

WAI Talk - The Dark Side of AI

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ICT4Peace and ZHET

Autonomous Weapons Systems

ZHET
Zurich Hub for
Ethics and Technology

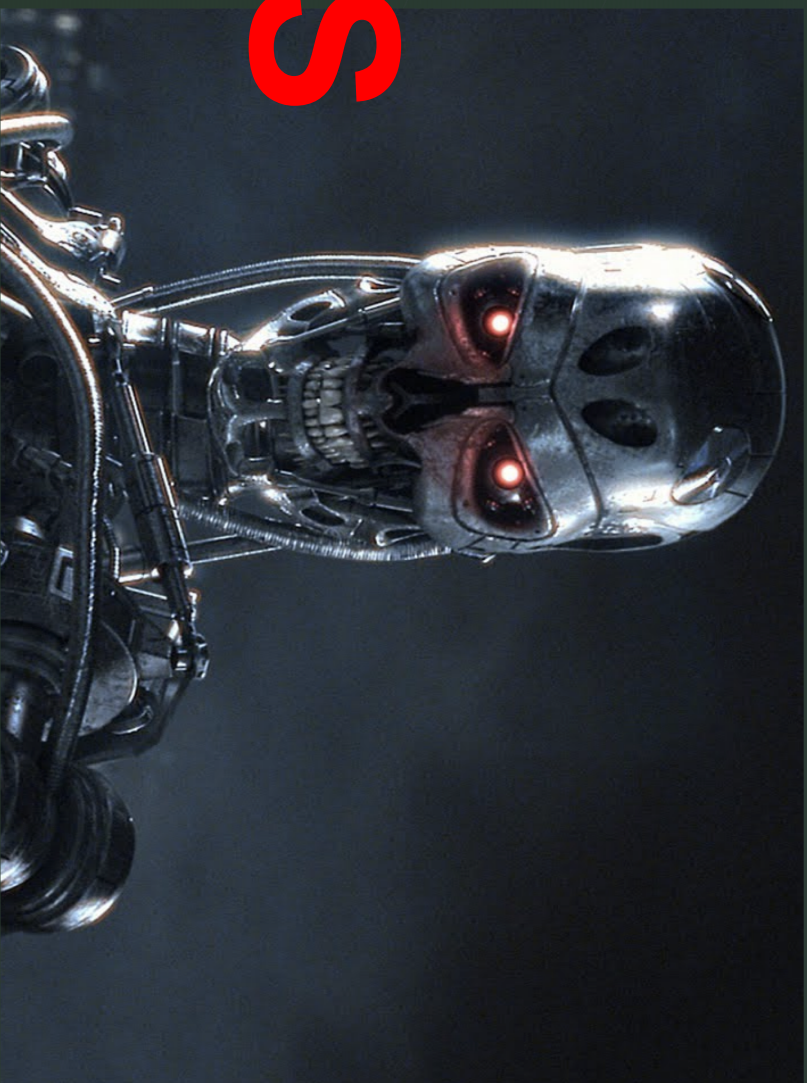
ICT
for peace foundation

Why am I here?

- A. What are AWS?
- B. Why to develop AWS?
- C. Why are they problematic?
- D. The international political debate on AWS
- E. What is missing?

A. What are AWS?

≠ AWS



A. What are AWS?



A. What are AWS?



Kargu Attack Drone, STM, Turkey.

