

FINISHED COPY

WORLD SUMMIT ON INFORMATION SOCIETY FORUM  
THE ETHICAL DIMENSIONS OF ARTIFICIAL INTELLIGENCE  
GENEVA, SWITZERLAND  
10 APRIL 2019  
1330 CET

Captioning Provided By:  
Caption First, Inc.  
P.O. Box 3066  
Monument, CO 80132  
800-825-5234

\*\*\*

This text, document, or file is based on live transcription. Communication Access Realtime Translation (CART), captioning, and/or live transcription are provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings. This text, document, or file is not to be distributed or used in any way that may violate copyright law.

\*\*\*

>> MODERATOR: Welcome, everybody, to the high level dialogue on the ethics of Artificial Intelligence coordinated by UNESCO. Please take your seats. We will start momentarily.

Thank you, everyone, for being here today despite the temptations of wonderful lunch breaks happening in the WSIS forum to talk with us today about the ethical dimensions of Artificial Intelligence. I am Sasha Rubel, programme specialist at UNESCO headquarters in Paris. I coordinate our work on WSIS and the ethical dimensions of Artificial Intelligence. If we are to make the most of the possibilities offered by AI to the world, we must ensure that it serves humanity with respect to Human Rights and human dignity as well as our environment and ecosystems. Today no global ethical framework or principles or Artificial Intelligence applications exist. UNESCO is a unique universal forum with over 20 years of experience in developing international instruments related to the ethics of science and technology.

It has the responsibility to lead an interdisciplinary debate and an ethical one, not a technical debate, about the

development of artificial intelligence. This high level dialogue will look at the ethical dimensions of Artificial Intelligence that can contribute towards sustainable development, but also pose critical questions related to the use of this emerging technology and the respect of universal ethical principles and fundamental Human Rights.

UNESCO is playing a lead role in sensitizing different stakeholders on the ethical dimensions of the use of Artificial Intelligence and also ensuring a multistakeholder reflection on challenges to be addressed as it concerns its development to the further knowledge societies. We have a record reflecting on the ethics of science and technology and analyzing the impact of the development of technology in our domains of competence.

For example, our Information for All program has an action line specifically dedicated to information ethics, and our World Commission on Ethics of Scientific Knowledge and Technology has been working jointly with the Secretariat to reflect on the use of this technology and its contribution to sustainable development going forward.

We also coordinate in the framework of WSIS Action Line C10 which looks specifically at the ethical dimensions of the Information Society. In 2015 UNESCO's member states adopted an Internet universality framework which proposed to look at development of Internet based on principles we have called ROAM, rights based, open, accessible and multistakeholder. Currently we are looking at applying these principles to the development of AI in partnership with different stakeholder groups with whom I'm happy we have with us today around the table to talk about this work going forward.

Without further ado, I would like to briefly introduce our panelists and go straight in the heart of the matter. I'm very pleased today that we have in fact more women on this panel than men, which is very rare in the field of technology. And I think it's very representative also of our commitment to ensuring gender equality and gender mainstreaming in the field of AI, but also the important role that women are in fact playing in the development of this technology. So thank you for the incredible women here with us today on this panel but also the she supporters and the incredible men who are doing equal work in this domain.

First and foremost I would like to introduce Peter who we will have the privilege of listening to and highlight the work being done and the report published that UNESCO released available on line as it concerns the ethical dimensions of Artificial Intelligence. Karine Perset who is at the OECD, Monique Morrow who is President of the VETRI Foundation and cofounder of the humanized Internet. Amandeep Singh Gill who is

Executive Director of the high level panel on digital cooperation. Mei Lin Fung who is cofounder of the people centred Internet. Dr. Salma Abbasi who is Chairman and CEO of the e-World wide group. Konstantinos Karachalios, Managing Director of the IEEE and congratulations for the report you have released available in the exhibition hall on ethically aligned design which is crucial work as it concerns development of Artificial Intelligence going forward.

Katie Evans, Ph.D. candidate on philosophy on ethics of AI. Nicolas Miaillhe, co-founder and Director of The Future Society, and I'm happy to have with us, a brilliant young woman, Adriana Eufrasina Bora, student in international public management and also doing very incredible work as it concerns the development and applications of AI to responsible entrepreneurship.

I would like to start as it concerns this panel with introductory remarks from each of the panelists responding to one of three questions that speaks most to them in two minutes or less. This will be a great challenge. What do we mean by an ethical and human centered AI? What are the immediate and potential long term ethical challenges raised by AI, and what are some of the challenges in establishing ethical frameworks and principles in this field. I will start with Peter Paul Verbeek from COMEST.

Maybe the best way to start is to answer all three of the questions by giving a quick wrap up of what we tried to say in the study we did on the ethics of AI. We started with a notion that Artificial Intelligence is a technology of the mind. It affects how we think, how we understand the world, and the choices we make. UNESCO is all about the life of the mind in a sense, science, sculpture, education, communication, how humans think, interact, how our mind works.

In that sense we believe that Artificial Intelligence is not just a technology but a very important technology comparable to the printing press or the invention of writing. These technologies had a lot of impact on how we think. Writing had memory for memory, how memory functions, the press had impact on science and we could never have had a scientific revolution without the printing press. Knowledge would still be in the monasteries, et cetera. So what will AI do to the world? That's maybe the most important thing. How will it affect medical diagnostics, legal verdicts, recruitment, journalism and policing?

What we did in the study is to go through the sub fields of UNESCO and see the potential implications and address the values that could be at stake in sub fields. For education we focused on what you could call the role of education in our society when ever more jobs may be taken over by technology, but also the role

of critical thinking. How can we be somewhat critical with regard to the input an algorithm gives us? What is good explanation? How can we understand the impact of AI on the standing of the world?

What's expertise in a world where algorithms also develop forms of expertise? How could we somehow understand the choices we make based on facts that come from Artificial Intelligence? The realm of culture, we focus on cultural diversity. What will be the future of diversity, small languages in the age of machine translation, artistic practice and creativity? How could diversity be sustained? For communication we focused on journalism, freedom of expression and how the central features of the modern world might be affected by AI.

To conclude, we mainly tried to sketch out two frameworks of ethical reflection, one focusing on the individual, and the other focusing on community. But we feel that a lot of the ethical discussion nowadays is framed a bit as a discussion between the east and west, capitalistic arguments, all of your data are owned by companies, versus state arguments, all data is owned by the state. Can there be an alternative to that?

We would not like to frame it in terms of the struggle between the east and the west, but try to look for global framework that's inclusive for all.

>> MODERATOR: Thank you very much for those introductory remarks, just below two minutes. Karine Perset from EOCED.

>> KARINE PERSET: Thank you, first of all, I would like to thank Sasha and UNESCO for this kind invitation to join this panel today. I have stuck to the questions, so in a much more linear manner, and in the OECD context, we have identified five principles or characteristics, rather, of whether we consider to be trustworthy and human centric AI, which are the core of the work that we have been doing on developing principles for AI.

And so those five principles, value-based principles are AI systems that respect Human Rights and fairness, that are transparent and explainable, robust and safe and secure, as well as accountable. And last, and most importantly, perhaps, that promote inclusive growth and well-being. So the inclusive notion is extremely important.

