ups and that over-regulation, or a lack of harmonization between countries with differentiated requirements and standards, could be a problem.

TIME IS SHORT

In Portugal, the panel worried that Europe can't compete with the United States or China, which already appear to be so far ahead in the global tech and AI space.

But to have the best possible chance to create the right kind of environment – where consumers and business customers feel safe, while innovators feel free to create – Europe needs to focus on some important next steps.

Collectively, the panels felt that some of those priorities should be:

- To increase the human talent pool working in AI
- To strengthen the transparency of AI and empower citizens by fostering accountability
- To make citizens aware of both the risks and opportunities AI represents.

Transparency and trust were of particular interest to the panel from France, which focused specifically on healthcare and AI. All parties must work together to create a digital culture within public health institutions, the panel said. That should include digital training for public/civil servants.

Section C: Making AI Work For The Benefit Of Us All

Following the regional perspectives, Microsoft's Data Science & Law Forum 3.0 returned to Brussels for a week of plenary sessions. In these, groups of respected policymakers and subject-matter experts came together to discuss specific issues.

The week kicked off just days after the European Commission published its proposals for AI regulation, with a conversation between Margrethe Vestager, the European Commission's Executive Vice-President and Casper Klynge, Vice-President of European Government Affairs at Microsoft. A write-up of that session can be found [here](#).

The week's other sessions took in international cooperation, holding AI to account, and the all-important question of how to balance AI regulations with economic opportunities. There were pertinent examples, challenging observations and, despite the many and varied obstacles that lie ahead, some important signs of optimism and hope.

REGULATING AI AND STRIKING A BALANCE

Setting rules that can both promote and regulate AI won't be easy. In conversation with Microsoft Vice-President Casper Klynge, the European Commission Executive Vice-President Margrethe Vestager acknowledged these challenges but presented a European vision of the future that can successfully blend caution with innovation.

"The aim is quite simple," Vestager said. "Let's use it more. Let's have artificial intelligence everywhere where it makes a difference."

The EU believes that only solutions that are trustworthy, legally sound and which follow ethical guidelines will allow European citizens to embrace the technologies' most promising aspects, Vestager explained.

"Innovation and regulation here actually go hand in hand - they closely follow each other."



Margrethe Vestager,
European Commission
Executive Vice-President

Making sure AI and its uses are safe and well-regulated could also open up tremendous opportunities, Vestager thinks. “Innovation and regulation here actually go hand in hand - they closely follow each other,” she said. “The task here is to make sure that what we do is proportional, risk-based, and more than anything creates legal certainty, both for those who develop and for those who use AI.”

Much of the focus of the EU’s proposals is on high-risk uses of AI. Sifting applicants for jobs or universities, or credit scoring for financial products are complex tasks and have the potential to be discriminatory. “What we’re trying to do here is to build trust that if there is a risk, the risk can be mitigated so that we can make best use of the technology,” Vestager said. “And that, of course, is also why we want to give businesses the best possible access to build AI.”

WHAT’S NEXT FOR OPERATIONALIZING RESPONSIBLE AI?

AI must not diminish hard-won, intrinsic human rights and freedoms. That’s something the EU has made abundantly clear when discussing the technology. Even though the EU wants to create a business-friendly environment for AI, it is clear that the technology industry and regulators won’t always see eye-to-eye on this. On day two of the Brussels Plenary Week, these different perspectives were debated further by our panel of experts, [in a session that can be viewed here](#).

The EU has always aspired to be a beacon of fairness according to Eva Kaili, MEP. When it comes to a consideration of the use of AI, we should all expect the same ambition from the Commission, but we ought to temper that with a pinch of realism. “I think that we aim high,” she said. “And that message is being sent by the Commission. But of course, you would expect a lot to change when it arrives at the European Parliament.”

The proposals should be viewed as a starting point, Kaili said: “Of course, the devil is in the details. But I think if we move ahead based on our principles of defending our rights and quality of life, I think we will get it right in the end.”

“The regulations should be easy to use – easy and predictable for companies.”



Irina Orsich,
Team Leader AI, DG CONNECT,
European Commission

One of those devilish details is the use of data in training AI systems. This was [a point Natasha Crampton made](#), when she said that there is “a great deal of emphasis on achieving fairness through data quality.