A. What are AWS?



© Dassault Aviation - M. Alleaume

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

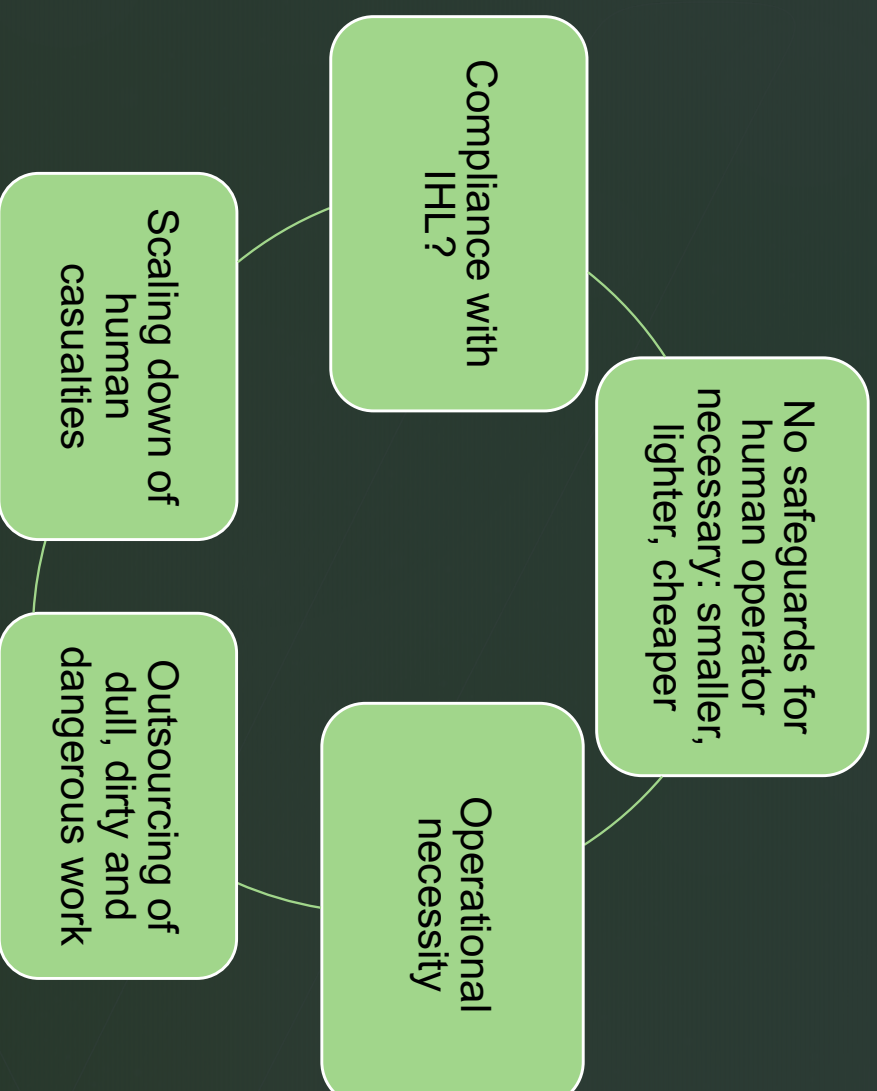
A. What are AWS?

- 
1. Identify
 2. Select
 3. Track
 4. Attack (= use force against, neutralize, damage or destroy)

With little or no human involvement

ICRC, *Views of the ICRC on autonomous weapon systems*, paper submitted to the CCW on LAWS, 2016.

B. Why to develop AWS?



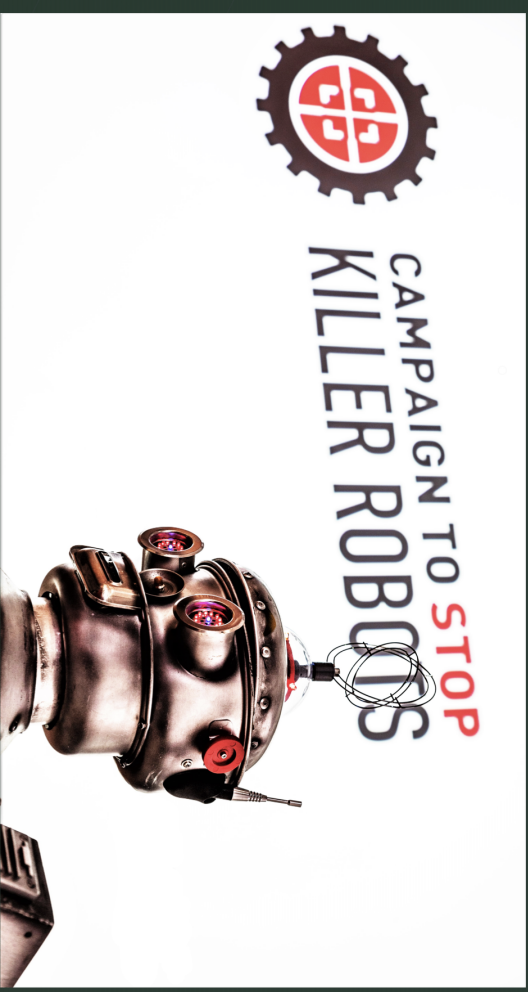
C. Why are AWS problematic?

