

the 2021
innovations dialogue.

**DEEPFAKES, TRUST &
INTERNATIONAL SECURITY**

25 AUGUST 2021 | 09:00-17:30 CEST

WELCOME AND OPENING REMARKS

09:00

Robin Geiss

United Nations Institute for Disarmament Research

**KEYNOTE ADDRESS: TRUST AND INTERNATIONAL SECURITY IN THE ERA
OF DEEPFAKES**

09:10

Nina Schick

Tamang Ventures

The scene-setting keynote address will explore the importance of trust for international security and stability and shed light on the extent to which the growing deepfake phenomenon could undermine this trust.

UNPACKING DEEPFAKES – CREATION AND DISSEMINATION OF DEEPFAKES

09:40

MODERATED BY:

Giacomo Persi Paoli

United Nations Institute for Disarmament Research

FEATURING:

Ashish Jaiman

Microsoft

Hao Li

Pinscreen and University of California, Berkeley

Katerina Sedova

Center for Security and Emerging Technology, Georgetown University

This panel will provide a technical overview of how visual, audio and textual deepfakes are generated and disseminated. The key questions it will seek to address include: what are the underlying technologies of deepfakes? How are deepfakes disseminated, particularly on social media and communication platforms? What types of deepfakes currently exist and what is on the horizon? Which actors currently have the means to create and disseminate them?

COFFEE BREAK

11:15

**UNDERSTANDING THE IMPLICATIONS FOR INTERNATIONAL SECURITY
AND STABILITY**

11:30

MODERATED BY:

Kerstin Vignard

United Nations Institute for Disarmament Research

FEATURING:

Saiffudin Ahmed

Nanyang Technological University

Alexi Drew

RAND Europe

Anita Hazenberg

INTERPOL Innovation Centre

Moliehi Makumane

United Nations Institute for Disarmament Research

Carmen Valeria Solis Rivera

Ministry of Foreign Affairs of Mexico

Petr Topychkanov

Stockholm International Peace Research Institute

This panel will examine the uses of deepfakes and the extent to which they could erode trust and present novel risks for international security and stability. The key questions it will seek to address include: how could deepfakes be used? What is the potential geopolitical and societal impact of deepfakes on the stability, integrity and trustworthiness of institutions, the information ecosystem and society more broadly? What are the existing risks to international security and stability, and what future risks may arise?

LUNCH BREAK

13:00

MANAGING THE DEEPPFAKE PHENOMENON – COUNTER-DEEPPFAKE TECHNOLOGIES

14:00

MODERATED BY:

Arthur Holland Michel

United Nations Institute for Disarmament Research

FEATURING:

Laura Ellis

BBC

Giorgio Patrini

Sensity

This panel will give an overview of the technological countermeasures being developed and reflect on their effectiveness to combat the risks posed by the malicious uses of deepfakes, particularly in light of the pace at which deepfake technology is advancing.

MANAGING THE DEEPPFAKE PHENOMENON – GOVERNANCE ISSUES AND RESPONSES

15:00

MODERATED BY:

Giacomo Persi Paoli

United Nations Institute for Disarmament Research

FEATURING:

Marie-Valentine Florin

International Risk Governance Center, EPFL

Juha Heikkilä

European Commission

Yoo Hyang Kim

National Assembly Research Service of the Republic of Korea

Odhran McCarthy

United Nations Interregional Crime and Justice Research Institute

Yoel Roth

Twitter

This panel will explore the key governance issues concerning deepfakes and discuss what governance measures are needed to respond to them. The key questions this panel will seek to address include: what governance challenges do deepfakes present? What industry-led, national and regional governance responses against deepfakes are emerging? How can we create synergies between the various bottom up and top down governance measures? What new, if any, multilateral and multi-stakeholder tools are needed to fill governance gaps?

COFFEE BREAK

16:10

PRESERVING AND FOSTERING DIGITAL TRUST: THE WAY FORWARD

16:20

MODERATED BY:

Robin Geiss

United Nations Institute for Disarmament Research

FEATURING:

Kaja Ciglic

Microsoft

Amandeep Singh Gill

International Digital Health & AI Research Collaborative

Izumi Nakamitsu

United Nations Office for Disarmament Affairs

In the era of digital transformation, digital technologies now underpin core societal functions. Our ability to unlock the true potential of digital technologies and leverage their transformative benefits for society, economy and the environment is dependent on preservation of trust and the stability of the digital ecosystem. And as international security and stability are increasingly dependent on digital security and stability, the international community urgently needs to prioritize issues of digital trust and security and take concrete steps to protect and promote shared standards of truth to harness the transformative benefits of the digital domain. Through an open discussion, this panel will reflect on what digital trust entails. What are the challenges to preserving and fostering digital trust? What initiatives can be taken by the international community to build digital trust and mitigate the potential destabilizing effects of advances in digital technologies?

