



AI for Good Global Summit 2018 REPORT

*Accelerating progress
towards the SDGs*

In partnership with

XPRIZE



AI has enormous potential to help accelerate progress towards the United Nation's Sustainable Development Goals. AI innovation will be central to this effort by capitalizing on the unprecedented quantities of data now being generated in all areas including human health, education, commerce, communications, migration and many more.

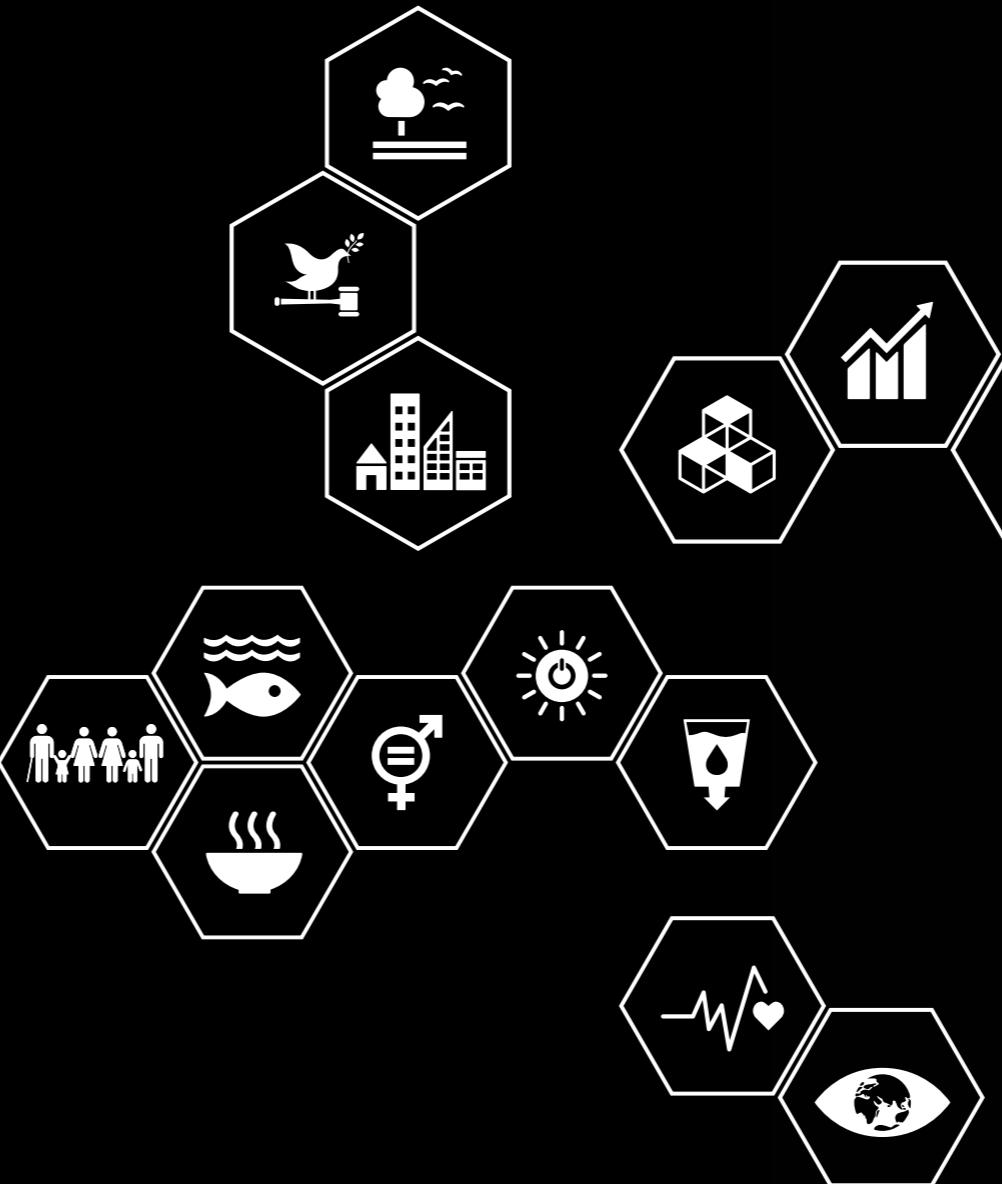


Table of contents

- 01/Foreword
[Page 03](#)
- 02/Partners
[Page 05](#)
- 03/Testimonials
[Page 07](#)
- 04/Background
[Page 08](#)
- 05/Participation
[Page 09](#)
- 06/Exhibits/Demo Stage
[Page 13](#)
- 07/AI for Good Repository
[Page 14](#)
- 08/Definitions of AI
[Page 15](#)
- 09/Data as a Huge (invisible or not so visible) Trade
[Page 19](#)
- 10/The Morality & Ethics of Technology & Trust
[Page 24](#)
- 11/Stakeholder Groups
[Page 27](#)
- Summary of the tracks
[Page 29](#)
- 12/Highlights from the Satellite track
[Page 30](#)
- 13/Highlights from the Health Track
[Page 33](#)
- 14/Highlights from the Smart Cities Track
[Page 35](#)
- 15/Highlights from the Trust Track
[Page 37](#)
- 16/World Telecommunication and Information Society Day
[Page 39](#)
- 17/Gallery
[Page 41](#)
- 18/Speaker/panelist list
[Page 46](#)
- 19/Participating organizations
[Page 47](#)
- 20/Organizing committees
[Page 53](#)

Gold Sponsors



Founding Sponsor

Founding Sponsor

Silver Sponsors



Building a better working world



Bronze Sponsor



Supporters



01 | Foreword

The AI for Good Global Summit in May 2018 discussed how Artificial Intelligence (AI) could be best used to assist the achievement of the United Nations' Sustainable Development Goals (SDGs). Organized by ITU, in partnership with the XPRIZE Foundation, the Association for Computing Machinery (ACM), and 32 sister UN agencies, the event convened over 700 representatives of government, industry, academic and research institutes, United Nations agencies and civil society to explore the potential of AI to accelerate progress in fields such as healthcare, smart-cities, disaster response and the protection of our environment.



Houlin Zhao
Secretary-General, ITU

ITU believes that AI will help to solve some of the most pressing challenges for our planet and its people. We believe in AI's promise of a better life for all. We also believe that this will only be achieved if government, industry, academia and civil society work together to develop the positive aspects of the technology and manage related risks.

The AI for Good Global Summit once again brought together leading minds in AI and humanitarian action to facilitate inclusive global dialogue and launch projects that use AI to benefit humanity. The action-oriented event focused on how AI can yield practical, long-term solutions to help achieve the SDGs. Hundreds of people attended and thousands of people worldwide followed the discussions via webcast.

Artificial Intelligence (AI) will continue to have many practical applications in the near future, with the potential to transform our economy and societies, as well as change the way the UN operates. The use of AI in areas like agriculture, contract writing, or youth education will change how the UN operates on the ground and how these problems are tackled in the future. This report summarizes these discussions and proposes actions and strategies to ensure the continued collaboration necessary to ensure that we take full advantage of emerging AI technologies.

Continued collaboration is necessary to ensure that we take full advantage of emerging AI technologies.

Sincerely,

Houlin Zhao Secretary-General, ITU

02 | Partners



We're pleased that XPRIZE was able to help spark the crowd to focus on action, with collaborative efforts between public, private, governmental, research, financial and United Nations organizations focused on developing solutions that use AI for humanitarian benefit and can be realized this year and next," said Anousheh Ansari, member and chair of management, XPRIZE Board of Directors.



"The AI for Good Summit's approach has proven to be a success," added ACM President Vicki L. Hanson. "We have all been impressed with the determination of the assembled experts to develop actionable steps, as well as their creativity and the promise that these projects hold for addressing urgent needs in society. ACM has been proud to be part of the summit and we look forward to continuing this important collaboration."



32 SISTER
UN
AGENCIES



CTBTO
PREPARATORY COMMISSION



GLOBAL
PULSE



GACI
REVIEW

ICAO

IFAD
Investing in rural people



ILO



UNITED NATIONS
Joint United Nations Programme on
HIV/AIDS



UNCTAD



UNDESA



UNDP



UNECE

UN
ESCAP

United Nations
Educational, Scientific and
Cultural Organization



UNICEF



UNICRI
United Nations
Institute for Crime and Justice
Research Institute



UNIDIR
United Nations
Research Institute
for Disarmament Research



UNHCR
The UN Refugee Agency



UNISDR
The United Nations Office for Disaster Risk Reduction



unitar
United Nations Institute for Training and Research



United Nations
HUMAN RIGHTS
OFFICE OF THE HIGH COMMISSIONER



UNODA
United Nations Office of Drugs and Crime



UNODC
United Nations Office on Drugs and Crime



UNOPS



UNFPA



UNITED NATIONS
UNIVERSITY



WFP
World Food
Programme



WIPO
World Intellectual
Property
Organization



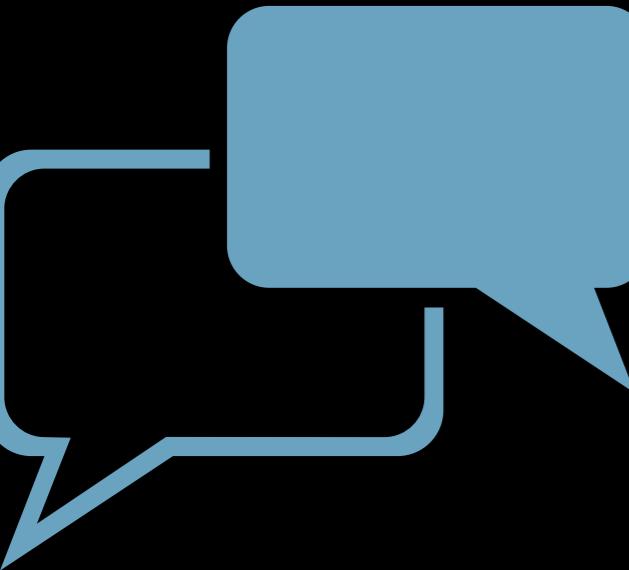
THE WORLD BANK
IBRD - IDA | WORLD BANK GROUP



UNDP

03

testimonials



7/53



H.E. Dr. Ahmed Al Theneyan
Deputy Minister of the Technology Industry and Digital Capabilities, Kingdom of Saudi Arabia

We are proud to partner with the ITU in organizing this great event. We look forward to furthering the spirit of partnership and collaboration between all members of the global AI community to maximize the ethical use of AI to further collective progress on sustainable development goals.



Bill Peduto
Mayor, City of Pittsburgh, USA

Thank you UN ITU & Sponsors for inviting Pittsburgh! The #AIforGood movement is becoming a global movement.



Adam Perold
Co-Founder, President and CEO,
Element Inc

Thanks @ITU for an excellent 2018 AI For Good conference and AI For Health Track. New partnerships and momentum springing forwards.

04 | Background

The 2nd edition of the AI for Good Global Summit was organized by ITU in Geneva on 15-17 May 2018, in partnership with XPRIZE Foundation, the global leader in incentivized prize competitions, the Association for Computing Machinery (ACM) and 32 sister United Nations agencies.

The AI for Good series is the leading United Nations platform for dialogue on AI. The action-oriented 2018 summit identified practical applications of AI and supporting strategies to improve the quality and sustainability of life on

our planet. The summit continued to formulate strategies to ensure trusted, safe and inclusive development of AI technologies and equitable access to their benefits.

