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DISARMAMENT & INTERNATIONAL SECURITY

Agenda : Artificial Intelligence and threat to global security



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Letter from the Executive Board
Members State Representatives,

It is our utmost pleasure to welcome you all to CENMUN 2018. We feel excited and honoured to direct United Nations General Assembly I- DISEC.

The agenda for the committee is “Artificial Intelligence and Threat to Global Security”. We have provided this background guide as part of your research curricula, which should provide a brief outline of the agenda and which also provides a guideline as to how to research for the Model United Nations (MUN). We have covered as many aspects of each sub topic that we felt were the most important.

Remember this guide only touches on the basics of everything, and how committee moves forward will depend on the depth of your research and understanding of the situation.

To the MUN veterans out there, we promise you a very enriching debate and to the new comers we are really excited to be a part of your experience.

We hope that these committees have very fruitful discussions. Hope to see you all soon.

Rutwik Joshi
(Chairperson- DISEC)

Prateel Singh
(Vice-Chairperson-DISEC)

Section I – Points to note before you start researching.

A few aspects that delegates should keep in mind while preparing:

Procedure: The purpose of putting in a set of procedural rules in any committee is to ensure a more organised, efficient and effective debate. The committee will follow the UN/USA Rules of Procedure. Although the Executive Board shall be fairly strict with the Rules of Procedure, the discussion of agenda will be the main priority.

Foreign Policy: Following the foreign policy of one's country is the most important aspect of a Model UN Conference. This is what essentially differentiates a Model UN from other debating formats. To violate one's foreign policy without adequate reason is one of the worst mistakes a delegate can make.

Role of the Executive Board: The Executive Board is appointed to facilitate debate. The committee shall decide the direction and flow of debate. The delegates are the ones who constitute the committee and hence shouldn't hesitate while presenting their opinions/stance on any issue. However, the Executive Board may put forward questions and/or ask for clarifications at all points of time to further debate and test participants as well as Executive Board have the power to make the necessary changes in the committee for better the flow of debate.

NATURE OF SOURCES/EVIDENCE

This Background Guide is meant solely for research purposes and must not be cited as evidence to substantiate statements made during the conference. Evidence or proof for substantiating statements made during formal debate is acceptable from the following sources:

1. United Nations:

Documents and findings by the United Nations or any related UN body is held as a credible proof to support a claim or argument.

2. Multilateral Organizations:

Documents from international organisations like OIC, NAFTA, SAARC, BRICS, EU, ASEAN, the International Criminal Court, etc may also be presented as a credible source of information.

3. News Sources:

I. Reuters II. Al Jazeera III. Amnesty International IV. Human Rights Watch.

Note- (1) Reports from NGOs working with UNESCO, UNICEF and other UN bodies will be accepted. (2) Under no circumstances will sources like Wikipedia, or newspapers like the Guardian, Times of India etc. be accepted. However, delegates are still free to quote/cite from any source as they deem fit as a part of their statements but it is solely on the Executive Board that it accepts it or not.

Committee Background

Disarmament and International Security (First Committee)

The First Committee deals with disarmament, global challenges and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime.

It considers all disarmament and international security matters within the scope of the Charter or relating to the powers and functions of any other organ of the United Nations; the general principles of cooperation in the maintenance of international peace and security, as well as principles governing disarmament and the regulation of armaments; promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.

The Committee works in close cooperation with the United Nations Disarmament Commission and the Geneva-based Conference on Disarmament. It is the only Main Committee of the General Assembly entitled to verbatim records coverage.



DISEC
Disarmament and
International Security
Committee

<http://www.un.org/en/ga/first/>

Agenda - “Artificial Intelligence and Threat to Global Security”

“Artificial intelligence is the future [...] for all humankind. [...]Whoever becomes the leader in this sphere will become ruler of the world.”

