CPA COMMONWEALTH PARLIAMENTARY ASSOCIATION

Virtual Conference on
the 4th Industrial Revolution
5 - 9 July 2021

CONTENTS

BACKGROUND

About the CPA

The Commonwealth Parliamentary Association (CPA) connects, develops, promotes and supports parliamentarians and their staff to identify benchmarks of good governance and the implementation of the enduring values of the Commonwealth. The CPA collaborates with parliaments and other organisations, including the intergovernmental community, to achieve its statement of purpose. It brings parliamentarians and parliamentary staff together to exchange ideas among themselves and with experts in various fields, to identify benchmarks of good practices and new policy options they can adopt or adapt in the governance of their societies.

Conference Background

Technological advancements will inevitably provide viable solutions to current and future challenges, from ending global poverty, climate change and meeting the SDGs, to preventing future global pandemics. The COVID-19 pandemic has highlighted the need for those in power to play closer attention to scientists, researchers, statisticians and innovators.

This Conference will imagine how the '4th Industrial Revolution' might impact upon the lives of current and future generations within and across the Commonwealth and importantly, how will parliamentarians and parliaments stay ahead of the curve. It will seek to encourage and advocate for parliaments to embrace innovation and change. Parliaments will need to legislate, regulate and scrutinise complex and advanced technical changes in years to come, from the use of bioengineering to artificial intelligence as well as ensuring greater access to science and technology specialists.

The Conference will invite parliamentarians and parliamentary staff to join with industry leaders, innovators, experts and academics from the private, public and third sector in looking at a range of topics (see overleaf), within the scope of good governance, COVID-19, sustainable development, human rights, democracy and gender.

The 4th Industrial Revolution:

First coined by the renowned economist Klaus Schwab at the World Economic Forum's annual meeting in Davos in 2016, the "4th Industrial Revolution" refers to those technologies that are erasing the distinctions between digital, physical and biological environments. Such technologies include, but are not limited to, artificial intelligence, the internet of things, nanotechnology, biotech, quantum computing and autonomous vehicles.

These emerging technologies are not only introducing new business models and disrupting the old ways of doing things, they are also changing our everyday lives. One only needs to walk through a facial scanner at an airport or give a voice command to their smartphone and they are interacting with the technologies and innovations of the of the 4th Industrial Revolution.

Whilst the 4th Industrial Revolution is the latest in a series of industrial revolutions spanning several centuries, the speed of this revolution marks the "4IR" as distinct. Indeed, many of these technologies are growing at an exponential rate, with the speed of change itself accelerating.

With these emerging technologies emerging at an increasingly rapid pace, it is vital that parliamentarians and legislatures have an awareness and appropriate appreciation of these changes, regardless of the prevalence of these technologies in their respective jurisdiction. This Conference will aim to provide some of this awareness and awaken curiosity amongst the CPA's members to further explore these technologies

TIME	SESSION

PROGRAMME - Monday, 5 July

12:00-12:30   **OFFICIAL OPENING**

Housekeeping and words of welcome:
CPA Headquarters Secretariat

Keynote Address:
Ms Sheila Warren - Deputy Head of the Centre for the Fourth Industrial Revolution, Head of Data, Blockchain and Digital Assets, and Member of the Executive Committee at the World Economic Forum.

Refreshment Break

12:35 - 13:45   **ROUNDTABLE SESSION: DIGITAL DEMOCRACIES & CLOSING THE DIGITAL DIVIDE**

This session will look at the importance of legislative institutions remaining responsive to the technologies and innovations that are available to them and how these might be utilised to strengthen parliament and democracy more widely, whilst also highlighting the importance of remaining vigilant and conscious of the risks associated with emerging tech. The session will also look to highlight the ongoing importance of closing the digital divide and ending digital poverty in all of our communities.

Speakers:
Ms Bernadette Lewis, Secretary-General of the Commonwealth Telecommunications Organisation (CTO)
Mr Ashish Jaiman, Director of Technology Operations at Microsoft
Mr Andy Williamson, Senior Researcher at the Centre for Innovation in Parliament

Refreshment Break

13:50 - 14:05   **SHOWCASE: INNOVATION IN PARLIAMENT**

This showcase will look to provide examples of best practice from a legislature that has adopted innovative and forward-thinking approaches in carrying out their mandate.

Speakers:
Hon. Beverley Schäfer MPP, Deputy Speaker of the Western Cape Provincial Parliament

Refreshment Break

| 14:10 - 15:35 | **PANEL SESSION: REGULATING AT SPEED AND SCALE** |

This session looks at how Commonwealth Parliamentarians can better understand, appreciate and ultimately legislate on, the technological innovations of the 21st century. As Commonwealth parliaments will need to consult with industry experts when regulating on some of the issues this session will address, the session will involve presentations from experts in array of different parliamentary and technological fields.

Speakers:
Professor Robert Sparrow, *Professor of Philosophy at the Monash University Data Futures Institute*
Ms Nompendulo Mkathshwa MP, *Member of the Parliament of South Africa*

Refreshment Break

| 15:40 - 15:55 | **SHOWCASE: REGULATING AT SPEED AND SCALE** |

This showcase will provide an example of best practice where a Parliament has embraced the opportunity to legislate on/scrutinise a new/emerging technology.

Speakers:
Sen. Terry Mercer, *Senator, Senate of Canada*

TIME	SESSION
06:00 - 06:30	**SHOWCASE: INNOVATION IN GREEN-TECH**

This Showcase will provide an opportunity to hear from a presenter working on cutting edge innovations in environmentally friendly, 'green-tech'.

