**Forum: Disarmament and International Security Committee - DISEC**

**Issue #2 Addressing the use of weaponized artificial intelligence, and its ethical dispute.**

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**Introduction**

Artificial intelligence is the advancement of technology that can execute tasks that normally require brain function, such as voice recognition, data pattern recognition, and decision-making. With the development of deep learning techniques and the availability of vast data sets, the area of AI has experienced considerable breakthroughs in recent years. With these advancements there also come concerns. There has been an increasing worry over the use of artificial intelligence weaponized. Weaponized AI is the development and deployment of AI technology for military uses, such as autonomous weapons systems that target and attack without human intervention.

**Definition of Key Terms**

**Artificial Intelligence (AI)**

Refers to the creation of computer systems that are capable of doing activities like speech recognition, decision-making, and language translation that traditionally need human intellect.

**Cyber Exploitation**

Refers to the act of exploiting security flaws in computer systems or networks to obtain unauthorized access to data, sabotage operations, or cause harm.

**Autonomous Weapons**

Refers to weapon systems that operate without direct human control to choose and engage targets. To make judgments on their own, these systems employ artificial intelligence and other cutting-edge technology.

**Global Security**

Refers to the steps taken to stop and lessen dangers to the security of the entire globe and its population, including dangers from terrorism, cyberattacks, and the spread of WMD.

**Just War Theory**

A collection of moral and ethical norms that regulate the use of force in armed conflict. It aims to create criteria for evaluating when it is justifiable to go to war and what means of warfare are suitable.

**International Law**

Refers to the set of legal regulations and standards that control how nations interact, as well as how people and companies operating internationally behave. It includes a wide variety of subjects, including military warfare, trade, and diplomatic relations.

**General Overview**

Technological advancements have brought out the capability of machines to replace aspects of what could once only be done by the human mind. Even though initially meant for the benefit of humanity, this technological advance has resulted in what is today known as the Weaponization of Artificial Intelligence (AI). Some examples are automated weapons, drones, and cyber weapons with the capability of making judgments and assaults without the help of human intelligence. This has made many experts and legislators express concern about the ethical dispute regarding the use of weaponized AI.

**Impact on Global Security and Stability**

The use of weaponized artificial intelligence has a substantial influence on global security and stability. One of the main concerns worldwide is the potential for hackers to infiltrate the system and take over control causing unforeseen and catastrophic effects. “AI systems remain vulnerable to attacks, from the deliberate corruption of data and cyber exploitation to the manipulation of brittleness or idiosyncrasies in algorithms” (Imbrie and Kania). AI used in the military can also be a problem due to the fact that technology is unreliable and might not differentiate between combatants and non-combatants with complete accuracy. This can result in civilian casualties and unintended damage creating further instability and tension. AI systems rely completely on data to function, they are only as accurate as what they are taught. The possibility of biased and inadequate data may result in incorrect or even harmful conclusions. Once implemented, AI systems can be difficult to regulate or even understand, making it impossible to forecast or prevent unwanted outcomes. The development of these devices may also result in competition between nations to develop these sophisticated weapons in order to increase their military strength. This may also create long-lasting consequences for global stability.

**The Ethical Implications**

The implementation of weaponized artificial intelligence (AI) presents serious ethical concerns and has sparked major global discussion. It is questioned if using autonomous weapons, which can decide and execute without human interference, is in accordance with the just war theory's ideals and the international humanitarian law. One justification for self-driving weapons is that they may be more precise and dependable, resulting in fewer humanitarian outcomes. There are worries, however, that assigning life-and-death choices to computers crosses a moral boundary, and that completely autonomous weapons lack the compassion and moral judgment required for humane treatment. Furthermore, there are worries that AI systems may make morally and ethically doubtful choices, such as selecting targets based on their race, ethnicity, or other protected characteristics. It is possible that AI is worsening the already present issue of biases and discrimination. Since AI is objective to its data it may perpetuate prejudices if it is taught on biased data or designed with biased algorithms, resulting in discriminating outputs. Also, When creating these technologies there is a lack of transparency adding to the ethical worry. Without this openness, it makes it hard to examine what data is being provided to the technology, therefore, making it difficult to hold people liable for the acts of the AI accountable.