In other words, it suggests that if you think carefully about the representativeness of data used to train and test your AI system, then you go a long way towards making sure that your system is fair, and not discriminatory.”

Irina Orsich reminded the panel of the importance of balancing competing needs and of the successes the EU has achieved in other domains.

“The regulations should be easy to use – easy and predictable for companies,” Orsich said. “We wanted to create legal certainty, and we have to strike the balance between fundamental rights where we do not want to see violations, and between also our capacity to innovate.”

She also advised that the EU’s proposals should be seen in the wider context of other European laws – the data protection rules, the fundamental rights, consumer protection rules, the anti-discrimination laws. These different rules and regulations were created to work together to help businesses and individuals, not to get in their way.

Another challenge the panel discussed was **whether physical location matters in a digital world?** This is an intriguing question and a thorny challenge for the regulators. One of their aims will be to create laws that can be used to enforce standards on AI systems that are not based in an EU member state but which might be in use within one of the EU-27.

The digital space does not align neatly with national borders, though. So it remains to be seen whether it is possible to create a standardized framework for AI development and deployment that can move from the digital to the physical world seamlessly. Read a summary of the discussion [here](#).

DEMONSTRATION MECHANISMS FOR AI ACCOUNTABILITY

Establishing a regulatory framework is only one part of the process, and day three of the Brussels Plenary Week saw the conversation turn to monitoring compliance and enforcing regulations.

The issues of most concern are not the technical aspects of AI, said the session’s moderator Geraldine Larkin, CEO of the National Standards Authority of Ireland. Instead, she said, most concerns are to do with trust and the potential for bias. And on top of all of that, ensuring regulations are adhered to will be a vital part of maintaining trust. To achieve that, accountability must figure in the rules and regulations pertaining to AI. [Watch a video of the session here](#).

There is already a global patchwork of standards affecting technology

services, consumer rights, and more, in the view of Patrick Bezombes, Co-chair of the AI focus groups, CEN and CENELEC.

The more complicated that patchwork becomes, the more challenging it is to identify a clear method of enforcement. "It's really hard to see which one is useful, or how to then interconnect [with it]," he said, describing what happens when multiple laws, domestic and international, are applied to any given area of business.

For customers and end-users, quality assurance labels would enable the easy identification of AI applications that comply with set standards in the future, according to Salil Gunashekar, Research Leader at RAND Europe. "This approach would help improve the trust of users in AI products and services and thereby potentially promote the overall uptake of the technology," he continued.

Regulation need to keep up with change in the view of Maximilian Poretschkin, Senior Data Scientist at the Fraunhofer Institute for Intelligent Analysis and Information Systems. "AI systems are highly dynamic," he said. "Even if they don't continue to learn during operation, they can change their behavior due to changes within the operational environment."

But there are reasons to be optimistic about the future of AI regulation

in the opinion of Jason Matusow, General Manager, Global Standards at Microsoft. "If you read through 10 or more [AI regulatory] papers from countries all over the world, you find that they were all essentially saying the same thing," he said. "First, [they want] to be competitive with AI to benefit society and the economy.

"Second, they don't want Terminator," he quipped.

"They don't want AI to harm citizens or damage societal structures. So you have a natural tension between competitiveness and the drive to use the technologies, and the need for things to be done responsibly." [Click here to read a summary of the discussion.](#)



"The (US) State Department focuses on AI because it could shape everything about our lives."



Allison Schwier,
Acting Science and Technology Adviser
to the United States Secretary of State

On day four of the Brussels Plenary Week, the panel stressed the importance of multilateral cooperation on the use of AI. International collaboration is essential for driving AI innovation, they agreed. Getting to that point highlights some of the differences in outlook around the world that will need to be accommodated.

The United States is under no illusion about the potential power of AI and why it needs to be scrutinized, said Allison Schwier, Acting Science and Technology Adviser to the United States Secretary of State. “The State Department focuses on AI because it could shape everything about our lives, from where we get energy to how we do our jobs to how wars are fought,” she said.

