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DISASTER PREVENTION AND RELIEF

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>> MODERATOR: Hello. Welcome. We'll get going.

Thank you for coming, I'm Luise Story. I'm a journalist with the *New York Times* and I'm excited that you're here to chat with us and challenge us. And the goal is to have entertaining and enlightening conversation and at the end we'll try to come up with three principles that can be used to use AI for good use for the world.

So just to start off with an opening statement: I'm sure many of you have heard from Jack in the next 30 years the world will see much more pain than happiness. We all think about a lot of these issues like climate change and automation causing job loss, disease spreading more around our world because it is so connected. A central question at this conference is can artificial intelligence, can machine learning, can open data and information sharing more broadly help us with some of these global problems.

On this panel, we have a really great group of people who are spending much of their lives trying to make the world a better place. That's really cool. You don't have any really evil corporate types here! We can talk about them. We have got UNICEF Ventures --

>> CHRISTOPHER FABIAN: Super evil!

>> MODERATOR: -- Christopher Fabian who you have seen at a number of events here. He's the head of UNICEF Innovation which invests in Open Source technology in developing economies and a lot of cutting edge areas and the cofounder of the unit that's been around for a decade. You know, you have to renovate on the innovation I'm sure!

We have Katherine Maher, who is the executive director of the Wikimedia Foundation best known for Wikipedia but collaborates on a lot of publications centered on open information.

We have Nick Hahn, Vice President of impact who works to educate people on skills needed and how to put technology for use for bettering human kind.

We have Pablo Rodriguez here in the middle who is the CEO of Telefonica Alpha who funds really impossible projects.

Last on the very end, we have Paul Bunje, the chief scientist at XPRIZE and I asked him to say what impressive thing to say about him but he said just to tell you all he's a note taker. There is that.

I'll periodically midway through or something ask you all to show me by a show of hands if you have questions so that I can size up how much time to dedicate to questions. Just to let you know if you have questions, keep them in your head and then we'll see how much time we should spend on that because we want to save time for our all-important principles.

Last night at a gathering a bunch of people from this conference, a common thing people were saying is that they're unclear on what AI is. In this conference people are using different definitions, aren't really talking about basics on what it is. I thought it would be good to open up and have each person very briefly in a line say what Artificial Intelligence is and also tell us in a line what their organized does that has anything to do with AI.

>> KATHERINE MAHER: It is like a pop quiz!

I should start by saying that I am not by any means an expert in the AI, and I'm comfortable with that. What we ultimately are focused on is the dissemination of free knowledge and this is a part of what we have done. We have experts in the room that work on that including a colloquia today. That's not my specific expertise.

The way that I understand AI is essentially the way that we could harness machines or the way that machines could harness us in the information that we create. In a means of continuous learning and development and advancement. Whether that development and advancement is good, whether

it is bad, disruptive, unclear, but it is a way to access additional computing capacity in ways that push us forward in a self-learning paradigm is how I would define it.

The way we're using AI and machine learning in our foundation is very much about understanding our own projects and understanding how to make them better. You heard about Wikipedia, it is obviously the platform most people are familiar with, but our foundation's mission is not just to support and sustain Wikipedia but increase the amount of free knowledge available in the world and increase participation in that knowledge. What we're looking at is the how can AI serve that purpose? How can AI be paired with a human dynamic we think are critical to the work we do and how does it empower people? That's it.

>> NICK HAHN: AI, if you think of it simply as incredibly powerful computing processing to be able to take massive amounts of information in and process complex algorithms and make predictions and make analysis in real-time.

The status of AI right now is just a snapshot of what's coming up ahead. You heard Marcus tee off the whole conference, that's our mindset at singular University, where the technologies are going with the whole notion that roughly every year that the price performance of just not Artificial Intelligence but any technology which is an information based technology will double in its price performance year in and year out. If you project that out three, five, 10 years, 20 years, it is awesome in terms of the effects on humanity and all industries which are being disrupted and will increasingly be disrupted. What we do is help people get into a mindset shift of those thinkings and what we call an abundance mindset. Our paradigms of scarcity, that we have adopted over the last millennium actually itself is disrupted and we now can think in a mindset of abundance whether it be resource abundance, abundance in handling humanity's grand challenges.

>> I like to put AI in the context of three terms, that are appearing, one is Moore's Law, increasing computation and capabilities, doubling the computation and capacity every year and a half and that's helping us to do things that we cannot do any more with our minds or with our collective mindset. It becomes scale-free computing. That's one.

The other one, the appearance of data. Data trails, whereabouts, information that is digitalized and the ability to combine all of that data and bring it together.

The third thing, new algorithms, the explosion in

algorithms that's happened in the last 30 years, if you look at what's happening over the last decade is not so much crazy algorithms, but the combination of these three things that came together that made AI, machine learning possible and still in its infancy. Still a long way to go, still we're probably close to a tipping point, but if you look at the speed of which Moore's Law increases versus the advances and progress we have seen with AI. I think we're at an early stage.

What we're doing with AI, it is trying to build a cognitive layer to have a better interaction between our machines and consumers. That's important. I think we're getting better and better at qualifying emotions and having better report with individuals, but in particular we're using it as the fundamental building block to go after big problems, things that can move the needle and impact hundreds of millions and they're hard to do. AI will be at the core of that.

>> CHRISTOPHER FABIAN: Cool. Hello. Is it on? I hate the two words AI almost as much as I hate the word innovation. They're both like meaning everything to everybody and nothing at the same time.

For the purpose of this conversation I will use -- I will refer to AI or I will use AI to refer to really complicated math problems basically. Really complicated math problems and equations and lots of data. In line with exactly what you just said. How do we start looking at a world changing quickly through more complexity on the side of our math and modeling until we hit the time when super robots are scary and come and kill us all. In the meantime, what we're using, complex math to look at large amounts of data, what UNICEF is doing in that space is trying to understand not some big problems but small problems that are difficult to solve and would have been impossible to solve ten years ago. We're looking at a problem now with project connect on mapping it every school in the world. Is that an AI problem? it is a problem you need complicated math and a lot of data to understand.

If you can figure out where every school is, a basic thing, I just explained it to you in six words, where is -- four words -- if you figure out that, you figure out how to optimize supplies to the schools and you can deliver feeding programs to people in an optimal matter, if you need to provide connectivity, you can do that because you know where it is and you didn't before, in a country like Kenya where we and the government know we're about 30% of the schools are physically located that type of information

is very important. That's not a grand promise, not exciting from a research point of view, but it is super, super important from a human point of view. We believe both types of big data we're getting, the big data -- I hate those two words too. There is a lot of hate in me right now for terms!

