

Committee: Disarmament and International Security

Topic: Implementing boundaries on weaponization of artificial intelligence to decrease its potential risks towards civilians.

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**Children and Youth: Fostering Peace
and Security for Future Generations**

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I. Introduction

ZYGMUN 2019 strives to seek creative solutions to topics that affect one of the most vulnerable parts of our society- children. One of the topics that the Disarmament and International Security Committee will debate is “Implementing boundaries on weaponization of artificial intelligence to decrease its potential risks towards civilians.” This is a topic that should be important to each of us, as the technology of the modern world is progressing in a way that can potentially harm us. Artificial Intelligence has the potential to make our lives easier, but it can be very dangerous when used in conflicts. The Disarmament and International Security Committee is enthusiastic about this topic and hopes for fruitful debate.

II. Definition of Key Terms

- a) **A2/AD**; anti-access/area denial technology has been implemented by Russia and the People’s Democratic Republic of China as a way to prevent the United States from intervening in their affairs. These technologies include sensors and guidance technologies that prevent freedom of movement of unwanted military equipment.
- b) **Arms Race**; a competition between two or more states over armed forces and military superiority.
- c) **Artificial Intelligence (AI)**; Intelligence demonstrated by technology, that is usually displayed by humans. AI ranges from having some to no human input.
- d) **Autonomous Weapons**; a weapon system(s) that, once activated, can select and engage targets without further intervention by a human operator.
- e) **Conventional Prompt Global Strike (CPGS)**; a United States military effort that would allow them to launch a precision-guided conventional weapon airstrike anywhere globally within an hour.
- f) **Extrastate Conflict**; a conflict between a state and a non-recognized political entity.
- g) **Interstate Conflict**; a conflict between two or more states.

- h) **Intrastate Conflicts;** politically initiated violence between a state and non-state groups.
- i) **Offensive Cyber Capability;** activities in cyberspace that manipulate, deny, disrupt, degrade or destroy targeted computers, information systems, or networks.
- j) **The Grey Zone;** a state between war and peace, where political or territorial tensions are present with overt military interference

III. General Overview

Ethicality

As the technology nowadays is under constant development it has taken various paths of evolving. One of the paths is the usage of autonomous weapons with artificial intelligence (AI) or the so-called killer robots that are used in warfare, most commonly in both intrastate and extrastate conflicts. There is a lot of controversy over the ethicality of this issue. While many believe that giving non-living things the power to kill humans is unjustified, some suggest that the lives of soldiers could be saved if there were fewer humans involved in direct combat. So far there have not been many instances of autonomous weapons killing people, however, there are numerous countries that have heavily invested in the development of AI weapons.

Benefits of using AI

Some of the pros for usage of autonomous weapons as per several experts are that these robots are much more likely to have a higher precision shot, thus possibly preventing deaths of innocent civilians. Another reason is that by engaging robots with artificial intelligence, fewer troops will have to be sent out on the field, which will result in fewer human deaths. Similarly, a very popular argument for implementing AI into the military is for defensive reasons, such as defense against the Offensive Cyber Capability system. Furthermore, according to some professionals in the field implementing AI into military operations would allow it to reach battlefields that could otherwise be inaccessible to human soldiers. Finally, these robots will not have psychological impacts that will hold them back from participating in warfare or affect their

actions. Arms race over AI weapons is nowadays one of the largest competitions between major world powers¹.