While the 2017 summit sparked the first ever inclusive global dialogue on beneficial AI, the action-oriented 2018 summit focused on impactful AI solutions able to yield long-term benefits and help achieve the Sustainable Development Goals. The action-oriented 2018 Summit met high expectations by generating 35 pioneering 'AI for GOOD' project proposals.





36%
speakers women

700
participants

49
countries

30%
the top 10 were developing nations

05 | Participation

The Summit hosted over 700 participants from 49 countries onsite, including many leading researchers and authorities on AI. One-third of participants and speakers were women. Thirty percent of the top 10 attending countries were developing nations.

The Summit brought together a unique mixture of many disciplines, with some of the top AI researchers (Stanford, UC Berkeley, Cambridge, Harvard, etc.), top industry executives (PwC, IBM Research, Accenture, etc.), heads of UN agencies (WHO, UNCTAD, United Nations Office at Geneva), and government representatives (Saudi Arabia, China, Kenya, etc.). The Summit also exhibited the on-the-ground work of many companies using AI (Zero Abuse Project, Element Inc., Tilde, Sage Foundation, etc.). Delegates appreciated the ample networking and learning opportunities that having such diverse participants brought.



A MULTI-STAKEHOLDER APPROACH...

AI experts have said themselves that we cannot leave AI to just the experts – a multi-stakeholder approach is needed.



Government



Industry



UN Agencies



Civil Society



International Organizations



Academia

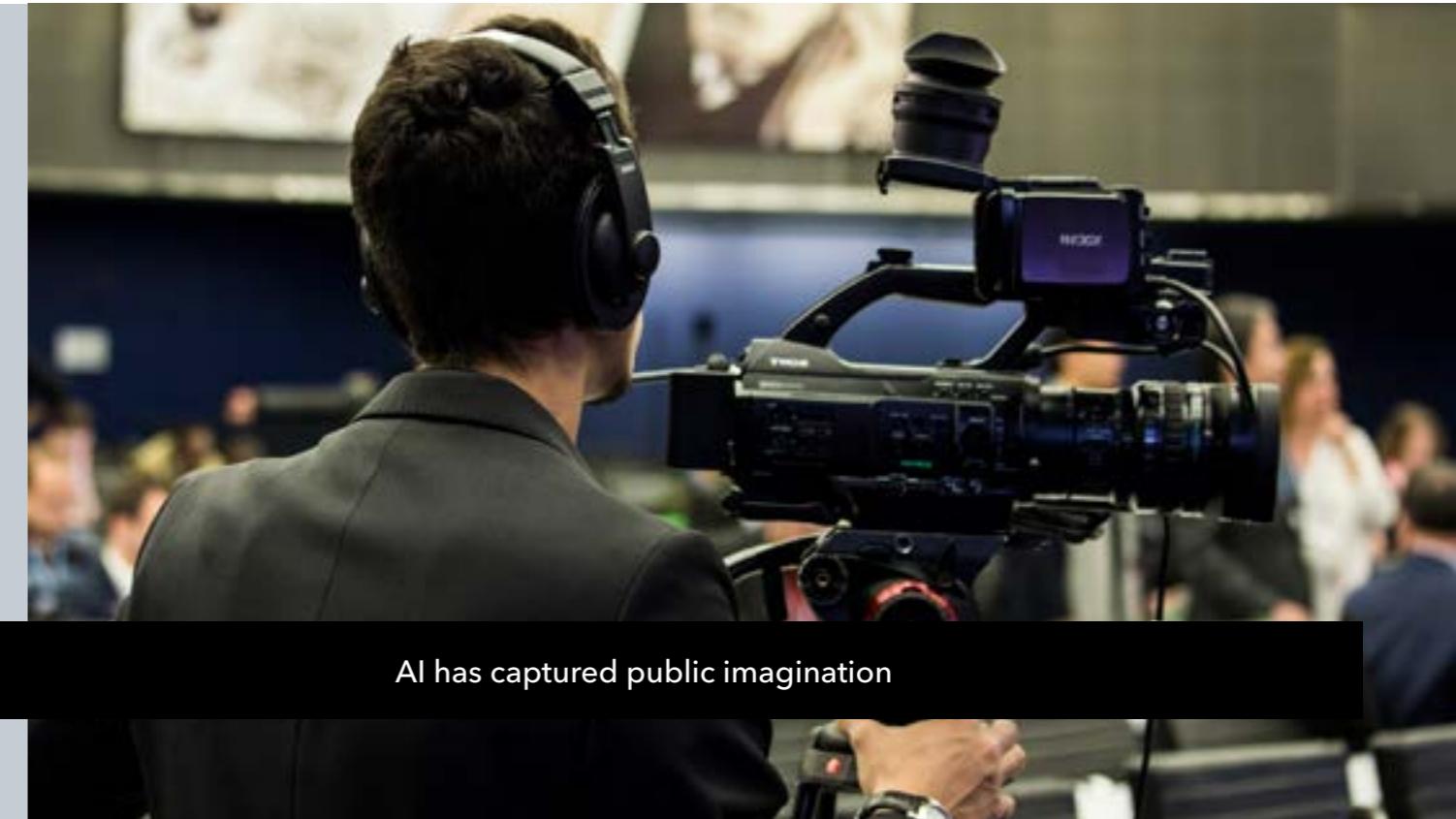
International media coverage



The Global
multi-lingual coverage

reached

Over 1 billion people



AI has captured the imagination of the public worldwide.

The Summit was attended by **Over 40 journalists** from a wide range of mainstream and technical international media resulting in close to **1000 media stories** covering or mention the Summit.

The global, multi-lingual coverage reached over **1 billion people** and the tone was overwhelmingly positive, demonstrating that

AI can be used as a force for good. This was complemented by **Over 100 AI related ITU NEWS** interviews, news stories and blogs from some of the leading minds in AI. The Summit was also the **#1 trending topic on Twitter** in Switzerland during the event.



[click to see the highlights video](#)

06

Exhibits and Demo Stage

In addition to the plenary and breakthrough sessions, the Summit hosted an exhibition area where companies could display their AI projects and innovations and network with attendees. As well, every day during coffee and lunch breaks exhibitors had the opportunity to present their innovations on the demonstration stage in front of the event attendees. Exhibitors were able to not only speak of their product, but to show it too, and engage with the audience by answering questions. The exhibit also featured a number of XPRIZE AI Watson competitors showcasing projects that they hope may win the competition.

13/53



07 | AI for Good Repository

In conjunction with the Summit, ITU recently launched an AI Repository where anyone working in the field of AI can contribute key information about how to leverage AI to help solve humanity's greatest challenges. It is the only global repository that identifies AI-related projects, research initiatives, think-tanks and organizations that aim to accelerate progress of the United Nations' 17 SDGs.



08 | Definitions of AI

Prof. Wolfram Burgard offered a definition of AI as "systems that can interpret sensory data, create internal models, and then develop activities out of this, reason about this and create the next best action to take". He acknowledged that "this does not just include software agents, but also physical agents such as robots".

Prof. Roger Penrose expressed nervousness about the term 'artificial intelligence' – for him, understanding and awareness are key ingredients of the term understanding. Machines cannot [currently] understand, and he cited an iterative test in mathematics with Procedure A and B, where humans can forecast/predict that the process will bring the result eventually down to zero, whereas machines currently cannot.

The Goedel theorem shows that we get to a point where it says this situation is beyond the system we had before – so humans put our understanding into the system, and we can use human understanding to improve our previous algorithmic understanding. He suggested 'artificial cleverness' may be a more precise term.



Humans can forecast/predict that the process will bring the result eventually down to zero, whereas machines currently cannot.

In this broad sense, the first computers represent an attempt at AI. However, a number of speakers also defined AI in a set of specific functions:

01

Visual recognition (especially on the health, satellite and smart cities tracks) and image recognition/ classification;

02

Voice recognition and intelligent captioning systems;

03

Text recognition and analysis, natural language processing and spontaneous conversation;

04

Algorithmic analysis of (e.g.) satellite imagery or Amazon and Netflix recommendations;

05

Fraud detection and other financial services by credit card companies.

06

Most automated systems do not currently use AI in the overall system (more for specific functions), but increasingly robots and other automated systems will increasingly use AI for manual or cognitive tasks.



Prof Roger Penrose

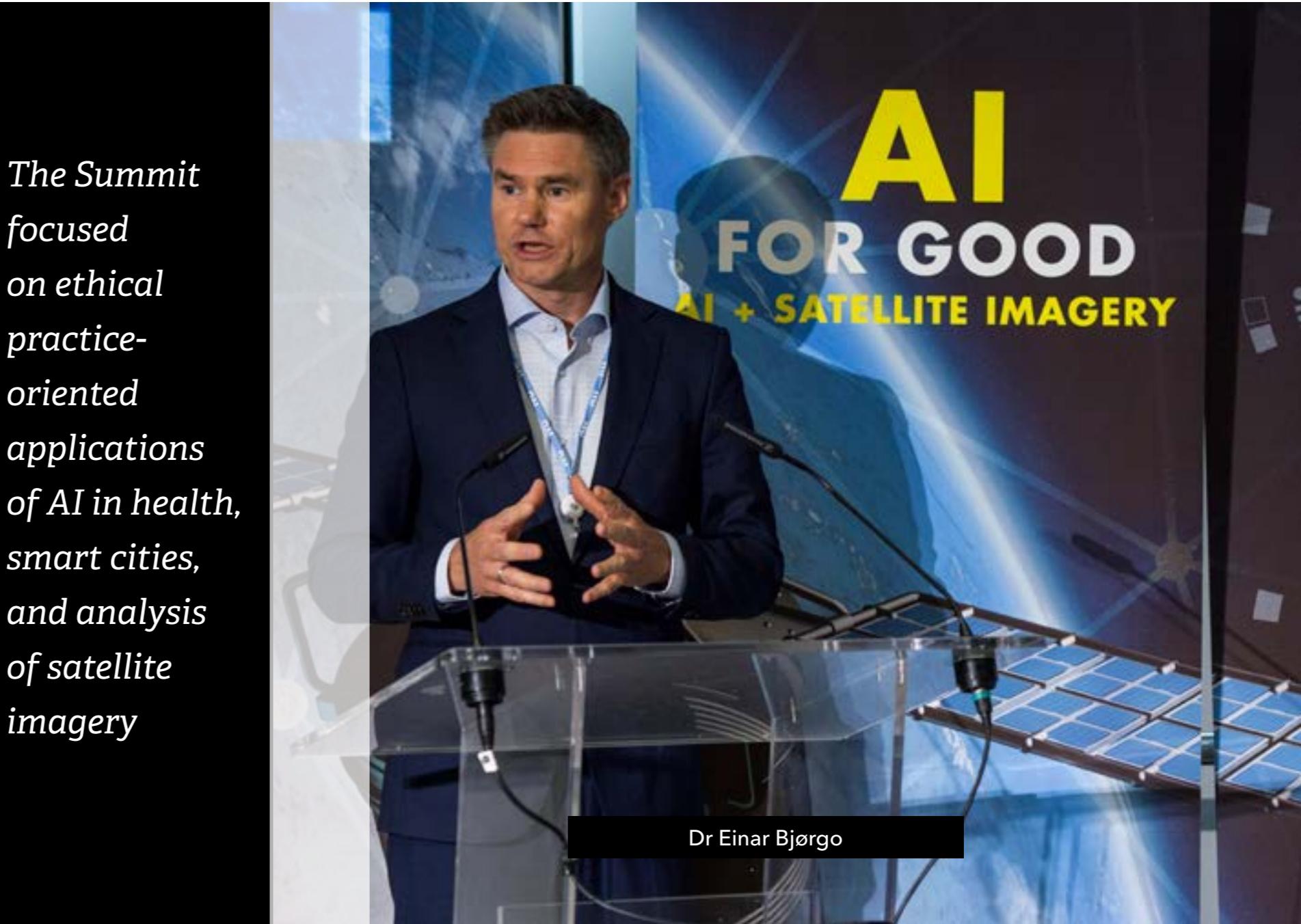
AI IS CATCHING UP AND FAST SURPASSING HUMAN ABILITIES

For example, AI overtook the game Go last year. In gaming, many people talk about "THE AI" and it is fast overtaking human abilities in word recognition and gaming. Marshall Burke, Assistant Professor at Stanford University, stated that the best computer system surpassed the accuracy of human image recognition abilities in 2014.