In terms of the challenges that we have seen, we have encountered, I think over the past two years there has been incredible learning curve in all areas, but particularly in the policy domain. Early, we have had early work by the IEEE, The Future Society, that have come to us, and, of course, countries like Japan that have come to the OECD and said something very important is happening, tremendous benefits are possible, but we have to be careful.

So a main challenge has been and continues to be making sure

the process that everyone is moving together in terms of building awareness and a common awareness and understanding of common challenges we all face and then a common direction of where we want to end up.

>> MODERATOR: Thank you very much for underlining this importance of establishing common roadmaps forward as it concerns ethical AI. Monique Morrow.

>> MONIQUE MORROW: I should also say I'm a senior member of IEEE and tomorrow I will be doing a similar session. However, I come from a perspective of concerns of the intersectionality between what I will call AI and algorithmic decision making in Human Rights. Something you have alluded to. The concerns I will raise from mid to long term is where is the human, where must the human be in the loop in this discussion?

Quite recently, I actually had a presentation where the title was in algorithms we trust with a question mark. When you have bots creating their own languages, you know, where they, where there is such a communication, you have to think about, well, technology has no agency and certainly AI doesn't, but then you have to look at cognitive biases. What and whom in developing these sets of technologies.

The red flags for me is how these technologies are used in private industry that could be perceived as intrusive. When I get into behavioral sentiment analytics, when I could predict that you will actually quit your job, what are the implications as a result of that for such toolsets? The other notion is even predictive of a future crime. We know that that's happening now.

So the film that people may have seen or not seen, The Minority Report is probably today. This is not a hype, but these are concerns that we have to raise. And when we are thinking about weapon systems, we have to look at where that human is going to be in the loop. And so it's all about sort of the notions of safety. It's also defining intentional use, if you will, of a set of AI, and for what purpose, and then sort of flagging what that use is. Anything over that would be perceived as a red line.

So, again, we have to be very, very careful about the use that in private industry, particularly, that could be perceived as quite intrusive, and we have to actually flag for that.

>> MODERATOR: Thank you very much for bringing up the issue of algorithmic bias. Amandeep Singh Gill.

>> AMANDEEP SINGH GILL: Thank you, Sasha. It's a great honour to be taking part in this panel with good friends around the world. Thank you for the work you are doing in UNESCO to advance the conversation on ethics in AI. I want to begin by putting out this question first with ethics. Ethics give us the ceiling, so they give us a stretch from the legal floor. So

ethics have always played a role in ambiguous situations, in regulating human behavior, and particularly in fast developing technologies, they make sure that we get in early on the technology development cycle, where the reach, we know that the arm of law is long, but there are still limits to the reach of law.

So ethics reach where law doesn't reach. Now, you asked a few fundamental questions about approaching AI. I think the most important step in my view is having the correct understanding of what is AI, what are, what is its potential and what are its limits. So when we say Artificial Intelligence, we convey the wrong impression that we are recreating human intelligence artificially, whereas that's not the point. Advancement of human capacities, human capabilities, and frankly we still don't understand what is it to be human, what is it to be intelligent.

So it's really a leap of hubris to say we are creating Artificial Intelligence. So let's stop there and reflect on what AI is or isn't. I would very much prefer the notion which I EEE has championed of autonomous intelligent systems or even better extended intelligence. Part of our work at the Council on extended intelligence between IEEE and the MIT media lab.

The second point is that this correct understanding must be followed through by a fanatical commitment to human agency, not linking our agency to machines. We are already suffering from the effects of leaking agency and choice to machines, the distal distraction that's spreading around the world, the lack of depth in the focus that we as learners young and old are experiencing, and the lack of let's say awareness or presence in our human relationships.

So if we continue along that path, then AI can be a very complicating factor in our lives. So that's the second point. The last point I want to make is that this correct understanding, this correct approach to AI use has to be followed up with a fanatical commitment to collaboration. This brings me to my current work in the Secretary-General's panel on digital cooperation. This is cooperation for the digital age. We need new ways of getting together to work on the world's problems and AI can be a very important tool. AI can be an important tool in driving that collaboration and I will speak to it later in our conversation. Thank you.

>> MODERATOR: Thank you very much for underlining this need for collaborative approaches, I look forward to having that dialogue in the framework of this high level session committing, again, UNESCO and everybody here around the table to a multistakeholder approach as it concerns the development of an ethical AI. Mei Lin Fung from People Centred Internet.

>> MEI LIN FUNG: I'm delighted to be here. I think it's

very important work that UNESCO is doing to bring this to the discussion and dialogue. I speak as somebody whose first job was as a software developer. Recently answered a question on Quora which is what is known within your profession that the general public doesn't know.

And I said, you know, when bridges were first built, people just used them. Later on the bridges carried many people and then there were weaknesses and people who wanted to have the bridges fall new where to go into the cracks and wiggle around. You wiggle it enough, the bridge falls in the end.

Anybody who has written software knows that software has bugs. Artificial Intelligence is simply lots of lines of code, and it means that these are big bridges, and we are putting a lot of dependence on the bridges without seeing whether we have the institutional and commercial guardrails to use them wisely. The latest instance, Boeing max 737. I have worked in intel, in Oracle, I know the pressure to ship product. When that pressure is on, you ship whether you want to or not.

So I feel for the Boeing engineers and the software developers who are put in a position of having to ship things that they didn't necessarily agree with, and simply cannot speak to it. I'm bringing all of this up because AI is not magic. It's just a human tool, just like fire, it can help us do amazing things that like fire it can burn the house down.

Sandy Parakilas was the Facebook whistle blower. He was a product manager in Facebook. In 2010 he realized some of the practices within Facebook were not by his standards ethical. People's data was being used. He had no recourse but to resign his position. He also did not speak up for six years. He had nowhere to go. If he wanted to have a job, he couldn't speak up because he thought he would never get another job in Silicon Valley.

We do not have places for technical people who are put in positions of knowing there is a problem, but you got to ship, there is nowhere to go. So I'm delighted to be working with the IEEE to see how we can have ethics so that the people who are writing, who are building these bridges and see the danger, and see, we can't let 20,000 people walk across this, we can't let the plane fly with these concerns, single points of failure. We must be able to have ethical principles and guardrails to protect humanity.

>> MODERATOR: Thank you very much for underlining the pressures from the perspective of the private sector which I think is indeed an essential element to take into consideration in this multistakeholder approach. We need to have the private sector around the table to bring these issues up and address them. Dr. Salma Abbasi, chairperson of the e-Worldwide group.

>> SALMA ABBASI: Thank you very much. Thank you for the opportunity to be on this panel with all of the wonderful stakeholders bringing different perspectives, and I'm right with you echoing what Mei Lin was saying. Our work with UNESCO in education and awareness, AI is a continuation. It's nothing new. It's been there for a long time.

All we are doing is looking at it as being a system to be an extension of us as Mr. Gill said, taking it forward. What we need to be able to do is go back to schools and academia. I believe that ethics is something that you are taught at a very young age. If children, young designers, young people in STEM would talk about civic responsibilities and the human side and consequences of all of the work that they are going to do in the future, there would be no reflection or no hesitation if they works for Boeing or Facebook because they would be aware that this is their civic responsibility and duty to humanity.