That idea of getting all of the data from other data partner partners and combining that with are interesting math allow us to understand the world in a way to allows us as a team of people to solve problems that were describable but unsolvable previously.

>> MODERATOR: There are common themes you're hearing from everyone, data, often a lot of data seems essential in AI, and so we talk about big data and a lot of overlap because that's the input into a lot of AI. What I would say is that it sounds like there is at least a basic agreement that there is data going in and driving some sort of decision making, maybe the decision making is automatically made by a machine or maybe the data comes in and humans are overseeing it, but at a very, very loose level it is a big basket term though. At the *New York Times,* I'm not only an investigative reporter, I have worked on a lot of digital initiatives and I'll tell you in to the newsroom at the times AI, the main news would be for personalization, giving people different content from each other based on data about them and actually in the news industry specifically personalization is very heated, not something -- it is a big controversy because it gives away a bit of the editor's power in choosing the story. That's a theme we can come back to about whether we give up power by letting machines decide things or whether that's more democratic to do that.

First, I just want to point out that a lot of things you hear on AI are really kind of sexy developments like a computer beating a man at chess or VR glasses, self-driving cars. We're all at this conference to talk about issues of more basic human need.

Nick, you have worked on the issue of famine. I'm wondering if you can start off and maybe others can respond to explain how algorithms in things that seem remote and technological could be related to famine?

>> NICK HAHN: So I have a very unique perspective on that subject.

I joined the University about five years ago. Before I joined them, I was at the pinnacle of food security analysis, having developed the classification system that countries use around the world to grade the severity of

food insecurity including the very worst situation of famine. Now I'm five years away from that.

I'm on a four-person independent committee making the call as to whether or not a famine is happening. So I get reengaged in famine analysis using the system that I had spearheaded the creation of five years ago. Literally yesterday I was on a phone call deciding whether or not South Sudan is in a famine because we declared famine two months ago and we had to update it. Frankly the state of food security analysis is pathetic, it is completely not meeting the needs of people we care about the most. There is a vast disconnect between the technologies that we have at hand now and where things are going versus the needs of people today.

Famine analysis, food security analysis in general is perfect, ripe for disruption so we use this term in Silicon Valley disrupt yourself or be disrupted. That whole business needs to be disrupted. AI in particular is perfect to step in here and be a -- not takeover, but to do this analysis side-by-side with humans. Why? Food security analysis, number one, is multisectorial and massively complex from nutrition data, agricultural, using satellite information, field surveys, you name it. We take in a vast amount of information which is ripe for AI.

Food security analysis needs to be -- because it is humanitarian analysis -- it needs to be non-profit entities bias, it needs to be neutral. Unfortunately stakeholders have their own biases. When it comes to declaring a famine that needs to be an entirely neutral call. Lastly, this needs to be done not in episodes like once per year or every six months because people's human conditions don't change just every six months or year. It needs to be done real-time, not when we can get enough resources to get a team to go out to the field to collect information and then take two, three months later to come up with the analysis while people are literally dying. Literally dying as we speak right now. This is unacceptable.

That disconnect between the technology that we have at play and where it is going and the state of play right now is a disconnect that needs to be rapidly and aggressively reconnected. I think AI has a huge role to play in food security analysis in general and I would put humanitarian analysis, this is another issue with that sector, is look -- people -- United Nations organizations and NGOs look at this in a sectorial manner and the human condition is inherently multisectorial. AI will have a role to play there.

>> MODERATOR: So much of our data is held by private companies, and I'm not sure whether there is a lot of profit to be made in famine analysis. Chris, I mean, how -- what kinds of companies should be coming forward to solve famine using data?

>> CHRISTOPHER FABIAN: There is not a lot of profit to be made in famine analysis, but in stability.

I think when we go to our corporate partners and talk about data it is not about going with our begging bowl saying help this poor group of people, it is like saying if you don't create a stable world your business interests will be effected and the personal interests will be effected and an example of that is the work that we have done around using data for understanding the spread of epidemics. They spread with people, where people move, epidemics move. You can't -- just like Nick said you can't figure out where people move if you look at old data.

You look at it through the lens of mobile network operator, through a lens of satellite or through the lens of somebody who may be collecting data and get real-time information on where people are moving.

Our data science team with Clara, others in the room here, you can talk to them about it, they have taken data from private sector companies, IBM, Telefonica, Google, combining those mobility matrixes to let us understand how humans move in places where there is not good connectivity and we predict the spread of disease. We were accurate on where diseases were moving on where they were moving, we don't say this is about helping kids when making the argument, this is about stability for the core business for the consumers and employees and about fixing the world.

Then, you know, if you talk about aggregate data, not personal, private, internal data of the company, but aggregated at a certain level they're comfortable with it is an easy discussion and less like a negotiation and more like a partnership and creating and documenting the open models that can be used on the data is a public good, a global public good in the true sense.

>> MODERATOR: Sounds like you have to use scare tactics which is hard with a lot of the problems in the world and more slow such as urgent things.

You have shared data and some bets, they're shooting for the moon, how do you prioritize what to participate in? There are probably more requests for your help than what you can do?

>> PABLO RODRIGUEZ: Right. So when we go after one of the big -- we try to look at the impact of hundreds of

millions of people. The tech and science, it is hard to do. It will take five to seven years to move things forward. We see that the start-up can do it, then we'll invest and let it happen. We'll partner.

We have the ability to take the low running and try to go after things that otherwise wouldn't happen. It requires patience and requires -- it requires multiple disciplines to come together. It usually is a combination of three disciplines that have not worked together before that you start seeing interesting things happening.

When we see those things then we set up a team and then we try to go and act as quickly as possible. Into solving that problem. One of the challenges we face recently is how to deploy ad hoc communication infrastructure in times of disaster relief and prevention.

For instance in Peru we recently had a lot of flooding. One of the first things that comes down is mobile infrastructure where people cannot talk to colleagues, friends, to authorities, to people that are bringing help and support. What we realize, there is a lot of innovation happening in this that we're able to build networks that fly, flying networks with drones, balloons that cost 20, 30,000 euros, partnering with Google and taking our big data capabilities and ability to deploy spectrum really quickly, deploying ad hoc networks that provide access to hundreds of thousands of those in Peru giving them capacity to transmit about 150 gigabytes of data, millions of messages and do that really quickly. Whenever we see those things, you know, the multidisciplinary efforts coming together, putting algorithms to work with data and then understanding how it is helping real people that's how we put our focus on and how we prioritize things.