It is noticeable that most UN agencies discussed big data as if it were AI. It is unclear whether blockchain qualifies as AI.

The Summit did not dwell on definitions of AI, but focused on ethical practice-oriented applications of AI in health, smart cities, and analysis of satellite imagery.

The Summit focused on ethical practice-oriented applications of AI in health, smart cities, and analysis of satellite imagery



09 | Data as a Huge (invisible or not so visible) Trade

Many speakers addressed the role of data, as a "fuel" (Joe Westby from Amnesty International) or "resource of the digital economy" (Jonnie Penn of University of Cambridge) or as a "main currency of global engagement" (Dr. Mukhisa Kituyi, UNCTAD).

Dr. Kituyi of UNCTAD noted that trade in robots is the most visible part of trade in AI. UNCTAD's World Investment Report 2017 found 1.6 billion robots were traded in 2017 in 2017, of which 43% were in the US, Germany and Japan. However, the developing world lies mostly in production segment of the process, and it is unclear whether services (and value) will migrate to developing countries. Dr. Kituyi expressed concern that the benefits of trade in robots (and by extension, AI goods and services) may be felt in only a limited number of markets.



The AI Summit aims to connect problem owners with AI innovators to identify and launch practical applications of AI to help advance the Sustainable Development Goals.



Dr. Mukhisa Kituyi
Secretary-General, UNCTAD



Tedros Adhanom Ghebreyesus
Director General, WHO



Houlin Zhao
Secretary-General, ITU



Michael Møller
Director-General of
United Nations Office at Geneva



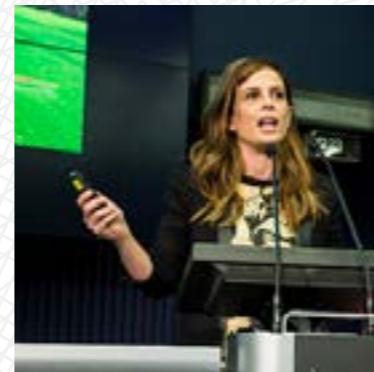
Francesca Rossi
Research Scientist and Professor of
Computer Science
at University of Padov



Celine Herweijer
Partner, Innovation and Sustainability
PwC UK
Wendell Wallach, Consultant, Ethicist, and
Scholar at Yale University's Interdisciplinary
Center for Bioethics, and Senior Advisor
to the Hastings Center, and the World
Economic Forum



Aimee van Wynsberghe
Co-Founder and Co-Director, Foundation
for Responsible Robotics



Francesca Bria
CTIO, Barcelona City Council;
Project Lead, DECODE



Stuart Russell
Professor of Electrical Engineering
and Computer Sciences, UC-Berkeley,
and Adjunct Professor of Neurological
Surgery, UC-San Francisco



Bill Peduto
Mayor, City of Pittsburgh, USA

Joe Westby of Amnesty International cited a report by PwC that estimates 70% of the economic benefits of AI will flow to China and the U.S., where a few companies are already leading investment in AI innovation.

Miguel Luengo-Oroz of UN Global Pulse observed that "data is the resource that just keeps on giving" - data can be reused repeatedly, time and time again, and potentially used for purposes not even thought of yet. However, this raises issues with consent - Robert Kirkpatrick wondered how it is possible to talk about informed consent, when consumers cannot agree today to giving their data away for different types analysis that have not been conceived yet? Data is getting more productive for those in the know - there is a trade-off between informed consent and the social and collective benefits to data analysis and the protection of privacy relating to individuals.

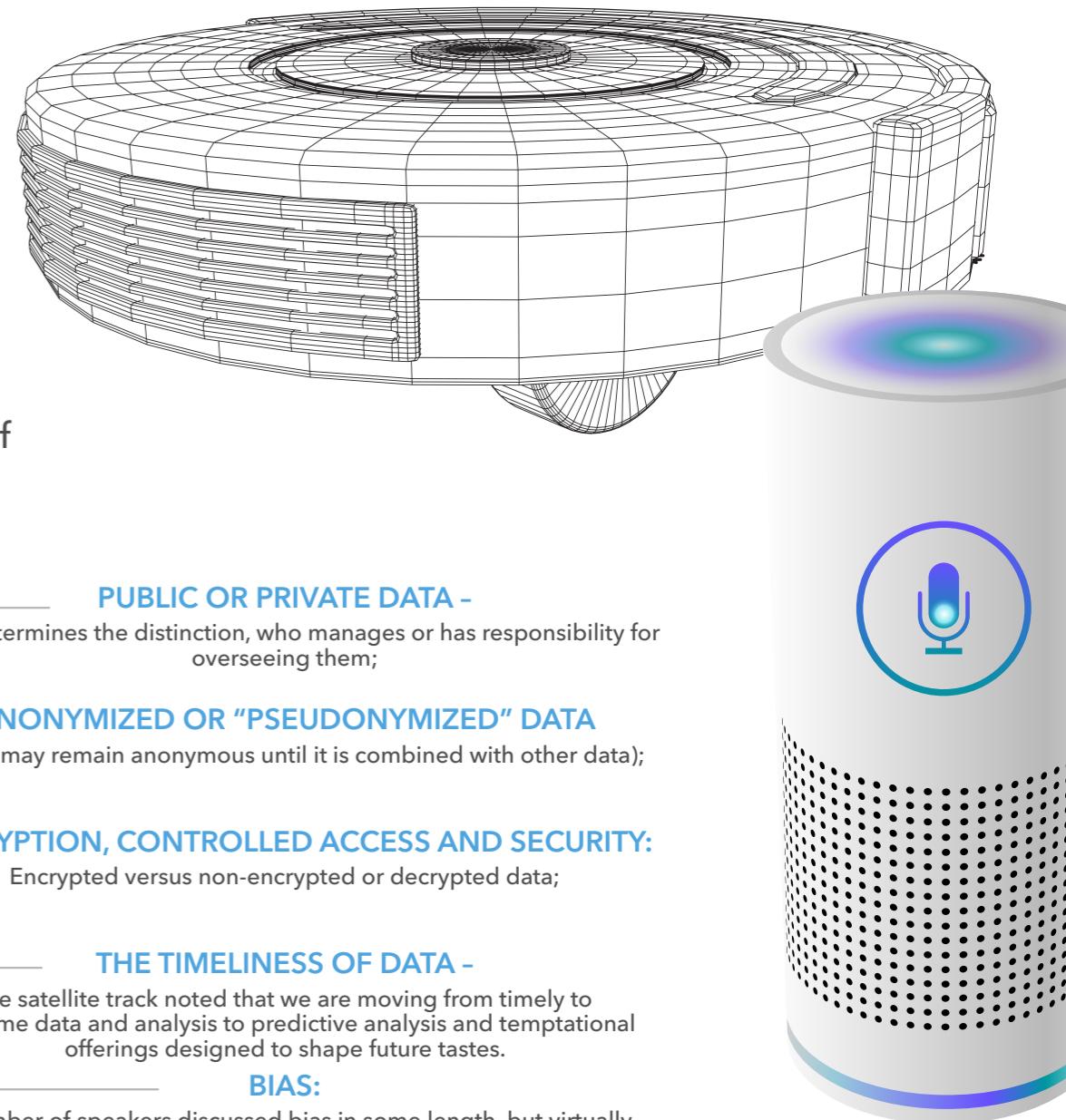
Data asymmetries are now generating important information asymmetries. David Hansen of UNEP pointed out that information asymmetries are creating important inequalities in market negotiating power and potential market distortions (e.g. in the detection and estimation of oil reserves).



THE VALUE OF DATA LIES IN QUANTITY, QUALITY AND ASSOCIATION.

According to Mark Jeffrey, data is not free, and it costs money to collect, collate, sort, clean, de-bias, protect, check, validate and store data, let alone make it available (Mark Jeffrey). Data minimization means collecting no more data than is required to fulfill originally stated purposes. Purpose limitation means not using data for anything other than the originally-stated purpose. The size of the dataset is relative to the purpose and power of the insight sought, but data can be valuable for a number of reasons:

- LEVEL OF DETAIL:** the Earth can now be mapped every day using low-resolution satellite imagery, but high-resolution images are available less often (every few days). 11
- ASSOCIATED DATA** (e.g. linking a name with an address and birth-date to create or manage digital identity). 10
- METADATA** or "data about data" e.g. age derived from birthdate, GPS coordinates, location and trajectories derived from Call Detail Records (CDRs). 09
- INFERENCES** made possible from data (e.g. speed of movement can lead to inferences about means of transport). 08
- STRUCTURED VERSUS UNSTRUCTURED DATA,** cleaned, filtered and/or sorted data. 07
- LABELLED VERSUS UNLABELED DATA:** Nigeria has a population of 186 million people but only has a dataset of 3,000 labelled data points for tracking land use via satellite imagery (according to Marshall Burke of Stanford University). 06
- Data can be valuable for a number of reasons** 05
- PUBLIC OR PRIVATE DATA -** who determines the distinction, who manages or has responsibility for overseeing them; 01
- ANONYMIZED OR "PSEUDONYMIZED" DATA** (which may remain anonymous until it is combined with other data); 02
- ENCRYPTION, CONTROLLED ACCESS AND SECURITY:** Encrypted versus non-encrypted or decrypted data; 03
- THE TIMELINESS OF DATA -** the satellite track noted that we are moving from timely to real-time data and analysis to predictive analysis and temptational offerings designed to shape future tastes. 04
- BIAS:** A number of speakers discussed bias in some length, but virtually all data is likely to be biased in some way. 05