Speakers:
Ms Katja Häkkä, *Innovation Manager at the European Institute of Innovation and Technology*

	Refreshment Break
06:45 - 08:15	**PANEL SESSION: ENSURING A GREEN INDUSTRIAL REVOLUTION**

This session will explore how technology in transport is changing. From looking at how drones are being used for research purposes, to the emerging potential of hyperloop, this session will explore how transport systems are set to change and how legislators can and should be involved.

Speakers:
Ms Sneha Srinivasan, *Hyperloop Mechanical Engineer*
Mr Luke Bateson, *Principal Remote Sensing Geologist, British Geographical Society*

	Refreshment Break
08:20 - 08:50	**1-1 DIALOGUE: GREEN CITIES OF THE FUTURE**

Experts estimate that, by 2050, two thirds of the world's population will live in urban areas. This statistic raises a number of important questions - Is this level of growth sustainable? How can we work towards more ethical urbanisation? How can we ensure that future cities and communities don't prioritise the desires of some over the needs of others? This session will explore the future of urban spaces and sustainable buildings, with a specific focus on 'green cities'. The session will ask how we can make our cities and communities more environmentally sustainable, more accessible, and hospitable whilst also considering a number of long-term solutions to old problems.

Speakers:
Professor Rachel Armstrong, *Professor of Experimental Architecture, Newcastle University*
Dr Matthew Skjonsberg, *Associate Director of Future Cities Lab at ETH Zurich*

	Refreshment Break
08:55 - 09:10	**SHOWCASE: GREEN COMMUNITIES AND YOUR CONSTITUENCY**

With the increasing urgency of adapting our communities and cities to work with the environment, we want to hear from experts who have committed to creating greener, more sustainable communities in their cities. The session will provide the audience with an insight into how greener communities can be achieved through innovative planning and inclusive policies, whilst remaining mindful of the 2030 sustainability agenda.

Speakers:
Adv. M. Anilkumar, *Mayor of Kochi, Kerala*

PROGRAMME – Wednesday 7, July

TIME	SESSION
10:00 - 10:30	**SHOWCASE: ARTIFICIAL INTELLIGENCE/MACHINE LEARNING**

This Showcase will highlight examples of how artificial intelligence can be utilised for social goods through the sharing of several case studies on a number of thematic priorities.

Speakers:
Ms Anusua Trivedi, *Senior Data Science Lead, AI for Good Research Lab*

Refreshment Break

| 10:45 - 12:15 | **PANEL SESSION: THE POTENTIAL (AND RISKS) FOR AI** |

It is important for Parliaments across the Commonwealth to be aware of the vital contributions AI can offer their jurisdiction and how it can help Parliamentarians uphold their commitment to check and challenge the work of the Government. This session will look to introduce parliaments to the basics of AI. It is proposed that this session will be an open and engaging discussion on the opportunities, risks and challenges that occur when Parliaments both use and legislate on AI.

Speakers:
Ms Ivana Bartoletti, *Co-Founder, Women Leading in AI*
Ms Sally Radwan, *Minister's Advisor for Artificial Intelligence (Egypt)*
Mr Taylor Reynolds, *Mr Taylor Reynolds, Technology Policy Director, Internet Policy Research Initiative, Massachusetts Institute of Technology*

Refreshment Break

| 12:30 - 13:30 | **FIRESIDE CHAT: ENSURING AN ETHICAL APPROACH TO ARTIFICIAL INTELLIGENCE** |

Artificial intelligence and machine learning are increasingly sophisticated fields and, as we see our machines getting 'smarter', we are also seeing their greater involvement in more and more of our lives and societies, including areas such as healthcare and law enforcement. This session will discuss the ethical considerations of artificial intelligence and what can be done to combat/ mitigate these issues.

Speakers:
Dr Dafna Feinholz , *Chief of Bioethics and Ethics of Science Section, UNESCO*
Dr Carina Prunkl, *Research Fellow at the Institute for Ethics in AI*
Dr Carolyn Ashurst, *Senior Research Associate in Safe and Ethical AI, Alan Turing Institute*

PROGRAMME - Thursday 8 July

TIME	SESSION
14:00 - 14:30	**SHOWCASE: BIG DATA AND SOCIAL GOODS**

This session will present an example of using community-driven data collection to drive service delivery, alongside thoughts on the scalability of these practices in terms of technology, collaboration and management.

Speakers:
Dr Matthew Adendorff, *Data Lead at the Open Cities Lab*

Refreshment Break

| 14:35 - 15:05 | **EXPLAINER SESSION: WHAT ON EARTH IS BLOCKCHAIN?** |

This explainer session will look to introduce attendees to the fundamentals of blockchain technology and its potential applications in a variety of fields.

Speakers:
Ms Sumedha Deshmukh, *Platform Curator, Blockchain and Digital Currency at World Economic Forum*

Refreshment Break

| 15:10 - 16:25 | **PANEL SESSION: THE INCREASING POTENTIAL OF BLOCKCHAIN** |

Most closely associated with the digital currency, Bitcoin, where it was first utilised, Blockchain as an early-stage technology has already shown its potential for disruption in financial services and wealth creation. However, as a technology, Blockchain has further promise to revolutionise a range of other sectors from supply chain, education, healthcare, insurance, national identity and governance. This session will build on the previous session by exploring in greater detail, the role, uses and potential of Blockchain, as well as the concerns and constraints to its growth.

Speakers:
Mr Kevin Gill, *Chief Technology Officer at IBM UK and Europe*
Mr Martin Docherty-Hughes MP, *Member of the United Kingdom House of Commons*
Dr Cornelius Kalenzi, *Postdoctoral Researcher, Korea Policy Center for the Fourth Industrial Revolution*

Refreshment Break

| 12:15 - 13:15 | **SHOWCASE: BIG DATA AND COVID-19** |

This session will povide an opportunity to expand on the first session of the day by looking at the use of inclusive data, specifically as it relates to the sustainability agenda and the ongoing COVID-19 pandemic.

