

STUDY GUIDE

Disarmament and International Security Committee



Regulating the Use of Lethal Autonomous Weapon Systems and Artificial Intelligence in Warfare



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LETTER FROM THE CHAIRS

Dear delegates,

It is a great honour to welcome you to the Zamun's 2023 United Nations Disarmament and International Security (First Committee)

Our expectations of this committee are high, the many possible routes that can be taken, the complex issues and controversial grounds which will hopefully yield interesting debates. Though to say we are excited to see you all in action is an understatement.

Please make sure you understand the topics well and prepare a thoroughly written Position Paper that covers all the necessary information regarding your respective countries. Best of luck and we wish you all a fruitful debate and a platform to unleash your creativity.

Soňa & Alex



INTRODUCTION

Introduction to the Committee

The first committee, Disarmament and International Security deals with disarmament, global challenges and threats to peace that affect the whole society and seeks out solutions to the challenges in the international security regime.

According to the UN Charter, the purpose of DISEC in the General Assembly is to establish general principles of cooperation in the maintenance of international peace and security.

The Committee works in close cooperation with the United Nations Disarmament Commission and the Geneva-based Conference on Disarmament.

Introduction of the topic

What are lethal autonomous weapons systems? (LAWS)

Lethal autonomous weapons systems are a type of autonomous military system that is capable of selecting and applying force towards targets not by human intervention,

but by use of Artificial Intelligence (AI). That means that this kind of weapon attacks its target by the decision of algorithms alone. These algorithms are pre-programmed to kill a characteristic "target profile." Then, they are employed in an environment, where its AI uses sensor data, such as face detection, to look for that "target profile."



(Short) history of lethal autonomous weapons systems

For many years, the concept of a robot designed to kill has been a popular subject in science fiction. However, recent advancements in Artificial Intelligence (AI) suggest that the idea of lethal autonomous machines becoming a reality is not unrealistic, particularly considering the existence of ship-based air defence systems.



Already during the First World War, there were a few significant developments in automated military technology. For example, the United States produced the Kettering "Bug," which was a winged bomb guided by a gyroscope.

Later, in 1972, the strategic Thanh Hoa Bridge in North Vietnam was destroyed by the U.S. Air Force using laser-guided weapons. These weapons marked the initial instance of a so-called "smart bomb," which was capable of destroying a specific enemy target. Furthermore, during the Vietnam War, the U.S. Air Force employed unmanned surveillance aircraft, which were able to operate autonomously in circular patterns and capture footage until their fuel ran out.

In 1988, during the Iran-Iraq War, the Aegis air defence system detected a most likely hostile aircraft. The truth is that the plane was an Iranian commercial airliner, but the system, being in semiautomatic mode, shot down the jetliner. As a consequence, 290 people were killed.

The era of killer drones was born in 1994. General Atomics built the RQ-1 Predator drone, which was supposed to transmit video footage in real time over a satellite link, guided by controllers who could be thousands of miles away. Such an unmanned aerial surveillance vehicle was operating over Bosnia and by 2001, it was upgraded to carry Hellfire missiles.

In 2006, South Korea announced plans to deploy Samsung Techwin SGR-A1 robots along the demilitarised zone with North Korea. They functioned on the principle of being capable of autonomous tracking and targeting, however human approval to attack was still required.

In 2009, a planning document was released by the U.S. Air Force which outlines a long-term path towards achieving a complete autonomous capability for aircraft, which could involve the use of force.

Nowadays, China, South Korea, Israel, Russia, the United Kingdom, and the United States are all developing weapons systems with a certain type of autonomy.



POSSIBLE ADVANTAGES

1. Military improvement

To protect the nation, the key factor is to have developed and efficient armed forces. Autonomous weapons can be a way to achieve this without having to widen the army with human forces.

2. Humanitarian benefits

The implementation of an AI-based weapon system has the potential to reduce the risk of human error in targeting operations in suspending attack manoeuvres when civilians are detected. Prohibition of the use of autonomous weapons could prevent the development of these technological capabilities, thereby increasing the likelihood of civilian casualties.

POSSIBLE ISSUES

According to Human Rights Watch, there are serious doubts about whether autonomous lethal systems would be capable of meeting international humanitarian law standards, including the rules of distinction, proportionality, and military necessity, while they would threaten the fundamental right to life and the principle of human dignity.

Therefore, there are multiple subjects of discussion on the use of autonomous weapons:

1. Unpredictability

Even though Artificial Intelligence has recently developed speedily, it is still extremely difficult to predict the behaviour of autonomous weapons. They may seem to be reliable during testing phases, but one never knows how they are going to react in a real-world setting – since the simulation of the real world is impracticable.