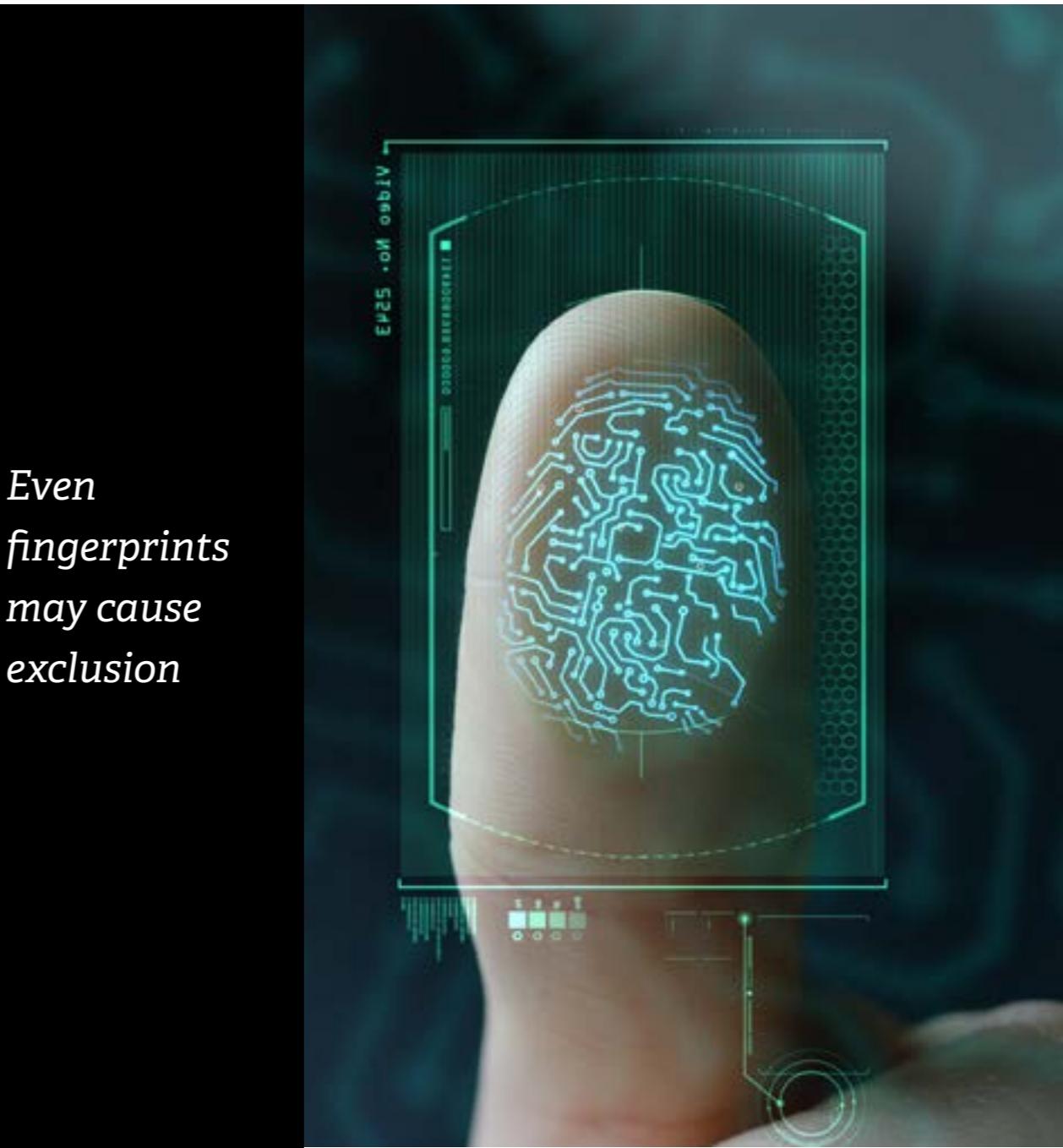


DIGITAL IDENTITY:

A number of speakers noted that digital identity is key to accessing health services, as well as services online. Adam Perold of Element Inc described how AI can be used to help recognize people through their features. However, fingerprints may even cause exclusion when they cannot be identified (in the case of elderly people for example). How can we keep identity safe? Risks include fragmentation, non-reversible abstraction and decentralization.

A recurring theme of the whole Summit was the social and collective benefits made possible through the public analysis of private data e.g. the monitoring of (individual, private) Call Data Records to monitor population displacements and public transport in Barcelona, dengue fever in Pakistan or Ebola in Sierra Leone. Chaesub Lee of ITU acknowledged that there will be necessary trade-offs to be made, and we need to discuss what those trade-offs will look like

In Panel 4, Robert Kirkpatrick of UN Global Pulse suggested that existing privacy regulations are failing to protect people adequately from the unique risks of big data – it is too easy to re-identify people from sets of behavior over time, and we cannot just take the notion of consent from medical practice and expect that to work in the world of big data, as datasets can be reused repeatedly.



*Even
fingerprints
may cause
exclusion*

10

The Morality & Ethics of Technology & Trust

The Summit devoted extensive time to debating what AI can & can't do, and should or shouldn't do. Michael Moller of UNOG acknowledged that "AI is on the march for good and for bad" - AI makes self-driving cars possible and can diagnose diseases. The AI that does jobs better than workers is a mixed blessing, while autonomous weapon systems may prove to be a problem.

Houlin Zhao of ITU observed "we must balance technological progress with social progress - unprecedented collaboration among all stakeholders is needed to achieve safe, trusted and inclusive AI and to accelerate progress towards the SDGs".



Vicki Hanson, President of ACM, stated that "it is within our power - and responsibility - to direct that development in such a way that benefits society".

Joe Westby from Amnesty International called for human rights to be at the heart of discussions around AI and ethics. He noted that while he is optimistic about AI, there are inherent risks to human rights, particularly around privacy, discrimination, the right to work, and the use of AI technology in policing and warfare.

Aimee Van Wynsberghe of the Foundation for Responsible Robotics noted that technology is neutral, and human users give it ethical purpose. However, she acknowledged that some believe technologies are already imbued with values from the design team (e.g. male/female razor blades). Prof. Zhe Liu of Peking University agreed that the ethics of the human designers are programmed into any sort of AI, and explored the difference between trust and reliance in human-robot interactions.

MANY SPEAKERS AGREED ON THE NEED FOR TRANSPARENCY, INTEROPERABILITY AND DATA STANDARDIZATION.

Wojciech Samek of the Fraunhofer Heinrich Hertz Institute presented on "how to make the black box of neural networks transparent", calling for greater focus on transparency. Today's systems can achieve excellent performance in a range of complex tasks (extracting patterns from the data and making predictions), but they operate in a black box manner, which means we don't know how they arrive at their decisions, why they sometimes fail, and whether they're really doing what we want them to do. We need to make this black box more transparent - e.g. in the medical domain, where we need to verify decisions, and we need interpretability to explain diagnoses to patients and guarantee AI safety. Shinjini Kundu of the University of Pittsburgh agreed with the need to look inside the black box.

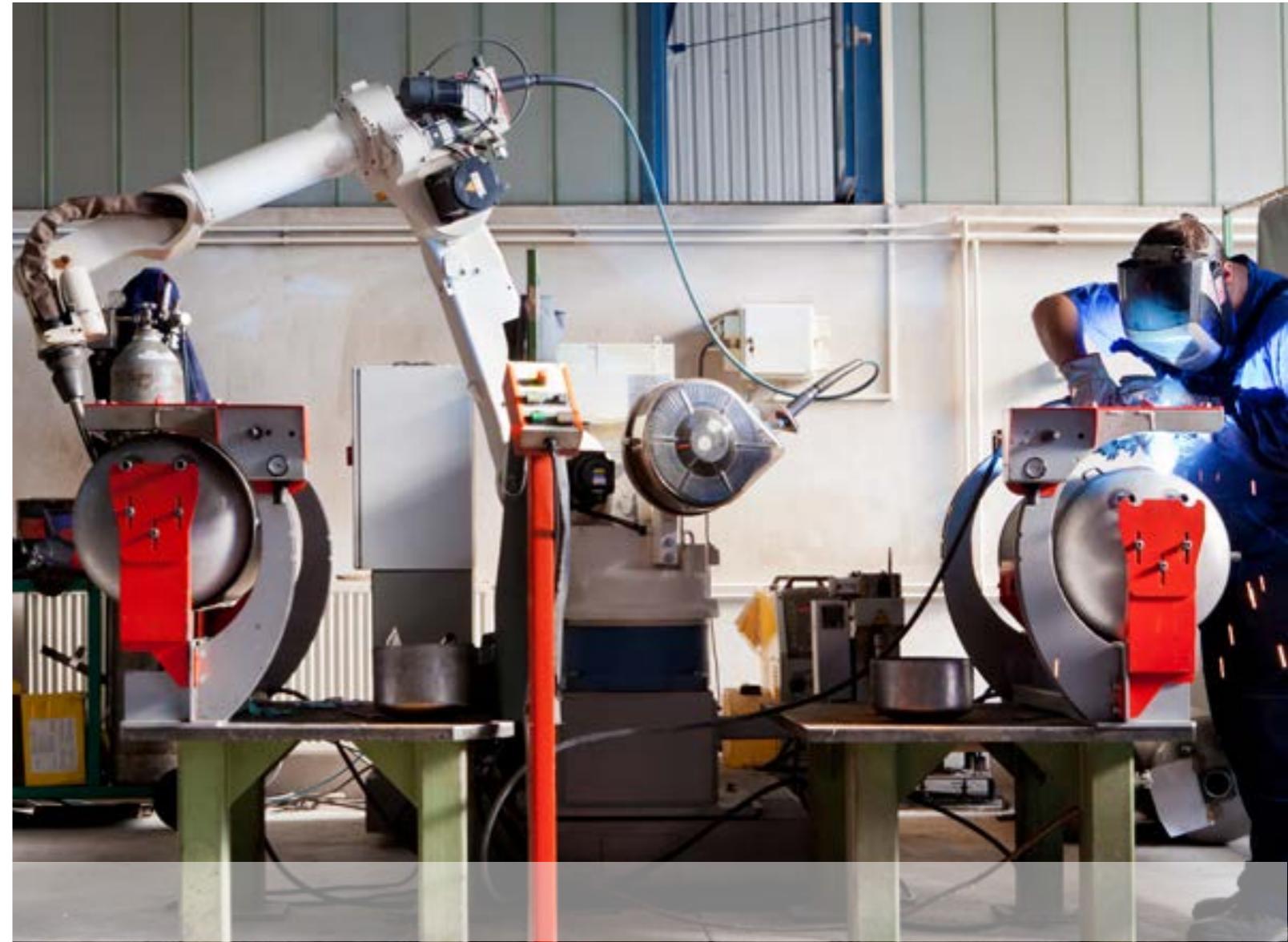
In the Trust in AI track, Irakli Beridze of UNICRI suggested that the unexplored consequences of AI-enabled automation are threatening to undermine trust and belief in AI through potential job losses, displacement of workers and/or

social instability through new waves of migration and increased crime rates. Prof. Liu of Peking University is carrying out research into the changing relationship between humans and computers/machines.

Joe Westby from Amnesty International asked how we can ensure trustworthy AI, how to ensure that those in power actually build and develop systems that are deserving of trust and that are not harmful and violating human rights?

He suggested that voluntary regulation alone is unlikely to prove sufficient, and that binding laws and regulations are necessary for AI (as proved the case for the 2nd and 3rd industrial revolutions).

On the regulation of AI, Dr. Jess Whittlestone of Cambridge University suggested we need to improve dialogue between policy & tech experts to bridge the gap between the policy and tech development side of AI. We need to ask what the barriers are and provide more opportunities for tech experts to engage with policy/ethical/societal issues, to improve the technical understanding of policy-makers through targeted training.



Peking University is carrying out research into the changing relationship between humans and computers/machines.

11 Stakeholder Groups

There are a large number of stakeholder groups involved in managing AI. Among some of the most important mentioned at the Summit:



AI AND HEALTH

the healthcare sector was seen as a highly technological, data-intensive user of AI in institutional healthcare settings, as well as medical science and research.