Speakers:
Mr Stephen Watulo, *Social Accountability Coordinator at World Vision Uganda*
Ms Kate Richards, *Outreach Manager - Inclusive Data Charter, Global Partnership for Sustainable Development Data*

PROGRAMME - Friday, 9 July

TIME	SESSION
17:00 - 17:30	**SHOWCASE: INTERNET OF THINGS IN ACTION**

This Showcase, will provide an example of the practical application and growing potential of the internet of things and how connected devices can deliver a number of benefits across many sectors.

Speakers:
Ms Celeste Mulder, *Learning Officer at IoT.nxt*
Mr Riaz Karodia, *Technical Specialist at IoT.nxt*

	Refreshment Break
17:45 - 19:00	**PANEL SESSION: SOCIETAL BENEFITS AND RISKS OF THE INTERNET OF THINGS**

The Internet of Things or IoT comprises of connected devises which collect data through sensors and communicate such information through the internet to individuals. From smart watches sharing health data with doctors or sensors located in underground water pipes examining daily consumption trends; by 2030, it is anticipated that over 80 billion devices will be connected, creating approximately an additional $14 trillion to the global economy. This session looks at the benefits and risks in the short term and long term to society, what actions need to be taken now to maximise opportunities and mitigate risks for the future and how parliamentarians should be active in legislating, scrutinising, educating and working across borders to safeguard the digital frontier

Speakers:
Dr Ovidiu Vermesan, *Chief Scientist at SINTEF DIGITAL*
Mr Neil Walsh, *Chief, Cybercrime and Anti-Money Laundering Section, UN Office on Drugs and Crime*
Ms Tracey Jessup, *Chief Digital & Information Officer at Parliamentary Digital Service*

	Refreshment Break
19:15 - 20:00	**CLOSING REMARKS**

MS SHEILA WARREN
DEPUTY HEAD, CENTRE FOR THE 4TH INDUSTRIAL REVOLUTION

Sheila Warren is Deputy Head of the Centre for the Fourth Industrial Revolution, Head of Data, Blockchain, and Digital Assets, and a Member of the Executive Committee at the World Economic Forum. Her pioneering policy work is helping shape the data and technology spaces to be more inclusive, equitable, and sustainable.

Ms. Warren began her career as a Wall Street attorney at Cravath, Swaine & Moore before turning to philanthropy and civic technology. She was a senior executive and General Counsel at TechSoup, and she also designed and launched NGOsource, a ground-breaking service focused on international grant-making. Ms. Warren currently serves on the boards of the ACLU of Northern California, the Equal Justice Society, and TechSoup, and on advisory boards for the World Bank, the OECD, and others. She is also co-host of the popular show Money Reimagined on the CoinDesk network.

She is an honors graduate of Harvard College and Harvard Law School.

MR ASHISH JAIMAN
DIRECTOR OF TECHNOLOGY OPERATIONS AT MICROSOFT

Ashish Jaiman is a hands-on technologist and innovator currently serving as the Director of Technology and Operations for the Tech & Corp Responsibility organization at Microsoft.

Dedicated to building impactful technology for a purpose, Ashish now spearheads technology and operations for the Democracy Forward program.

Ashish works at the cross-section of AI and Cybersecurity, focuses on helping customers to improve their cybersecurity resiliency and building innovative solutions to combat disinformation and deepfakes

MS BERNADETTE LEWIS
SECRETARY-GENERAL, COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Ms Bernadette Lewis was appointed as the new Secretary-General of the Commonwealth Telecommunications Organisation in August 2020. This was a historic appointment as she is the first female Secretary General in the 122-year history of the CTO.

Breaking the glass ceiling is not new to Ms Lewis; she was also the first female Secretary-General of the Caribbean Telecommunications Union (CTU) since 2003 and she is credited for making the CTU the foremost information and communication technology (ICT) inter-governmental institution in the Caribbean.

Ms Lewis has a wealth of experience in the public and private sectors and is knowledgeable in national and international ICT issues, having also worked in senior positions at the Caribbean Association of National Telecommunications Organisations (CANTO) and Telecommunications Services of Trinidad and Tobago when significant technological changes and convergence were transforming the industry.

Ms Lewis is the recipient of many recognition awards, including a 2012 Lifetime Achievement Award from the Latin American and Caribbean Registry for Internet Numbers. More recently, in 2019, the Connected Caribbean Foundation recognised her pioneering work in ICT in the Caribbean.

Ms Lewis is passionate about ensuring that the citizens of the Commonwealth and beyond have affordable access to and are able to benefit from effective use of ICT.

DR ANDY WILLIAMSON
SENIOR RESEARCHER, CENTRE FOR INNOVATION IN PARLIAMENT

Dr Andy Williamson is Senior Researcher in the Inter-Parliamentary Union's Centre for Innovation in Parliament. He is a well-known expert on digital parliaments and public participation. Andy is the author of the World e-Parliament Report and the IPU's guidelines for social media in parliaments. He also acts as a consultant to the Council of Europe and UNDP.

