UNIDIR invites you to the side event

Considering the Drivers
for the Weaponization of Increasingly Autonomous Technologies

11 November 2015, 13h10, Room IX, Palais des Nations

In its 2014 observation paper on Framing Discussions on the Weaponization of Increasingly Autonomous Technologies, UNIDIR suggested that Member States consider the drivers behind their interest in autonomy. For its part, UNIDIR is currently exploring two different autonomy drivers: economic drivers and developments in cyber and artificial intelligence.

The claim that autonomous systems could be more economically sustainable than manned systems deserves greater investigation. Manned skills might shift resources from, for example, mechanics to software developers, but that doesn't necessarily mean a net reduction in personnel. And, as military forces become increasingly technologically sophisticated, there will be considerable competition from the private sector to employ the highly skilled labour needed to develop and maintain these high-tech systems, potentially driving up costs. While some countries may consider autonomous weapon systems a response to a "manpower crisis", others face no such shortage.

A second driver worth consideration is how developments in cyber and artificial intelligence might drive developments in autonomy. Increasingly autonomous weapons could be extremely vulnerable to a variety of cyber attacks—such as hacking, takeover, reprogramming or jamming. Will increasing autonomy act as a driver for cyber development in order to exploit this vulnerability? It is worthwhile to consider the intersections between machines, cyber and AI in order to ensure that our discussions on autonomy are not isolated from other relevant and related technological developments.

In addition, UNIDIR will present its latest observation paper on autonomy in the maritime environment.

Featured panellists:

- **Dr Alexandre Vautravers** on "Economic Drivers: Are the Assumptions Correct?"
- **Dr Patrick Lin** on "How does Cyber Fit with Lethal Autonomous Weapons?"
- **Kerstin Vignard** on "Maritime Autonomy: Testing the Waters"

Followed by questions and discussion

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About the Project

In 2013 UNIDIR launched an initial 18-month project on the weaponization of increasingly autonomous technologies.

The project focused on advancing the nascent multilateral discussion by refining the areas of concern, identifying relevant linkages, and learning from approaches in other domains that may be of relevance to this topic. Rather than offering specific policy recommendations, the project's primary aim was to provide insights and conceptual frameworks that will enable policy-makers to better think, discuss and make informed decisions about autonomy in weapon systems.

Now in its second phase, the project continues to focus on bringing clarity to circular and polarized discussions on the weaponization of increasingly autonomous technologies. Building on Phase I's successful format of small, expert-led discussions and public observation papers, the project examines substantive areas where there is common ground, identifies areas requiring further investigation and indicates where other fields and disciplines might usefully contribute to the discussion in the arms control community.

For more information about UNIDIR's project "The Weaponization of Increasingly Autonomous Technologies", supported by the Governments of Canada, Germany, Ireland and the Netherlands, see http://bit.ly/1EvtIBs.

Latest paper

The Weaponization of Increasingly Autonomous Technologies in the Maritime Environment: Testing the Waters

Recent attention among governments, civil society organizations and the media has focused on technical, military, legal and ethical issues of the weaponization of increasingly autonomous technologies. Experts have suggested that fully autonomous weapons are likely to first appear in the relatively "uncluttered" maritime environment. Yet, policy-makers have directed relatively little attention to the specific issues and challenges in this environment that might be different or more acute than on land or in the air. This paper aims to shed light on these issues in order to inform the broader debate on the weaponization of increasingly autonomous technologies. It is the fourth in a series of UNIDIR papers on increasingly autonomous technologies.

Available in pdf at www.unidir.org/publications

Also available:

- *Framing Discussions on the Weaponization of Increasingly Autonomous Technologies*
- *The Weaponization of Increasingly Autonomous Technologies: Considering how Meaningful Human Control Might Move the Discussion Forward*
- *The Weaponization of Increasingly Autonomous Technologies: Ethics and Social Values*

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