SMART CITIES AND DATA

due to the growing proportion of the world's population which now lives in cities, and the social and collective benefits made possible by cities, the role and function of smart cities was seen as integral to making the most out of public and collective and individual data.



WALL STREET

the role of Stock Exchanges and venture capitalists was seen as a powerful influencer in the funding, development and shaping demand and use of AI and AI applications.



ACADEMIA

the role of universities and research labs was mentioned as an active participant in researching AI, as well as providing trained expertise for data science.



GOVERNMENTS

the role of governments in the AI revolution. Should it be limited to policy making, e-government and open-data? Since major data creators and aggregators are private, how can governments (and international institutions like us) tap in this resource for development (going beyond the "corporate responsibility" angle)? PPPs of some sorts? Shall governments primarily make sure that private companies can innovate and develop and citizen enjoy the benefits?



ADVERTISING

advertising is a powerful stakeholder group, both in using and developing new forms of AI, as well as enabling some of the 'free' uses of AI.



MEDIA

and the role of the media in influencing narratives around AI, and shaping the debate.



POLICY-MAKERS AND REGULATOR

although policy-makers and regulators currently have a fairly limited role in relation to AI policy and regulation, the need to educate and inform policy-makers and regulators to enable them to adjust regulatory frameworks to (inter alia) encourage and promote innovation and protect consumers. Dr. Jess Whittlestone of Cambridge University suggested that gaps might be inevitable between the tech community and the policy community, due to their different backgrounds and lack of dialogue.

SUMMARY OF THE TRACKS

29/53



12 Highlights from the Satellite track

Since 2017, it is now possible to image the entire Earth's surface every day.

However, there is a trade-off between the availability of high-res data (which is available every few days) and low-res data (potentially every day), with high-res data obviously more costly and expensive to obtain.

Global satellite monitoring can prove the equivalent of global 'closed-circuit TV' TV' (cite speaker name), and can be used to hold Governments and other parties accountable for their actions - e.g. mapping burning villages with the Rohingya, mapping carbon dioxide emissions for conformance/compliance with the Paris climate accords



We are moving from historical analysis to real-time information (e.g. retreat of the ice caps) and we shall increasingly move to predictive modelling. Using AI means we can also economize on human analysis time and save the human analyst time for the tasks really needed.

We are moving from data asymmetries/poverty to information asymmetries with a potential impact on whole markets - e.g. foreknowledge of steel production in China, size of potential oil reserves in a new discovery.

The purposes we think imagery (and the associated data) may be used for are not always how they get used - we think they may be used to achieve the SDGs, when in fact it may make exploitation even more efficient. There are a number of major users of satellite data not even at the development table or talking with the development community (military on truck movements, Wall



Stuart Russel

Street for crop yields and taking positions on the futures market).

For deforestation, a road going into an area is the best predictor of the development of agriculture (electrification and a potential increase in local incomes) within 5 years, as well as predictor of deforestation.

This means that while satellite imagery could help with the monitoring of certain SDGs (e.g. for tracking climate change), it could also help humankind become even better at finding and exploiting the Earth's natural resources (including fish reserves). There may literally be nowhere to hide from the eye(s) in the sky!

Regional learning - algorithms trained in Africa may not always work in India, and there are dangers in generalizing data from one region to another.



Andrew Zolli, VP of Global Impact Initiatives,

13 | Highlights from the Health Track

Dr. Tedros Ghebreyesus, Director-General of WHO, observed that 120 countries have digital health strategies. AI and digital technologies provide new tools in advancing health, improving mobility for paraplegic patients, making diagnosis more efficient, and developing new medicines. Mobiles and telemedicine are extending reach; AI, big data and digital technologies are integrating diagnostics with treatments, as well as responding to outbreaks, and improving decision-making and simulation tools. But with every new technology, there are risks of abuse - we must not lose sight of human rights: "although AI is the future of health, the safeguards are important too".



- Health - and therefore medicine - is slowly shifting from hospitals & doctors to our living rooms to become our personal responsibility, based on our personal choices. Traditional medicine as we know it is fading with the appearance of all new platforms.
- Big emphasis on data protection and how to respect patients' privacy and confidentiality, while sharing the information necessary to achieve a correct diagnosis and/or beneficial insights for illness and disease, mention of the GDPR for European-based companies.
- AI should be considered as a tool present to enhance human quality of living; doctor shortage and efficiency, and used for good;

AI tools have a better accuracy overall in diagnosis (based on a population of individuals) than doctors (find speaker). Where AI systems are used for diagnosis - in the case of life & death decisions, the final decision should stay with the doctor.

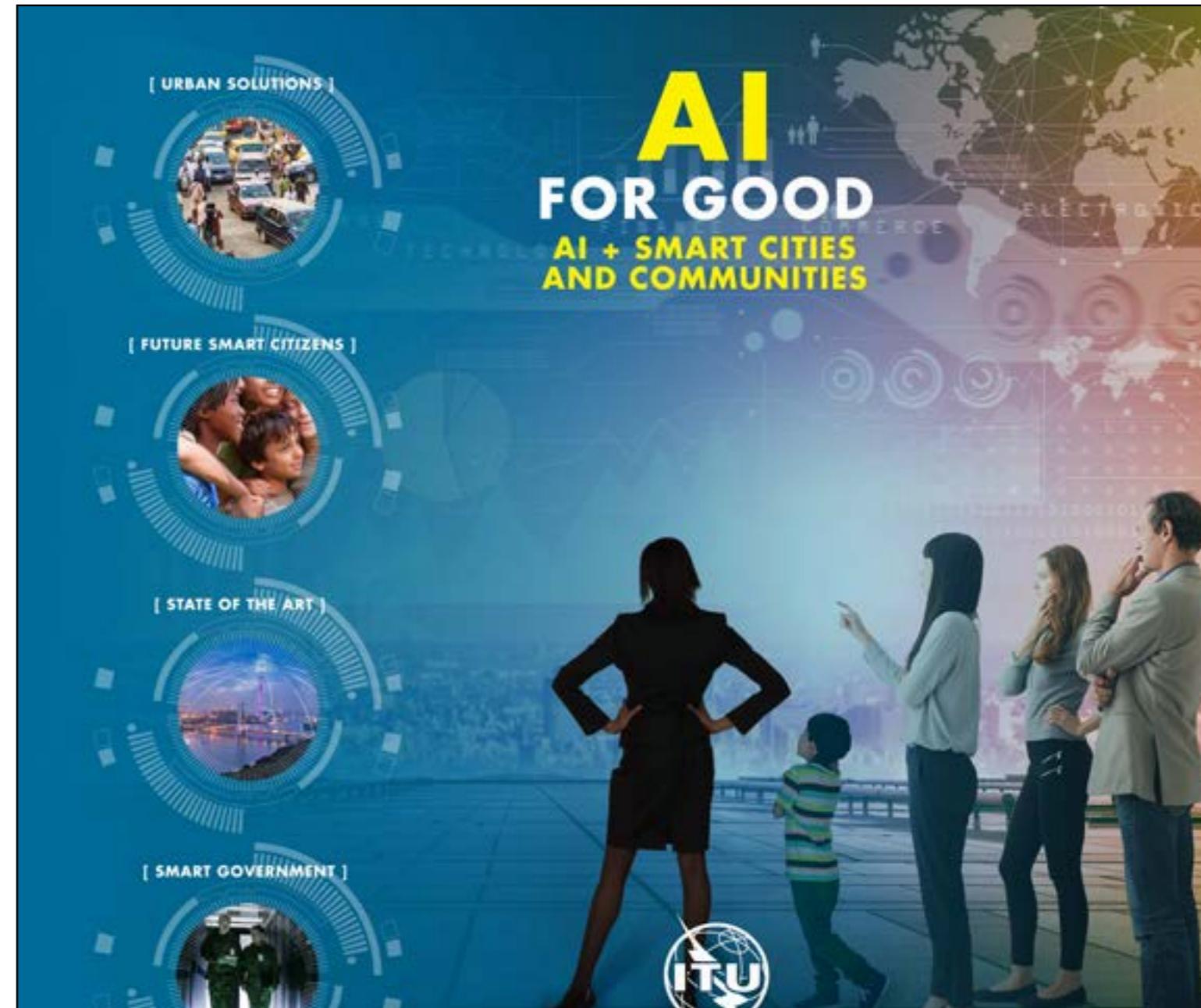
- New technologies and treatments have to be adapted to different cultures - medical decisions don't always involve scientific decisions - in the UK, end of suffering argument.
- Liability was a big part of the discussion; that AI can help with doctor liability, and on the other hand, there is real difficulty in defining accountability.



Marcel Sala
Healthcare Breakthrough Chair

14 | Highlights from the Smart Cities Track

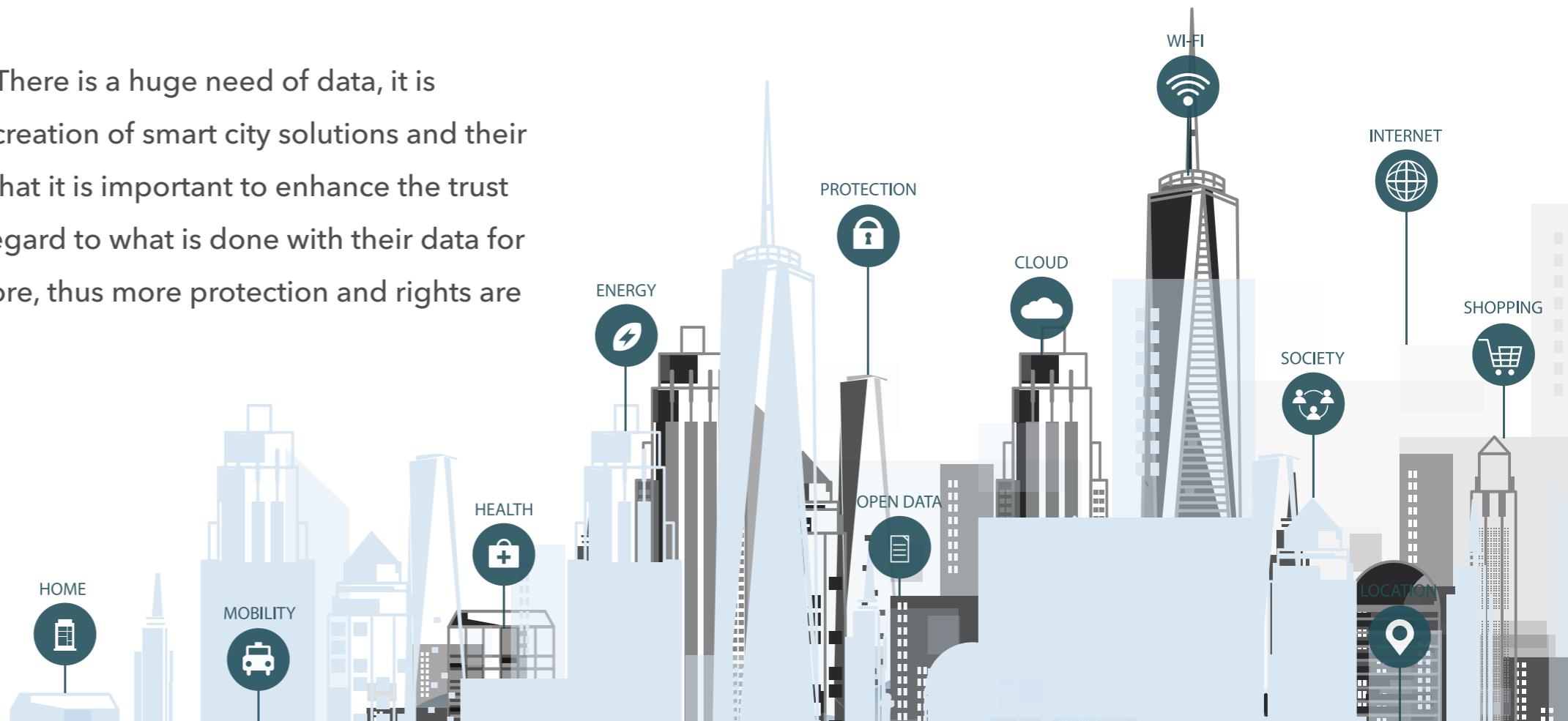
- **Cities DNA** - Speakers mentioned at different occasions that it was very important to take account of (and thus respect) cities DNA, meaning cities' history, culture and other particularities when launching ICT projects for smarter cities.
- **Learn from success and failure** - Learning from other cities' experiences (either good or bad experiences) is an useful way to avoid repeating the same mistakes and spare a lot of time when developing smart cities solutions.