But to leave that until they become a graduate or an employee of an organisation and then start talking about ethical AI, it's too late. That is not in their DNA anymore. They are now exposed to the commercial pressures that we are dealing with to date. So when I will talk, it will be a little bit about the educational side of things, and what kind of frameworks and policies and governance need to be put into place because just like the reflection of Boeing, similarly in our session on Monday in cyber law an example was given to me during the session of Alexa and a couple were talking about intimate things. The next day in their house a box of condoms arrived.

Now, how did that happen? It's extremely intrusive. It's there for your convenience, but what does it cut off? How do you protect yourself? There is a horror story where the satellite was taken over for 18 hours by another agency. So what Monique was talking about with the weaponry and the wars of the future, the integration of technology and code that can have glitches. I am an old software engineer from Silicon Valley in the 80s. I used to write FORTRAN. So history has come a long way. But somebody is writing the code and we need to take care. Thank you.

>> MODERATOR: Thank you for underlining the crucial question of education regarding ethics and questions concerning Governance. I do agree that there is a lot that needs to be done to further develop this AI technology. I asked Siri recently if they wanted to marry me and they said, no, let's stay friends. So there are glitches. Konstantinos Karachalios from the IEEE.

>> KONSTANTINOS KARACHALIOS: A lot has been said and I would like to build up on this, not repeating it. In particular, I very much agree with the critique that Amandeep expressed to the terminology and the hype around the so called AI. In IEEE we



have taken distance from it. And if so I can talk about the new generation of computing systems and their capacities, then the two major things are what Monique Morrow said, one is the intrusiveness and the other is our safety.

So if we are going to have the systems to be of our benefit, they can be used really to predict, to plan better, to optimize. They have a huge potential to help humanity achieve a level of sufficiency in food and resources without destroying the environment. They can be of a lot of help. So we should not be intimidated by these technologies and give up our control of agency. Otherwise we will disappear. If they are linked with, let's say, systems for response to nuclear attacks and they make an error, what then?

In the past it has happened many times because humans ignore the computers. They say we don't trust you, we are better than you, we made you. If we lose this agency, this guts, then what? This is the first thing, safety. The second is it is about digital slavery, and these systems can be used to create digital slaves and they are used for this.

It is not the future. We are talking about the present. And we have to put some regulation. It cannot continue. We engineers can do our best, but it is not enough. The political class has to play their roles, stop being intimidated by the data barons and so on. This has to be done yesterday, not tomorrow. So there is a sense of urgency. From our part as technical community who are there to contribute, to find technical solutions, to engage with the political actors, to explain them what is possible and what needs to be done and so on, but we cannot do it alone.

So this is the whole thing of governance that has to work, legislation, regulation, and we have to play our role from bottom up, standards and tools, so on. This is why we are here. This is why I think that organisations like UNESCO are taking the lead here and the OECD and other organisations and you know that were there will contribute with everything we have because it's very important for our future's humanity.

>> MODERATOR: Thank you very much.

>> KATIE EVANS: Hi, everyone, I want to say I am absolutely honored to be here and I want to thank the organizers and moderator for putting together this panel. I'm excited to see that a lot of us have consensus forming so my dialogue will be on top of that. Whenever we search for the essential elements which define what it means to be human, we are often keen to invoke a familiar cast of characteristics.

Things like the gift of language, reflective thought and consciousness, the ability to plan and incorporate possible worlds into our vision of what we can achieve. Ostensibly the

list goes on and on and has for centuries. For the purposes of today's panel, I would like to focus on two, first, the capacity humans have to make tools and use them as a means to our ends, and, second, agency and autonomy, which in some philosophical circles at least means the ability we humans have to achieve goals and make choices about the narratives of our lives based on our own convictions, preferences and conceptions of the good life.

Now, in the past, these two capacities to make tools and to make real choices have been complimentary, operating together in the course of human progress. Over the years we have built things that allow us to travel better, communicate better, and generally live a better life of our choosing. And yet standing as we are on the cusp of the AI revolution, I find these once complimentary capacities to be suddenly at odds. It seems to put it a bit ironically that humans have become so enamored with their tools that they have forgotten what or more precisely who it is that they are making them for.

We have become so driven to optimize, to do things better and more efficiently than ever before that we seem content or in any case resigned to giving up a great deal of agency and autonomy in the process. This attitude must change because an ethical and human centred AI is not an AI that acts or decides better than us or in ways that are better for us, or in any way limits the goals that humans set for themselves at the individual or collective level.

An ethical AI is a tool for the betterment of human society, an AI that is complimentary to and not competitive with the human capacity to decide the course of our lives. I wholeheartedly believe that this kind of AI is possible, and I hope that throughout our discussions today, we will get a little closer to discovery some of its defining characteristics.

>> MODERATOR: Thanks very much, Katie, for those remarks. We are happy to have a philosopher around the table to guide exactly this discussion as it concerns what is an ethical AI and this indeed is part of a crucial step in our work building policies and standards and frameworks is first of all doing advocacy so we all understand and agree what we mean by ethical and human centers AI. Nicolas Miailhe from the future stow site.

>> NICOLAS MIAILHE: I'm glad to see so many familiar faces. A lot has been said, but to continue building upon the previous points, let's say that ethics does not happen in a vacuum. Ethics and fault in the reality of business, in the everyday life practices of designers, sales persons, users and consumers, first point.

Second point, well, it's about governing AI is about governing a complex social technical system. It's about recon

signing a number of paradoxes, having an answering which can be summarized in trying to answer the following question. How do we and in which condition do we accept to delegate decisions to machines? And if I was to break down that sentence as in two key terms you would immediately hit the and who is the we? The AI revolution does not fall from the sky. It emerges from the ground of the digital.

It emerges from the ground of the global. And, therefore, it's a global phenomenon requiring global coordination, but articulating a good answer to the question which I asked and solving for the who and the we in the way that addresses the universal and yet respects pluralism, diversity and the fact that we may not want the same future at a granular level remains a hugely difficult challenge because the digital revolution is a story of concentration of wealth and power. It's a story where economies of scale and network effects concentrate solving problems in the hands of a few actors, public and private.

And that makes the articulation within the universal and the plural very difficult to solve the question which I articulated which is as I repeat, in which condition and how do we decide to delegate decisions to machines?

>> MODERATOR: Thank you very much for underlining this crucial link to the development of AI with economies of scale and questions of balances of power. I look forward to talking more about this in the framework of this dialogue.

>> ADRIANA EUFRASINA BORA: Thank you for having me here today, and as I am in this journey discovering AI and working with it, and I'm getting most of my knowledge about reading and following the panelists, I can only reinforce a few ideas that were presented today. So my understanding of an ethical and human centric AI is one that feeds into the overarching goals of the Sustainable Development Goals to leave no one behind.

When we talk about ethics we need to move beyond the moral constructs and to really put social justice and fairness together with sustainable development and one's desire for self-determination at the core of purities.

So we need to build technology which is designed in the framework of social ethical principles. That being said, the very short challenge is to create this technology and understand that we don't only have to use it for predicting the next movie on Netflix, but really should be used for promoting social good. So these challenges that come from technology, the technicians, they should not only look at the functionality of it, but also to understand the challenge that comes from the interaction of technology with the individual and with society at large.