**Technological Advancements**

Weaponized AI technological developments have enabled the creation of increasingly powerful and autonomous weapons systems. AI weaponization has the potential to build machines capable of taking human life without human intervention, creating a major concern regarding the possibility of unexpected consequences or malicious utilization. A few of these advancements include drones armed with AI and machine learning algorithms that can execute surveillance and reconnaissance operations as well as identify targets without the need for human participation. AI algorithms that may be used to generate malware and other cyber weapons capable of infecting and damaging computer systems, stealing data, or disrupting key infrastructure. Weapon systems designed to detect and engage targets without human involvement are known as autonomous weapons systems (AWS). These systems are still in the works, but they pose ethical issues regarding the possibility of unintended consequences and the lack of human control. Lastly, predictive policing, AI algorithms that are used to evaluate data and anticipate where crimes are most likely to occur, which can then be used to guide investigations. However, this raises questions about the possibility of prejudice and discrimination as well as how it will affect civil liberties.

**Major Parties Involved and Their Views**

**China**

China has become one of the main players in the development and deployment of weaponized artificial intelligence (AI). They have been doing this by demonstrating a strong initiative in investing in AI technologies for military use. This has been a major part of China’s current military strategy as it has invested greatly in AI weapons systems like drones and other unmanned vehicles. Even with its heavy investment in weaponized AI, China has strongly expressed support for international regulations on the use of AI in warfare. However, China does not believe the same way other countries do about the definition of how controlled they should be. As China argues that strict programming and protocols can maintain human control over AI systems. Even though China recognizes the potential risks and benefits of weaponized AI, its approach to the ethical dispute surrounding this issue may differ from that of other countries as they are more lenient to it.

**United States of America (USA)**

The United States is an avid user of AI military technology and acknowledges the potential benefits and disadvantages of weaponized artificial intelligence (AI), as well as the need to address the ethical concerns surrounding its development and deployment. The US military heavily emphasizes on the importance of maintaining human control over AI weapons systems. Furthermore, they have implemented guidelines for the responsible development and deployment of autonomous weapons. Ethically speaking, The US advocates for transparent, reliable, and accountable AI systems, with human operators responsible for overseeing and controlling their actions to manage any risks associated with AI weapons. Moreover, The US supports the creation of international norms and guidelines for the use of AI in warfare. The US sees this as a necessary path to reduce the risks of unintended harm and promote responsible use. Overall, the US sees and capitalizes on the potential benefits of weaponized AI, but heavily emphasizes responsible and transparent use. As well as supporting international efforts to promote ethical practices and norms. This stance underscores the US commitment to ensure that weaponized AI is used for the betterment of humanity.

**Russia**

Russia has expressed support and action in developing and using weaponized artificial intelligence (AI), and has made significant investments in the field of implementing military AI. Furthermore, Russian military leaders have always emphasized the potential benefits of AI in the military and how it can increase the effectiveness and precision of weapons systems while minimizing the risk to soldiers as well as casualties. However, even though the ethical dispute about weaponized AI has been a topic of discussion in Russia, as critics argue that they could result in unintended harm to non-combatants and that they should be more regulated by humans. Russia itself and its military has been less vocal in its support for such efforts. It is assumed by analysts that Russia's approach to the ethical dispute may be influenced by prioritizing maintaining a strategic advantage over its rivals over the risks associated with it. Russia sees the potential benefits of weaponized AI, but its approach to the ethical dispute surrounding this issue may be more cautious and unobtrusive than that of other countries.

**United Kingdom (UK)**

The UK fully recognizes the potential benefits of weaponized artificial intelligence (AI) in military applications for enhancing military capabilities, but also acknowledges the strong ethical implications and consequences of its development and use. As a consequence of this, The UK government issued guidance on how AI should be responsibly developed and used, which emphasizes the importance of human control over autonomous weapons systems in a military application. This is a big concern to the UK, as the risk of unintended harm to civilians and non-combatants is major. This being said, the UK government is a big supporter of the development of international regulations and of creating an ethical framework for the use of AI in warfare. Which is aimed at minimizing risks and promoting responsibility in AI weapons.