>> MODERATOR: The discussion is how do we make sure that AI benefits everyone around the world and helps everyone. A thing that's important is to turn that a bit and say how does everyone participate in inputting into this machine, right? The Western cannon of literature and history has long been criticized because of the small subset of white men designed it over hundreds of years. Are we in that place again with a small subset of white men writing the algorithms and deciding kind of how machines will work and therefore even though data is democratic it comes from everyone, the machines mind we're building will be actually from a niche point of view.

Katherine, can you talk to that? Wikipedia is open in terms of who can post, but still people can pay people to go in and try to bolster what's written there, so on. How

do you address the inputs being democratic and widespread?

>> KATHERINE MAHER: First of all, yes, we're in that position.

Position of a small group of individuals determining what affects a large group of individuals and it is not just about who is training the algorithms but the datasets that the algorithms are being trained on. We were tremendously open, but tremendously biased. We're open about that bias because we feel that's the only way to address that bias.

A really great data -- two great points that point to this is English Wikipedia, the largest, 5.4 million Articles, of the 1.3 million that are biographies, only 16% of those are about women. Of the -- all of the content on Wikipedia with a geo tag, only 3.2% is about the continent of Africa.

Wikipedia is a phenomenal database of knowledge, you look at the articles, you look at the surface of the ocean. The information within Wikipedia powers what we understand about the world. It powers the development of natural language processing, powers the development of structured databases, linked databases, people train on our data all the time. Anything you're looking at as you surf across the commercial web touched the information in Wikipedia in some way. It is incredibly powerful, it is entirely open. We allow for all sorts of different research partnerships, and we're very proud of the fact that our datasets are open, we want to collaborate and be a resource for the world. We recognize our bias, our bias is intense, our bias is implicit and the only way that bias will be correctly or possibly addressed is if we're open about it as a call of action about the fact that that bias exists. The way that we approach this when it comes to developing any form of any approach to AI, however you want to define AI is that we're explicit about doing it in the most open way possible.

We're explicit on where the data comes from. The way we write the algorithms and open them, Open Source them, and request feedback on them and we feel as though the approach we take is something akin to explicit consent in the way that we deploy the services that we then build. That's something that we would call for in terms of the industry as a whole is to be far more transparent and far more participatory in the way that the technologies are being developed because it is only when you can call out the problem sets that exist within them that you can actually start to address some of these issues of how we're training

and what are the biases implicit within.

I don't know if that answers the question.

>> MODERATOR: Do you worry about as we go through this curve that it may be something that people around the world who don't -- people that haven't heard of AI don't want to participate in, don't want -- don't have a voice in?

>> NICK HAHN: Whether or not they want to participate in it, it is going to affect them. The advance of AI will affect everybody. The challenge is to make sure that the algorithms being developed are being developed with a diverse perspective. I'm really pleased, you know, with the initiative that is being led with open AI, if you look at the group of people behind open AI that's a selected bias.

There has to be an intentionality in developing an AI for society, for humanity that reaches out explicitly for diverse groups of people, gender, age, ethnicity, geography, you name it, for diverse groups of people to equally contribute to that AI and then there is the issue of access to it, but I won't comment on that yet.

>> MODERATOR: What about not just contributing but when you think, you're affiliated with a company that makes money and when people's data is used by tech giants to make search better, for instance, you know, you can say it benefits us all with better search results it makes a lot of money for select companies who the profits mainly go to a pretty select group of people.

What do you think about in terms of profit sharing off of all of this data feeding into AI?

>> PABLO RODRIGUEZ: About three years we have ran a survey where we ask 40,000 people in Brazil, in the U.K., in Spain, in Germany about how they felt about data and data usage and privacy and protection. We repeat this survey every several years. A few years ago we noticed a big shift.

About a decade ago most people you would ask them and they say basically I don't know and I don't care. So there was a lack of awareness and there was a lack of understanding what was happening. What is it that they could do with that data. In the latest survey we saw that about 25% of people were spread across either if I knew I would care, I do know and I care, so it was not only I know nothing and I don't care. What we realize about that, there are two trends that are emerging: The first, people are asking for more transparency.

Transparency, I think you mentioned, how is my data being used, can I -- is there traceability? Can I be able

to revoke that data?

That brings into the second trend, more control. In the sense that they want to get some access to ownership to that data.

The third thing is they want to be a part of it. They want to be a part of it.

We started out with a large effort -- and I guess an example is what we did with UNICEF, giving the data back to users. How is it that we take the data that is sitting in the networks for the most part being used just to optimize infrastructure, you package around, you build personal data bank with all your data and you give it back to the user so then he can write applications and services on top of it and opt to do with that data what he desires, whether donated to UNICEF, for social good, to give access to the doctor on a need to be basis or leave it for his family when he dies as personal data will.

I think we're seeing that trend. It is probably in the slow trend, there is more and more demand from a consumer for transparency, for accountability and how to be a part of the ecosystem.

>> MODERATOR: Chris, to push further, you do work on a lot of efforts to gather data. This data can then lead to algorithm findings helping with things like disease. Can you see a time when your job could be done by a machine, where not only would you get the data to use in machine learning and so on to make investments but to actually a machine Chris would decide which data to do? That's kind of like this challenge of the *New York Times*, it is that with personalization at some point if you let the algorithms decide what articles people get, that's long been the job of the top editors to decide which stories are on the front page.

I wonder, Chris, if you have a personal barrier where you would say stop, stop! I want to make the decision, or if you would turn over even the selection in which problems to do to a machine?

>> CHRISTOPHER FABIAN: I'm the laziest person in the world. When there is a machine Chris -- there may be one now -- I will be very happy!

I want to -- I think that -- I think there is a whole lot of stuff to get into on that. I would say most of the work we're doing now is a level before that. I would be happy to seed my current job to a machine or tree or whoever does it better than me which is probably a lot of people. Before that, I think we have to establish a baseline over the next few years and so a challenge I put

to the audience and to the rest of the panel -- thank you for moderating by the way, thank you for being here.

>> MODERATOR: Thank you to everyone.

>> CHRISTOPHER FABIAN: It is great to be up here with the smart brains. The challenge, before we get to the point with a robot Chris, that's great, how do we create a world where that robot Chris or robot Katherine, anyone else, is able to use the type of things we heard, the types of data inputs to really be an equitable robot, whatever. We have a small venture fund in UNICEF that's in 11 million-dollar fund and it does style investments in Open Source tech companies but we only invest in companies in the countries that UNICEF works in, only companies registered in the countries. Not in the U.S.A., not in Europe, Japan, and it is interesting because we're investing in AI so people who are doing complicated math with data, we're investing in AI companies in some regions you may not expect serious math work to be coming from at the level we would invest in.