Renato Castro
- Smart City Breakthrough Chair

- **Multi-stakeholder and cooperation** - Inevitably, the need of enhanced cooperation and multi-stakeholder approach has been raised at multiple times, here from the point view of the city (public actor - which has a great initiative role to play) and potential investors (private sector).
- **Data is crucial** - There is a huge need of data, it is essential for the creation of smart city solutions and their functioning. For that it is important to enhance the trust of citizens with regard to what is done with their data for them to share more, thus more protection and rights are needed.



15 | Highlights from the Trust Track

- Trust in AI is lacking as technology advances at a rapid rate, thus it is vital to build it at the base level by incorporating user's opinions and concerns. AI solutions must earn user trust. Trust in AI is closely related to ethics for AI, and to security, safety and privacy. Trust in AI, especially in AI/ML using data requires trust in data, data quality, unbiased data.
- There is a need for sound, ethically designed trustworthy AI systems, and for having understandable and transparent decision-making AI algorithms. Having a common language/understanding among the stakeholders is essential for building and/or for increasing trust.



- Different cultures have different perceptions of AI (e.g., Asian cultures have been much more enthusiastic about AI), so it is important to understand where both positive and negative narratives come from and why - media plays an important role in this. Global AI solutions require trust and trustworthiness of AI systems across boundaries of nations and cultures. Building trust across cultures requires cross-cultural understanding of AI, of values, and of cultural differences. This includes different perceptions, notions, terminology and interpretations exist

across cultures what trust, confidence, and trustworthiness means, and how to measure them.

- Closing the gap of understanding between policy-makers and AI development experts is crucial if effective regulatory schemes are to be created that don't cripple the AI industry nor allow it to run amok
- The potential for AI to do good is tremendous so long as the ethical ramifications are discussed and debated, as the incorporation of AI into industries such as health has far-reaching privacy implications.



James Crawford, CEO and Founder



Rumman Chowdhury,
Senior Principal of AI, Accenture

16 | World Telecommunication and Information Society Day

ITU celebrated the annual World Telecommunication and Information Society Day (WTISD) during the AI Summit with an impressive 'AI-powered Moonshots' panel discussion that showcased the experiences of leading women space explorers. The global audience heard insights from astronaut and pilot Liu Yang, the first Chinese woman in space; Samantha Cristoforetti, the first Italian woman in space; and the world's first female private space explorer, Anousheh Ansari, who is also the Chair of Management, XPRIZE Foundation Board of Directors.

"I grew up with passion and a vision of going to space. I fell in love with the stars from a very young age."
— Anousheh Ansari

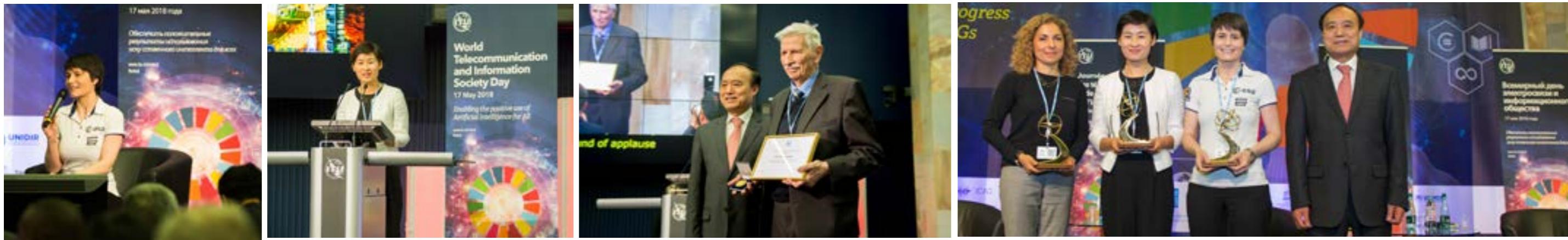
"We can anticipate that AI will be very helpful in human space-flight missions. We believe exploration will be greatly improved with AI astronauts."
— Liu Yang,
first Chinese woman in space

"It's an exciting time where opportunities will multiply to go to space."
— Samantha Cristoforetti



WTISD is held annually on 17 May to promote the potential of the Internet and other information and communication technologies (ICTs) to improve societies and economies worldwide. The day also marks the anniversary of the signing of the first International Telegraph Convention and the creation of the International Telecommunication Union (ITU), the United Nations specialized agency for ICTs.

WTISD event also paid tribute to Dr. Marko Jagodic, who has contributed to the work of ITU for over 50 years.



17 | Gallery

41/53



18

Speaker/ panelist list



42/53

SPEAKER/PANELIST LIST

[Tedros Adhanom Ghebreyesus](#), Director General, World Health Organization

[H.E. Dr. Ahmed Al Thenyan](#), Deputy Minister for Technology Industry and Digital Capacities, Ministry of Communications and Information Technology of Saudi Arabia

[Salem Alelyani](#), Director of Artificial Intelligence Unit & Chief Information Officer, King Khalid University

[Ambassador Amandeep Singh Gill](#), Permanent Representative of India to the Conference on Disarmament; Taskforce on AI for India's Economic Transformation

[P. Anandan](#), CEO, Wadhwani Institute for Artificial Intelligence

[Marie Ange Boyomo](#), AI Project Manager, ANIMA

[Anousheh Ansari](#), Member & Chair of Management, XPRIZE Foundation Board of Directors; Space Ambassador

[Vincenzo Aquaro](#), Chief of Digital Government, Public Institutions and Digital Government Division, United Nations (remote)

[Hila Azadzoy](#), Director of Partnerships, ADA Health

[Silja Baller](#), Practice Lead, Digital Economy and Innovation, World Economic Forum

[Amir Banifatemi](#), AI Lead, XPRIZE Foundation

[Patricia Benoit-Guyot](#), Chief of Protocol, ITU

[Irakli Beridze](#), Senior Strategy and Policy Advisor, United Nations Interregional Crime and Justice Research Institute, UNICRI

[Matteo Berlucchi](#), CEO & Co-Founder, Your.MD; Entrepreneur in Residence, ETH Zurich

[Magda Biesiada](#), Information and Knowledge Management Officer, UNICEF Malawi

[H.E Mr Omar Bin Sultan Al Olama](#), Minister of State for Artificial Intelligence, United Arab Emirates

[Einar Bjørgo](#), Manager, UN Operational Satellite Applications Programme (UNOSAT)

[Doreen Bogdan-Martin](#), Chief of Strategic Planning & Membership, ITU

[Francesca Bria](#), Chief Technology and Digital Innovation Officer (CTIO), Barcelona City Council; Project Lead, DECOD

[Ryan Budish](#), Assistant Director Of Research, Berkman Klein Center for Internet & Society at Harvard University

[Wolfram Burgard](#), Professor of Computer Science, Albert-Ludwigs-Universität Freiburg

[Marshall Burke](#), Assistant Professor, Department of Earth System Science, Stanford University; Research Fellow, National Bureau of Economic Research

[Frits Bussemaker](#), Chair, Institute for Accountability and Internet Democracy (IAID)

[Alexandre Cadain](#), Co-Founder & CEO at ANIMA; XPRIZE Ambassador

[Rafael A. Calvo](#), ARC Future Fellow, Professor and Director of the Wellbeing Technology Lab at the University of Sydney

[Stephen Cave](#), Executive Director of Leverhulme Centre for the Future of Intelligence at University of Cambridge

[Kenny Chen](#), Innovation Director, Ascender

[Andy Chen](#), VP of Professional and Educational Activities, IEEE Computer Society

[Rumman Chowdhury](#), Senior Principal of AI, Accenture and Sebastian Vollmer, Faculty Fellow, Alan Turing Institute

[Cathy Cobey](#), Partner - Risk Advisory Services , EY

[Boyd Cohen](#), Deputy Director of Research at EADA Business School

[Sara Conejo Cervantes](#), Artificial Intelligence Task Force, Teens in AI

[Claire Craig](#), Director of Science Policy, the Royal Society

[James Crawford](#), CEO and Founder, Orbital Insight

[Samantha Cristoforetti](#), Astronaut and Pilot

[David Danks](#), Department Head and Professor of Philosophy and Psychology, Carnegie Mellon University and

SPEAKER/PANELIST LIST

[Aimee van Wynsberghe](#), Co-Founder and Co-Director, Foundation for Responsible Robotics

[Renato de Castro](#), SmartCity Expert

[Kanta Dihal](#), Research Project Coordinator, Leverhulme Centre for the Future of Intelligence at University of Cambridge

[Rebecca Distler](#), Global Health Lead, Element Inc

[Mark Doherty](#), Head of Earth Observation Exploitation Development Division, European Space Agency (ESA)

[Carla Dualib](#), Secretary of Communication and Press, Diademe City Hall, Brazil

[John Enevoldsen](#), Growth Lead, Ocean Protocol

[Christopher Fabian](#), Principle Advisor on Innovation, Lead, UNICEF Ventures

[Dafna Feinholz](#), Chief of Section, Bioethics and Ethics of Science, UNESCO

[Mathilde Forslund](#), External Engagement Consultant, Foundation Botnar

[Akira Fukabori](#), ANA AVATAR Co-Director, ANA Holdings Inc.

[Manuel García-Herranz](#), Chief Scientist, UNICEF Innovation

[Urs Gasser](#), Executive Director of the Berkman Klein Center for Internet & Society at Harvard University

[Stefan Germann](#), CEO, Foundation Botnar

[Bruno Giussani](#), Global Curator, TED

[Elena Goldstein](#), Project Coordinator on the Ethics and Governance of Artificial Intelligence -initiative, Berkman Klein Center for Internet & Society at Harvard University

[Jeon Gue Park](#), Principal Researcher and Project Leader, Electronics and Telecommunication Research Institute (ETRI)

[Krishna Gummadi](#), Head of Networked Research Systems Group, Max Planck Institute for Software Systems

[Dominic Haazen](#), Lead Health Policy Specialist, World Bank

[Vicki Hanson](#), President, ACM

[Dominique Herman](#), Project Manager, Tropical Deforestation Monitoring System, The Forest Trust (TFT)

[Celine Herweijer](#), Partner, Innovation and Sustainability, PwC UK

[Paula Hidalgo-Sanchis](#), Manager of Pulse Lab Kampala, UN Global Pulse

[Edward Hsu](#), Senior Adviser to the President, World Bank

[Stephen Ibaraki](#), Futurist and Social Entrepreneur

[Becky Inkster](#), Honorary Research Fellow, Department of Psychiatry, University of Cambridge

[David Jensen](#), Head of Environmental Cooperation for Peacebuilding and Co-Director of MapX, UN Environment Programme (UNEP)

[Kevin Kajitani](#), ANA AVATAR Co-Director, ANA Holdings Inc.