Furthermore, The UK has emphasized the importance of transparency in AI development and deployment in a military application to ensure that countries hold accountability for their actions on the matter, as well as to create public trust. Additionally, the UK has expressed a strong commitment to promoting international collaboration in AI development, as they recognize that working together is necessary to address the ethical and practical challenges of weaponized AI. To conclude, the UK fully supports the development and use of weaponized AI, but it underscores the need for a responsible, transparent, and ethical practice in its development to ensure that it's safe and beneficial to mankind.

**Timeline of Events**

| **Date** | **Description of event** |
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| 2007 | The US Department of Defense establishes the Defense Advanced Research Projects Agency (DARPA) an Artificial Intelligence Center which conducts research on AI for military applications. |
| 2012 | The US Air Force successfully tests an unmanned aircraft equipped with autonomous capabilities that can detect and evade threats on its own |
| 2013 | The United Nations General Assembly passed Resolution 68/243 in 2013, requesting that the UN Office for Disarmament Affairs perform an investigation on autonomous weapons systems. |
| 2015 | More than 1,000 AI and robotics researchers, including Stephen Hawking and Elon Musk, sign an open letter warning about the dangers of autonomous weapons and calling for a ban on their development and use. |
| 2016 | The United Nations convenes a meeting of experts to discuss lethal autonomous weapons systems (LAWS), also known as "killer robots." The meeting ends with no consensus but sparks continued discussions and debates. |
| 2018 | Google announces it will not renew its contract with the US Department of Defense for a controversial AI project called Project Maven, which involves using AI to analyze drone footage. |
| 2019 | The Campaign to Stop Killer Robots, a coalition of NGOs, calls for a preemptive ban on lethal autonomous weapons at the United Nations Convention on Certain Conventional Weapons. |
| 2020 | The European Parliament calls for a ban on the development and deployment of lethal autonomous weapons. |
| 2021 | The United Nations begins formal talks on the regulation of lethal autonomous weapons.  |
| 2021 | The National Security Commission on Artificial Intelligence, an independent commission established by the US Congress, releases a report calling for the US to maintain a competitive edge in AI while also addressing the ethical and security concerns related to its use in military applications. |

**UN involvement, Relevant Resolutions, Treaties and Events**

The United Nations (UN) has taken an active role in talks and attempts to restrict the use of weaponized artificial intelligence (AI). To address the worries of autonomous weapons, the UN established the "Group of Governmental Experts on Lethal Autonomous Weapons Systems" in 2018. The organization's objective was to create a legally enforceable mechanism that ensured meaningful human control over the employment of self-driving weaponry. Furthermore, the United Nations has held a number of meetings that addressed the ethical implications and potential dangers of AI technology, including the Geneva-based Convention on Certain Conventional Weapons (CCW), which has been debating the issue of lethal autonomous weapons since 2014. The United Nations continues to play an essential role in the worldwide debate over the regulation of weaponized AI.

The United Nations General Assembly passed Resolution 68/243 in 2013, requesting that the UN Office for Disarmament Affairs perform an investigation on autonomous weapons systems. The 2018 study raises worries regarding the possible hazards and ethical consequences of autonomous weapons systems. The United Nations Secretary-General, unveiled a new effort in 2018 known as "Securing Our Common Future: An Agenda for Disarmament." It aimed to solve the problems that arose from the new and developing technologies such as artificial intelligence. The UN also formed the Group of Governmental Experts on Lethal Autonomous Weapons Systems, which investigated the legal, ethical, and operational issues of AWS. Since 2014, the UN Convention on Certain Conventional Weapons has been debating the topic of AWS. The Convention issued another resolution in 2021 to continue its talks on the subject, including the potential of adopting a legally enforceable instrument to govern their usage.

The Convention on Certain Conventional Weapons (CCW), is a very important treaty associated with weaponized AI that took effect in 1983. It contains regulations for many types of weapons, such as mines, booby traps, and incendiary weapons. The CCW has been revised to incorporate discussions regarding deadly AWS, and there is continuing dispute over whether a separate protocol should be developed that deals with these systems explicitly. The Geneva Conventions and the Hague Convention, which set guidelines and norms for the conduct of armed conflict, as well as the Chemical Weapons Convention, which prohibits the creation, manufacturing, stockpiling, and use of chemical weapons, may also apply.