Introduction

In this 21st century this world has entered in a phase which is moreover techno oriented, this international community has entered into that domain of warfare where it has already taken the shift from the Kalashnikov to the Keyboard. It was asserted that ‘Guns do not kill people: people kill people, but gone are those days. Today, weapons make the decisions. When artificial intelligence (hereinafter, referred to as AI) and robotics come together, there are two different outcomes that can occur. On the one hand, one can see immeasurable social, economic and political improvements to our society. On the other hand, the military uses these tools to create new weapons of mass destructions (hereinafter, lethal autonomous weapon systems or LAWS) rendering nuclear obsolete. Recognising the threat to international peace and security caused by lethal autonomous weapons, 116 founders of robotics and artificial intelligence companies from 26 countries released an open letter urging the United Nations to ban lethal autonomous weapons systems. As such, in 2016, under the auspices of the United Nation’s Conference of the



Convention on Certain Conventional Weapons (CCW), a Group of Governmental Experts (GGE) on Lethal Autonomous Weapons Systems was established.

Definition

Techopedia defines **Artificial Intelligence** as

Definition - What does Artificial Intelligence (AI) mean?

Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Some of the activities computers with artificial intelligence are designed for include:

Speech recognition

Learning

Planning

Problem solving

Definition of **Lethal autonomous weapons (LAWs)**

Lethal autonomous weapons (LAWs) are a type of autonomous military robot that can independently search and engage targets based on programmed constraints and descriptions.[1] LAW are also called lethal autonomous weapon systems (LAWS), lethal autonomous robots (LAR), robotic weapons, or killer robots. LAWs may operate in the air, on land, on water, under water,

or in space. The autonomy of current systems as of 2018 is restricted in the sense that a human gives the final command to attack - though there are exceptions with certain "defensive" systems.



History

Below, an outline of some key dates in the history of the 'killer robot'.

1950:

British mathematician Alan Turing, arguably the godfather of artificial intelligence, writes, "I propose to consider the question, 'Can machines think?'" In Turing's mind, it's less a matter of whether machines can reason like humans than how well they can imitate them.

1953:

The USS Mississippi test-fires one of the earliest computer-guided missiles, launching a 1,180-pound RIM-2 Terrier off the coast of Cape Cod. A few years later, the Talos missile system comes online, using a homing device that automatically corrects for variations in altitude and speed.

1972:

The U.S. Air Force uses laser-guided weapons to destroy the strategic Thanh Hoa Bridge in North Vietnam, marking the first time a so-called “smart bomb” successfully destroys a major enemy target. During the Vietnam War, the Air Force also deploys autonomous unmanned surveillance aircraft that fly in circular patterns and shoot film until their fuel runs out.

1994:

The U.S. government awards General Atomics a contract to build the RQ-1 Predator drone, which will transmit video footage in real time over satellite link, guided by ground based controllers who can be thousands of miles away. A little more than a year later, the unmanned aerial surveillance vehicle is operating over Bosnia. By 2001, it has been upgraded to carry Hellfire missiles. The era of killer drones is born.

2006:

South Korea announces plans to install Samsung Techwin SGR-A1 sentry robots along the Demilitarized Zone with North Korea. Armed with machine guns, they are capable of fully autonomous tracking and targeting, though human approval is reportedly required before they fire.

2009:

The U.S. Air Force releases a planning document that charts a long-term path to “fully autonomous capability” for aircraft — including the use of force. “The end result would be a revolution in the roles of humans in air warfare,” the report states.

2010:

Aug: A report by United Nations (UN) Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, Prof. Philip Alston, finds that, “Urgent consideration needs to be given to the legal, ethical and moral implications of

the development and use of robotic technologies, especially but not limited to uses for warfare.”

Oct: ICRC convenes its first workshop in Berlin where its members call for an international treaty to prohibit development, acquisition, deployment, and use of armed autonomous robot weapons.

