

# EMERGING TECHNOLOGY, INTERNATIONAL SECURITY AND INTERNATIONAL LAW

A discussion in the margins  
of the General Assembly  
on the disruptive impact  
of

**3D printing,  
synthetic biology  
and  
autonomous systems**

Thursday  
06  
OCTOBER

1:15 to 2:45 pm  
UN General Assembly  
Conference Room 9

Emerging technologies will disrupt the status quo and transform sectors as diverse as manufacturing, transportation and health care. Disruptive technologies can catalyse economic growth and sustainable development. However, these same technologies, if misused, could also have serious ramifications for WMD proliferation and the protection of civilians. To avoid harmful outcomes, the international community needs to keep pace with the emerging global technological revolution.

Presented by \_\_\_\_\_

## Participants



**Ms. Sabrina Dallafor** has been appointed Permanent Representative of Switzerland to the Conference of Disarmament.

Ms. Dallafor holds a Masters Degree in Eastern European History and Russian Studies from the University of Basel. She wrote her Masters thesis about the rise and progression of organized crime in the Soviet Union. In 2000 she joined the Swiss Diplomatic Service and started her diplomatic career as Attaché at the Swiss Mission to the EU in Brussels, and was thereafter appointed First Secretary at the Swiss Mission to NATO. Back at the Federal Department of Foreign Affairs in Berne, she covered various security policy issues at the Centre for International Security Policy and subsequently became Head of the OSCE Office, where she focused on the political-military as well as the human dimension. From 2008 to 2012 she was Councillor and Head of the Political Affairs, Security & Communication Section at the Swiss Mission to the EU in Brussels. Here she was the point of contact for the EU for all questions relating to the Swiss participation in civilian, police and military crisis management operations. Once again back in Berne, she was appointed Minister Councillor and Deputy Head of the Human Security Division in May 2012. In this function she was in charge of human rights policy, humanitarian policy and international migration policy issues. Ms Dallafor is married and has a 4-year-old boy.



**Mr. Robert Shaw** is the Director of the Export Control and Nonproliferation Program for the Middlebury Institute of International Studies (MIIS) at Monterey's James Martin Center for Nonproliferation Studies (CNS). His research interests include strategic trade controls and their relationship with emerging dual-use technologies, the role of industry in efforts to counter illicit WMD-related trafficking and supply chain networks, and the fostering of nonproliferation awareness within organizations.

Prior to joining CNS in 2010, Mr. Shaw worked for over a decade in the private-sector, specializing in export control and international supply chain management. This included tenure as a senior manager with Toshiba America, Inc.'s Procurement & Export Division, where he was responsible for the development, implementation and oversight of the division's internal export compliance program.

At CNS, Mr. Shaw has applied his industry experience to the research of strategic trade control as a nonproliferation mechanism, and his work has been published in the Bulletin of the Atomic Scientists, Global Asia, The Export Practitioner, and on the Nuclear Threat Initiative (NTI) website.

Mr. Shaw also oversees CNS' educational and training activities in the strategic trade control field, and serves as an adjunct professor for the Middlebury Institute, teaching a graduate-level course on strategic trade controls and nonproliferation.



**Dr. Filippa Lentzos, PhD**, is a Senior Research Fellow in the Department of Global Health & Social Medicine at King's College London. She originally trained in human sciences before switching to sociology, and spent the first ten years of her career at the London School of Economics and Political Science, before joining King's in 2012. Dr. Lentzos specializes in the security and governance of emerging technologies in the life sciences. Much of her work is focused on synthetic biology, often identified as the area of the life sciences most susceptible to misuse, but she also examines other fields like genome editing, potentially pandemic pathogens and neurobiology. Her book *Biological Threats in the 21st Century* was published by Imperial College Press in 2016. Her second book *Synthetic Biology & Bioweapons* will be published by World Scientific in 2017.



**Kerstin Vignard** is Deputy to the Director and Chief of Operations at the UN Institute for Disarmament Research, where she has worked since 1996. In addition to her institutional responsibilities, Kerstin leads the Institute's work on the weaponization of increasingly autonomous technologies and has served as consultant to several UN Groups of Governmental Experts on topics as varied as cyber warfare, disarmament education, and the relationship between disarmament and development.

In 1999 she founded *Disarmament Forum*, the sole United Nations journal dedicated to arms control, disarmament and security issues, and served as its Editor in Chief for over a decade.