- Technologically: Black box problem of highly complex learning algorithms
- Legally: Accountability and responsibility
- Ethically: Reduction of space for human responsibility, reflection and evolution
- Scalability: Swarms of AWS as a weapon of mass destruction

▶ D. Current international political ‘answer’ to AWS



Group of Governmental Experts, CCW,
Palais des Nations, Room XVII, Genève,
2019



Campaign to Stop Killer Robots, 2019.
CSKR.

E. What is missing?



Blog FUAD.

#AWS





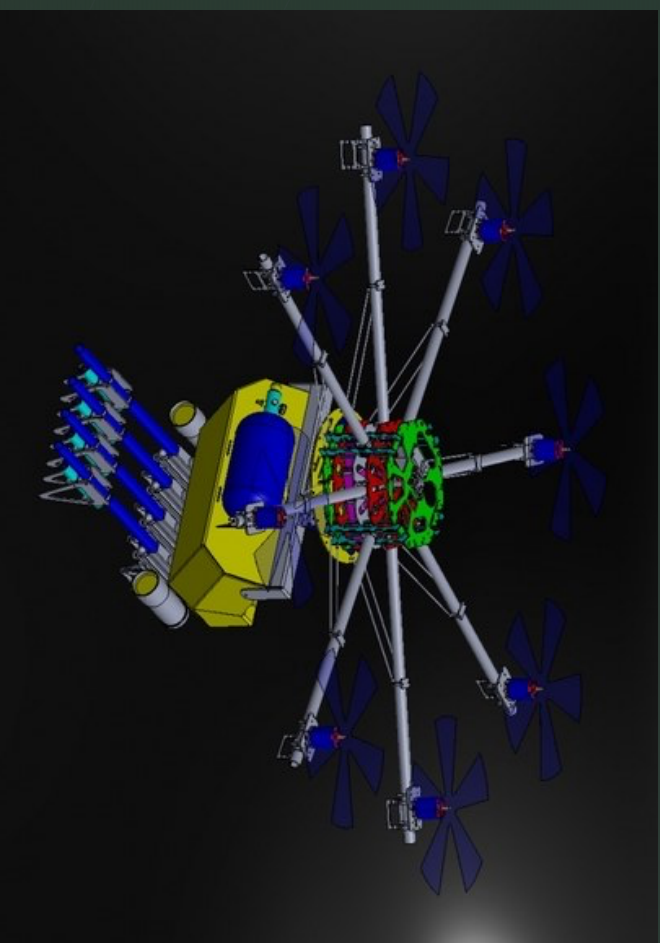
Thank you

- Surber, Regina, 2019, Managing the Risks and Rewards of Emerging and Converging Technologies: International Cooperation, National Policy, and the Role of the Individual, Zurich: ICT4Peace.
- Surber, R., 2018, Artificial Intelligence: Autonomous Technology (AT), Lethal Autonomous Weapons Systems (LAWS) and Peace Time Threats, Zurich: ICT4Peace.
- Surber, R., 2018, A call for more engaged technologists, and dialogue instead of monologues, Summary report on the 2nd Session of the Group of Governmental Experts on LAWS at the UN in Geneva, 27 – 31 August 2018, Zurich: ICT4Peace.
- Surber, R., Gefährliches Spiel ohne Regeln, Neue Zürcher Zeitung, February 22nd, 2017.
- Surber, R., Autonome Intelligenz ist nicht nur in Kriegsrobotern riskant, Neue Zürcher Zeitung, February 20th, 2018.
- Surber, R., Stauffacher, D., Vier Forderungen zur Regulierung Künstlicher Intelligenz, Neue Zürcher Zeitung, September 19th, 2018.
- Surber, R., Auslagerung des Grundrechtsschutzes von der Politik auf Firmen, Neue Zürcher Zeitung, April 24th, 2019.

A. What are AWS?



Deadly Rover, Israel. Source: Wired



Desert Wolf, India. Source: Wired

C. Why are AWS problematic?

Politically: Risk-free and untraceable attacks -> lower threshold for war; arms race