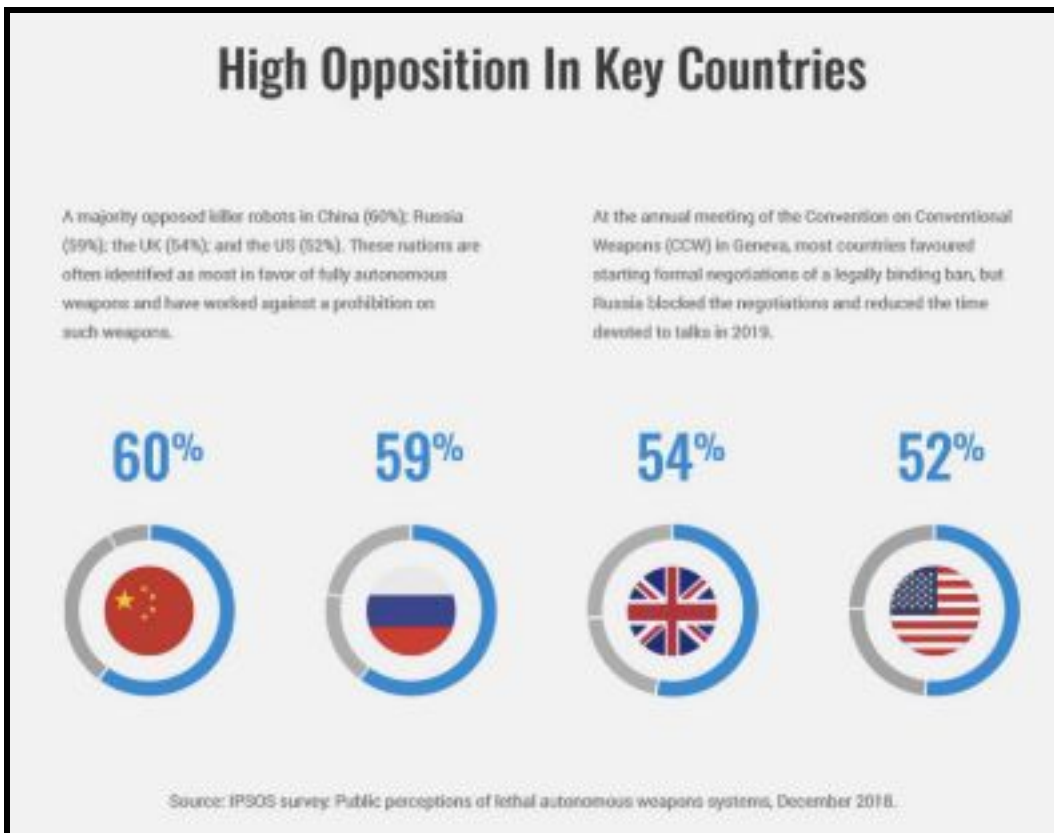
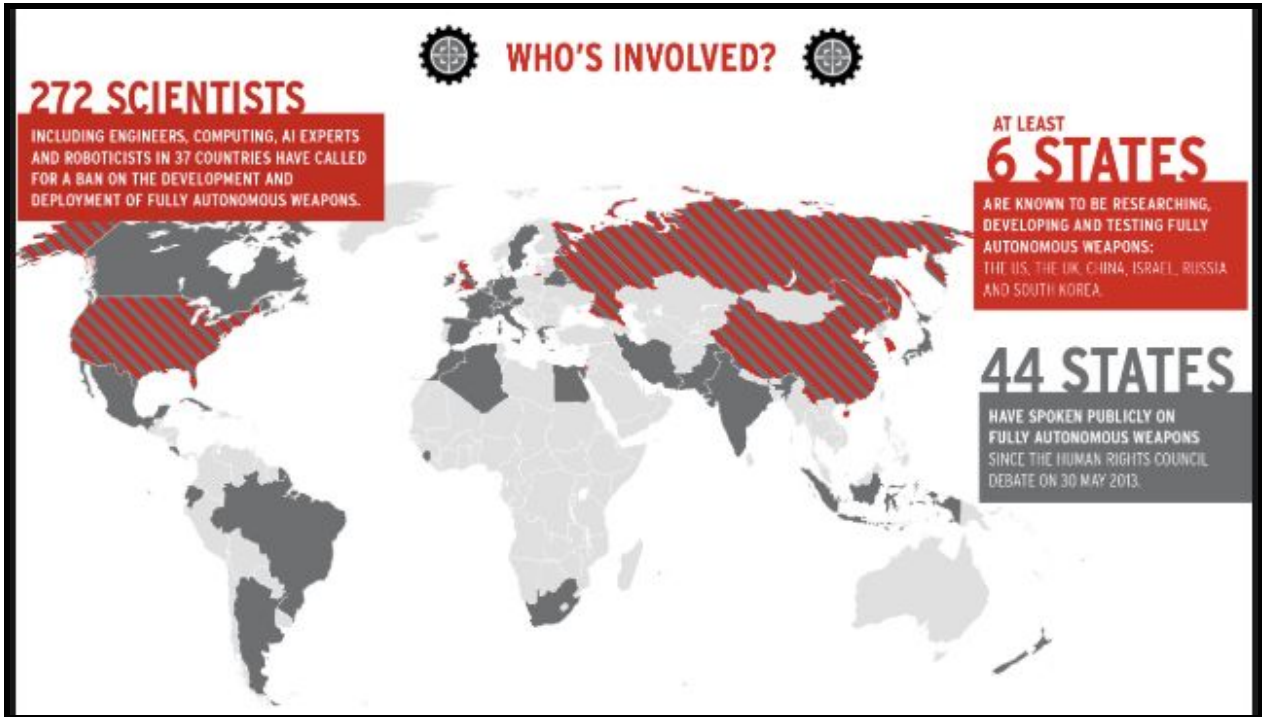
Limitations of using AI

In contrast, many argue over the disadvantages that having autonomous weapons could bring. Many world-leading experts in AI including Elon Musk and Stephen Hawking have co-signed a letter sent in July of 2015 and voiced their opinions against Artificial Intelligence being used in warfare. One of their main reasons is that usage of killer robots is extremely unethical. They have argued that for a machine to make a life or death decision for a human being is unjustified and is seen as the wrong path of technology development. The Arms Race between countries creates a Cold War-like Grey Zone between war and peace as tensions arise over who has what kind of technology and thus power.