“We fundamentally believe the promises of AI will surpass its challenges,” Schwier continued. “We believe scientific and research innovations such as AI will uplift and empower people, provided they’re developed, disseminated and governed in a way that aligns with our shared democratic values and human rights. To achieve that alignment, we have to work together.” [Watch a video of the session here.](#)

That’s not a view held in Singapore which takes a different approach, encouraging voluntary adoption of responsible AI practices by industry.

Wan Sie Lee, Director of Trusted AI and Data at the Infocomm Media Development Authority (IMDA) in Singapore, explained why that is. “We believe that there’s a need to balance encouraging AI innovation organizations, as well as building public trust in technology. So, at this point, we are not pro-regulation just yet,” she said.

Regulating AI doesn’t need to be a polarized conversation though. That’s something Audrey Plonk, Head of Division, Digital Economy Policy at the Organization for Economic Co-operation and Development (OECD), believes. “I think we do see a lot of overlap in how different countries are thinking about this,” she said.

“If you think of regulation more as a spectrum ... we do see some direct tracking to the AI principles, which I think is exactly what we would expect to see two years into the adoption of that instrument, where countries are really trying to take the principles and apply them in policy and regulatory practice,” she continued.

Jayant Narayan, who manages the World Economic Forum’s Global AI Action Alliance, said that, in his view, the international appetite for cooperation was strong. “What we are noticing through our work at the [World Economic] Forum is that there is a lot more willingness to collaborate, and governments are actually actively asking for it,” he said. [Click here to read more about this discussion.](#)

Section D: Fireside Chats: What's Next For People And AI?

Two of the sessions during the Brussels plenary week focused solely on the relationship between people and AI. In one we heard from a filmmaker, in the other an academic, and between them we captured a wide-angle view of some of the most important aspects of our AI-enabled future, namely: what will it mean for us as people?

THE PSYCHOLOGY OF HUMAN-TO-MACHINE INTERACTION

The first of the fire-side sessions featured Dr Jean-François Bonnefon, a Research Director at the Toulouse School of Economics, and Hanna Wallach, Senior Principal Researcher at Microsoft Research. [View the session here.](#)

Their discussion centred on the way humans interact with machines and how some people even go so far as to attribute personality traits to computers.

"Humans have prejudices towards machines and are less tolerant towards mistakes made by machines versus ones made by humans," said Dr Bonnefon.

That unconscious bias could lead to machines not being fully-utilized.

"As a result, it may feel more rational for people to give a task to a human even if statistically [they] have [a] much higher chance to make a mistake," he continued.

If emotions creep into the way people regard machines, could the reverse ever become true? Wallach advises caution on that point. "Machines are able to recognize observable features like specific impressions," she said. "However, it is not correct to say machines can recognize emotions, as they are latent."

"More regulation is needed for emotion detection and behavior prediction technologies as well as social scoring."

Dr Jean-François Bonnefon,
Research Director at the Toulouse
School of Economics



Computers and technology have long been a source of inspiration for movie makers. In the second of our fireside chats, we heard from Tonje Hessen Schei, the Director and Producer of the *iHuman* documentary. She talked to Eric Horvitz, Technical Fellow and Chief Scientific Officer at Microsoft, about how technology has inspired her work.

[View the session here.](#)

Schei described herself as part of the last generation that can remember life before the internet. The speed and scale of technological change is inspiring, she said. But we must also pay full attention to the challenges.

Autonomous weapons are, she said, terrifying. This inspired her to make *iHuman*. But, she added:

“It’s like anything else in life – things are rarely black and white”.

“I wanted to make *iHuman* a thriller – not to make people anxious, but to place something disruptive into something that is normal and wake people up,” she explained. “We face a technology [AI] that demands from everyone to be aware and awake of what is going on in our lives and our societies as well as what is coming in the future.”

In response, Horvitz touched on some of the doomsday scenarios painted by, among others, the late Stephen Hawking, who famously warned that AI would give rise to an autonomous super-intelligence that would eventually bring about the downfall of humanity.

Even though we are at the earliest stages in the development of AI, and the future is so unpredictable, Horvitz is not so worried. “I’m a tremendously optimistic person in general and this extends to AI and what it can deliver to humankind,” he said. That optimism includes how he thinks regulatory bodies will strive to keep up with the pace of technological advance.