So the very long-term challenge in creating those principles of ethical AI is to create trust. So a governance of AI that

has, is built on trust can be done only if the first promises that exist surrounding AI are being destroyed and also with the understanding that AI interacts with the society at so many levels that we cannot treat it as a box.

We cannot find one solution that fits all. So, therefore, we need these multistakeholder and interdisciplinary approaches because the wisdom in governing and ethical AI is definitely not unilateral. Thank you.

>> MODERATOR: Thank you very much, Adrianna, for this crucial voice of youth and underlining the link of development between AI and social good and social justice. This is something that we at UNESCO and everybody around the table feels committed to is looking at how to have these multistakeholder conversations including youth to move AI forward that builds a better future for you tomorrow.

I would like to pass to the second part of this discussion with the specific questions directed at each of you based on your profiles and I would like to start with Peter Paul Verbeek. As I mentioned in my introduction, COMEST has published a report on the ethics of AI. Can you tell us more about some of the main conclusions of this preliminary study which at this this moment is being discussed at the Executive Board of UNESCO in Paris?

>> PETER PAUL VERBEEK: What I told in the first round is the first round of how we try to analyze AI, and we end the report with recommendations that try to narrow the discussion down to a number of ethical foundations, you could say, ethical principles on which to build a discussion.

I think the main contribution that we try to make is that we want to expand the discussion from the level of the individual to the level of the community, and both types of ethical argumentation deserve attention. So first of all, we want to indeed move beyond the hype. So AI is not going to take over the world. It's not going to replace humanity. If we keep framing discussion like that, we fail to ask the right question, which is how to deal with AI in a good way.

For doing so, we need to move beyond instrumental ID that we humans can set the goals and AI is a tool in the hands humans. AI has implications for how we achieve our goals which for us means that the ethical principles do not only concern us humans using AI, but also how we design the AI systems themselves. AI itself has an ethical significance that needs to be taken into account when designing it.

And it means that we end up with a number of ethical principles that we believe are important for AI, and basically I think a lot of organisations are doing this right now and they all look the same. I think at the level of the individual for us, of course, the notion of autonomy is important, but then

autonomy in a relational sense, you could say, which means also enabling people to develop a critical relation too Artificial Intelligence and to recognize how Artificial Intelligence is affecting choices and decisions that we are making. So it's not making ourselves totally free from it, but more entering into an engaged critical relation to it.

And to that also a number of criteria belong that we could put to AI. For instance, there needs to be explicable, it needs to be able to explain how it arrived at conclusions. It needs to be transparent not only in terms of the code, but mainly in terms of how it was trained. Biases come from the data of which systems are being trained. The situation of Amazon hiring only white middle-aged men because the algorithm used by the Human Resources Department was trained to find the most successful people based on the profile of the successful people back then, which happened to be a very narrow population, and then suddenly this is what you got.

So transparency also concerns the data that we fit to them. We also believe the number of ethical criteria apply to the designers, which mainly comes down to the idea of responsible design, much in line with what the IEEE is currently doing, ethically aligns design. It builds on a transition of value design and sensible design. We do not only try to implement ethics in the technology of something, we try to anticipate the implications of technology for practices like education, like legislation, like healthcare.

Try to address what values are at stake in the practices in order to be able to address them in the design, but also in the implementation and also in the use of the technology. There may be another set of values to conclude concerns not only the individual and the freedom that we have or the accountability of the individual, but also the flourishing of a community. On that we typically believe that those values are often missing in ethical discussions.

How can we ensure that cultural diversity, gender diversity, the idea of inclusiveness is kept on the table and the development and implementation and use of Artificial Intelligence and that also belongs a thick notion of democracy, which is not just everyone can vote. It means there is room for diversity where everyone, every person matters not only as an individual but also as a member of a community. Thank you.

>> MODERATOR: Thank you very much. For those of you who are interested, this study that has just been released is available on line on our UNESCO website which provides a comprehensive look into the reflection we are undertaking currently with COMEST. I'm pleased to have Karine Perset from the OECD today. The OECD established an expert group on AI to

scope principles to guide AI development. You talked a little about it in the beginning of your introduction, but what sort of policy and institutional frameworks from the perspective of the OECD should guide design and use to ensure an enabling environment for AI that contributes to the SDGs.

>> KARINE PERSET: So, perhaps, just a little bit of background on this work to develop AI principles that the OECD formed an expert group last May which works over the past, for six months met numerous times, had intersessional work. What was, I think, special about this group was that it was multistakeholder, but also included member Governments and non-member Governments, and so it tried to bring together a lot of the major actors as well as IGOs such as UNESCO, IEEE, of course, the European Commission and so that, that group, the mandate of that group was to develop principles that were high level and flexible enough to stand the test of time.

So they are high level, they don't enter into much detail. The detail is provided in a companion Document. This is a negotiated at the end of the day it's an intergovernmental agreement, the first intergovernmental agreement on AI, and so it's, it needs to be as short as possible in order to be agreed upon. What another specificity of this effort is that it's as much focused on the potentials, potential of AI for economic growth, for inclusive growth and for well-being as it is on addressing the risks, the social and societal risks of AI at an individual level.

And it also includes a number of priorities for Government policies in the area of AI, such as prioritizing R and D in socially beneficial areas of AI, or training schools and ensuring appropriate policies to facilitate job transitions. Now, in more practical terms, this what we call a Council recommendation will be adopted in May, and it's just the beginning basically. We are now planning follow-up work on that, mainly in the form of policy observatory that is going to break down the different action lines that say with partners including yourself. So that's in a few words, those are the principles.

>> MODERATOR: Thank you very much, and we are pleased at UNESCO to be in dialogue with you as it concerns the development of these principles in the observatory going forward. Monique Morrow belief of social good of technology as guided expensive work with Blockchain, especially applicability to education, healthcare, insurance and the Internet of Things. Building on your experience, how do you see the development and role of AI ethical frameworks in the application of this technology to specific sectors, the ones you have worked in?

>> MONIQUE MORROW: Thank you Sasha, the last time I was at an event was AI for Africa. So their education was the focus. I

just wanted to point that out as an outcome in December. I believe that we could have, you know, the Hippocratic Oath in medicine which is do no harm let's start where that as principle to adhere to. Having come from the private sector and now in Civil Society and I know both sides of the house, I can actually empathize with what Mei Lin stated earlier. I am a technologist, I was at a Conference with software developers and what they said was we just do what we are told.

Let me repeat that. We just do what we are told. Where have we told that before? History? So we have to be careful. There is power in our technology. There is this polarity of so much greatness that could be done when we are looking at analyzing illnesses, when we are looking at, you know, creating what I would think, what I hope is a wonderful world, these powerful sets of technologies. They are tools.

They don't prevent people from being evil. I mean, there are actors good and bad. That's just what we have, but they are powerful. So let me give you some examples that do concern me with this polarity between great, wonderful sets of tools and one that can be of concern for me. We will take a private industry example if I'm hiring you, I don't know how many of you have knowingly been hired by a bot or video bot or chat bot or had a video interview with one that's doing behavioral analytics and sentiment analytics as you are speaking.