[Hironori Kasahara](#), President of IEEE Computer Society

[Anja Kaspersen](#), Director, United Nations Office for Disarmament Affairs

[Matt Keller](#), Senior Director Civil Society, XPRIZE Foundation

[Stephen Kelly](#), CEO, Sage

[Łukasz Kidziński](#), Researcher, the Mobilize Center at Stanford University

[Robert Kirkpatrick](#), Director, UN Global Pulse

[Mukhisa Kituyi](#), Secretary General, United Nations Conference on Trade and Development (UNCTAD)

[Bernhard Kowatsch](#), Head of Innovation Accelerator, WFP

[Ramesh Krishnamurthy](#), Senior Advisor, Department of Information, Evidence and Research, World Health Organization (WHO);

[Shinjini Kundu](#), Research Fellow, University of Pittsburgh Medical Center

[Chaesub Lee](#), Director of Telecommunication Standardization Bureau, ITU

[David Li](#), Founder, Shenzhen Open Innovation Lab

SPEAKER/PANELIST LIST

[Bosen Liu](#), Founder, Ladder Education Group

[Zhe Liu](#), Professor, Peking University

[Jacques Ludik](#), Founder & CEO, Cortex Logic; Founder & President, Machine Intelligence Institute of Africa

[Miguel Luengo-Oroz](#), Chief Data Scientist, UN Global Pulse

[Terah Lyons](#), Executive Director, Partnership on AI

[Brian Markwalter](#), SVP, Consumer Trade Association

[Rob McCargow](#), Programme Leader - Artificial Intelligence, Technology & Investment, PwC UK

[Trent McConaghy](#), Founder, Ocean Protocol; Founder & CTO, BigchainDB

[Sean McGregor](#), Technical Staff, Syntiant Corp; Technical Lead of IBM Watson AI Prize, XPRIZE

[Hagit Messer-Yaron](#), Member of Working Group on IoT, World Commission on the Ethics of Scientific Knowledge and Technology of UNESCO (COMEST); Professor of Electrical Engineering, Tel Aviv University

[Fengchun Miao](#), Chief of Unit for ICT in Education, UNESCO

[Sharada Mohanty](#), PhD Student, Digital Epidemiology Lab, EPFL; Co-Founder, CrowdAI

[Aleksandra \(Saška\) Mojsilović](#), Lead of AI Foundations, IBM Research; Co-Director, IBM Science for Social Good

[Michael Møller](#), Director-General of United Nations Office at Geneva

[Sam Molyneux](#), GM, Chan Zuckerberg Initiative

[Jochen Moninger](#), Head of Innovation, Welthungerhilfe

[Rebeca Moreno Jiménez](#), Data Scientist, UNHCR

[Akihiro Nakao](#), Professor, University of Tokyo

[Nao Norman Sipula](#), CEO and Founder, Watif Health Portal

[Ezinne Nwankwo](#), Visiting Scholar, Leverhulme Centre for the Future of Intelligence at University of Cambridge

[Susan Oh](#), Chair of AI, Blockchain For Impact UN GA

[Robert Opp](#), Director of Innovation and Change Management Division, WFP

[Clara Palau Montava](#), Technology Team Lead, UNICEF

[Eleonore Pauwels](#), Research Fellow on Emerging Cyber-Technologies, United Nations University (UNU)

[Bill Peduto](#), Mayor, City of Pittsburgh, USA

[Jonnie Penn](#), Google Technology Policy Fellow, Pembroke College at the University of Cambridge

[Roger Penrose](#), Emeritus Rouse Ball Professor of Mathematics, University of Oxford

[Adam Perold](#), Co-Founder, President and CEO, Element Inc

[Priya Prakash](#), Founder and CEO, Design for Social Change (d4Sc)

[Huw Price](#), Professor of Philosophy, University of Cambridge

[Sameer Pujari](#), "Be Healthy, Be Mobile" Project Manager, World Health Organization (WHO)

[John Quinn](#), Artificial Intelligence Advisor, UN Global Pulse

[Nagla Rizk](#), Professor of Economics, The American University in Cairo; Founding Director, Access to Knowledge for Development Center (A2K4D)

[Joaquin Rodriguez Alvarez](#), Prof and researcher EPSI-UAB, Leading Cities Coordinator

[Francesca Rossi](#), Research Scientist at IBM Research and Professor at the University of Padova

[Rafael Ruiz de Castañeda](#), Researcher, Lecturer, and Co-lead of Precision One Health Unit, University of Geneva

[Stuart Russell](#), Professor of Electrical Engineering and Computer Sciences, UC-Berkeley

[Marcel Salathé](#), Professor & Head of the Digital Epidemiology lab, EPFL

SPEAKER/PANELIST LIST

[Toufi Saliba](#), AI Decentralized

[Wojciech Samek](#), Head of Machine Learning Group, Fraunhofer Heinrich Hertz Institute HHI

[Eyal Santo](#), Founder and CEO, UMo - Urban Mobility

[Reinhard Scholl](#), ITU

[Anita Shah](#), Managing Director - Kenya Office, Kimetrica

[Kriti Sharma](#), VP of Artificial Intelligence, Sage

[Arun Shroff](#), Co-founder & CTO at Medindia; Director of Technology & Innovation, STAR Associates, USA

[Kathleen Siminyu](#), Head of Data Science at Africa's Talking and Nairobi Team Lead at WIMLDS

[Elena Sinel](#), Founder, Acorn Aspirations & Teens in AI

[Toshie Takahashi](#), Professor, School of Culture, Media and Society, Waseda University

[Elena Tomuta](#), Chief of Software Applications Section, Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)

[Anne Torill Nordsletta](#), Head of Department, Health Analytics, Norwegian Centre for E-health Research

[Aimee van Wynsberghe](#), Co-Founder and Co-Director, Foundation for Responsible Robotics

[Andrejs Vasiljevs](#), Co-Founder and Chairman of the Board, Tilde

[Effy Vayena](#), Professor of Bioethics, Health Ethics and Policy Lab, ETH Zurich

[Maurizio Vecchione](#), Executive Vice President of Global Good and Research, Intellectual Ventures

[Frans-Anton Vermast](#), Amsterdam Smart City Ambassador

[Jeanine Vos](#), Head of SDG Accelerator, GSMA

[Wendell Wallach](#), Consultant, Ethicist, and Scholar at Yale University's Interdisciplinary Center for Bioethics

[Ingmar Weber](#), Research Director for Social Computing, Qatar Computing Research Institute

[Adrian Weller](#), Programme Director for Artificial Intelligence, Alan Turing Institute

[Frederic Werner](#), Senior Communications & Membership Officer, ITU

[Joe Westby](#), Researcher, Technology and Human Rights, Amnesty International

[Jess Whittlestone](#), Postdoctoral Research Associate, Leverhulme Centre for the Future of Intelligence at University of Cambridge

[Jayathma Wickramanayake](#), UN Secretary-General's Envoy on Youth

[Thomas Wiegand](#), Professor, TU Berlin; Executive Director, Fraunhofer Heinrich Hertz Institute

[Liu Yang](#), Astronaut and Pilot

[Houlin Zhao](#), Secretary General, ITU

[Andrew Zolli](#), VP of Global Impact Initiatives, Planet Labs Inc

[Naroa Zurutuza](#), Applied AI Lead, UNICEF Innovation

19

Participating organizations

47/53



#HomelessEntrepreneur	Arpit	China Unicom
Accenture	Artific Intelligence	CIFAR
Acorn Aspirations	Ascender	CineGlobe Film Festival
ACP Group	Atom360	Circular CoLab
Actua Films	Austrian Academy of Sciences, Institute of Technology Assessment	Cisco
Actuafilms Production	Aximpro GmbH	City of Pittsburgh, Office of the Mayor
Ada Health	Bamboo Capital Partners	City of The Hague
ADA-AI	Banque Mondiale des Bonheurs	City, University of London
Africa's Talking	Barcelona City Council	City.AI
AGENCE FRANÇAISE DE DÉVELOPPEMENT	Be Customer Smart Oy	COD Technologies
Agência Nacional de Telecomunicações - ANATEL	Bengtsson	Communications and Information Technology Commission (CITC)
AI Collective, Inc	Berkman Klein Center, Harvard University	Communications Authority of Kenya (CA)
AI Singapore	Big Innovation Centre	Comobilis.org
Aifred Health	BigchainDB Ocean	Consultant
AIIA	Biosensors Beyond Borders at the London	Consulm
Alan Turing Institute	Blockchain Company Ltd.	Consumer Technology Association
ALPS	Bonsai AI Inc.	crisscrossed
Ambrosius Consulting	BPW	CUTS International
American University in Cairo	British Computer Society	Cyber and International Communications and Information Policy (CIP)
Amiko s.r.l.	BSI (British Standards Institution)	Dalberg Data Insights
Amnesty International	Cargill	Darikus Tech Consultants
Amsterdam Smart City	Carnegie Mellon University	De Montfort University
ANA HOLDINGS INC	Carson City	Deloitte
ANATEL	Cartier	DEMETER
Anchor Group	CCTV	Department for Culture, Media and Sport (DCMS)
ANIMA	CERN	Department of Science and Technology of
APTN	CERN / THE Port	Design for Social Change Ltd
ARD Radio	Chan Zuckerberg Initiative	Deutsches Zentrum für Luft- und Raumfahrt

Diadema City Hall
 DipoFoundation
 District 3 Innovation Centre
 DIY Disease Control Inc
 DT Group of Companies
 DTGO
 DXC Technology
 EADA Business School
 East London University
 Element AI
 Element Inc
 Empa
 enalean
 Enovant Foundation
 Et Almayadeen TV
 ETH Zurich
 ETRI
 European Central Bank
 European Space Agency
 European Union
 Eutelsat S.A.
 Everis
 EY
 Facebook
 FIRST Nevada
 Flemish Regulator for the Media
 Fondation Botnar
 Foundation for Responsible Robotics
 Fraunhofer HHI

FrontPoint Systems Inc.
 G4-II.net
 Galeo Capital
 Gavi, the Vaccine Alliance
 Geneva Business News
 Geneva Centre for Security Policy
 German Aerospace Center, Institute of Da
 GICHD
 Global A.I.
 Global Dermatology
 Global Development
 Global Good
 Global Sustainability Initiative
 globethics.net
 Globus AI
 Graduate Institute of International and Development Studies
 GreenGoWeb
 Group on Earth Observations (GEO)
 GSMA
 Guest
 HANDICAP INTERNATIONAL FEDERATION
 Hanson Robotics
 HAPSc
 Haute Ecole Spécialisée de Suisse Occidentale
 Hewlett Packard Enterprise
 High Pulse
 HP
 Human Rights Watch
 HUMANBE