CLOSING REMARKS

17:20

Robin Geiss

United Nations Institute for Disarmament Research

KEYNOTE ADDRESS: TRUST AND INTERNATIONAL SECURITY IN THE ERA OF DEEPFAKES



NINA SCHICK

Director, Tamang Ventures

Nina Schick is an author, advisor and speaker, specialising in how technology is transforming geopolitics and society.

Nina helps organisations and businesses understand and navigate the exponential technological changes of our age. She is an expert in deepfakes and synthetic media, cybersecurity and the geopolitics of technology.

Nina has advised global leaders including Joe Biden, and Anders Fogh Rasmussen, the former Secretary General of NATO. She also advises private companies, government agencies and NGOs, including the World Economic Forum's working group on Shaping the Future of Technology Governance.

Nina's debut book, 'Deepfakes,' was released in 2020. She has been published in the MIT Tech Review, The Times, UnHerd and TIME. Nina has appeared on stages including TedX, CogX and WebSummit.

Nina speaks seven languages and calls London, Berlin and Kathmandu home.

UNPACKING DEEPFAKES – CREATION AND DISSEMINATION OF DEEPFAKES



ASHISH JAIMAN

Director of Technology and Operations, 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 improve their cybersecurity resiliency and on building innovative solutions to combat disinformation and deepfakes.



HAO LI

Co-Founder and CEO, Pinscreen, and Distinguished Fellow, University of California, Berkeley.

Hao Li is CEO and Co-Founder of Pinscreen, a start-up that builds cutting edge AI-driven virtual avatars. He is also a Distinguished Fellow at UC Berkeley. He is known for his work in AI and Computer Vision for digitizing humans, immersive telepresence, and deepfakes. He was previously an Associate Professor at the University of Southern California as well as the director of the USC Institute for Creative Technologies. He also worked at Weta Digital, Industrial Light & Magic / Lucasfilm, Columbia and Princeton Universities. He was named top 35 innovator under 35 by MIT Technology Review in 2013 and won the Office of Naval Research Young Investigator Award in 2018. He was named to the DARPA ISAT Study Group in 2019. Hao obtained his PhD at ETH Zurich and his Diploma at the University of Karlsruhe (TH).



KATERINA SEDOVA

Research Fellow, Center for Security and Emerging Technology (CSET), Georgetown University

Katerina Sedova is a Research Fellow at Georgetown's Center for Security and Emerging Technology (CSET), where she works on the CyberAI Project and recently co-authored a report on AI language models and disinformation. Previously, she advised on cybersecurity and technology policy issues and drafted key legislation for the Homeland Security and Governmental Affairs Committee in the United States Senate. Previously, she published research and advised projects on countering state-sponsored influence operations for the NATO Strategic Communications Centre of Excellence, the U.S. Departments of State and Défense. She started her career at Microsoft, where she led engineering teams in the security and networking components of Internet Explorer. She was named as an inventor on multiple patents awarded to Microsoft. She holds a B.A. in Political Science from California State University and an M.S. in Foreign Service from Georgetown University, where she focused on strategic competition and engagement in the cyber domain.

..... UNDERSTANDING THE IMPLICATIONS FOR INTERNATIONAL SECURITY AND STABILITY



SAIFUDDIN AHMED

Assistant Professor, Nanyang Technological University

Saifuddin Ahmed is an assistant professor at Wee Kim Wee School of Communication and Information at Nanyang Technological University in Singapore. Dr. Ahmed's research interests lie in new and emerging media, political communication, and the role of social media in politics. He is particularly interested in the transformative role of new media in political engagement in technologically emerging societies. More recently, Dr. Ahmed is investigating the effects of artificial intelligence on politics concentrating on public engagement and evaluation of deepfakes and its consequences on civic attitudes and behaviour.



ALEXI DREW

Senior Analyst, RAND Europe

Alexi Drew is a senior analyst at RAND Europe working on defence, security and infrastructure. Her research covers emerging technologies and their intersections with international security and geopolitics. She has a particular interest in cyber security, artificial intelligence, and information operations. Prior to joining RAND she worked at King's College London and produced reports on the role of social media in conflict escalation pathways, the geopolitical and security implications of telecommunications policy, and state driven information operations in Northern Africa.