HON. BEVERLY SCHÄFER MPP
DEPUTY SPEAKER OF THE WESTERN CAPE PROVINCIAL PARLIAMENT

A former ward councillor for the City of Cape Town, and a former member of the city's Tourism, Events, Arts, and Marketing portfolio from 2011 – 2014. In 2014 Beverley was elected to Provincial Parliament and served as Chair of the Standing Committee for Economic Opportunities, Tourism, and Agriculture for four and a half year. In November 2018, Beverley was appointed as the Western Cape's Minister for Economic Opportunities. This role encompassed both political and policy leadership for two government departments: agriculture and economic development and tourism. Her focus for the remainder of her term was to create pathways for youth to access job opportunities as well as developing small businesses and entrepreneurs in order to grow the economy. Beverley has continued to fight many issues that have been some of South Africa's toughest. In particular abalone poaching and the onerous visa regulations that say her subpoena then then Minister of Home Affairs, Mulusi Gigaba. Post the recent National elections in May, Beverley has been appointed as Deputy Speaker including heading up International Relations and Protocol for the Western Cape Provincial Parliament

PROFESSOR ROBERT SPARROW
PROFESSOR, MONASH UNIVERSITY

Rob Sparrow is a Professor in the Philosophy Program, a Chief Investigator in the Australian Research Council Centre of Excellence for Electromaterials Science, and an Associate Investigator in the Australian Research Council Centre of Excellence for Automated Decision Making and Society at Monash University, where he works on ethical issues raised by new technologies. He has been an ARC Future Fellow, a Japanese Society for the Promotion of Science Visiting Fellow at Kyoto University, a Visiting Fellow in the CUHK Centre for Bioethics at the Chinese University of Hong Kong, a Visiting Fellow at Carnegie Mellon, and a Visiting Fellow at the Centre for Biomedical Ethics at the National University of Singapore. He has published widely, in both academic journals and the popular press, on bioethics and on the ethics of military robotics, social robotics, and AI. He has served as co-chair of the IEEE Technical Committee on Robot Ethics and was one of the founding members of the International Committee for Robot Arms Control.

MS NOMPENDULO THBILE MKATSHWA, MP
MEMBER OF THE PARLIAMENT OF SOUTH AFRICA

As the Whip to the Portfolio Committee on Higher Education, Science and Technology, Nompendulo is the Youngest woman on the benches of the African National Congress in the National Assembly of the South African Parliament.

Raised in Pretoria.

Matriculated from Pretoria High School for Girls | 2011

BSc Geography, Wits University | 2016
Post Graduate Certificate in Education, University of South Africa | 2020

Post Graduate Diploma in Educational Management and Leadership, Regent Business School | 2021

Former President, Wits SRC | 2015/2016
One of the leaders of the Wits Fees Must Fall 2015/2016

Former Deputy Secretary, SASCO Wits Branch | 2013
Former Chairperson, SASCO Wits Branch | 2013/ 2014
Former Deputy Chairperson, ANCYL Wits Branch | 2014/2015

Sits on the Board of Trustees of the Ahmed Kathrada Foundation

Former Youth Representative on the Presidential Gender Review Committee on Women Empowerment and Gender Equality appointed by President Cyril Ramaphosa | 2019

Former Non-Executive Director, Matthew Goniwe School of Leadership and Governance appointed by MEC of Education in Gauteng, Mr Panyaza Lesufi | 2019

Founder of Yenza Foundation which focuses on youth, women, the environment, knowledge and the African continent | 2018

A regular newspaper columnist on Polity.Org.Za.

SEN. TERRY MERCER
SENATOR, SENATE OF CANADA

Appointed to the Senate by the Right Honourable Jean Chrétien in 2003, Senator Terry M. Mercer represents the province of Nova Scotia and the Senatorial Division of North End Halifax.

Senator Mercer served as the Director of Fundraising of the Liberal Party of Canada and later as National Director. Prior to this, he held a variety of positions with various charitable institutions, including the Metro Toronto Branch of the Canadian Diabetes Association, YMCA of Greater Toronto, Nova Scotia Lung Association, St. John Ambulance Nova Scotia Council, and the Kidney Foundation of Canada (Nova Scotia Branch).

Senator Mercer has been very active in the Association of Fundraising Professionals (AFP) and is a former Chair of the AFP Foundation for Philanthropy (Canada) and has served on the AFP Association Board of Directors and the AFP Canada Council.

Senator Mercer has a Bachelor of Arts from St. Mary's University in Halifax and holds a Doctor of Civil Law, Honoris Causa (Arts & Science) from SMU. He and his wife Ellen (nee Simmons) live in Halifax and have one son, Michael, daughter-in-law Lisa Courtney, and grandchildren Ellie and Oliver.

MS KATJA HÄKKÄ
INNOVATION MANAGER AT EIT FOOD

Katja Häkkä is an Innovation Programme Manager at the European Institute of Innovation & Technology (EIT) Food. Katja joined EIT Food in December 2020, and is currently responsible for the Focus area of Alternative Proteins. She has a M.Sc. degree in analytical chemistry from the University of Helsinki and over 25 years' experience in food industry, food technologies and business development. Her earlier duties have included both product and process development activities together with investment projects.

Before joining the EIT Food Katja has worked for dairy & food company Valio Ltd., food ingredient companies Cultor Ltd., Danisco A/S and DuPont, and also Van den Bergh Food. Katja lives and works in the city of Espoo, Finland.

MS SNEHA SRINIVASAN
HYPERLOOP MECHANICAL ENGINEER

Sneha is the team lead at Team Badgermole, one of the top 12 teams globally, to make it to the finals at Elon Musk's "Not-A-Boring-Competition". Organised by The Boring Company, teams had to design a fully automated tunnel boring machine. She has also worked with Hyperloop UC and Midwest Hyperloop. In 2019, Midwest Hyperloop ranked amongst the top 20 teams globally at Hyperloop Competition organised by SpaceX and Tesla. With a background in Aerospace Engineering, she is currently pursuing a second master's degree in Mechanical Engineering at the University of Queensland, Australia.

MR LUKE BATESON
PRINCIPAL REMOTE SENSING GEOLOGIST, BGS

Luke Bateson is a principal remote sensing geologist and the team leader of the Geodesy and Earth Observation team in the British Geological Survey.