We have got a blockchain company in South Africa that's interesting for doing payments to teacher. And we have an AI company in Kenya looking at face recognition for nutritional status analysis. We're making the bets because I think that the way to achieve that structural integrity we talked about is to seed a fair playing field. You can't have diversity if the AI world looks like this room. It can't look like this panel. This is not the future of technology that we want to live in. It will suck. The reason it will suck for all of us in this room is there a -- is a disease that comes from where we're not from and the cures will be built with genetically modified medicines and that won't work for those getting the diseases and it will spread faster. Any other iteration of that inequity that happens when the world of a, I look like this room. I would really put a challenge out there, it is first of all help us identify companies that may not be the best and coolest and smartest nerds but they're good and they're in developing markets or markets we wouldn't find. Help us link them to the resources we can provide so that we do 50 to 100,000 dollar tickets but there are other things than money, help us link them to the networks of smart people like you and friends so that we can develop the companies quickly. How do you connect the company to the one in Kenya, Brazil and make that stuff just be out there? I know it is not like a hard research problem but it is important. Then how do we take the companies and figure out how to ingest them in the rest of the world of AI or

big math or whatever you want to call it, that's happening h how do he we integrate them as training sets and algorithms and models that are equitable. The thing that robot Chris can be whatever, but we need to have a world of people who are involved in weathering building that robot and it can't be just us.

>> MODERATOR: Yes?

>> KATHERINE MAHER: Just yeah.

>> MODERATOR: A show of hands to see how many questions are out there? Okay. A few. We'll circle back to those in just a minute if anyone has questions be thinking of them.

>> CHRISTOPHER FABIAN: Four hands to have a round of questions, get the hands up!

>> MODERATOR: Get them ready if you have them.

It does sound like, Chris, diversity is a real need in this area. Maybe something, you know, there is so much advancement and exciting things that have is occurred but maybe that's a weak point we have identified that could be something that people coming out of this could work on. Anyone else on the panel, do you have thoughts on tangible ways that diversity could be brought into this area?

>> An excellent -- in order to get the diversity, we also need a diverse group of people that have capacities to contribute to the development of AI. Empowering people with coding abilities around the world as well, and that should also be a plan of sorts to empower people around the world to have the capacity to even contribute to this. Not just to the dialogue, we can talk about this until we're blue in the face but actually programming, coding, having the girl that was spoken about in the plenary, have her contributing to this because now she has capacity to code. I think to use that metaphor there needs to be an effort for that, in order to have a diverse group of contributors they have to contribute in a meaningful way.

>> MODERATOR: The organizations are well positioned because you work in education around the world.

>> CHRISTOPHER FABIAN: I want to argue for a minute. I want to just maybe pull at that the thread there, a plan or some huge effort to create an entity. That's far off and throwing up our hands.

I met a guy, the first drone pilot in Malawi and the first paraglider, and that dude is amazing. And he applied for a job and he said on the application you won't hire me because I don't have a college degree, but I want you to recognize I'm a person and I'm out there. We brought him to New York -- he's brilliant -- and we'll try to figure

out how to do something with him.

Godfry, there is one of those everywhere. We can do a lot of longer plans but there is -- it is like saying, you know, these problems are the responsibility of the next generation, let's treat them well to solve our problems. The solutions are there now and we have in our networks and who is a coder or engineer? So in your -- you could write the code to crawl our networks and figure out where they are in a creepy way the same way that Facebook knows when I'm breaking up two weeks before I break up with someone, super creepy! You click on other people's photos!

Shh! If we figure out where they are now, we can get ahead of that plan. I put a much more direct challenge, like, great, do the longer one, teaching to code but find the people doing it now and figure out how to wrap a business around them so that they can be successful.

>> To react, I don't see it as an either or. There are with capacities right now. I don't see that as a long term, next generation thing, we're talking next six months, it doesn't take that long to learn to code for people to engage in this. I don't see it as an either or, but the point is well taken.

>> PABLO RODRIQUEZ: The thing I'm realizing going through this, trying to go after the big things, people coming to the organized they're trying -- they're technically savvy, multiple disciplines but they're trying to find meaning. There is something that they're in a point in their life that they're trying to find something that drives them beyond cracking the hard-technical problem.

And many times I think -- and there's a purpose in thinking how is it that we can help them to go and find that purpose.

I was having a conversation with Pasqual, the youngest person on my team, 20 years old. He was giving a tutorial on AI and at a conference about learning and hard core technical stuff. He's a dropout out of school, no formal education. I asked him so how do you arrive here? He said, well, I was playing video games. I started figuring out that this was something that was getting me excited. I understood that it was driven by algorithms and data and I started to learn about myself, and then I figured out that brain is something that is very powerful and that these algorithms may mimic the brain and I think that if we understand the brain we can help humanity and I'm working on better algorithms for AI using brain algorithms to train them. He then joined our team and we're doing mental

health for the masses.

What is driving him is that purpose, that vision and the path. He's just learning for him deep learning is just another toolkit that's coming into his bag of things to fulfill what is getting him excited and his purpose and vision.

I think we managed to do that at scale for large amount of people then the rest will come. I think technology will become transparent and abundant and, yes, there is some training that has to happen but I think people if we give them the ability to get access to it and they're driven by the bigger purpose that they'll find a way.

>> MODERATOR: To remind you, we're coming up with three principles and if you all have suggestions in the audience also we'll be turning in a bit to coming up with principles on how to use AI for good.

A question to the panel before we open up to the audience. In addition to diversity in terms of geography, race, sex and economic level we have also seen a pretty big push around the world in terms of the rise of populism and in a number of countries, including the U.S. most notably with Trump, some people on the right being elected and feeling disenfranchised, so on. I'm wondering from your perspective about how this political shift is likely to affect the ability of AI to help the world and whether or not there has been any sort of political bias in terms of who is supported in the past and what you're thinking now in the new political era, what do we do about it?

>> KATHERINE MAHER: What do we do about it? I would say that our foundation, our perspective and response at the highest level is that we stand for something, we don't stand against something.

What I mean by that, yes, I'm concerned about risings and the decline of interest in factory evidentiary decision making. We're concerned because that's our bag, good knowledge that you can make good decisions on. If I only react to this problem, then I'm on my back foot and in reaction mode.

I think that our mission in the same way we're thinking about what's the big world changing things to do here on this panel, in this room, in this conference is to articulate a world that we actual want to be in and build systems around it, not acting in response, or if it is a 5 year, 20-year trend I'm concerned about the world we live in.