“The AI regulation shall be permanently reviewed and refreshed, keeping the norms up-to-date with reality,” Horvitz said.

Schei agreed that the role of regulation – and in particular what she characterized as the “pioneering” stance of the EU – is something to be optimistic about.

Our hopes, aspirations, fears, and anxieties will all continue to be influenced by the way AI-based technologies develop, according to Horvitz. He remains positive that one of the most encouraging signs that there will be nothing to fear is the growing awareness and debate over AI and regulation, and he praised the role of Schei’s documentary in helping keep that awareness going. To hear more on this subject, Schei was also a guest on Microsoft’s Tech Fit 4 Europe [podcast](#).



Appendix

ENVISION WORKSHOP

With the needs of the Forum in mind, the Envision workshops aimed to give policymakers practical experience of how Microsoft's development teams approach the topic of responsible AI problems within our product teams. Sharing the Microsoft Responsible AI Standards implementation program in this way means we get to introduce many more stakeholders to our structured way of working. We also hope other interested parties will contact us, via mscenter@microsoft.com to find out more and perhaps even become involved.

EXPERT VIEWS: THE TRUST IMPERATIVE - FROM THE INSIDE OUT

To examine important topics from many different perspectives, we created a series of Inside Out keynote sessions, [which can be viewed here](#), for the Forum. In these sessions, groups of AI experts from within Microsoft shared their expertise and opinions. Here we have summarized the seven sessions, grouping them thematically around the main points raised – many of which were discussed in multiple sessions.

Trust in technology must be earned every day, in the view of Natasha Crampton, Chief Responsible AI Officer at Microsoft. This is an especially pressing matter, given the rate of AI development and adoption, she said. "One might have expected the pandemic to slow AI activity, but in fact, we started 2021 seeing AI develop and be deployed faster than we anticipated at the beginning of 2020."

One of the key developments in the use of AI since the start of the pandemic has been its role in helping decode the virus's genome and then help speed the creation of vaccines. It's a long way from the more prosaic customer service chatbot model, and makes the issue of trust even more vital, Crampton said.

Ensuring trust is at the heart of AI development means thinking carefully about "the small decisions that we take about which systems we build and how we deploy them. We owe it to ourselves to thoughtfully and intentionally approach what we want that future to look like," Crampton continued

Great change means great responsibility. This was the sentiment expressed by Daniel Kluttz, Sensitive Uses Lead, Office of Responsible AI, Microsoft. "When your technology changes the world, you bear a responsibility to help address the world you have helped create," he said.

Kluttz gave an example of a seemingly innocuous use of AI that in fact has hidden and potentially harmful consequences. Consider a real-time translation tool, being used to transcribe an interview between people speaking different languages. Kluttz reminded us that context is everything.

If the tool was being used in an immigration appeal, for example, it becomes part of what he described as “a high-stakes legal proceeding” and therefore a higher level of risk mitigation is needed. For that, Kluttz said, developers need to factor sensitive use scenarios into their work and create a workflow that responds to potential impacts of their AI systems on legal matters, physical or psychological wellbeing, threat to human rights, and more.

Data is powerful but it can also be very personal, according to Dr Junaid Bajwa – who is Chief Medical Scientist at Microsoft Research and a clinician within the United Kingdom’s National Health Service. In his talk on the intersection of health and technology, he went to great lengths to remind us all of the importance of the human dimension in all of this.

“We cannot forget that the interest in humanity and the secret of caring for the patient is caring for the patient. And we need to understand how we blend biology, medicine, and technology in today’s world,” he said. He stressed that being able to personalize treatment to really fit an individual patient’s needs would be a powerful contribution from AI.

Healthcare, he said, must take into account the social determinants of someone’s health: “Their environment, their genetics, and their biology, which in essence is an area where we’re getting increasing access to data.”

As data access grows, the need for trust grows too, said Jenn Wortman Vaughan, Senior Principal Researcher at Microsoft Research. That trust needs to extend through to the organizations and applications using data, she continued, and to win the public’s trust, the AI sector will need to be open and honest.