Luke has over 20 years' experience of the processing and interpretation of a range of Earth Observation data for a range of different geological applications. He has processed and interpreted optical satellite data to produce geological maps in Africa, Asia and South America, more recently exploring for lithium in Bolivia. He has used radar data to study ground motions relating to coal mining in UK and ground water abstraction in the Vietnam. He has developed new methods to identify CO_2 from space and developed low cost GPS systems to monitor landslides. Over recent years BGS have developed both a fixed wing and multi-rotor drone capability. These systems are used to gather high resolution imagery and data to help us understand hazards, such as landslides, cliff erosion, landslides and sinkholes; all of which are forecast to increase as the climate changes.

PROFESSOR RACHEL ARMSTRONG
PROFESSOR, NEWCASTLE UNIVERSITY

Rachel Armstrong is Professor of Experimental Architecture at Newcastle University, UK and a visiting Professor at KU Leuven, Belgium. She is a Senior TED Fellow and pioneer of the field of living architecture, where built constructions possess some of the properties of living things.

DR MATTHEW SKJONSBERG
ASSOCIATE DIRECTOR, FUTURE CITIES LABORATORY GLOBAL

Dr Matthew Skjonsberg is Associate Director of Future Cities Laboratory Global (Zurich Hub), and is a lecturer on New Civic Landscapes and Public Health at the ETH Zurich's Department of Architecture's new Master of Science in Landscape Architecture programme. Before joining FCL Global he was Coordinator of the Institute of Landscape and Urban Studies Doctoral Programme 'Research Methods in Landscape and Civic Design' at ETH Zurich.

He obtained his doctorate with the dissertation 'A New Look at Civic Design: Park Systems in America' (2018) at the Swiss Federal Institute of Technology in Lausanne (EPFL), where he was a founding member of the Laboratory of Urbanism (EPFL-LAB-U) and Habitat Research Center (EPFL-HRC). He founded collab architecture in 2001, and from 2007-12 was a project leader at West 8 in New York and Rotterdam. He was recently a guest curator at the Museum of Modern Art in New York for the exhibition Frank Lloyd Wright: Unpacking the Archives (2017), and was a contributing researcher to Towards an Open City: The Quito Papers and the New Urban Agenda (2017) for the United Nations-Habitat III.

He is currently preparing the book and exhibition Living Cities: Three Centuries of Park Systems (Park Books, 2022).

ADV. M. ANILKUMAR
MAYOR OF KOCHI, KERALA

MS ANUSUA TRIVEDI
SENIOR DATA SCIENCE LEAD, AI FOR GOOD RESEARCH LAB

Anusua Trivedi is a Senior Scientist at Microsoft's AI for Good Research team. Her efforts include projects in A.I. for Earth, A.I. for Humanitarian Action, A.I. for Accessibility, and A.I. for Health. She works on developing advanced Machine Learning models & A.I. solutions for Microsoft's partners. Prior to joining Microsoft, Anusua has held positions with UT Austin and University of Utah. She teaches part-time at University of Washington (USA), at University of Warwick (UK), and at Alan Turing Institute (UK). She lives in WA with her family. Anusua is a frequent speaker and publishes at various academic conferences all over the world.

MS IVANA BARTOLETTI
TECHNICAL DIRECTOR, PRIVACY AT DELOITTE

Ivana Bartoletti is Technical Director, Privacy at Deloitte, and an internationally recognised thought leader in the field of responsible technology. Author of "An Artificial Revolution, on Power, Politics and AI", she is a Visiting Policy Fellow at the University of Oxford.

Ivana helps global organisations with their privacy by design programmes, and the privacy and ethical challenges relating to Artificial Intelligence (AI) and big data. As a Policy Visiting Fellow at Oxford University, Ivana is leading research on how to advance the global sharing of information in the context of privacy, security, data protection and human rights.

She is founder of the influential Women Leading in AI network. As a sought-after expert commentator and top conference speaker, Ivana appears frequently in the UK and European broadcast and print media, cutting through complexity to make the key issues clear to the citizen (BBC, Sky, RAI, Guardian, Telegraph, Il Corriere della Sera, El Pais, Agenda Digitale etc.).

Ivana was named 'Woman of the Year' (2019) in the Cyber Security Awards in recognition of her growing reputation as an advocate for equality, privacy and ethics at the heart of tech and AI. Ivana launched the Women Leading in AI Network in May 2018, an international lobby group of women advocating for responsible AI. The network's 2018 report garnered mass interest from tech leaders, international institutions and the media.

Ivana is Co-editor of the Fintech Circle's AI Book on how AI is reshaping financial service.

MR TAYLOR REYNOLDS
TECHNOLOGY POLICY DIRECTOR, INTERNET POLICY RESEARCH INITIATIVE, MIT

Taylor is the technology policy director of MIT's Internet Policy Research Initiative. In this role, he leads the development of this interdisciplinary field of research to help policymakers address cybersecurity and Internet public policy challenges. He is responsible for building the community of researchers and students from departments and research labs across MIT, executing the strategic plan, and overseeing the day-to-day operations of the Initiative.

Taylor's current research focuses on three areas: leveraging cryptographic tools for measuring cyber risk, encryption policy, and international AI policy.

Taylor was previously a senior economist at the OECD and led the organization's Information Economy Unit covering policy issues such as the role of information and communication technologies in the economy, digital content, the economic impacts of the Internet and green ICTs. His previous work at the OECD concentrated on telecommunication and broadcast markets with a particular focus on broadband.

Before joining the OECD, Taylor worked at the International Telecommunication Union, the World Bank and the National Telecommunications and Information Administration (United States). Taylor has an MBA from MIT and a Ph.D. in Economics from American University in Washington, DC.

DR SALLY RADWAN
ASSOCIATE DIRECTOR, FUTURE CITIES LABORATORY GLOBAL

Golestan Abbas Kamel Radwan is the Advisor to the Minister for Artificial Intelligence (AI) at the Ministry of Communications and Information Technology (MCIT). Radwan possesses over 17 years of experience in technology areas, with international experience in AI, cloud computing, engineering management, strategic planning and product management.

