

Committee: Disarmament and International Security

Issue: Addressing the challenges of increased autonomy in weapon systems

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INTRODUCTION

Artificial intelligence (AI) has played a major role in making computer systems more effective, accurate and precise without the element of human error. In autonomous weapons, AI has the power to distinguish and engage targets with or without human intervention. This, of course, brings about a major issue of possible interference on an ethical level since machines lack human characteristics that are important in making moral



Fig. 1. Picture of autonomous weapon

choices and exhibiting emotions such as compassion.

Having these types of machine weapons on a battlefield can have consequences that humans have

not anticipated. If, by mistake, a wrongful termination happens, who

would be held responsible since these weapons are autonomous? This, of course, would bring about some challenges in order to ensure justice for an improper outcome. To prevent such outcomes, man must maintain control over autonomous weapons and oversee any type of attack if they are to be used. At the same time, all countries involved should articulate their points of view and the issues related to fully autonomous weapons and ultimately reach a consensus on the creation of a treaty that incorporates the importance of human control over these AI machines.

DEFINITION OF KEY TERMS

Autonomous weapons: Weapons that can detect and engage targets without any or a minimum of human involvement. Also known as killer robots or lethal autonomous weapon systems (LAWS)

BACKGROUND INFORMATION

Autonomous weapons are considered to be as dangerous as weapons of mass destruction, since they are weapons that are in the hands of machines which are programmed to work without humans intervention, but instead make use of AI. This means that these weapons lack the ability to feel any sort of pathos; they are solely based on logos and therefore they cannot understand and evaluate a difficult situation, which could lead to a misjudged attack.

Possible example of a misread situation by killer robots

If the autonomous weapons, also known as killer robots, decide to formulate an attack without any human control, they might target or execute someone based on facts that a machine finds logical based on calculations. On the other hand, this very same action might be considered unethical. This might lead to a major fallback, causing problems when it comes to the justification of these acts to the families, since the reactions of the people close to the deceased one are never predictable. In conclusion, many situations like these are likely to happen if killer robots are not examined and tested properly, taking into consideration any circumstances that may occur.

What these weapons can turn into

Today, no weapons have been developed that can target people individually, but AI weapons can locate enemy radar signals and strike against them without any human control over the weapon. According to experts, technology will reach a level where AI

weapons could be used against people and this will cause concern among simple civilians who might find these weapons threatening their own lives and the people around them at any moment, constantly living in the fear that they are not safe.

Possible hack of autonomous weapons

At the same time, such weapons can be hacked and put civilians' lives at risk leading to large-scale issues. It can be argued that the risk is higher than an AI malfunction. During armed conflict, AI can function without the intervention of humans, but once data is to be transferred to a command center, there is a great risk of that information becoming vulnerable to hackings.

AI has not advanced to the point of not being deceived by itself. By changing just one pixel in a picture, we might find that AI has not decoded the information correctly and can thus be led to false interpretations. One such instance was an experiment conducted by a group of university researchers in Japan who attempted to confuse AI. AI did confuse cats with dogs and trucks with frogs. Imagine the large-scale consequences if that were to happen in a much different situation. Imagine for instance a drone mistaking a school or a hospital for a military base. The repercussions would be catastrophic.

Many countries have come out to state the importance of moratoria on lethal autonomous weapons (LAWS). However, measures by countries utilizing killer robots have to be taken. In order to resolve such issues, they first have to come to an agreement on basic understandings of what autonomous weapons can do. No treaty has been formed yet, but meetings have taken place in order for it to be discussed and for solutions to be proposed such as in Geneva in March and August of 2019,.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

United States of America

Although it may seem contradictory, the USA has the prototype to lethal autonomous

weapon systems (LAWS), but has not adequately developed them or used them in the recent past. They have all the resources to put them in use but they suggest that these weapons need to be under human supervision in order to prevent any unauthorized attacks. The United States claims that a ban on LAWS is considered premature both by the US as well as by other countries such as the UK and China, but important measures against it, such as the gathering of more information about autonomous weapons' capabilities and how their use, will affect countries and the people of the countries coming into contact with such weapons. The USA proposes that these should be put in place by a UN Treaty.