If there are not institutions out there adhering to principles and values and actively constructing through

inclusivity through transparency, investments, and the research they're doing in the world that we want to be in, within my world is a more inclusive, tolerant, open, a safe world then it is a non-starter. That would be how I would respond. I think our work in response to changing tides is to continue to adhere to our values. Adhering to our values is the one thing that's differentiated us over the course of the 16 years of our existence at various points in times it would be easy to take different decisions in I with as that is around personalization of content or around commercialization of private data and we have said no. Adhere to your values and articulate a vision to stand for rather than against.

The recent Trump withdraw from the Paris Accord makes you wish for AI --

>> MODERATOR: You want a machine Trump?

>> KATHERINE MAHER: The reaction you see, whether it is the current -- the current populism we'll call it, it is a canary in the coal mine of the incredible societal change that's going to be happening with technologies. These technologies will continue and they're a force of themselves just like gravity and this is a very difficult thing to get our heads around. They'll continue irrespective of the policy environment and a big concern, while technology will continue to grow, our personal and societal development, whether it is manifested through policy tends to change linearly, there is a disconnect between the powerful and awesomeness of that and our policies to keep up with it. That's very concerning to me. I'll stop right there.

>> MODERATOR: A thing to note, of course, populism, people involved in it often would say it is about the voice of every man. That's one of the challenges when you're looking for inclusivity and the populism, that is a challenge.

>> Another point to that, inasmuch as that populism to the degree to which it is equated to a withdraw from technology and withdraw from science, that's actually putting people that are putting the label populists around themselves at an extreme disadvantage. If anything -- yeah. I'll stop.

>> MODERATOR: What are you seeing in Europe around this shift?

>> PABLO RODRIGUEZ: A couple of things. I look at it many times from the point of view of Latin America where there are lots of things that are emerging and upcoming and specifically with hundreds of millions of people that we

deal with on a day-to-day basis.

I can see how the new technologies are coming regardless of the big policies and they'll make big impact in the day to day society. Take energy where a lot of people are spending 30% of their income on very poor energy sources whether it is candles, kerosene, charcoal, dirty energy, expensive ones and at the same time you have all of these innovations that are coming with alternative energies, the cost of solar panels coming down, the cost of batteries coming down, increasing quickly and probably a lot more innovation that will be around distribution of energy and connecting and bringing all of the infrastructure together to create this layer where on top of that you can build communications and you can label them to have markets and create local economies. I think that's going to happen. The technology in to the world is moving in that direction. It is getting close -- I also don't like the word big data, but I think that big data is about solving big problems and what are the big questions? If we focus on the big questions, I think technologies are coming that way and there are a lot of opportunities regardless of whether there are ways of populism one way or another. I'm positive and confident.

>> CHRISTOPHER FABIAN: Yeah. I mean, people react with violence and anger and hatred and racism when often -- people are horrible, horrible creatures in large numbers anyway, they're really horrible and don't have options. They react with those things when they feel they don't have options and you space ambient occlusion he that -- that's why I think you can -- Brexit looks to the actuarial tables in the U.K., if you were close to dying, you would vote for that. You see links like that, people reaching the end of options, ability to feel like an actor in the world becoming awful creatures, I don't have much of a space at my table for the voice of awful creatures but I think we have to deal with that problem. To me that's a base problem of lack of access to opportunity and choice so the thing that worries me, if this is a coming human disaster, little disasters are now just -- if you look at deep fractured points on an x-ray I should be telling you about something in front of it, what's the deeper structure and all of these points of violence, anger, awfulness, it is just little points of loo it showing you a deeper structure behind it, that's a structure of inequality and I wonder how to use these technologies to embrace the people who are most unequal.

So that I think is the bigger disaster we're talking

about, that I can talk about right now, UNICEF has a position on equity, when we build schools or put in health centers for the government we focus on the bottom people in terms of their money and finance and opportunity, we put the school there. We put the health center there, even though it costs more minute to do that we have proven using math, not big complicated math but simple math that the investment there, even though it costs more dollars to put the school in is worth 1.6 per dollar if you put it in at any other place. That's equity in development, we have proven that with math and economics, that's old math I know. We have to think about equity in terms of looking at populations and equity of access and opportunity. If I can give 1.6 hugs to everybody at the furthest end of that humanity scale, giving everybody 1.6 hugs, 1.6 jobs, 1.6 of dollars, universal basic income is a scam, that keeps them with a drug drip, you have to give more money than other people and that's the way that you fix that inequality otherwise we end up with a divided world.

>> MODERATOR: In terms of populism on the rise, the U.S. plays a role in global policy.

Chris, anything you can say based in the U.S. about how the move against regulation that is coming with this administration? Undoing a lot of regulations -- legislation -- regulations may affect the ability of tech companies and global organizations to use data, perhaps good or bad, regulation could help or get in the way. How do you see that?

>> CHRISTOPHER FABIAN: I won't comment on it the current political administration.

In terms of regulation: U.S. lost the ball a long time ago. We'll import genetics from China in five years if not already. What VGI has done is good or bad, they have advanced the state of genetic engineering far more -- forgetting about the ethics -- if you ask folks, they say that the ethical framework is business. That can worry you, but that's happened and there will be an import of that from China in the coming decade to the U.S.A. You like it, you don't, it will happen.

We're entering a post-sovereign world where companies set their regulatory frameworks internally, and what we do is we advocate for certain things and a national government -- I heard people saying that the United Nations should do something, the UN doesn't do anything. It doesn't regulate or create international laws. It doesn't work that way. We're throwing up the hands.

Groups that regulate are companies. In a post-sovereign

world if the companies with the bit coin, they're moving that internally -- and you won't see what's happening. We have to work as a community here to figure out how to advocate for a type of access and transparency that makes money for companies and creates an equitable world. There is no outside force that will do it, neither government or, bless them, the United Nations.

>> MODERATOR: You want to chime in?

>> KATHERINE MAHER: I won't give in to a post-sovereign world.

I understand there is a question on whether or not states as entities or actors will ultimately be the defining structures of our lives. You're seeing that challenged currently today.

The decline in the power of the state is in everything we do, multilateral institutions, compacts and treaties. I'm concerned about it. I'm not willing to -- I'll tell you why. I represent an organized that gets left out in the cold on that. I represent an organization that serves a billion people a month, and that's not an acceptable state of affairs. When you advocate for that, I feel as though that moves us in a direction in which the wind is blowing, advocating for an embrace that we're heading in that direction and that corporate determining individual practices and regulations is something that we'll accept and I'm not okay with that because that's not acceptable and accountable.