2013:

May 30: During the first Human Rights Council debate on lethal autonomous robotics following the presentation of the report by the UN special rapporteur on extra-judicial killings, 20 nations speak for the first time on the matter. Pakistan spoke first and called for a ban. Other statements were delivered by Algeria, Austria, Brazil, China, Cuba, Egypt, France, Germany, Indonesia, Iran, Mexico, Morocco, Russia, Sierra Leone, Sweden, Switzerland, UK, and US, as well as the European Union, Organization of the Islamic Conference, Latin American network GRULAC, and Campaign to Stop Killer Robots. More than 20 nations attend the campaign’s first-ever side event on May 28

July : The Northrop Grumman X-47B unmanned combat air vehicle lands successfully on the deck of the USS George H.W. Bush, becoming the first unmanned autonomous vehicle to land on an aircraft carrier. The feat brings humankind into a ‘new era of flight.’

November : The 117 Governments party to the U.N. Convention on Certain Conventional Weapons agree to take up the issue of lethal autonomy in 2014.

2014:

May 13-16: Representatives from 87 nations, UN agencies, the ICRC, and the Campaign to Stop Killer Robots participate in the first multilateral meeting

on “lethal autonomous weapons systems” at the UN in Geneva. Convened under the auspices of the Convention on Conventional Weapons (CCW), the informal meeting features presentations by 18 experts on technical, ethical, legal, and operational questions raised by the weapons. Czech Republic, Guatemala, Mali, and Norway speak for the first time on the matter at the meeting.

2015:

Jan. 13: After the first conference held by the Future of Life Institute on the “future of artificial intelligence” in Puerto Rico on Jan. 2-4, prominent scientists and researchers from industry and academia issue an open letter calling for AI and smart machine research that is “robust and beneficial” to humanity and linking to a document outlining “research directions that can help maximise the societal benefit of AI” including numerous questions on ‘lethal autonomous weapons systems.’ On January 14, Elon Musk announces a \$10 million donation to implement the research call. The Campaign to Stop Killer Robots welcomes the initiative’s inclusion of autonomous weapons concerns as an interdisciplinary research priority.

2018:

Jul. 18: More than 200 technology companies and organizations from more than 36 countries and 2,600 individual signed on to a pledge released by the Future of Life Institute at the International Joint Conference on Artificial Intelligence in Stockholm, committing to “neither participate in nor support the development, manufacture, trade, or use of lethal autonomous weapons.”



HOW CAN AI BE DANGEROUS?

Most researchers agree that a superintelligent AI is unlikely to exhibit human emotions like love or hate, and that there is no reason to expect AI to become intentionally kind hearted or evil minded. Instead, when considering how AI might become a risk, experts think two scenarios most likely:

The AI is programmed to do something devastating: Autonomous weapons are artificial intelligence systems that are programmed to kill. In the hands of the wrong person, these weapons could easily cause mass casualties. Moreover, an AI arms race could accidentally lead to an AI war that also results in mass casualties. To avoid being thwarted by the enemy, these weapons would be designed to be extremely difficult to simply “turn off,” so humans could plausibly lose control of such a situation. This risk is one that’s present even with narrow AI, but grows as levels of AI intelligence and autonomy increase.

The AI is programmed to do something beneficial, but it develops a destructive method for achieving its goal: This can happen whenever we fail to fully align the AI’s goals with ours, which is difficult. If you ask an obedient intelligent car to take you to the airport as fast as possible, it might get you there chased by helicopters and covered in vomit, doing not what you wanted but literally what you asked for. If a superintelligent system is tasked with a ambitious geoengineering project, it might wreak havoc with our ecosystem as a side effect, and view human attempts to stop it as a threat to be met.

Strategic Advantages of LAWS

Delegates must not forget that LAWS do present a strategic advantage for certain memberstates.

Indeed, these new technologies could allow for several military advantages.

LAWS would allowfor a reduction in the number of soldiers serving on the front line and could reduce the burden ofso-called “dull, dirty, or dangerous missions” (such as missions involving long-duration sorties,exposition to harmful radiological materiel, or high-risk situations). Robots would also be able toreact much faster than humans and to act with higher precision.