Russian Federation

In 2017, Russia agreed that the use of autonomous weapons should only happen if humans control them, but at the same time opposes international limits on their development. Russia is proceeding in the development of such weapons. However, Russia, amongst other countries, proposes that the UN has to develop a framework that will prevent any use of autonomous weapons. It is worth mentioning that the Russian Security Council Secretary Nikolai Patrushev suggested that LAWS are as deadly as weapons of mass destruction.

United Kingdom

A ban of killer robots is considered premature according to Ben Donaldson, head of campaigns for UNA-UK (United Nations Association for UK action at the UN), and not an appropriate proposition for this case. It does not oppose possessing autonomous weapons, but it states that it has the resources to create them.

China

China thinks that LAWS can be developed if a country wishes to do so, but does not support the adoption of them in real life situations and in any type of attack although China has created something similar to AI drones

South Korea

South Korea's stand on this topic is that the use of LAWS globally could result in conflicts amongst countries leading to World War III.

Human Rights Watch

Such weapons that are fully autonomous could not be considered competent in regard to international humanitarian law since LAWS question the right to life and the principal of human dignity. HRW proposes a ban on the development and application of LAWS.

Organisation of the Islamic Conference

The OIC argued at the Human Right Council in 2013 the importance of taking action towards creating national moratoria in order to prevent the use of lethal autonomous weapons and the risk it causes to humanity if these weapons were to be used on the battlefield.

TIMELINE OF EVENTS

Date	Description of Event
9-13 April, 2018	Geneva, Group of governmental experts
27-31 August, 2018	Geneva, Conference on certain conventional weapons
25-29 March, 2019	Geneva, Group of governmental experts
20-21 August, 2019	Geneva Conference on certain conventional weapons

UN INVOLVEMENT: RELEVANT RESOLUTIONS, TREATIES AND EVENTS

There have been no previous resolutions by the UN since it is considered a topic with many aspects and problems, but there have been some proposals that express the need for human control over the weapons. However, a total ban has not been proposed by the countries. There have been some meetings in the past, like in Geneva in 2018 and twice this year, but none of them have led to a treaty so far. Some countries, such as Austria, Brazil and Chile, have proposed focusing on how much control humans will have over the weapons instead of debating about banning them since a lot of the countries involved have different opinions on if it is the right decision to ban killer robots. No treaty has been created due to a lack of agreement at various levels.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Since the topic is relatively new, there have been no previous attempts to solve the issue, as the majority of countries that do not have the resources to create them, but nongovernmental organizations have proposed banning LAWS because of ethical concerns. There has been no treaty in the past since major countries such as the US, China, the UK, Russia and others believe that a ban is a premature measure taking into consideration how few facts we have; according to these countries, we are unable to judge LAWS



due to the fact that they have not been used in any conflicts and so more information has to come to surface for them to be actually banned. In the meanwhile, more information can be collated.

POSSIBLE SOLUTIONS

Firstly, delegates should look into ways for humans to maintain control over autonomous weapons, by suggesting necessary measures such as the conducting of more scientific experiments to evaluate the effect human control can have on such weapons, how much control can exist in terms of technological structure, and what degree of control is desirable. Thus, these experiments should be conducted to prevent the creation of completely autonomous weapons.

At the same time, delegates should stress the importance of the involvement of companies manufacturing AI weapons. Measures should be introduced by law that prohibit the development of such weapons in ways that can be manipulated into becoming fully autonomous weapons and, therefore, threaten the ethical guidelines of the companies in relation to their clients.

Another proposition to delegates is to consider focusing on how much control humans will have over LAWS. Since major countries, like the US and the UK as well as China, have already created simulations for these weapons, suggesting an alternative might help countries both opposing a ban and in favour come to a decision which is acceptable to all parties.

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