Prior to her appointment at MCIT, Radwan held several executive positions. She served as Director of AI Products Unit at London-based health tech start-up Babylon Health, where she led the AI product portfolio, leading a team of doctors, engineers, and AI scientists and designers to create an intelligent mobile platform for medical diagnosis, predictive health and chronic disease management.

Before Babylon, Radwan spent over 10 years in the technology industry in Germany, UK and US, where she held various positions in engineering management, strategic planning and product management. She was the Vice President of Product Strategy at OnApp-UK for cloud management systems, and the Cloud Product Marketing Manager for UK-based Canonical/Ubuntu. She also worked as the UK Marketing Manager at Japanese software company NTT Data, and the Solutions Marketing Manager and Leadership Program participant at Avaya Inc. in the UK and US. She also spent several years as a Software Engineer and Team Leader at Novell Inc in Germany. As an AI expert, Radwan participated as a speaker at several AI conferences in Europe and the US, and served as a consultant to many start-ups and investors in AI areas, especially health systems.

Radwan earned a BSc in Computer Engineering from Cairo University in 2000. She received her MBA from London Business School (LBS), UK, in 2006, and a MSc in Clinical Engineering and Healthcare Technology Management from City University of London, UK, in 2012. She is pursuing her PhD thesis in computer engineering, specializing in AI and bioinformatics analysis from the Royal Holloway, University of London, UK.

DR CAROLYN ASHURST
SENIOR RESEARCH ASSOCIATE IN SAFE AND ETHICAL AI AT THE ALAN TURING INSTITUTE

Carolyn is a Senior Research Associate in Safe and Ethical AI at the Alan Turing Institute – the UK's national institute for data science and artificial intelligence. Her research focuses on improving the societal impacts of machine learning and related technologies, including topics in AI governance, responsible machine learning, and algorithmic fairness. Her technical fairness research focuses on using causal models to formalise incentives for fairness related behaviours. Previously, she worked as a Senior Research Scholar at Oxford's Future of Humanity Institute, and as a data and research scientist in various roles within government and finance. She holds a PhD in mathematics from the University of Bath.

DR CARINA PRUNKL
POSTDOCTORAL RESEARCH FELLOW, INSTITUTE FOR ETHICS IN AI AND JUNIOR RESEARCH FELLOW AT JESUS COLLEGE, OXFORD

Dr Carina Prunkl is a Postdoctoral Research Fellow at the Institute for Ethics in AI and a Junior Research Fellow at Jesus College, Oxford. She is also a Research Affiliate at the Future of Humanity Institute and Harvard's Black Hole Initiative. Prunkl works on the intersection of AI ethics and governance with a research focus on autonomy, accountability, and the ethics of autonomous systems. She holds a DPhil in Philosophy and a MSt in Philosophy of Physics from the University of Oxford, as well as a BSc and MSc in Physics from Freie Universität Berlin.

DR DAFNA FEINHOLZ
CHIEF OF BIOETHICS AND ETHICS OF SCIENCE, UNESCO

Dr Dafna Feinholz has a PhD in Research Psychology (UIA Mexico) and a Masters in Bioethics (Universidad Complutense, Madrid, Spain). She was the Head of the Reproductive Epidemiology Department at the Mexican National Institute of Perinatology, and the Director for Research and Planning of the Women and Health Programme, at the Ministry of Health (Mexico). She successively occupied the posts of Academic Coordinator of the National Commission of Human Genome at the Ministry of Health and Executive Director of the National Commission of Bioethics.

She ensured a more independent legal status for the National Bioethics Committees (NBC); contributed to defining their mission as promoters of a bioethics culture; encouraged them to provide society and decision makers with the necessary elements to understand and tackle ethical issues. She drafted the first national guidelines for Research Ethics Committees and Clinical Bioethics Committees; and promoted the law that established and differentiated both types of committees (law approved and currently in vigour).

She is the founder of FLACEIS (Latin American Forum of Ethics Committees in Health Research) and was the Chairperson (2000-2006). She was a member of the international expert group, TDR-WHO: drafting and translating Operational Guidelines for Ethics Committees. She was Mexico´s representative at the meetings of the Intergovernmental Bioethics Committee to discuss UNESCO's Universal Declaration on Bioethics and Human Rights.

Since September 2009, Dafna Feinholz is the Chief of the Bioethics and Ethics of Science Section, within UNESCO's Social and Human Science Sector. In this capacity, she leads different activities aiming at reinforcing capacities of Member States to manage bioethical challenges and to identify the ethical, legal and social implications of cutting-edge science, emerging technologies and their application for sustainable development, and promoting awareness raising and public debate.

DR MATTHEW ADENDORFF
DATA LEAD, OPEN CITIES LAB

Matthew is the Data Lead at the Open Cities Lab (OCL), a civic technology not-for-profit start-up in Durban, South Africa, that works to realise people-centric participatory democracy through the application of cutting edge data-science, machine-learning, and focused user-engagement. He is also the co-founder of Tenji, a high-performance data-science lab that leverages technology to power compound, evidence-based insights. He oversees the design and implementation of computational infrastructure, web app deployment, data analysis pipeline construction, and the application of algorithms for insightful processing of information. Matthew was introduced to data-science and machine learning during his studies in computational nanotechnology at the Massachusetts Institute of Technology, obtaining his PhD in 2016. Since then, he has worked to apply these methodologies to challenges in media analytics, city-centric data-science, bias detection, and socio-economic topology modelling.