>> CHRISTOPHER FABIAN: To try to respond, I don't think it is great, I think it is where -- it is -- the avalanche has started, whether we ask the pebbles to vote or not, you know, it is there on the mountain. I think corporations are part of the post sovereign world, if you look -- if you haven't seen them, if you Google commuter maps of the U.S. and mobility you see another post-sovereign world, structures of cities working together and when -- what we have seen in response to the Paris climate extraction is suddenly you have cities and states working bilaterally, and laterally with an accord which is personalized-sovereign in a sense, not only corporations and I don't want that dark terminator feature any more than anyone else, but it is new networks and unfortunately if you look at the commuter maps of the U.S. there are 12 major areas that are defined in the visualizations of that data, there are 12 United States in the United States and they're defined by how people interact and work, some are much more unequal than others. Some are wealthy. The Boston, New York corridor, they're fine. Those in the

states in the west where they're all squares and you can't figure out what state is which, they're not fine at all.

I think as we look to post-sovereign it is not just bleak corporate, but types of interactions across boarders or refugees with no state will form with one another, and we have to understand those to provide services within them.

>> MODERATOR: Let's do some audience questions.

>> (Audience question).

>> Given the evidence base and knowledge that we'll have, you know, even if it is more accurate forecasting, how is that translated into action to address these factors that create the disaster risk or that create disasters in the first place because just to pick up on a point, fuse net called the 2010 and '11 famine in advance and it didn't illicit a response in general or in two different countries, you had one response in Kenya and a different one in Somalia. Having the advanced knowledge and improved knowledge through AI or other means doesn't necessarily get you the result you want. How do you translate this into ARSCN on the ground?

>> MODERATOR: Sounds like a good one for you.

>> NICK HAHN: I'm directly involved in that situation without going into the details too much. They didn't actually definitively declare is the issue. They say it might happen.

For decision makers when you say it may happen it gives them a way out. There has to be a clear declaration. I think our predictive analytics with early warning are good, but not nearly good enough.

Any time you give decision makers an opportunity to weasel out of the responsibility they will. I do think that virtual reality has a role to play here for decision makers to see a potential future and to see -- to not think of those in the abstract, but in the very real. I think blockchain and digital currencies and activating response on an automatic way when certain thresholds are triggered without negotiations or discussions, but instantaneously is where we need to go. You see that in probably the closest thing to that right now is weather insurance, but that's in a very limited sphere right now. It should apply to the overall humanitarian field once an AI and partnership with analysts make the call, there should be an automatic release of resources.

>> A follow-up, that speaks to the disaster relief side of the question, but if the panel is interested in disaster prevention, how do we begin to generate or translate the

evidence and the political will and build capacities necessary to do the prevention side of things?

>> That's the early warning component of that. A, that has to be neutral, non-biased and the further out you predict basic statistics, the less certainty you have on the event, the more that we have AI and big data and probability analysis feeding into that, the more we can make informed decisions.

>> MODERATOR: Are you getting at something longer term like climate change causes famine in some places, how do we use this to get at the root forces rather than the disaster? Is that what you're getting at?

>> Exactly.

>> MODERATOR: Maybe someone can take that on a little more.

>> CHRISTOPHER FABIAN: I think it is tough.

We know that West Africa is hit by famine every two years. We know that that's -- or deadly malnutrition, if you don't want to call it a famine. We know these are cycles, and we do little about them.

Ebola was interesting. Our team was in that response, and watching the amount of action that happened there because that disease could potentially effect rich white people was incredible! The difference -- I have never seen -- I have been in several emergencies now and that was the most -- that was a ton of people and stuff there from everywhere. No one wanted it to get to their country.

Same thing with refugee response in Europe. Nothing happened for years, the bigger holders of refugee holders are South Africa and Asia. When they're on the doors of people houses in Europe we'll do something. People know it is -- how do you make it a personal sub resources? We spend time over complicating models and creating these, and when you present data that's pressing and personal to people and this is what certain political candidates have done whether you like them or not -- and probably you don't like them -- they have made large amounts of stuff very personal to a very large group of people and made action happen because of that, there is something to learn from that.

People have little attention span now, and we can have the most articulated model of mosquito spread in the world but if you show one a home will be effected they'll take action. We have to think less sometimes as either the UN or scientists and think more in how an advertiser or someone that wants a message to be out thinks and we spend a lot of time being perfect and very little time being

good.

>> MODERATOR: Pablo Rodriguez.

>> PABLO RODRIGUEZ: Something quick.

I think that a challenge with AI and analytics is that they completely fail on -- we assume that the past predicts the future and most of the things we're seeing is explanation of the past but by no means will it predict the future. Especially when they're important things that are the block one events and there AI fails completely, we haven't figured out how to make it happen.

Early warnings are hard to capture. We assume we find things and we explain it later. Bad things will happen. We will not be able to predict. I think more and more thinking on how to react quickly and fast and cheaply whenever the bad things will happen that we'll not be able to predict I think -- I would welcome more of that thinking, how do we deploy quickly infrastructure that can go anywhere very cheaply and get access there. I think putting a lot of hope into AI and the analytics will not solve the problem.

>> MODERATOR: On that point, an important thing to remember on AI, it is the lesson that I saw up close by covering the financial crisis and you know all the mortgage model markets in to the U.S. were wrong because they were based on data and what had happened before. Just again to talk about is AI going to create a better world if all the inputs is stuff from the past and it can create a world that's based on the entrenched currently existing world rather than something new and that seems like a role humans can play is to intervene and think of different things.

Do we have any other questions?

>> I wanted to expand briefly on what Chris said about openness being a bipartisan issue really.

Yesterday was a call for opening more data and Open Sourcing code that will downplay in the room, oh, private sector, can't do anything about it, private sector at the end of the day and I think it is important to remind this audience that withholding data that can make a major contribution in areas such as major public health crisis disaster relief, empowering the bottom quintile as mentioned with the data is literally causing death. Quite literally. We have a large swath of academic literature funded by taxpayer money that produce results that are not successful and there is code produced by the best minds in AI that's not reusable because it is not published as part of a publication.

The question for the panel, how can we make an openness

of code, of training sets, of open datasets in general the norm? This is -- this not only applies to the non-privates and government sector but something that I believe companies that have a stake in this should take very seriously.

>> MODERATOR: Do you all know, you know, -- it is interesting, Wikipedia is such a source of getting info out but not data that I know of. Do you all broadly know who the leaders are in terms of making data public?

