

# Artificial Intelligence (AI): Lethal Autonomous Weapons Systems (LAWS) and Peace Time Threats

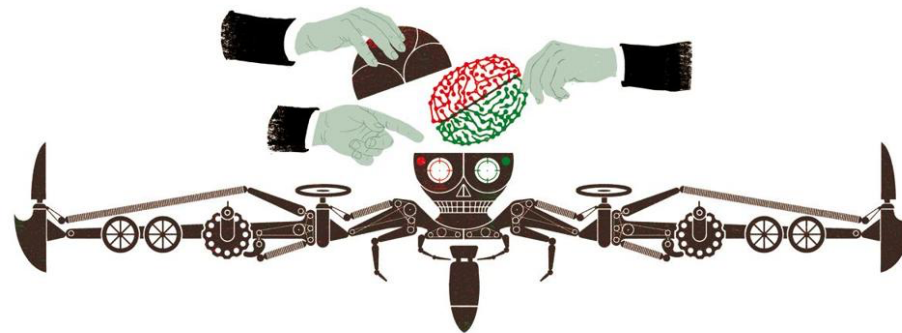
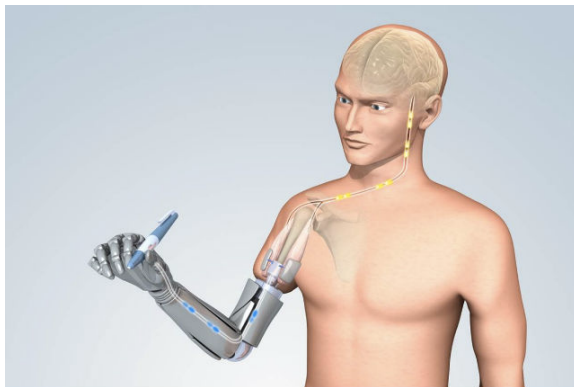
Daniel Stauffacher

ICT4Peace Foundation

Zurich Hub for Ethics and Technology (ZHET)

# Artificial Intelligence

- Research field with rapid progress
- Currently: Weak AI – performance in a specific area. (vs. strong AI)
- Highly ‘intelligent’ -> ‘autonomous’: unpredictability, loss of human control and responsibility?
- Inherently dual-use



# Lethal Autonomous Weapons Systems

ICRC 2016: *Identify, select, track, attack target with little or no human involvement*



Samsung TECHWI SGR-A1  
Source: Samsung TECHWI



Dassault nEUROn  
Unmanned Combat Aerial Vehicle  
(UCAV) Source: Dassault Aviation



Dassault nEUROn  
Unmanned Combat Aerial Vehicle  
(UCAV) Source: Dassault Aviation



X-41 ?  
Source: Space.com

# United Nations Convention on Certain Conventional Weapons

- Informal discussions 20014-2016; Group of Governmental Experts 2016 – current
- Legality
- (Working) Definitions



Meeting of the High Contracting Parties to the CCW, Geneva 2014. Source: GICHD.

# Further ways of weaponizing AI

1. LAWS during law enforcement (i.a. crowd control, hostage situations)
2. Autonomous Cyberweapons (e.g. Monstermind (US))
3. Malicious linkages with biological agents, 5G radiation, molecular nanotechnology?



Deadly Rover, Israel. Source: Wired

# Peace-Time Threats

1. AI-enabled technology and mass disinformation
2. AI-enabled technology in the justice system
3. AI-enabled technology in light of resource-scarcity during times of crisis
4. New (artificial) species – a threat for humanity?
5. ...?

# What do we need? I

We need to understand what is happening:

Current technological research, esp. AI research, allows us to create technological instruments that may lose their instrumental character because we gradually give away responsibility for the outcomes of their usage.

Do we want to limit the space of human responsibility in the world or increase it?

# What do we need? II

## Research:

- Holistic understanding of all (biotech, molecular nanotechnology, AI) the potential peace and security implications of new technologies
- Combined principles of responsible AI research AND application and education thereof
- Encouraging interdisciplinary dialogue between ‘fast’ computer scientists/software engineers and ‘slow’ philosophers and sociologists
- Setting clear goals: AI as assistance for or replacement of humans?
- Questioning the human-machine analogy and language use



# What do we need? III

## Political level:

- Creation of a constant national policy-technology interface through, e.g. fixed state ministers of AI/ technology
- Combined UN body and position on emerging technology

## Civil society, incl. private sector and academia:

- Engaged debate on property rights on source codes of AI-enabled technology
- Increased engagement of civil society on questions of human control and responsibility for technological outcomes
- Increased and eventually constant dialogue between tech experts and civil society. Technologist must learn to transfer their knowledge in a practical way.