ANITA HAZENBERG

Director, INTERPOL Innovation Centre

Anita Hazenberg assumed her current duties as the first Director of the Innovation Centre Directorate, INTERPOL Global Complex for Innovation in Singapore on 1 July 2017. In the past 39 years of her career in the Netherlands Police, Ms. Hazenberg was involved in various operational duties across the Netherlands specializing in violence against women and children and international police cooperation. She progressed into the international foray to take up several trailblazing roles, including as the Director of the European Network of Policewomen (ENP); the first Programme Director 'Police and Human Rights' for the Council of Europe (France); the founder and first director of the School for Police Leadership; the first coordinator for International Strategic Alliances and Deployment of the Staff of the Dutch National Police Commissioner; and as the initiator and Conference Director of the global annual law enforcement think-tank consisting of top-level executives - Pearls in Policing. She holds a Master in Public Administration and Change Management.



MOLIEHI MAKUMANE

Researcher, Security and Technology Programme, UNIDIR and Former South Africa Cyber Diplomat

Moliehi Makumane is a Researcher with the Security and Technology at UNIDIR. Previously, she was advisor to the South African expert to the United Nations Group of Governmental Experts (GGE) on advancing responsible State behaviour in cyber space and South African delegate to the United Nations Open-Ended Working Group (OEWG).



CARMEN VALERIA SOLIS RIVERA

Director for Cybersecurity, Ministry of Foreign Affairs of Mexico

Carmen Valeria Solis Rivera is an expert in Cybersecurity and Digital Diplomacy at the Policy level, with extensive practical experience with Government and National Security Agencies of Mexico. She has taken part in Cybersecurity Negotiations at the United Nations Group of Governmental Experts (GGE) on advancing responsible State behaviour in cyber space and United Nations Open-Ended Working Group (OEWG).



PETR TOPYCHKANOV

Senior Researcher, Stockholm International Peace Research Institute (SIPRI)

Dr Topychkanov is a Senior Researcher in the SIPRI Nuclear Disarmament, Arms Control and Non-proliferation Programme. He works on nuclear non-proliferation, disarmament, arms control, and the impact of new technologies on strategic stability. From 2006 to 2017, Petr Topychkanov was a fellow at the Carnegie Moscow Center's Nonproliferation Program. Before joining SIPRI in 2018, Petr held the position of Senior Researcher at the Center for International Security at the Primakov National Research Institute of World Economy and International Relations of the Russian Academy of Sciences. He has been an expert at the Russian International Affairs Council since 2014.



LAURA ELLIS

Head of Technology Forecasting, BBC

Laura Ellis is a technologist and journalist with a focus on digital transformation, data and machine learning. She has successfully delivered significant technology-based change alongside delivering creative multi-media content to mass audiences across a variety of platforms. Working at the forefront of innovation in media and helping to engage content makers and influences with technology-based change, she specialises in emerging tech, AI developments, personalisation and disinformation.



GIORGIO PATRINI

Co-Founder and CEO, Sensity

Dr. Giorgio Patrini is Co-Founder and CEO at Sensity, an Amsterdam-based cybersecurity company that protects individuals and organizations from visual threats online, such as deepfakes. Since 2018, his team's work has been extensively covered by CNN, BBC, Al Jazheera, The Washington Post, The Guardian, Financial Times, Bloomberg, Fortune, Wired, and others. He holds an MEng on Computer Engineering from Milan Polytechnic (2011), and a PhD on Machine Learning from the Australian National University (2016). He held postdoctoral research positions within the Australian Federal Government working on privacy-preserving machine learning and at the University of Amsterdam on deep generative models. In 2012 he co-founded Waynaut, a start-up acquired by Lastminute.com



MARIE-VALENTINE FLORIN

Executive Director, International Risk Governance Center (IRGC), École polytechnique fédérale de Lausanne (EPFL)

Marie-Valentine Florin is the executive director of the International Risk Governance Center (IRGC) at the École polytechnique fédérale de Lausanne (EPFL). She graduated from Science Po in Paris in public policy and management, and earned post-graduate diplomas in marketing strategy, sustainable development and environmental diplomacy. She is a member of the Advisory Committee to the World Economic Forum Global Risk Report and a Fellow of the Society of Risk Analysis. In 2020, IRGC published "Forged Authenticity: Governing Deepfake Risks" and more recently a short article about "Risk Governance and the Rise of Deepfakes."