>> KATHERINE MAHER: I would argue that our contributions in terms of open data are massive. You may not be aware of them, as I said that's the difference --

>> MODERATOR: Yeah. It is the difference between looking at the article on Wikipedia and reading it and consuming because you have a question about a movie, some sort of a current affair versus looking at the structured citation graph that exists within it, it the structured dataset that exists is across the Articles in the ecosystem and structured and linked project, there is a tremendous amount of capacity and learning that comes out of the infrastructure we have and it is on the surface, not something that wet necessarily market ourselves on but it is something that I said earlier touches on every aspect of contemporary computing in terms of development of everything from machine translation.

What about people's purchasing history, health data, what do you know about the State of that kind of data being used for public good?

>> NICK HAHN: A shout out tonight, Global Post, they're sitting on a tremendous amount of data that they are willing to make available to people. Robert I know is here at the conference. If that's of interest, just approach him.

>> PABLO RODRIGUEZ: Two things: We're driving the effort, the personal data banks, bringing all personal data from individuals into one place so that they can build APIs of me and you can actually leverage that data for donating it to science but that's an early stage approach.

For the one I would -- I would highlight is a few years ago, and I go back to regulation, we realize as we talk to regulators that the complexity of the Internet ecosystem, the privacy, personal data had -- it was paramount. It was too complex to start regulating. It required more of an experimental approach, understanding what is it that works or what can be useful, what is it that -- what are the tools that you can leverage.

We set up a data transparency lab with MIT Media Lab,

with Firefox and the Open Data Institute, and now it is a community of thousands of people. They meet regularly every year and they produce tools and they produce open datasets that can get combined to understand more of the transparency whether they are -- there are biases, whether there is discrimination. And I think giving it back to consumers is something that they can use to understand if they buy a product in one country and it has a different price than in a different country to understand how different datasets can come together to help them with some health recommendations. We thought setting up the experimental platform is the way to go to come up with later better recommendations for policymakers and regulations.

>> MODERATOR: There seems to be good movement in terms of individual consumers, people having access to their own data. If in terms of large, huge datasets those are pretty much locked up in companies, maybe they'll share them in some anonymous form with an organization like UNICEF or something.

Chris, maybe you can respond, to push further though, you know, we have public information in a lot of countries. It is public. People's numbers are records, court records are public. There is a lot of information that's considered to be land records that are public. Are there elements that beyond being shared with an NGO should be public coming out of datasets related to things like travel or health or shopping?

>> CHRISTOPHER FABIAN: So two things, and then I think Estonia is a good example.

On open data side we have been working for the last year and a half on collaborating with partners like Telephonic and Amadeus with the world's travel bookings to collect data they're comfortable sharing with us and with other partners in that and producing API level access to that data for public good. That's called the magic box, whatever, we can -- we named it that as a joke, and then it stuck. It is my fault.

That platform allows us to do quick partnership level discussions with a company, get an aggregated level of data that's not personally identifiable or scary to the company and start to do research on that and create models based on that. What you see from that, a lot of mobile network data looks the same. Travel data looks pretty much the same. The problem is the places where you're not getting the data from and our job then is to fortify that and to look at that over places that there are not data producers and to

create the public data sources. I think -- the reason that that's been successful is first of all we're not going with a begging bowl, but second we're saying we don't need your super personal data, we'll take the 90% data aggregated and fuzzed at that level and by only getting 10% of the value out of that data it makes it 1,000 times easier to get it from the company so we can move quite quickly.

That's an initiative if you're interested in talking about it more, Clara and Emanuel, those guys, those are the smart ones that will talk to you about how that works. That's a thing.

The other thing I want to reflect on, the Open Source question: It makes me mad that a group of smart people laughs and giggles at Open Source. It is the single biggest idea of our generation. If you can't figure out how to make money out of an Open Source algorithm or piece of software they're not creative enough, laugh at them. Not them laughing at us.

Our fund invests in Open Source tech stacks, and that's up and down and that allows us to actually help businesses make business faster by creating volumes of user and collaborating across industries and borders. There is a whole discussion to have on that, another discussion on Open Source and it is really making me sort of cringing a bit when people take that lightly.

Then, yeah, a great country to look at for reference if you want to look for a country where everybody's data is accessible to the police, to the government, but everybody knows as soon as anyone accesses their dataset and private citizens can't see each other but the network can see everything. They have done a good job of describing and basically an internal DNS and white listing system that's created a really functional national dataset, source.

>> MODERATOR: Paul?

>> PAUL BUNJE: (No microphone.) We're you are talking about individual data and stuff, with disaster prevention and relief, the data is earth sciences or remote sense data, that's the vast majority. Almost all of it is open data already, not an open question, but an access question and most of that is poorly accessible. There are some examples.

Last week I talked to the head of Amazon web services Open Data Initiative. They put all of the open land data out, and the value is not that land set wasn't open but now you can access it from a phone. I'll point out particularly with this, we can make -- you can make existing open data accessible in meaningful ways and there

are ways to profit off of it. You're right. That's a game changer as well.

>> KATHERINE MAHER: I want to point to the fact that's true in the United States, but that's not true around the rest of the world and so my one other call to action coming off of this is what can other entities, governments, what can private individuals do to advocate for the adoption of more open standards because yes, the U.S. is an absolute leader in this, let's hope it stays that way, but that's not true globally.

>> I was just in Japan a month ago talking and they have precipitation data for the whole world on a 4-hour delay that nobody knew -- I never knew about it. Our satellite folks knew a bit about it. That's locked up behind an internal -- they're not -- there is no API, no way to get to it, it is not documented well, when you look at it you find that all of the papers they have written are about using it in Bangladesh or something. It doesn't -- they don't describe the scope of the data they have and they're sitting on a treasure trove.

>> MODERATOR: A couple more questions. We're running out of time. In the front.

>> I'm trying to figure out how I can use the resources that we have to promote the ending of hunger and preventing and responding to disaster. I'm way back up at the how to and policy level. From our perspective in the U.N. or U.N. we're a connector or activator as opposed to the problem solver because we don't have that expertise. I'm really encouraged by hearing your story about I have a 20-year-old over here that knows more about how this will all work then I will ever know and for me to find a way to get my constituent governments, the 191 regulating companies to understand that this isn't scary, that this is something that will be positive for them, they're a bunch of old guys like me and they're kind of looking for stability in the ways that things work.

Another example that came out of the descriptions is Google balloon. They came to us a couple of years ago, we're doing cool stuff putting balloons up, it is great but we found out we're not supposed to. They have to have permission to fly over the airspace of all of the countries they want to fly over. That's a problem. They have been working on creating their own network of outreach to the regulators globally.

I couldn't do that for them. I can do a state letter describing that it is okay for them to fly the balloons and it is really a good thing, et cetera, but they have to get

the boots on the ground to work with people around the world. Partnering between the U.N. agencies with the connection with the multinational corporates with the assets and resources and interesting the desire to do a global service is something that is not an interest to the United States.