That exists today, and there is a report that's made and it's gone to HR, but are you aware of what the report looks like? That's an example where we have to be careful. What about in the hiring process, I will take this as an example, Sasha likes handle music. Because she liked Handle that gets rolled into a report that says she is not really useful for this job. Those are examples that exist today. This is in our world today in the private sector.

I just point that out because we have to be very careful. And the premise given is because you have the right to hire the talent that you want. That's, is there is no argument. I have been on that side of the house. But it's the methodology used, and so we have pointed this issue out before which is around cognitive bias. And cognitive bias in the development of these tools. I actually spoke and met with a head of AI research at an automobile company in Munich, and we actually had a discussion.

He sat down with me and he was concerned with what the learning, when we are talking about learning languages, learning sets of languages, what was coming out as results to questions he was posing. And he said this has nothing to do with AI. It has, it's an amplification of societal discussions which we may not like. And those are, and he really was very, very concerned and has been very much in the Artificial Intelligence group for good

because he knows this is his lifelong research of the strength, the power and the potential for abuse. So I go back to let's have the Hippocratic Oath for the technologies that we create.

>> MODERATOR: Thank you very much for that concrete recommendation as it concerns development of Hippocratic Oath for people engaging in AI and for underlining the way in which AI amplifies societal bias including specifically bias related to gender equality. As Executive Director of the panel, what are some of the key findings and conversations around the ethical compensations of AI you would prioritize moving forward to ensure AI is harnessed to support the SDGs?

>> AMANDEEP SINGH GILL: We are very privileged to have a diverse set of members in the panel from Melinda Gates to AI engineers and somebody who has worked on ethics for a while, so we have had the opportunity to look at from different perspectives. Our sense at this time is that we need to approach these emerging digital technologies from the angle of one, inclusiveness, that the broader the participation in their development, in their deployment, the more inclusive their outcomes are, the more of a sustainable bases we have for using them in the longer run.

The second tentative conclusion we have is that we will need apart from common areas to maximize enabling role for SDGs, we will need guardrails to prevent against misuse, to reduce the risks of social and individual harm. And there we are coming out with some specific recommendations, what kind of regulation should be put in place, what kind of smart agile regulation is required, how the existing policy silos, consumer protection, and what have you, how should they work together in new ways to address this requirement, and then the third aspect which some other speakers have referred to of governance, and the role of ethics in that.

We are looking at a number of governance models for digital technologies in general, but I think some of the ideas they would be of specific interest to the AI discussion. Part of this is soft governance or Constantine knows, spoke about standards. Some others have referred to a degree of alignment along values, so values audits, ethics certification, the Hippocratic Oath or what Canadian engineers do the ceremony of the iron rings, so these rituals have their own resonance around the world.

I think while the work on principles and values is quite advanced and I'm in fact worried that there is a proliferation of initiatives and people seem to be discovering principles for the first time, they have been around for a while. There are 100 plus initiatives today and some in fact have been multilaterally negotiated in the recent months. What is more important is putting them into practice.



So the how of discovering the relevant values and principles around the particular use case. Depending on the use case whether it's virtual reality or AI, the relative ordering of principles and values changes. So they should be -- there should be a process for discovering relevant values. There should be a mechanism for using those values as a touch stone to drive down risk in a business, in a practical way. Those are the kinds of issues we are likely to focus on.

I can't say more because we are in the process of drafting our recommendations, so I wanted to give you a flavor of where we might be landing up.

>> MODERATOR: Thank you for giving us the recommendations that will be coming out and above all for all of the work you are doing in coordinating large scale input from different stakeholder groups as it concerns the work going forward of the UN with regards to digital cooperation. Mei Lin Fung when you founded the people centered Internet with Vint Cerf to make sure all can have the possibility when people are connected. It was based on philosophy that people need to be at the heart of the Internet that can be an Internet of the people, by the people and for the people. In your opinion and based on your experience, how can this philosophy of inclusive Internet Governance and development be applied to the development of an inclusive and ethical AI?

>> MEI LIN FUNG: The phrase Internet of the people, by the people and for the people is, of course, inspired by the American Gettysburg address by Lincoln after the -- during the Civil War. And I think there are many lessons from that that we need to take into account. I want to give you a physical sense of the scale of the frontier we are facing. There is the Internet addressable space, IPv4 which is, how many addresses can the Internet reach? If you put all of the addresses into the size of a beach ball, the next IPv6 is the size of the volume of the sun.

So the vastness of the frontier ahead means that those of us who have developed instincts and institutions and structural guardrails and common rails for the beach ball cannot expect that they will extend to something that is the volume of the sun. So how can we dynamically adapt is the question. Another cautionary tale about the threat, the British East Indian Company just said we are here to do business in trade in Indonesia, in India, and then the global commerce and the technologies that they brought meant that the existing Kingdoms and ruling classes toppled and the East India Companies became colonies, colonizers.

We face the threat of techno imperialism and colonialism if we are not careful about how much. We need to prepare ourselves for the power of this technology. It is just as impactful as what happened with the earlier colonization. So the fact that

the UNESCO and the UN agencies are coming together, this is urgent. Thank you.

>> MODERATOR: Thank you very much for underlining the urgency of these kinds of conversations and work, and we hope that this conversation and high level dialogue will be one of many going forward that is not only about putting into conversation these kinds of questions, but also identifying very concretely as Amandeep a roadmap to translate the work of these principles into practice, which is indeed the main challenge on the ground and why we need this multistakeholder inclusive approach. Dr. Salma Abbasi you are a philanthropist and CEO of the e-Worldwide group. Based on your experience, what is the role of the private sector in ensuring the development of an ethical AI including at the policy level?

>> SALMA ABBASI: Thank you very much. Again, I'm happy to go after Mei lin. We are on the same track and this demonstrates whether we are from the private sector or Civil Society or sitting on the task force like Amandeep, it is very important for the private sector to take ownership of this, their work, their engineers. As Monique said my job, I do what I'm told. This is what they said in Austria, we do what we are told. And young developers working for a paycheck are not being creative from an ethical context.

What's missing is we know what needs to be done. The time is now, and the thing is companies need to be held accountable. A perfect example is Mark Zuckerberg standing up in the U.S. Congress and saying Government and regulations are what we need, can you help us do it? It's too late. It's absolutely too late. So the accountability, Governments and regulators need to move now. The deliberations and discussions are enough. It's time for actions where frameworks are implemented. Countries are observing at their own level with the borderless nature of AI, the intrusive national security. There isn't single country here that isn't worried about cybersecurity and the penetration and the threats.

The IEEE is setting committees and setting standards and moving with the pace of technology. The question is having a standard, having guidelines, having guardrails, but how to implement, this is the question. And what are going to be the metrics that Governments implement in countries, on countries, and on corporations to see are they following what we have identified as minimum standards.

When we develop a code, when we develop an application where AI is giving us the information, doing the analyzing for us and saying right decision, this one, this one, this one, finding a way to be able to assess the consequences of this division, this decision. It's just like the old queuing theory in mathematics

from 19, I don't know, 1980s, 70's, it's for us to see the intentional and unintentional consequences.