MS SUMEDHA DESHMUKH
PLATFORM CURATOR, BLOCKCHAIN AND DIGITAL CURRENCY AT THE WORLD ECONOMIC FORUM

MR KEVIN GILL
GLOBAL BUSINESS SERVICES, CTO GBS BLOCKCHAIN

Kevin is the CTO of IBM's European Blockchain Global Consulting Organisation for UK & Europe. Kevin both sells and solutions IBM's most complex blockchain implementations. Kevin has delivered blockchain implementations across Insurance and Financial Markets, as well as solutioning blockchain implementations across most other sectors–including Legal Services; Shipping; Supply Chain; Reinsurance; Trade Finance & Trade Credit Risk Insurance.

Kevin has a background in business transformation and is passionate about the ability of blockchain to provide game changing transformational propositions across business networks.

Prior to Blockchain, Kevin was the IBM UK Insurance CTO and also led the Business/Enterprise Architecture Capability in UK. His global experience covers business process management, integration using service-oriented architecture, as well as designing and delivering complex systems integrations required for legacy transformation.

Kevin regularly presents at blockchain conferences and is responsible for IBM's blockchain architect community and regularly teaches blockchain methods.

MR MARTIN DOCHERTY-HUGHES MP
MEMBER OF PARLIAMENT OF THE UNITED KINGDOM

Martin Docherty-Hughes MP is the chair of the UK Parliament's APPG Blockchain, and the SNP's Spokesperson for Blockchain and Industries of the Future. A member of the Defence Select Committee, he was elected to represent the area of West Dunbartonshire where he grew up in 2015, after enjoying a career working in the third sector and in local government. As the Chair of the APPG for Estonia, he has also sought to champion the difference that innovative technologies can make to good governance, accountability for citizens, and for all of society.

DR CORNELIUS KALENZI
POSTDOCTORAL RESEARCHER, KOREA POLICY CENTER FOR THE FOURTH INDUSTRIAL REVOLUTION

Dr Cornelius Kalenzi is a Postdoctoral Researcher at the Korea Policy Center for the Fourth Industrial Revolution (KPC4IR) at KAIST. He earned his Ph.D. and M.S. from KAIST, specializing in information and telecommunication Engineering and Management. He also trained in blockchain Strategy at the University of Oxford-Said Business School. He recently served as a Fellow of the World Economic Forum, on the council of Future of Financial and Monetary Systems, and on the Expert Network of Future of the Digital Economic and Society. His current research explores the technological, business, and social-economic impacts of the Fourth Industrial Revolution and digital innovations, including artificial intelligence, blockchain, and financial technologies- aiming to pioneer new approaches to technology, policy, and governance issues accompanying the Fourth Industrial Revolution. His scholarly research includes publications and presentations in international forums such as European Commission-JRC, International Telecommunication Society (ITS), World Economic Forum, and UNESCAP. Prior to KAIST, Dr Kalenzi worked with Uganda's public and private sectors on digital transformation projects in government and retail banking spaces.

MS KATE RICHARDS
GLOBAL PARTNERSHIP FOR THE SUSTAINABLE DEVELOPMENT GOALS

Kate Richards is the Outreach Manager for the Inclusive Data Charter, an initiative of the Global Partnership for Sustainable Development Data. She leads on engaging new Inclusive Data Champions, as well as developing and implementing communications and advocacy strategies that catalyze action on disaggregated and inclusive data. Kate previously worked for Dalberg and Oxford University, and has an MPA from the London School of Economics.

MR STEPHEN WATULO
SOCIAL ACCOUNTABILITY COORDINATOR FOR WORLD VISION UGANDA

Stephen is a Social Accountability Coordinator for World Vision Uganda. He oversees the implementation of social accountability interventions in the sectors of health, child protection, livelihoods and education in 27 districts of Uganda. Stephen believes that, amplifying citizen voices through community driven advocacy processes is central in the attainment of sustainable child wellbeing outcomes.

MS CELESTE MULDER
LEARNING OFFICER, IOT.NXT

Celeste Mulder is the Learning Officer at IoT.nxt, and is passionate about knowledge as a service. Celeste is a seasoned learning professional, responsible for aligning learning strategy with business strategy, and maintaining a skilled and knowledgeable workforce at IoT.nxt.

MR RIAZ KHARODIA
TECHNICAL SPECIALIST, IOT.NXT

Riaz Kharodia is a Technical Specialist at IoT.nxt, with a key focus on producing the business case and commercial proposition in strategic deals to drive IoT adoption globally. Riaz is focussed on working with customers to help them drive their digital transformation strategies, supporting the implementation of new businesses and boosting their current ones through innovative IoT solutions.

DR OVIDIU VERMESAN
CHIEF SCIENTIST, SINTEF DIGITAL

Dr Ovidiu Vermesan holds a Ph.D. degree in microelectronics and a Master of International Business (MIB) degree. He is Chief Scientist at SINTEF DIGITAL, Oslo, Norway. His research interests are in the area of embedded electronics, smart sensor systems, cognitive-communication systems, intelligent edge processing and IoT technology. Dr Vermesan received SINTEF's award for research excellence for his work on implementing a biometric sensor system. He is currently working with projects addressing integrated autonomous systems, intelligent connectivity, cognition systems, security, artificial intelligence for digitizing industry, edge computing, and IoT. He has authored or co-authored over 85 technical articles and conference papers. He is actively involved in the Electronic Components and Systems for European Leadership (ECSEL) Joint Technology Initiative (JTI) activities. Dr Vermesan has coordinated and managed various national, EU and other international large-scale projects covering applications in green mobility, manufacturing, energy, and smart environments. He coordinates the IoT European Research Cluster (IERC) and is a board member of the Alliance for Internet of Things Innovation (AIOTI).

MR NEIL WALSH
CHIEF, UN CYBERCRIME AND ANTI-MONEY LAUNDERNG SECTION

Neil Walsh joined the United Nations in January 2016 and is Chief of the Cybercrime and Anti-Money Laundering Section.