Opposition and actions taken

The competition between who has the best type of autonomous weapons redefines who the leading power in the world is, as opposed to previous years when the country with the largest military had greater significance. So far there is an ongoing dispute between countries that support AI in the military and the minority of countries that don't. Countries that are calling for a ban on fully autonomous weapons include Brazil, Egypt, Cuba, Iraq, Mexico, Morocco, Pakistan, Peru, Venezuela along with over 20 others. So far, due to the overwhelming majority of the countries who support autonomous weapons, not a lot of significant action has been taken. As mentioned before, however many experts along with some countries have called for a ban on AI in the military and a movement against autonomous weapons called Stop Killer Robots has been initiated.

¹ Etzioni, Amitai, and Oren Etzioni. "Pros and Cons of Autonomous Weapons Systems." Army University Press, 2017, www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/.



(source <https://www.weforum.org/agenda/2016/01/robots-in-war-the-next-weapons-of-mass-destruction/>)

IV. Major Parties Involved and their Views

a) Democratic People's Republic of China:

China has lately been seen as one of the global leaders in AI development. To compete with the United States of America, China has taken extreme measures to improve their AI arsenal. In 2018 China recruited 31 highly skilled minors for an Artificial Intelligence Weapons development program as a means to involve them in the future of modern technological warfare². In the latest years, many experiments involving marine and airspace drones have been conducted by the Chinese government as well as numerous state-owned companies. Additionally, China is developing AI submarines with the ability to carry out complicated missions with no on-board human control, which should be ready by 2020. China has called for a ban on the usage of AI, but not their development or production, they do however have A2/AD technology³.

b) Israel:

Another one of the world leaders in AI. Israel has recently developed a radar signal sensitive drone, Harop, that can autonomously dive-bomb at a discovered target. This drone as opposed to carrying a bomb is the weapon itself. These drones have been used in the region of Nagorno-Karabakh, a territory disputed by Azerbaijan and Armenia, and has reportedly killed up to seven people⁴. As this weapon can be autonomous or under human control, it is unclear whether it has been the first ever killer robot to kill people at a conflict.

c) Germany:

In 2018 Germany joined a list of countries that are against the usage of Artificial Intelligence weapons in warfare. Furthermore, they have proclaimed that they have no

² Kilbride, Jack. "Chinese University Recruits Talented 'Patriotic' Teens to Help Develop AI Weapons." *ABC News*, Australian Broadcasting Corporation, 8 Nov. 2018, www.abc.net.au/news/2018-11-09/china-recruits-talented-teens-to-help-develop-ai-weapons/10477098.

³ Stop Killer Robots Campaign. "Country Views on Killer Robots." 22 Nov. 2018.

https://www.stopkillerrobots.org/wp-content/uploads/2018/11/KRC_CountryViews22Nov2018.pdf

⁴ Perrigo, Billy. "The New Arms Race: Killer Robots Mark Revolution in Warfare." *Time*, Time, 9 Apr. 2018, time.com/5230567/killer-robots/.

intentions of developing an AI weaponry program, however, they are prepared to defend themselves against autonomous weapons if needed⁵.

d) Republic of Korea:

Compared to the United States and the Democratic People's Republic of China, they are considered to be a middle power, however, nevertheless, South Korea is one of the numerous countries that have a highly developed AI arsenal. They have recently received criticism for their usage of autonomous weaponry, in their border security system⁶. According to a survey conducted in 2017, the Republic of Korea has one of the highest percentages of opposition against autonomous weapons.⁷

e) Russia:

Russia desires to ensure that they have a better AI weaponry than anyone else, thus placing themselves in competition with the world leaders in AI- the US and China. Russia is thus constantly developing new autonomous weapons that can make “shoot-no shoot” decisions. President of Russia Vladimir Putin has voiced his stance on this issue “Whoever leads in AI will rule the world.” Along with China, Russia has A2/AD technology that can be used against the United States.

f) United Kingdom:

The current Ministry of Defense has a policy against the development of autonomous weapons, and according to a statement issued by the government they “do not possess fully autonomous weapons and has no intention of developing them.” The government officials claim that all of their arsenals shall be operated by humans who are accountable for their actions. Despite their public claims, the United Kingdom has recently invested in autonomous drones.

g) United States of America:

The United States along with the Democratic People's Republic of China are in competition about the leading position of AI weaponry development. The US is the

⁵ “German Military Has No Plans to Acquire Robot Weapons - General.” Reuters, Thomson Reuters, 15 Feb. 2018, www.reuters.com/article/germany-security-robots/german-military-has-no-plans-to-acquire-robot-weapons-general-idUSL8N1Q57GG.