JUHA HEIKKILÄ

Adviser for Artificial Intelligence, European Commission

Juha Heikkilä is Adviser for Artificial Intelligence in the European Commission Directorate-General for Communications Networks, Content and Technology, focusing on international aspects. He has been strongly involved in developing the Commission activities in Artificial Intelligence and Robotics. He led a unit which was instrumental in developing the EU AI strategy, as first published in the Communication on Artificial Intelligence for Europe, in the Coordinated Plan on Artificial Intelligence and the ecosystem of excellence of the White Paper on AI, and engaging with the High-Level Expert Group on AI. He oversaw a significant funding programme on Robotics and AI, including the €700m Public-Private Partnership in Robotics. He was also setting up the new Public-Private Partnership in AI, Data and Robotics, which started in June 2021. Previously, Juha Heikkilä was involved in computational linguistic research at the University of Helsinki, and he holds a PhD in Linguistics from the University of Cambridge.



YOO HYANG KIM

Counsel, National Assembly Research Service of the Republic of Korea (NARS)

Yoo Hyang Kim is Counsel of the National Assembly Research Service of Republic of Korea (NARS). She carries out legislative research on a wide variety of issues including telecommunication, broadcasting, social media and information technology. Her current research focuses on democracy in the digital age in relation to fake news, deepfakes and algorithmic gender bias. She is a member of the AI Advisory Committee of the Ministry of Science and ICT of the Republic of Korea and an adjunct professor of Economics at the University of North Korean Studies.



ODHRAN MCCARTHY

Programme Officer, Centre for Artificial Intelligence and Robotics, United Nations Interregional Crime and Justice Research Institute (UNICRI)

Odhran McCarthy is a Programme Officer at the United Nations Interregional Crime and Justice Research Institute (UNICRI), where he has worked extensively on artificial intelligence and related technologies at UNICRI's Centre for Artificial Intelligence and Robotics since 2015. His work is focused on the use of AI by law enforcement, in particular to counter terrorism and prevent child sexual exploitation online, as well as on the potential for the use or abuse of AI by terrorist, violent extremist and organized criminal groups. He has a background in international law and the law of international organizations, having studied at University College Cork, Ireland; Philipps-Universität Marburg, Germany; and the Rijksuniversiteit Groningen, the Netherlands. He is currently based in New York at United Nations Headquarters.



YOEL ROTH

Head of Site Integrity, Twitter

Yoel is the Global Head of Site Integrity and Director of Trust & Safety at Twitter. He leads the teams responsible for detecting and mitigating threats to the Twitter platform and people on Twitter, including platform manipulation, spam, misinformation, and state-backed disinformation. Before joining Twitter, Yoel received his PhD from the Annenberg School for Communication at the University of Pennsylvania. His research and teaching focused on the intersecting dynamics of privacy, safety, and self-expression on social networking services, with a particular focus on mobile dating applications.

..... PRESERVING AND FOSTERING DIGITAL TRUST: THE WAY FORWARD



KAJA CIGLIC

Senior Director, Digital Diplomacy, Microsoft

Kaja leads Microsoft's work on digital peace, focusing on encouraging international peace and stability online. Previously, she worked on the company's international cybersecurity policy work. Before joining Microsoft, Kaja led the APCO Worldwide's technology practice in Seattle, and worked as a director in APCO Worldwide's Brussels office. She holds a BSC in international relations and history, and a MSC in European politics, both from the London School of Economics.



AMANDEEP SINGH GILL

Project Director/CEO, International Digital Health & AI Research Collaborative (I-DAIR)

Ambassador Amandeep Gill is the Project Director/CEO of the International Digital Health & AI Research Collaborative (I-DAIR), a Geneva-based global platform for enabling inclusive, impactful, and responsible research into digital health and AI for health. He is the former Executive Director and co-Lead of the Secretariat of the UN Secretary General's High-Level Panel on Digital Cooperation. He previously served as India's Ambassador and Permanent Representative to the Conference on Disarmament in Geneva and chaired the Group of Governmental Experts of the Convention on Certain Conventional Weapons (CCW) on emerging technologies in the area of lethal autonomous weapon systems from 2017-2018. Ambassador Gill has a BTech in Electronics and Electrical Communications from Punjab University, Chandigarh, and an Advanced Diploma in French History and Language from Geneva University. His Ph.D. degree from King's College London focused on Nuclear Learning in Multilateral Forums.



IZUMI NAKAMITSU

UN Under-Secretary-General and High Representative for Disarmament Affairs

Ms. Izumi Nakamitsu assumed her position as Under-Secretary-General and High Representative for Disarmament Affairs on 1 May 2017. Prior to taking on this post, Ms. Nakamitsu served as Assistant Administrator of the Crisis Response Unit at the United Nations Development Programme (UNDP) since 2014.