With staff in six continents, Neil leads the UN Office on Drugs and Crime's strategic response to cybercrime, money laundering, terrorist financing and counter-proliferation financing by delivering political advice and capacity building around the globe. Neil and his team aid Member State preventive diplomacy and advise UN Senior Leadership, including the Secretary-General, General Assembly and the Security Council, on all cyber and money-laundering affairs.

Prior to joining UNDOC, Neil served for over 15 years within the UK National Crime Agency countering international serious organised crime and terrorism including long-term postings to Europol HQ in The Hague and Malta.

Neil is 41, comes from Belfast, Northern Ireland and is married with 4 young children. He holds a B.Sc. (Hons) in Psychology & Criminology and an M.Sc. in Criminal Investigation. He is also an experienced paramedic (EMT-I). In his spare time, Neil advocates for bowel cancer (colorectal cancer), brain haemorrhage, liver failure, sepsis, pulmonary embolism, and colitis awareness (having survived all of these conditions).

MS TRACEY JESSUP
CHIEF DIGITAL & INFORMATION OFFICER, UK PARLIAMENT

Tracey Jessup is Chief Digital and Information Office of the UK Parliament. Tracey is focussed on how Parliament, as a customer and partner, can work more effectively with the Parliamentary Digital Service to deliver digital services in a better and more cohesive way. As well as being CDIO, Tracey sits on the management boards of the House of Commons and the House of Lords.

She transitioned to this strategically focused role in October 2020 and was previously Chief Information Officer and Managing Director of the Parliamentary Digital Service. A joint department of both Houses of Parliament, the Digital Service is responsible for the strategic direction of Parliament's digital offering, transforming ways in which citizens can connect with Parliament including building a new website for Parliament, the delivery and management of parliamentary digital platforms, and providing technology services to Members and staff in Westminster and throughout the UK.

Before joining the Digital Service, Tracey was a House of Commons Clerk working in the Committee Office, Public Bill Office, Overseas Office and finally the Table Office in the Department of Chamber and Committee Services (DCCS). Tracey was also Private Secretary to the Clerk of the House and Chief Executive for three years, working with House of Commons Board members on the delivery of the House of Commons' strategic priorities.

MR STEPHEN TWIGG
SECRETARY-GENERAL, COMMONWEALTH PARLIAMENTARY ASSOCIATION

Stephen Twigg is the 8th Secretary-General of the Commonwealth Parliamentary Association (CPA).

The CPA Secretary-General Elect, Stephen Twigg is a former UK Parliamentarian, who was elected to the Parliament of the United Kingdom as a Member of Parliament from 1997 to 2005 (Enfield Southgate) and from 2010 to 2019 (Liverpool West Derby). During his parliamentary career, he held several senior positions including Chairperson of the International Development Select Committee, Minister for Schools and a range of Shadow Front Bench roles.

Prior to his parliamentary career, Stephen Twigg attended Balliol College, Oxford University, where he studied Philosophy, Politics and Economics. He became the youngest President of the National Union of Students in 1990-92 and was then elected as a Local Councillor in the London Borough of Islington. Since the 2019 General Election, Stephen Twigg has been working to set up the International Parliamentary Network for Education and has been actively involved in parliamentary strengthening with both Global Partners Governance and the Westminster Foundation for Democracy (WFD).

GENERAL INFORMATION

Programme Attendance
Registrants are expected to attend all sessions of the programme for which they have registered.

Presentations
Where visual presentations have been used throughout the programme, CPA will send copies to participants after the programme provided the original presenter provides their consent.

Translation
The official language of the workshop will be English. There will be no translation provided beyond providing sign language interpretation where requested.

Interviews & Recordings
Throughout the programme the presentations will be recorded. These recordings may be made available subject to the agreement and consent of those involved in the respective sessions.

Twitter
Attendees and speakers are encouraged to use the CPA Twitter handle @CPA_Secretariat and the hashtag #CPA4IR during the course of the programme.

Respect
The CPA Headquarters Secretariat is committed to, and recognises the value of, maintaining environments of mutual respect, courtesy and dignity at all its events and programmes. Any instances of bullying, harassment, inappropriateness, cultural insensitivity or otherwise unacceptable behaviour will be treated as a serious affront to the organisation and shall be dealt with immediately. In some cases such behaviours may lead to refusal of certain parties to partake in future programmes.

If you wish to report any complaints or issues that fall into any of the above criteria, please contact: Sharon Moses at sharon.moses@cpahq.org or speak to a member of the CPA Headquarters Secretariat during the programme.

Feedback
As indicators to determine if the programme's outcomes have been achieved and to seek continuous improvement, CPA HQ will be inviting feedback from participants. Data collated from these forms will be for internal use only.

ABOUT CPA

The Commonwealth Parliamentary Association (CPA) exists to connect, develop, promote and support Parliamentarians and their staff to identify benchmarks of good governance, and the implementation of the enduring values of the Commonwealth.

The CPA is an international community of Commonwealth Parliaments and Legislatures working together to deepen the Commonwealth's commitment to the highest standards of democratic governance and parliamentary practice. Parliaments, their Members and officials learn from each other through a wide range of CPA activities.

The CPA represents more than 180 Parliaments and Legislatures in 53 Commonwealth countries. Its network extends to over 17,000 Parliamentarians and Parliamentary staff and is the only Commonwealth organisation to represent national, state, provincial and territorial Parliaments and Legislatures.

CPA members are democratic, law-making Parliaments and Legislatures. Speakers or Presiding Officers preside over CPA Branches with support from Government and Opposition Leaders and Parliamentary Clerks or Secretaries.

All CPA Branches are autonomous and regarded as equal. There are nine Regions of the CPA: Africa; Asia; Australia; British Islands and Mediterranean; Canada; Caribbean, Americas and Atlantic; India; Pacific; South-East Asia.