Holding private sector accountable, we are have a session on Internet addiction. You know that the big giants, the colonial giants, I like that world, we have a few global companies coming from Silicon Valley that actually monopolizing this world and the data and have AI going rampant into their systems, but there is no accountability, no monitoring, and no safety button to push to eject.

As was said yesterday, I want to be able to go off to my island and disconnect. How do we do that when companies have taken crucial roles of Big Data analysis and decision making tools from Governments that we now rely on this data, whether it's tracking criminals or tracking the patterns of who is going to be the next terrorist, this is all trailing through and helping us make decisions, but the validity of the data is not known.

We need to be able to balance very quickly with private sector as Civil Society, as multisector stakeholders sitting on this platform what are going to be the minimal ethical standards that we use to measure private sector, and the mechanism needs to be created for us to be able to measure before things are too late, triggers that identify this is going to a danger point before crisis occurs. Thank you very much.

>> MODERATOR: Thank you very much for the private sector underlining the urgency of the development of ethical frameworks. It's a pleasure to hear from both Mei Lin and you the role of the private sector and what they need indeed to play in the development of an ethical AI. Konstantinos Karachalios, the IEEE released the first edition of ethically aligned design which includes a set of general principles. What makes this set of principles unique and what are your recommendations on how they can be applied for sustainable development, and how do we transition in your opinion from principles to practice?

>> KONSTANTINOS KARACHALIOS: Allow me an observation. I agree with everybody, and this is not doubt but enriching. The reason is it is so complex a matter, there are so many aspects and the people here present different aspects of this. I am grateful for this because I don't need to do it all together, but I agree with everything you have said and this is rare in any participation.

Secondly, what is the specific thing that an organisation like IEEE can do. They are individuals that do not reflect the opinion of the company, of the countries, so this is something unique. So there is a chance there to create something which is global and perhaps universal. We are not striving to define what is ethically good globally, but at least to make it for people

possible to reflect about what is important for them in their context and to integrate in their life, to make it really work in practice.

Is it will not be the same in America or Africa. We do not have this ambition to say what is good globally, but to make it possible for people to fight for what they believe needs to be done under their conditions. And this is why we created this global initiative. There are thousands of people right now that came together from around the world. Interestingly half of them are women because there is a legend that women are not interested in engineering and so on, but in this case, they are interested, because it's about the context. It is not technical solutions.

So they have worked at different levels, one is to think about the concepts and this is ethically aligned design. This is a book and it is publicly available. You just go and download it. This is a contribution to humanity we have done. It is not copyrighted. You can take it and use it and people use it for many purposes. And going beyond this, which is the high level principles and framing of the issues, then we have started going down, okay, what else can we do in parallel, and this is working on a family of standards and standards are recommendations to our peers, how to do better work in practice, how to assess for transparency of the system, how to assess the system for lack of bias and how to certify this system has no bias.

We are working with Governments to make this work now. It is not, we don't do it in vacuum. This is the good news. There is a huge demand for what we are doing. They are asking us when are you going to be ready. We need it now. So the question is whether what we do is going to be used or needed. It is answered, yes, there is a huge demand, including from your organisations.

But what happens at the international level happens very much at national and even municipal. We work with fantastic cities who work with us to create sand boxes for AI about the governance, we are working on the governance locally. And if we solve the problem there, then we can extrapolate. So we do all of these things, certification, sand boxes, standards, and there is a demand and we are optimistic for the first time after many years I'm optimistic that this may work, but there are also forces that don't want this, and we cannot pretend false harmony. There is no harmony here.

There are temptations for hegemony at the level of corporations, at the level of states and they drive their own logic and agenda. We as the technical community we have the duty to work to counter position there, our logic of a global democracy of technical experts to care about the future of humanity as a whole, not for a group. And so the outcome is

open, and we are for our lives and you are welcome to participate. Our communities are open. We have many groups and many possibilities for everyone to contribute and participate.

>> MODERATOR: Thank you for highlighting the crucial work of this new publication, which I would like to underline is available in the exhibition hall of the Forum and we are pleased at UNESCO to be working with you to translate standards into policy frameworks to push forward the ethics of the Artificial Intelligence. Katie Evans, what in your opinion and building on what was said concerning the threats of hegemony and temptations with regards to imbalances of power concerning AI, in your opinion what is the relationship between empirical Big Data, human rights value and flourishing and is the relationship ideal?

>> KATIE EVANS: To paint it in the most positive light, I would say that humanity or society is passing through a phase of rapture where we are incredibly excited about how much we can learn about how we live and who we are and we are making links everywhere. So in that sense it's great news. However, obviously this relationship is not ideal, and I'm going to give three reasons for that, and, of course, there are others.

The first one we talked about a lot already on the panel, and that is current data's picture of society. It's not really all that reliable or clear. We have the whole difference between correlation and causation and logical inference, and, of course, bias. So in some cases we don't know or maybe even don't care to know if the conclusions we draw from data are really sound or representative.

So we should be careful of ascribing any truth to some of those conclusions and be critical of what the data tells us even if it's exciting. Bad data generates bad AI decision making. The second reason it's not so ideal is what I would call the ethical paradox of data driven decisions. It goes like this, current AI techniques rely on Big Data to achieve their purpose. So the more data that AI has, the more efficient its decision making becomes. The more it can train on the more pinpointed it is. So this generates a huge push to find and generate data.

In finding and generating this data, there are immediate privacy issues linked to the source of the data, the type of data, the consent, and the means of collection. So that's a very common issue to talk about when we talk about data ethics, but I think one that is a little bit more subtle is the ethics of ethical decision making in itself.

So it might not be better that an autonomous vehicle know the health status of two pedestrians especially if it chooses to sacrifice the less healthy person in an unavoidable accident. The real question is to know the perfect balance between ignorance and information in optimal decision making, especially

when that information is used as a justification to harm or disenfranchise different individuals. It may be the case in some specific cases that too much data may generate ethically dubious decision making.

And finally, the third reason that this relationship is not ideal is that this correlative rapture blurs the important distinction between the descriptive world and the normative world. So the world of what is and the world of what ought to be, data, when it is collected properly, can tell us a lot about how the world is, but it is comparatively why silent on how the world ought to be or how the world could be in a prescriptive sense.

So we have to be so careful of how our data defines us in the age of AI, in other words, how what we do, what we buy, who we know, and where we have been all affect where we are going and what we are capable of in the digital space and beyond because all of these elements that I just mentioned are not the sum total of human potential. At the very least, we have to preserve the freedom to surprise algorithms with unexpected choices, purchases, searches and affiliations. It should not be the case that an algorithm tells me who I am, what I will most likely want to do next especially if my vision of my digital environment is adapted to reinforce this descriptive vision of myself.

So until we address some or all of these issues, I think that data is going to remain something of an Achilles heel in AI decision making.

>> MODERATOR: Thank you for the great insight. I like the idea of maintaining agency so we request surprise algorithms. The this leads directly to my direction to Nicolas Mialhe. Beginning the tension between competing values, between freedom and security and priorities between access to basic services versus privacy or fairness or between the Global North, South, West, East, reflecting on what is underlines of the fight against hegemony in the field of AI. Where should an AI Government framework start and focus first? Where do we begin?