**Evaluation of Previous Attempts to Resolve the Issue**

The Asilomar AI Principles: In 2017, a group of experts in artificial intelligence (AI) met in California's Asilomar Conference Center to discuss the ethical concerns and potential risks of AI, particularly weaponized AI. One of its 23 guiding principles was to "ensure that AGI [artificial general intelligence] develops in a way that is safe and beneficial for humans." The principles were created to direct the moral and secure advancement of AI. Even though they are not legally binding, the Asilomar AI Principles are a set of accepted standards for managing ethical challenges with AI, such as its possible use in conflict.

The Campaign to Stop Killer Robots is an alliance of non-governmental organizations with the objective of outlawing the creation, manufacture, and employment of autonomous weaponry. The campaign aims to raise public awareness of the risks created by deadly autonomous weapons and convince governments to take action and to halt their development and usage.

2018 saw the adoption of a resolution by the European Parliament asking for the outlawing of autonomous armed systems. The resolution asked for the creation of a binding legal document that would forbid the creation, manufacture, and use of lethal autonomous weapon systems. In order to secure the proper use of AI in weapons, it also recommended the creation of an international regulatory framework.

The Center for a New American Security's report on autonomous weapons was published in 2019. The document called for a ban on fully autonomous weapon development and use, arguing that these weapons pose grave risks to human rights and global security. The report argued for the establishment of global standards and laws governing the development and use of autonomous weapons.

**Possible Solutions**

Since the weaponization of AI is an emerging issue in the present day, there are numerous solutions available. The establishment and application of international rules and regulations might be one answer to the ethical problems and hazards involved with weaponized AI technology. These regulations could set explicit standards for the creation and deployment of autonomous weapons systems, guaranteeing that they are only deployed in accordance with war theory norms and do not breach international humanitarian law. Furthermore, laws and regulations might call for the use of fail-safe mechanisms and moral principles in the planning and developing of AI systems in order to prevent cyber exploitation and ensure the dependability and security of such weapons. Cooperation among governments, businesses, and civil society groups may also be necessary in drafting and implementing such rules and regulations, fostering openness and accountability in the use of weaponized AI technology.

**Sustainable Development Goal (SDG)**

Addressing the use of weaponized artificial intelligence, and its ethical dispute falls under the UN Sustainable Development Goal (SDG) 16: Peace, Justice, and Strong Institutions. SDG 16 recognizes the importance of promoting peaceful and inclusive societies, providing access to justice for all, and building effective, accountable, and inclusive institutions at all levels. Within SDG 16, addressing the use of weaponized artificial intelligence and its ethical dispute aligns with target 16.4, which specifically focuses on reducing illicit arms flows and combating the proliferation of all types of weapons. This includes weapons integrated with artificial intelligence capabilities. Furthermore, it also emphasizes the need to promote the responsible and ethical use of technology, particularly in the context of peace and security. To prevent potential risks, including the loss of human control, unintended harm to people, and the escalation of wars,

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**Appendix**

1. Articles and studies that focus on the ethics of artificial intelligence, particularly within a military context
	1. <https://www.defense.gov/News/Releases/Release/Article/2091996/dod-adopts-ethical-principles-for-artificial-intelligence/>
2. Report that outlines the benefits and risks of AI in national security and provides an overview of the U.S. government's strategies for addressing these issues.
	1. ​​<https://www.hsdl.org/?view&did=831208>
3. Report by Stanford University that focuses on the ethical principles that should be considered when creating AI systems, with key recommendations for designers and policymakers.
	1. <https://ai100.stanford.edu/sites/default/files/ai_100_report_0831fnl.pdf>
4. Report that discusses the ethical implications of AI and highlights the need for regulations and guidelines to ensure that AI is developed and used in a responsible manner.
	1. [https://www.europarl.europa.eu/thinktank/en/document/EPRS\_STU(2020)634452](https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU%282020%29634452)
5. Article that explores the impact of AI on society and the ethical questions raised by the increasing use of AI in various domains.
	1. <https://www.pewresearch.org/internet/2018/12/10/artificial-intelligence-and-the-future-of-humans/>
6. Article that includes several videos focusing on the ethical implications of autonomous weapons systems in military contexts.
	1. <https://www.cigionline.org/the-ethics-of-automated-warfare-and-artificial-intelligence/>