International Humanitarian Law andthe Law of Armed Conflict could even be coded into their systems so as to prevent their violation(as occurs with human forces who can be prone to anger, hatred, and political objectives).

LAWS could also allow for financial savings. General Robert Cone, former commander of the USArmy Training and Doctrine Command, suggested in 2014 that by relying more on “supportrobots”, the size of a brigade could be reduced from four thousand to three thousand soldiers.

The potential importance of LAWS on the battlefield of the future is why so many nations areinvesting in these systems, so member states should certainly not neglect their own strategicinterests while debating this issue.

Nonetheless, LAWS do present a number of issues thatdelegates should also take into account during their negotiations.

Current Situation

In April experts on military artificial intelligence from more than 80 world governments converged on the U.N. offices in Geneva for the start of a week’s talks on autonomous weapons systems. Many of them fear that after gunpowder and nuclear weapons, we are now on the brink of a “third

revolution in warfare,” the fully autonomous weapons that could decide who to target and kill without human input. With autonomous technology already in development in several countries, the talks marked a crucial point for governments and activists who believe the U.N. should play a key role in regulating the technology.

The meeting came at a critical juncture. In July, Kalashnikov, the main defence contractor of the Russian government, announced it was developing a weapon that uses neural networks to make “shoot-no shoot” decisions. In January 2017, the U.S. Department of Defence released a video showing an autonomous drone swarm of 103 individual robots successfully flying over California. Nobody was in control of the drones; their flight paths were choreographed in real-time by an advanced algorithm. The drones “are a collective organism, sharing one distributed brain for decision-making and adapting to each other like swarms in nature,” a spokesman said. The drones in the video were not weaponised — but the technology to do so is rapidly evolving.

This April also marked five years since the launch of the International Campaign to Stop Killer Robots.

By 2016, China had tested autonomous technologies in each domain: land, air and sea. South Korea announced in December 2016 it was planning to develop a drone swarm that could descend upon the North in the event of war. Israel already has a fully autonomous loitering munition called the Harop, which can dive-bomb radar signals without human direction and has reportedly already been used with lethal results on the battlefield. The world’s most powerful nations are already at the starting blocks of a secretive and potentially deadly arms race, while regulators lag behind.



Types of LAWS

Presently, four types of lethal autonomous weapons are of particular significance in their use.

1. BAE Systems Taranis Combat Drone

Drones have always piqued the interest of the military ever since these devices were first announced. The BAE Systems Taranis is perhaps the culmination of advancements made in robotics and AI combined, as it is the foundation for an autonomous offensive air system.

Being able to search, identify, and locate enemies will be of great value to any military force, assuming everything works as expected.

2. Automated Sentry Guns

A sentry gun is a gun that is automatically aimed and fired at targets that are detected by sensors. The earliest functioning military sentry guns were the close-in weapon systems point-defence weapons for detecting and destroying short range incoming missiles and enemy aircraft first used exclusively on naval assets, and now also as land-based defences.

3. Homing Missiles

Homing Missiles have been used since the 1960s. These weapons are capable of following identified targets in an autonomous manner.

4. Radar-Guided Guns

Although this technology has been deployed by the military since the 1970, significant enhancements have been made ever since. The first iteration of

radar-guided guns allowed the military to defend ships. More modern versions of this system allow for the 'software' to manually identify and attack oncoming missiles.

Questions A Resolution Must Answer (QARMA)

- 1) Should LAWS be regulated in any shape or form? If so, how and to what extent?
- 2) Can LAWS ever be acceptable under international law?
- 3) Investigation, prevention, and mitigation of potential malicious uses of Artificial Intelligence.
- 4) Do a special body need to be created to regulate Artificial Intelligence?
- 5) Would limitations apply only to fully autonomous weapons, or also semi-autonomous weapons?
- 6) The role of non-state actors in the use of Artificial Intelligence and Lethal Autonomous Weapons Systems.