>> NICOLAS MIALHE: In one line it should focus on the most vulnerable. Focusing on the most vulnerable is the principles, the norms and the practice. This is the side where we find common grounds across interests and value systems across civilization. We speak a lot in the work that we do with you guys at UNESCO with the OECD, with the IEEE in the law committee where we look at quite a bit where would be the framework for adoption. We need to spend time on the law and not so much on autonomous vehicles and people should spend more time on justice when we talk about AI and a bit less on autonomous vehicles because this is a sign of coproduction of facts and values where there are huge asymmetries of power in states.

Governing the rise of AI it's about reconciling tensions between access to basic services in the Global South and let's say privacy protection, Social Security and other stuff in the so called Global North. We tend to try and not reconcile in this cart, that we might believe that it would be good for an Indian farmer in Bangladesh to renounce on her or his privacy or ethical approach to his or her processing because we need to accelerate and bring down the price of access to credit. Yes, there is the urgency of development, yes, there is the urgency of SDGs, but we can do better than that.

We can reconcile north and south, we can reconcile in terms of the end of the world with problems of the end of the month if not problems of the end of the day. Like this farmer I was mentioning in India. And the way to do that, even bringing the spiritual, the technical, the business and the practical together, the right side of coproduction is to start where the most vulnerable are. Why? Because this is where we build a common denominator who is not the lowest, who is potentially the highest, where we reconcile access to services with the values that we want to put forward.

>> MODERATOR: Thank you for underlining the possibility of reconciling problems at the ends of the month with the end of the day with the end of the world. This is indeed a crucial way forward as it concerns developing an AI governance framework that we look forward to working with multiple stakeholders including The Future Society to design and co-design specifically and move forward.

Adriana Eufrasina Bora you are well positioned to know how important it is to have the necessary digital and AI literacy skills in order to understand AI. Many speakers have underlined the need for advocacy and understanding of AI in the first place in order to engage and be parts of its ethical development. In your opinion and in order to ensure that the young generation is prepared and well equipped for entering this era, what skills and knowledge and tools are needed?

>> ADRIANA EUFRASINA BORA: Well, I will start by agreeing that indeed digital literacy and AI literacy is fundamental to be sure that we integrate the youth and avoid deepening inequalities that exist today. To give an example I'm quite familiar with is to talk about the skills or the lack of such skills in the curriculum that exists in studying political science or Government science.

So there are not too many models available to teach quantitative methods, machine learning, this type of critical thinking that is needed for this type of literacy, and, however, we love to use statistics all of the time to give depth to our arguments in our essays and we always say 50% of this or 20%

increase of that, but we never question what's the methodology behind this, those statistics, and what was the journey from the data collection to those two that we reference in the essays.

We don't do this because we wouldn't understand if somebody explains to us because we haven't been trained in it. So I think this is very wrong for obvious reasons but precisely because as social scientists that we really want to be taken serious when we argue and we want to design projects for social good, we cannot afford to have this lack of knowledge. More importantly as we aspire to become architects of public policy, if we don't have those skills, then we end up to misuse and misuse the data, and, again, we cannot afford this because we are going to enter into an era where we would interact with data regardless if we like it or not and the public sector cannot afford not to take care of this scarcity in order to catch up with the private sector.

I would like to go back to the general overview of education and say that, sure, I believe digital literacy is important but it's definitely not sufficient to prepare students to be able to enter the labor market and life in general. I think a 21<sup>st</sup> century education should move a bit from the knowledge observance and design that we have nowadays and create this cocktail which still includes knowledge. So we have to know things and understand the world, but we need skills to know what do we do with this knowledge, and most importantly, we need to build character, so people, students know how to behave and interact in society.

Finally, there is this level of method learning where a student starts to reflect and adapt. So if we want to prepare the young generation to be ready for this uncertain future, we really need to make sure that they have this mentality of growth, they can transfer knowledge and they really are ready to face uncertainty and constantly reinvent themselves. Thank you.

>> MODERATOR: Thank you very much, Adrianna and I love the idea of meta learning the question of not only having the skills to engage with AI, but also having the citizenship competencies in order to actively participate not only in the consumption of AI applications and development but also in its production and with young people like you at the helm, I am completely confident that the future of AI will be ethical and serve social good and sustainable development.

Conscious of time, I would like to pass to concluding remarks in reflecting on what Katie said is surprising algorithms, I would like to surprise the panelists with a surprise question off scenario in order to close and provide a platform for your concluding remarks. As I mentioned in our introduction, at UNESCO we have this approach to the development of an ethical AI based on rights, openness, accessibility and



multi-stakeholderism, and many of you have underlined in the framework of this conversation the challenge of translating principles and frameworks into practice.

Amandeep, you said there is no point in reinventing the wheel. There are standards and principles that exist already. What needs to be done to federate this work and move it forward and translate it into concrete work on the ground in one minute or less?

>> MEI LIN FUNG: I learned from the Magna Carta and the situation of lawlessness in England and then the development of English case law and English common law how that happened was a very interesting thing that people don't talk about now, the justice of the peace, a person of good standing in each community where the disputes could be raised and cases developed for local community. I believe that we need to move to an Internet common law case study approach so that each community can in fact decide what's appropriate for their norms and values?

>> MODERATOR: Thank you very much.

>> PETER PAUL VERBEEK: It would be we should focus our ethics not on the negative but on the positive. We should design positively in the sense we should design AI for human flourishing, for well-being. A lot of ethical frameworks are trying to keep away the negative, which is important as well, but I think if we want to let the wrong ID fly, we should also have a positive goal of an inclusive society where humans can have dignity and where we can work to let humans flourish as well as she can.

>> MODERATOR: Thank you very much.

>> KARINE PERSET: I agree with the comments made. In practical terms the key works would be measurement and monitoring. We need to be able to do that. We are converging on principles, now we need to, once we have agreed on priorities, we need to be able to monitor progress being made in achieving this human centric AI. Then second key word would be multidisciplinary, we have a huge role to play, I mean, all of the different stakeholder groups have an important role to play. No stakeholder group can do this alone.

And lastly, I would say multidisciplinary, in that this is not one sector, this is cross disciplinary issues and issues in one area are going to cross over to other areas and so we have to have a multidisciplinary approach to this.

>> MONIQUE MORROW: Education, education, education, two is ask questions, we should be always encouraged to ask questions, and number three it absolutely does not have to be a zero sum game. I will give a specific example, Mei Lin knows the example well, the people-centred economy. A group of us actually published a book last November called the People-Centred Economy,

The Ecosystem of Work, and there we talked about in one of the use cases the opportunity of bringing value to you of this is the future of work using something we call jobly. That is instead of you bringing value to an entity, value should be brought to you, and that is really what we think the power of AI can be in this 21<sup>st</sup> century.

>> MODERATOR: Thank you Monique.

>> AMANDEEP SINGH GILL: I love the fact that the philosophers are so practical and the practitioners are so philosophical, and there are still people who know what it is to code in FORTRAN. The one thing I would say at the end is agreeing with some of what has been said is that we need to bend the arrow of investments and focus towards the good side and create opportunities for inclusive innovation, for scaling around the problems that communities face. The future of AI is not going to be determined in a few valleys around the world.