Humboldt Institute for Internet and Soci
 HX Foundation
 IBM
 ICES Foundation
 ICON
 ICT Research Institute
 ICT4Peace Foundation
 IEC
 IEEE Computer Society
 iFlytek
 Imai Jen-La Plante
 Imperial College London
 INDEPENDENT
 Independent Researcher
 Innovation Consultant
 Inspired Minds
 Intellectual Property Watch
 Intellectual Ventures
 International Bridges to Justice
 International Civil Aviation Organization
 International Telecommunication Academy
 International Union for Conservation of Nature (IUCN)
 Intervale, Joint Stock Company
 IP Watch
 iPoort
 IP-Watch
 ISO SC 42 AI Committee - Israel HOD / Ra
 Istituto Italiano di Tecnologia
 Kaur

Keio University	Mission permanente de la France	Nepal Telecommunications Authority (NTA)
Kimetrica	Mission permanente de la Géorgie	NetHope Inc
Korea Electric Power Corporation	Mission permanente de la République de Lettonie	neuromimeTICs
Korea Electric Power Corporation (KEPCO)	Mission permanente de la République du Bénin	New Scientist
Kudelski Security	Mission permanente de la République du Kenya	NGO Committee on Ageing
Ladder Education Group	Mission permanente de la République fédérale	None
Lancaster University	démocratique du Népal	Northeastern University
Lifnano	Mission permanente de la République populaire de Chine	Norwegian Centre for E-health Research
Liubov Ayrancı	Mission permanente de la République populaire	Not Innovated Here
LSHTM	démocratique de Corée	Nuffield Foundation
Luc Hoffmann Institute	Mission permanente de la Suède	Ocean Protocol
Lux Vidae	Mission permanente de la Suisse	Office for the Coordination of Humanitarian affairs
Machine Intelligence Institute of Africa	Mission permanente de la Turquie	OFW
Maloekoe Ventures	Mission permanente de l'Allemagne	Oklahoma State University
Martin Antony Walker	Mission permanente de l'Autriche	Open University UK Student -Msc
Martin O'Neill Publisher Services	Mission permanente de l'Inde	Orbital Insight
Max Planck Society	Mission permanente de l'Irlande	Oslo Metropolitan University
McGill University & District 3	Mission permanente de l'Italie	Parliament of Kenya
McGovern Foundation	Mission permanente de l'Ukraine	Partnership on AI
MCIT	Mission permanente des Emirats Arabes Unis	PATH
McKinsey & Company	Mission permanente des Etats-Unis d'Amérique	Peking University
Medicines Sans Frontiers	Mission permanente du Costa Rica	Perm. Del. of the European Union to the UNOG
MedIndia	Mission permanente du Mexique	Permanent Mission of Belgium to the United Nations in New York
Microsoft Corporation	MJ Analytics Ltd	Permanent Mission of India to CD
MILA	MSF	Permanent Mission of Mexico to the United Nations in New York
Mind	Myelin	Permanent Mission of Saudi Arabia to the United Nations in New York
MIND AI	Nam.R	personads
Mission of China to the UNOG	Naver France	PJSC «Rostelecom»
Mission permanente de la Belgique	NAVER LABS Europe	Planet Inc
Mission permanente de la Fédération de Russie	NEC Corporation	Plurality Press

Prepatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization	Social Finance Ltd	The University of Tokyo
Private Consultant	SPARK HR Consulting	Tilde
Privately SA	Sphere	Ubenna Intelligence Solutions
Procter & Gamble	Stanford Global Digital Policy Incubator	Ubenwa Intelligence Solutions Inc
PROJECT HUGO	Stanford University	Umm Al-Qura University
PwC	Strategos SA	UMO - Urban Mobility
Qatar Computing Research Institute	student	UNICEF
Quantum Leap	Swiss Commission for UNESCO	United Nations
Radio Chine Internationale	Swiss Economic Forum AG	United Nations Economic and Social Commission for Western Asia
Radiocommunication Agency Netherlands	Swiss Failure+ Akademy	United Nations Foundation
Re-al	Swiss UMEF	United Nations Global Pulse
Renmin University of China Law School	Swissinfo	United Nations Institute for Disarmament Research
Richard Jolly TV	Syeop	Universal Doctor
Richard Jolly.TV	Symantec Corporation	Universidad de Cantabria
Roborace	Synced Technologies	Universitat Autònoma de Barcelona
RTS	Technology Futures Inc	Université de Genève
Rwanda Utilities Regulatory Authority (RURA)	TED	University of Basel
Sadia Khalid	Tel Aviv University	University of Bern
Sage	Telefonica Alpha	University of California, Berkeley
SAMENA Telecommunications Council	Terre des hommes	University of Cambridge
SDG Lab	Teyf	University of Colorado
Secondworld.ch	The Abdus Salam International Centre for Theoretical Physics	University of Copenhagen
Secretaría de Comunicaciones y Transportes	The AI-Initiative at The Future Society	University of Freiburg
Shenzhen Jusfoun Asset Management Co., L td	The Forest Trust	University of Lausanne
Shenzhen Open Innovation Lab	The Future Society	University of Oxford
Singularity University	The Geneva Learning Foundation	University of Pittsburgh
SITA	The Hastings Center	University of Rochester
Smart Dubai	The Heart Fund	University of St Andrews
SmartUp Consulting Firm	The Institute for Ethical Machine Learning	University of Sussex
	The Royal Society	UNIVERSITY OF SYDNEY ELECTRICAL ENGINEERING

University of Waterloo
Vatican Academy for Life

Vinci
VisualSense AI
Wadhwanai AI

Walid IRAQI
Waseda University
Watif Health IIC

Watifhealth
Webster University
Wellcome Trust

Welthungerhilfe
Wikimedia Foundation
Wilton Park

Women@TheTable
Wondros
World Bank

World Economic Forum
World Trade Institute
WSIS FORUM - ITU

Xinhua News Agenc, Geneva Bureau
Xinhua News Agency

XPRIZE

Your.MD

Yungong Assets

Zero Abuse Project

Association for Computing Machinery (ACM)

Deputy Prime Minister's Office for Investments and Informatization of
the Slovak Republic

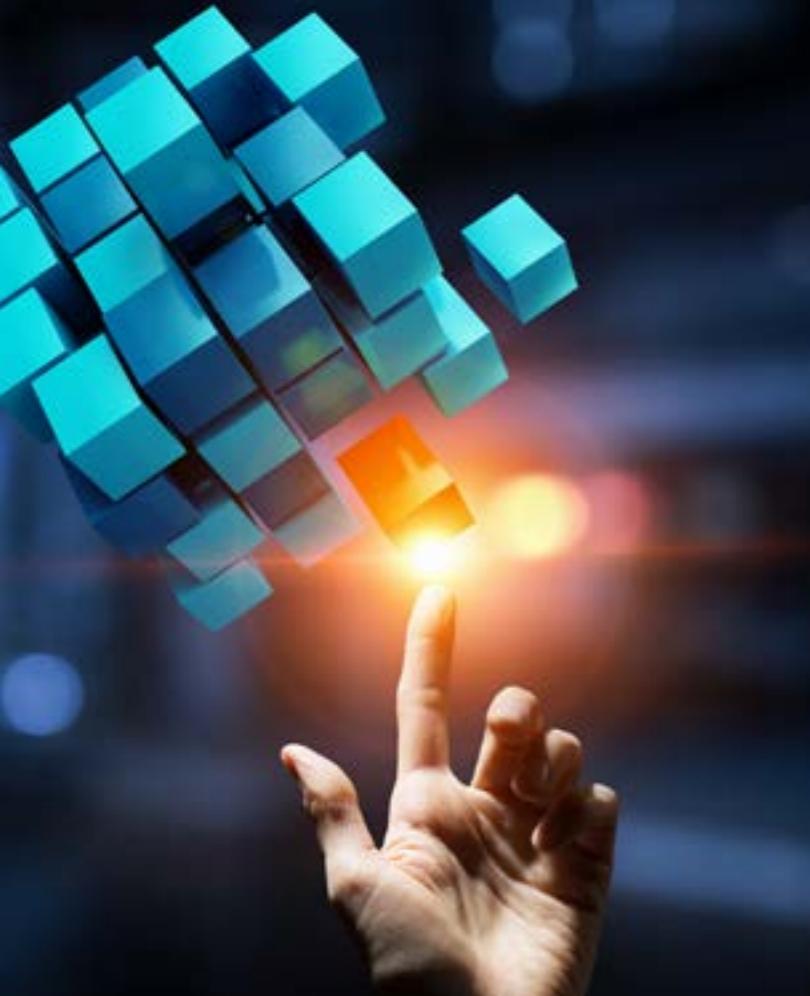
Ecole Polytechnique Fédérale de Lausanne (EPFL)

Autistic Minority International
International Committee of the Red Cross (ICRC)
International Federation for Information Processing (IFIP)
International Fund for Agricultural Development (IFAD)
International Labour Organization (ILO)
International Organization for Migration (IOM)
International Telecommunication Union (ITU)
Leverhulme Centre for the Future of Intelligence at the University of Cambridge
London School of Economics and Political Science (LSE)
Massachusetts Institute of Technology (MIT)
Ministry of Communications and Information Technology (MCIT), Saudi Arabia
Ministry of Industry and Information Technology (MIIT), China
Ministry of Internal Affairs and Communications, Japan
Ministry of Public Administration, Slovenia
Ministry of Science and ICT, Korea (Rep. Of)
Office fédéral de la communication (OFCOM), Switzerland
Office of the United Nations High Commissioner for Human Rights (OHCHR)
Office of the United Nations High Commissioner for Refugees (UNHCR)
Oxford Internet Institute, University of Oxford
The Government of the United Arab Emirates
United Nations Children's Fund (UNICEF)
United Nations Conference on Trade and Development (UNCTAD)
United Nations Department of Economic and Social Affairs (UN DESA)
United Nations Development Programme (UNDP)
United Nations Economic Commission for Europe (UNECE)

United Nations Educational, Scientific and Cultural Organization (UNESCO)
United Nations Entity for Gender Equality and the Empowerment of Women (UN WOMEN)
United Nations Environment Programme (UNEP)
United Nations Industrial Development Organization (UNIDO)
United Nations Institute for Training and Research (UNITAR)
United Nations International Computing Centre (UNICC)
United Nations Interregional Crime and Justice Research Institute (UNICRI)
United Nations Office at Geneva (UNOG)
United Nations Office for Disarmament Affairs (UNODA)
United Nations Office for Disaster Risk Reduction (UNISDR)
United Nations Office for Outer Space Affairs (UNOOSA)
United Nations Office for Project Services (UNOPS)
United Nations University (UNU)
University of Energy and Natural Resources
University of Turkish Aeronautical Association
World Food Programme (WFP)
World Health Organization (WHO)
World Intellectual Property Organization (WIPO)
World Meteorological Organization (WMO)
World Trade Organization (WTO)

20

Organizing committees



53/53

Steering Committee



Reinhard Scholl
ITU



Amir Banifatemi
XPRIZE



Fred Werner
ITU

Program Committee



Reinhard Scholl
ITU



Amir Banifatemi
XPRIZE



Stephen Ibaraki
ACM



Vicki Hanson
ACM



Stuart Russell
UC-Berkeley



Anja Kaspersen
UNOD



Thomas Wiegand
Fraunhofer
ITU Berlin

Outreach Committee



Fred Werner
ITU



Stephen Ibaraki
ACM



Neil Sahota
IBM Watson



Elim Kay



Frits Bussemaker
Institute for Accountability
and Internet Democracy
(IAID)