The United States would not have brought me that problem, and yet most companies are regulated by their own local governments currently in a way that the U.N. doesn't have access to until the state brings it to us. Finding a way for the U.N. to connect with the companies more actively is a key thing I think we should do.

Another thing I heard, the idea that the U.N. can act to empower the developing world through the sourcing out into the developing world as opposed to first tier all the time so we do develop a pool of experts who can assist us in the long term.

The last that I heard, there are so many people from academia here that know how these problems need to be developed. on how to bring my problems to them. I think having a further engagement between the U.N. and academia on how we can describe our problems to the academia or technical sector so that perhaps young people that are training in to this can have access to what some of the problems they can work on are would be very valuable in terms of --

>> MODERATOR: You're making good points.

I'm not sure it is a question, but a good point. The U.N. is an organization mostly of countries, but now there is a lot of international coordination needed also between academics and companies, not just countries, maybe there is a role for the United Nations there.

>> The magic box project you described, I spent a year last year trying to early detect diseases on satellite and sensor data and part of that, I was in Kenya for three months at that time managed after a lot of things to get my hand on agricultural data on soil samplings and that was in a hard drive in the office and most of that was not documented and different languages, not only Swahili but other languages, languages that people in my team couldn't understand. Some were in hardware format, in a paper bin all over the offers distributed. It was really, really hard, and eventually we gave up doing it to access.

A thing that was said, personalized data that the you get from companies, potentially they're really valuable to solve the problems, but especially when talking about disaster prevention, relief, whatever you want to call it,

it will be mostly government data that adds the real value and again, the data, it’s really easy to access but there is a lot of advanced Chinese, Asian satellite projects up in the sky where it is basically impossible for a private individual to access the data because it is behind encryption walls that's hard to access and basically the big ask would be for organizations like the U.N. in a position like you are in to try and not only gather all of the company-owned data but focus first especially for these problems on the data that all of the taxpayers of the world are paying for that's just inaccessible and if it is accessible it is like impossible to understand for people like us to do something with it.

>> CHRISTOPHER FABIAN: Don't ever ask the U.N. to do anything. That's a dark and twisted path!

You should talk to Emanuel and Clara, but the magic box, UNICEF and U.N. are great -- we're the top producer of PDFs as a data source in the world. During the outbreaks, we had to spend time with humans taking data out of PDFs and the most valuable data to the emergency response was not private sector data, we had access, that was an important layer but it was the ground truth of case data, that's what we needed and what the government doesn't want to give you. If they show that the case of this is in their country tourism drops and so on and to the point of data being a public good, that should be illegal to hold data at an international level to hold data that could stop an epidemic, but there is no law about that.

I think our real role is to advocate for governments for certain case data, and we need people like the people in this room to help us build the models showing the utility of that. That's where we're stuck.

On the drone thing, I would invite you to come to the drown corridor in Malawi. We have 6500 square kilometers of space with the government for testing drones however we want which industry can take on, but for showing universities and students the possibilities of the space and we built it exactly for that. Happy to chat more about that. That's the first of its kind in the world.

>> MODERATOR: Before we wrap up, we have an assignment of coming up with the three principles on how AI can really help the world. And so some themes I have heard are transparency, diversity, inputs of that, there is a broad set of people contributing and benefiting from this but I wonder just to crystallize this more if each of you could take a stab and I'll take down notes.

>> KATHERINE MAHER: I'll be happy to go.

Transparency, openness, number one, we heard the value of that, whether it is Open Source or open datasets and transparency in the sense of insuring that people are aware -- U.N. or insuring you're open about what you're doing so that you can have more eyes on it approach in the same way that Open Source works.

Rather than diversity, active inclusion. Diversity is nice but you have to actually sustain the engagement of validating when they're involved in the work that you're doing. I would say explicit consent which is this idea that you actually should seek permission before doing things to people so that they're aware of what's going on and they're involved in to the dialogue about the change that's happening.

Those are my three.

>> NICK HAHN: I would agree with those.

I would point out that inasmuch as AI will be developed and ideally developed with these sorts of principles in mind it is only as good as people's access to it. I think there needs to be a concerted effort to empower people around the world with being able to access technology, access AI and also to do that in a very safe way for them as well.

I think that's requiring a very large and intentional effort.

>> PABLO RODRIGUEZ: I think a lot has been said about data standardization and open APIs, that's important.

If I look at the -- if I look at the scientific community the way they're looking at AI in terms of challenges for things that need to be clear, they call it fat, fairness, accountability and transparency. We talked a lot about transparency, we haven't talked much about accountability, and we haven't talked at all about fairness. What fairness means when a car needs to decide whether to kill you or somebody else, what is fair in that situation. I think that will require a lot of multidisciplinary thinking, psychology, engineers, sociologists to come together, otherwise we could be making a lot of decisions where that could be very biased and dividing us rather than bringing us together and I think that accountability needs to be there but fairness in whatever fairness, it is really contextualizing the situation and events and people but that's a discussion that we'll have more and more.

>> MODERATOR: Seems like fairness is related to the active inclusion point.

>> CHRISTOPHER FABIAN: I would just -- I have one

principle that points to nine so I'll just go meta.

The UNICEF about six years ago with USAID and 17 other agencies put together the principles of digital development. You can look them up online. They're a signatory kind of principle set that are like an open, collaborative work with the end user including many of these things. They're simple. They're -- we built them so anyone could sign on to them without a lot of work and move the organization over.

This community could adopt and adapt those principles to a new language and new world. It is already there, it is done. It is dusted, it has 100 groups that signed on it, including some with a lot of money. Gates, they used to have money before defunded and, you know, that's -- that's -- I would say let's start with that as well and get this group to take a look at those, internalize them and sort of sign off on that and to me that's a big easy win that we have before the car. The car should just kill everyone in that problem. I don't know if that's a proposed solution, kill them all so we don't have driver included and the person that made the car too. So we don't have to get to that point, the principles to me are a good starting place.

>> MODERATOR: This is a great conversation.

I think if there's a takeaway that maybe all of you can take away because you're all connected to many people in governments and in private companies who have a role in this even though you may not think about the role that they have in data or in AI it is that just share the things that you picked up at the conference and talk about it, engage in conversation. A thing about AI and data is that it is all around us but a lot of times we ignore it.

These principles of active inclusion, openness, they're things that really make a lot of sense for you to be talking about with the constituencies you know because really conversation is what will lead to action.

Thank you for coming. Thank you for the great panelists for joining.

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