So if we can use that, the possibilities that AI offers, because if it's artisanal nature, because of its cross-disciplinary nature, if we use that potential to spread innovation more widely and focus minds and investments on, let's say, solving the SDG's related challenges, then we can learn good governance through iterations of practice. So while the guardrails are important, the ethics, the principles, the practical mechanisms are important, it's also important to learn good governance through actual practice, iterative good uses of AI and data.

>> MODERATOR: Thank you, Dr. Salma Abbasi.

>> SALMA ABBASI: I think I'm going to build on what Andrea was saying, Adrianna, sorry, in the context of education and, of course, my friend Monique, education, education, education. What I mean by that is AI is here now. We need to actually right skill the future generation, the young children with the code of ethics, the code of values, the right soft interpersonal skills, and teach social responsibilities and civic responsibilities. There is a curriculum that needs to be established that talks about critical thinking, data analysis and most important embedding compassion in humanity in the young people, the next generation, so when they become developers and coders, they understand what is right and what is wrong.

This has to be realized through change of national curriculums across the world. This is key because teaching digital literacy and digital proficiency and safety and security is one thing. My biggest concern today is the young people in the U.K. playing and living so much in the virtual gaming space with all of this gang crime that we have, they now jump up on the street with knives in their hands and pretend to be Samurai warriors and killing each other, not us, but killing each other

so that separation and realization of what Katie was saying about let's not let the virtual space define who we are, let's give the children, the young people those skills to be able to differentiate and surprise the virtual world that I know what's right and what's wrong. Thank you.

>> KONSTANTINOS KARACHALIOS: So we are working both on the philosophical level and at the practical level. At the practical level, I would say there is a big and honest demand by several actors at the level of universities, engineering skills. They want really to introduce this model into the classes. So we are working to give it to them. Secondly, Governments, they want to show to the citizens that the algorithm systems they have are honest, they do what they are supposed to do and not something else.

And we are working with key Governments to help them get there. Municipalities, the same at the level of the municipalities, big cities around the world. They care about this, and we are working with them. So that means what we are developing, it is standards, certifications, schemes, expert panels who can work at really in a fast way, and at the same time we are developing standards which are very robust which would take three, four years to be ready, which would be of universal use. So this is what we are trying to do, and this is practical. This is very practical.

And we need time for this. At the same time, we are engaging also at the level of the discourse together with Amandeep, Nicholas and everybody here on this panel and you know this, you have to reframe the imaginary of these technologies with respect to humanity. We cannot continue to be intimidated by technology. We have to gain the high ground again as humanity.

And this is big. Probably this is the most important. It doesn't sound so practical, but this frames everything else. So we have to fight both at the level of the projection of the imaginary and the practical of our actions and, of course, politically. So it is very complex, and I think this panel reflects this necessity and how we try to engage. So you did good work in bringing us together.

>> MODERATOR: Thank you. It's always wonderful team work and partnership with our colleagues who are all sitting here today. So if this panel happens, it's thanks to all of you and your volunteerism. Katie Evans.

>> KATIE EVANS: From principles to practice is not a philosopher's specialty, especially considering who is sitting on the panel. If we are trying to move into actually applying a lot of the knowledge and principles that we have been developing lately, we are making the move from principles to more of an

axiology within a specific context, so we are deciding what the value is that the AI is promoting. For instance, Nicolas mentioned vulnerable people. So we are going to protect the most vulnerable. That is an axiological position, and there are others to adopt. That's a way of moving beyond principles.

And beyond that, I think keeping a common dialogue and not being afraid to have fundamental, your fundamental understanding being questioned by someone who is just as qualified in another discipline because AI brings everybody together and we don't all agree but it's good to keep on playing. I agree, we have to keep the high ground. And the way that we empower users not only in education, but also in the way that the media portrays technology, the way that artistic production portrays humans and technology has to be a little bit less X machine and black mirror and a little bit more player piano for a Kurt Vonagat reference. So there are other narratives available, and as we move forward it's important to highlight those.

>> NICOLAS MIAILHE: Multistakeholder, multistakeholder, multistakeholder. Let me articulate the case for a second, if governing the rise of AI is governing a complex system where values, principles, norms, track tick and standards of any kinds are coproduced, they are coproduced, they do not exist separate from each other. They are coproduced every second. What we need to articulate is a better coordination between people, the communities of practitioners and the communities of interests while working on this. That's why it's great that we are not too far from ITU, we have OECD working on market incentives, UNESCO working on education and ethics, we have IEEE as a community of practitioners working on making sure that engineers and designers understand, and deliver on that. So it's about really articulating the right kind of collaboration across interests and across committees of practice.

Now, the right vessels for that might use more and more protocols. We need to get a bit more granular and bring together business, operations, ethics and legal into cocktails and these cocktails are protocols. They are pathways more than they are frameworks, and as we are threading new territories, we need not only frameworks, we need pathways and those protocols are pathways to start with.

>> MODERATOR: Thank you very much. Adrianna.

>> ADRIANA EUFRASINA BORA: I believe we need to make sure we are not missing the opportunity of engaging young people. We know that children in the young generation are the ones that are going to be most affected and they are ready to engage with what I hope to be exciting developments of AI. And we really need to take use of the energy, the innovation, and the leadership that the youth can bring so they should not only be recipients of AI

but active participants in designing AI.

So if you want to move from this principle to practice, we should make sure that we connect at the youth, but while we are doing this, we are also asking for feedback so they can become participants in designing an ethical framework of AI, because I really believe that the future of youth is very promising but only if we ensure we engage them in the conversation. Thank you.

>> MODERATOR: Thank you very much, Adrianna. In closing I would like to cite some of the panelists, multi-stakeholderism, multi-stakeholderism, multi-stakeholderism, and we cannot do this alone. I would like to first and foremost underline that a lot of the publications talked about today from the OECD and the IEEE and UNESCO are available online. We have recently launched online in addition to the ethical study undertaken by the COMEST, A Primer on AI and our ROAM principles as well as piloting of universality indicators which we hope to translate into the development of AI in cooperation with OECD to look at exactly developing these kinds of measurements needed in order to push forward the development of an ethical AI.

I would like to thank the remote participants who have been active. I am aware there are hundreds out of this room who are currently watching, and first and foremost like to thank the panelists above all for using their lunch break to have this important conversation. I hope that it has nourished you in different ways, both people on the panel, and also in the audience, and thank you, again, for your time and your insight, and we look forward at UNESCO in working with you all in moving the development of an ethical AI forward.

Lastly, I would like to invite the people in the room to stay this high level dialogue will be followed immediately by a high level dialogue coordinated by UNESCO on ICTs and indigenous languages in the framework of the international year of indigenous languages for which UNESCO coordinates and it will begin in roughly five minutes. Thank you very much for your time. And thank you again to the panelists for your brilliant insights that we hope to move forward translating these principles into concrete practice in partnership with all stakeholder groups that are here.

(Applause).

(Concluded at 1505)

\*\*\*

This text, document, or file is based on live transcription. Communication Access Realtime Translation (CART), captioning, and/or live transcription are provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings. This text, document, or file is not

to be distributed or used in any way that may violate copyright law.

\*\*\*