“The world is full of uncertainty,” she said. “And all of our AI systems and all of our machine learning models have uncertainty baked into them – whether it’s explicit or not. It’s just irresponsible to tell people that we have some way of taking this uncertainty away.”

In her keynote on Intelligibility Throughout the Machine Learning Life Cycle, she explained: “People are at the heart of the machine learning lifecycle. People define the tasks that machine learning will be used to solve. People decide which data to collect. They decide how to clean and pre-process that data and how to label it.”

The importance of transparency was emphasized by Mehrnoosh Sameki, Responsible AI Senior Technical Program Manager at Microsoft.

“Sometimes there are claims about the expected accuracy of numbers or even about reaching human-parity in some tasks, [but] when we look at several examples from the real world, we can see that AI often fails in many different aspects,” she said.

Sameki believes that failing to address factors like fairness can lead to changes in the quality of service different people, or groups of people, receive. One example she gave was of a hypothetical facial recognition system that might work better with women than men. She also gave an example of HR systems or loan application systems that are meant to screen for the best candidates, but which are “better at picking good candidates among, say, white men than among other groups”.

Thinking about responsible AI helps us to innovate. So said Steve Sweetman, Microsoft Principal Program Manager for Ethics & Society. He doesn't accept the view that achieving transparency, responsibility and trust will hold back innovation. To illustrate his point, Sweetman talked through an example of a real-life case study – RXR Realty, which uses a computer vision platform from Microsoft in one of its office buildings in New York.

The system uses spatial analysis to help maintain safe social distancing behaviors. It pulls in camera feeds and analyses the visual data to see how many people are in a given area at any one time. It cannot recognize individual people and doesn't capture personally identifying information.

Ensuring the system can tell if someone is using a wheelchair, however, is an important consideration. "Does that affect how accurate the system is at detecting the space between people and does our training data have this type of information?" he explained.

Compliance should figure in AI systems' development as early as possible

in the view of David Marcos, Responsible Innovation Compliance Lead, Microsoft Cloud & Artificial Intelligence. Bringing together co-workers from different teams and with different perspectives can help make that happen, he said.

That point is also reflective of the broader theme around inclusion that emerged in the sessions. Namely, that one of the key requirements for building robust, resilient, and responsible AI will be ensuring that a diverse collection of perspectives and needs can always be met with as little fuss as possible.

There are lessons learned on how that's been done over the past decade or so from privacy and data security, he said. But the biggest single consideration remains the human one: "You're dealing with people that are not necessarily philosophers or sociologists, they're engineers. How do you get these more sophisticated issues understood? How do you get them measured properly?"

List of Contributors

The Data Science & Law Forum received overwhelming positive feedback and this is due to the fact the event consisted of a plethora of excellent contributors. Therefore, Microsoft would like to thank each contributor for ensuring that this event was a success and the discussions were engaging and enlightening.

Marya Akhtar, Chief Legal Advisor, Danish Institute for Human Rights

Torsten Andersen, Deputy Director-General, Danish Business Authority

Gerhard Andrey, National Councillor, Swiss Parliament

Martin Axelsen, CSO & Co-founder of Radiobotics

Dr Junaid Bajwa, Chief Medical Scientist, Microsoft Research

Judith Bellaïche, Managing Director of Swico and Member of the Swiss National Council

Patrick Bezombes, Co-chair of the AI Focus Group, CEN and CENELEC

Pedro Bizarro, Co-founder and Chief Science Officer, Feedzai

Jean-Francois Bonnefon, Senior Director, Toulouse School of Economics

Mario Brandenburg, Member of the German Bundestag and Spokesperson for Technology Policy of the Free Democrats (FDP) Parliamentary Group

Cristina Colom, Digital Future Society Director at Mobile World Capital Barcelona

Natasha Crampton, Chief Responsible AI Officer, Microsoft

Melinda Crane, Chief Political Correspondent, DW

Kate Crawford, Senior Principal Researcher, Microsoft Research

Prof. Theodore Christakis, Professor of International and European Law, Université Grenoble Alpes

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Eric Horvitz, Technical Fellow and Chief Scientific Officer, Microsoft

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