⁶ Ray, Trisha. “Beyond the 'Lethal' in Lethal Autonomous Weapons: Applications of LAWS in Theatres of Conflict for Middle Powers.” ORF, 14 Dec. 2018, www.orfonline.org/research/beyond-the-lethal-in-lethal-autonomous-weapons-applications-of-laws-in-theatres-of-conflict-for-middle-powers-46259/#_edn16.

⁷ Deeney, Chris. “Six in Ten (61%) Respondents Across 26 Countries Oppose the Use of Lethal Autonomous Weapons Systems.” Ipsos, 22 Jan. 2019, www.ipsos.com/en-us/news-polls/human-rights-watch-six-in-ten-oppose-autonomous-weapons.

leader in drone and AI technology usage in military operations, with help from American companies such as Google and Boeing. In 2018 the US Defence Advanced Research Projects Agency (DARPA) announced a \$2 billion campaign for the development of AI technologies. President of the US, Donald Trump has accused China of stealing American innovations and imposed trade tariffs to Chinese imports as a way of punishment⁸.

V. Relevant United Nations Documents

“Categorizing lethal autonomous weapons systems - A technical and legal perspective to understanding LAWS”

Submitted by Estonia and Finland to the Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects. The aim of this paper is to facilitate the discussion on the conceptualization and categorization of lethal autonomous weapons systems (LAWS)

[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/FD148A6783DAC304C12582F30032F633/\\$file/2018_GGE+LAWS_August_Working+Paper_Estonia+and+Finland.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/FD148A6783DAC304C12582F30032F633/$file/2018_GGE+LAWS_August_Working+Paper_Estonia+and+Finland.pdf)

“Pathways to Banning Fully Autonomous Weapons”

A UN article about what was done in a session where Pathways to Banning Fully Autonomous Weapons were discussed.

<https://www.un.org/disarmament/update/pathways-to-banning-fully-autonomous-weapons/>

“The Weaponization of Increasingly Autonomous Technologies: Artificial Intelligence”

A UNIDIR primer for the topic of The Weaponization of Increasingly Autonomous Technologies: Artificial Intelligence.

<http://www.unidir.ch/files/publications/pdfs/the-weaponization-of-increasingly-autonomous-technologies-artificial-intelligence-en-700.pdf>

“The Weaponization of Increasingly Autonomous Technologies: Considering Ethics and Social Values”

⁸ “U.S., China Take the Lead in Race for Artificial Intelligence: U.N.” Reuters, Thomson Reuters, 31 Jan. 2019, www.reuters.com/article/us-tech-un/us-china-take-the-lead-in-race-for-artificial-intelligence-un-idUSKCN1PP0U6.

A UNIDIR paper on ethics regarding Autonomous weapons.

<http://www.unidir.ch/files/publications/pdfs/considering-ethics-and-social-values-en-624.pdf>

“UNICRI Centre for Artificial Intelligence and Robotics”

An article about UNICRI Centre for Artificial Intelligence and Robotics and what they do as well as past resolutions and their working papers.

http://www.unicri.it/in_focus/on/UNICRI_Centre_Artificial_Robotics

VI. Questions to Consider

- What solutions fit your country’s perspectives best?
- What long term impact will the proposed solutions have?
- What has your country done about this issue?
- Are there any disadvantages to the solution that you are supporting?
- Does your country have all the necessary resources to implement the solution that you are supporting?
- Has the country that you represent had a conflict regarding the issue in the past?
- Who are your allies regarding the topic of engaging AI in warfare?

VII. Conclusion

In conclusion, we all need to take action collectively and immediately to prevent the destruction of the world with Autonomous Weaponry. The progress of Artificial Intelligence has an ever-growing potential to prove fatal to all of the humankind unless action is taken to prevent it. The purpose of the Disarmament and International Security Committee is to seek solutions to problems that are affecting the lives of millions of people who suffer in warfare on daily basis, which includes many children. The Disarmament and International Security Committee of ZYGMUN 2019 is looking forward to a fruitful debate with productive results.

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