She has many years of experience within and outside the United Nations system, most recently as Special Adviser Ad Interim on Follow-up to the Summit on Addressing Large Movements of Refugees and Migrants between 2016 and 2017. She was previously Director of the Asia and the Middle East Division of the United Nations Department of Peacekeeping Operations between 2012 and 2014, and Director of the Department's Division of Policy, Evaluation and Training, from 2008 to 2012.

Born in 1963, Ms. Nakamitsu holds a Master of Science degree in Foreign Service from Georgetown University in Washington, D.C., and a Bachelor of Law degree from Waseda University in Tokyo.

UNIDIR MODERATORS



ROBIN GEISS

Director, UN Institute for Disarmament Research

Dr. Geiss is the Director of the UN Institute for Disarmament Research (UNIDIR). He has close to twenty years of experience in peace and security, with focus on the impact of new technologies in these areas. Most recently, he served as Director of the Glasgow Centre for International Law and Security at the University of Glasgow and as the Swiss Chair of International Humanitarian Law with the Geneva Academy of International Humanitarian Law and Human Rights. He was a Visiting Professor at the Paris School of International Affairs at Sciences Po in Paris.

He has managed large-scale research projects and held multiple posts in academia, including as Visiting Professor for the University of Vienna (2017), Distinguished Guest Professor for the Institute for International Peace and Armed Conflict in Bochum (2016), and Visiting Fellow for the German Institute for International and Security Affairs in Berlin (2016). He was a Professor of Public International and European Law at the University of Potsdam (2011-2013) and Research Project Director for the Collaborative Research Center at the Freie Universität Berlin (2014-2017).

He served as Legal Adviser for the International Committee of the Red Cross (ICRC) Legal Division for Geneva/New York (2007-2010) and Geneva (2004-2005).

Dr. Geiss holds a Ph.D. in law from the University of Kiel and obtained an LL.M. in international legal studies from the New York University.



ARTHUR HOLLAND MICHEL

Associate Researcher, Security and Technology Programme, UN Institute for Disarmament Research

Arthur is an Associate Researcher with the Security and Technology Programme at UNIDIR. He is a founder of the Center for the Study of the Drone at Bard College, where he was co-director from 2012-2020, and currently serves as a Senior Fellow at the Carnegie Council for Ethics in International Affairs. He has written widely for popular and academic media about unmanned systems, AI, and other emerging security and surveillance technologies. His first book, *Eyes in the Sky: The Secret Rise of Gorgon Stare and How It Will Watch Us All*, was published by Houghton Mifflin Harcourt in 2019. Arthur speaks English and Spanish.



GIACOMO PERSI PAOLI

Programme Lead, Security and Technology Programme, UN Institute for Disarmament Research

Giacomo is the Programme Lead for Security and Technology Programme at UNIDIR. His expertise spans the science and technology domain with emphasis on the implications of emerging technologies for security and defence. His recent work focused on arms control, technology horizon scanning, AI and cyber security. Before joining UNIDIR, Giacomo was Associate Director at RAND Europe where he led the defence and security science, technology and innovation portfolio as well as RAND's Centre for Futures and Foresight Studies. He served for 14 years as warfare officer in the Italian Navy and has been extensively engaged in small arms and light weapons research in support of UN processes. He holds a PhD in Economics from the University of Rome, Italy and a master's degree in Political Science from the University of Pisa, Italy. He speaks English, French and Italian.



KERSTIN VIGNARD

Non-resident Senior Fellow, UN Institute for Disarmament Research

Ms. Vignard is an international security policy professional with over 25 years' experience at the United Nations, with interests at the nexus of international security policy and technology. Her areas of expertise include AI, autonomous technologies, cyber, technological innovations and international security.

From 2019 to 2021, Vignard was on special assignment leading the UNIDIR team supporting the Chairmen of the latest Group of Governmental Experts (GGE) on Cyber Security and the Open-Ended Working Group on ICTs. She has led UNIDIR's team supporting four previous cyber GGEs. Prior to her special assignment, Vignard was Deputy to the Director at UNIDIR (2012-2019), and UNIDIR's Chief, Projects and publications (2005-2012).

In addition to her institutional responsibilities, during this time Vignard established UNIDIR's workstream on increasing autonomy in weapon systems and AI-enabled weapon systems. In 2021 Vignard was named to the list "100 brilliant women in AI ethics".

She founded and served as editor in chief of the quarterly journal *Disarmament Form/Forum du désarmement* from 1998 to 2012.

Vignard holds a master's degree in International Relations with concentrations in Conflict Resolution and Development from Syracuse University, USA and a Bachelor of Arts in International Studies and Political Science from Hamline University, USA.