2. Escalation of conflicts

Autonomous weapons systems can lead to unintended and swift escalation of conflict due to their ability to operate at high speeds and over large areas. According to the research by RAND, "the speed of autonomous systems did lead to an



inadvertent escalation in the wargame" and concluded that "widespread AI and autonomous systems could lead to inadvertent escalation and crisis instability."

3. Proliferation

Production of autonomous weapons does not require a lot of financial resources, their transport ensures safety, and they are hard to detect, therefore they are susceptible to breaking out into mass production. There is a risk that soon or later, they will appear on the black market. Through black markets, terrorists may obtain access to resources to destabilise nations.

4. Mass destruction

If a military wants to do twice as much harm using an increased quantity of conventional weapons, it is necessary to also recruit twice as many soldiers to use these weapons. Autonomous weapons, small or large amounts, require a single individual to activate them. Their boundlessness increases the possibility of the threat of mass destruction. Due to these considerations, significant autonomous weapons, specifically Slaughterbots, have been already categorised as weapons that are comparable to weapons of mass destruction.

5. Selecting targets

The system of autonomous lethal weapons is based on sensor data, especially through facial recognition and other biometric information, which can create risks that they will attack their targets based on perceived race, age, gender, ethnicity, religious dress, etc. When combined with the possibility of proliferation, autonomous weapons could raise the possibility of targeted violence, potentially resulting in extreme outcomes such as ethnic cleansing or genocide.





ETHICAL ACCEPTABILITY

Besides already mentioned issues concerning security, there are also a few ethical issues linked with autonomous weapons, such as algorithms being incapable of understanding the value of human life or the possibility of not being able to determine who is responsible and accountable for the use of autonomous force. By using such robots we are handling the life-death decisions to software processes. Perceiving of life by these machines is reduced to data points and therefore can be understood as dehumanisation.

Another point to consider is that robots can not comply with the existing principles of military ethics and although they can calculate much faster than us humans they lack creative thinking. This may lead to unpleasant situations that can be possibly prevented.

INTERNATIONAL HUMANITARIAN LAW AND LAWS

The discussion may be held also on the way of legality since there were concerns raised about whether autonomous lethal weapons violate International Humanitarian Law. Namely, International humanitarian law outlines two key principles, the principle of distinction and the principle of proportionality. The principle of distinction establishes that all parties involved in armed conflict differentiate between military and civilian targets and limit their operations solely to military objectives. The principle of proportionality prohibits attacks during the conflict that might expose civilian populations to damage that is deemed excessive in comparison to the anticipated military advantage acquired. Then there is the Martens Clause that establishes the moral base and autonomous weapons can debilitate the whole principle of humanity and human behaviour for their incapability of making a proper human judgement.



POTENTIALLY USEFUL STATISTICS



The Economist





POINTS TO CONSIDER

- Is it possible to maintain international security in the implementation of autonomous lethal weapons systems? How will the nations ensure it?
- In the case of the implementation of autonomous lethal weapons systems, what measures need to be taken to regulate their production and employment?
- Can the ethical dehumanisation of military actors be justified during warfare times?
- Is it possible to tackle the regulations of the use of LAWS and AI in war considering its fast and potential technological development in the future? Is there any sustainable solution?



POSITION PAPERS

Delegates are expected to write their position papers which will be structured as such:

- A. Intro, general overview of the topic
- B. Position that their country holds in relation to the topic
- C. Specifics that the delegate would like to solve by the end of the session

The position paper should be approximately one page long, but shouldn't exceed two pages.

The deadline for the Position Paper is the 19th of April, until midnight.

Please submit your Position Papers to the official Žilina MUN mymun.com website.



FURTHER READING

Deterrence in the age of thinking machines / study

https://www.rand.org/pubs/research_reports/RR2797.html

How AI is driving a future of autonomous warfare | DW Analysis / video

https://www.youtube.com/watch?v=NpwHszy7bMk

A Study on Lethal Autonomous Weapons System under International Humanitarian Law with Special Focus on Killer Robots / study

https://www.ijlmh.com/wp-content/uploads/A-Study-on-Lethal-Autonomous-Weapon s-System-under-International-Humanitarian-Law-with-Special-Focus-on-Killer-Robots. pdf

Autonomous Weapons Market Statistics 2030

https://www.alliedmarketresearch.com/autonomous-weapons-market-A13132

https://www.cigionline.org/articles/autonomy-in-weapons-systems-and-the-strugglefor-regulation/

https://www.icrc.org/en/document/icrc-position-autonomous-weapon-systems

https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/20195 5E