

THE EMERGENCE OF AUTONOMOUS WEAPON SYSTEMS: A THREAT TO THE UNITED NATIONS CHARTER PEACE FRAMEWORK?

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ABSTRACT: Days are not far when autonomous weapon systems will be deployed on the battlefield soon. Autonomous weapon Systems (AWS) also known as killer robots are weapons that can select and engage targets without human intervention once activated. The advent of autonomous weapons has ignited heated debate amongst the members of the international community about the compatibility of such weapons with the norms of international humanitarian law. The deployment of killer robots raises significant legal, ethical, and strategic concerns that could severely impact the primary purpose of the United Nations (UN). Against this backdrop, this paper explores the threats such weapons pose to the UN Charter Peace Framework. In doing so, it analyses several grounds, including how the prohibition of the use of force becomes ineffective, thereby endangering the UN's primary mission, which is to maintain international peace and security.

Keywords: Autonomous Weapon Systems; international law; United Nations; international peace and security; the prohibition of the use of force

INTRODUCTION

Gradually armed forces are distancing from the battlefield, as technology is developing rapidly. As a result, it can be seen that military powers like the United States of America use Unmanned Aerial Vehicles (UAVs) or drones in war which are remotely controlled by human personnel to attack the targets on the other parts of the globe. These kinds of weapons are being manufactured with the objective to minimise the harm to the soldiers from the effect of war. Finally, the goal is to ultimately exclude the role of soldiers from the process of war itself.¹ It means machines will play the roles of combatants. That could happen with the advent of autonomous weapon systems(AWS).² Once such weapons were confined to the imagination of science-fiction³, but soon will become reality.⁴ Currently over fifty governments⁵ are developing Autonomous weapons.⁶ AWS⁷ have the capacity to neutralise the targets independently without human involvement, once they are triggered.⁸ As of now, most robotic weapons such as drones are controlled by humans, in the future lethal autonomous robots(LARs) will operate themselves independently.⁹ In drones, lethal force is carried out by the decisions of human operators using computers but in the case of killer robots, machines will decide

¹ Chantal Grut, 'The Challenge to Autonomous Lethal Robotics to International Humanitarian Law' (2013) 18 Journal of Conflict and Security Law 5

² Ibid at 5.

³ For instance, Science-fiction movies like the Terminator series.

⁴ Kjolv Egeland, 'Lethal Autonomous Weapon Systems under International Humanitarian Law' (2016) 85 Nordic Journal of International Law 90

⁵ For instance, the USA alone has allocated 18 billion dollar funds for autonomous weapon systems between 2016 and 2020. Available at <https://theconversation.com/un-fails-to-agree-on-killer-robot-ban-as-nations-pour-billions-into-autonomous-weapons-research-173616> Accessed 15 January 2024

⁶ Titus Hattan, 'Lethal Autonomous Robots Are They Legal under International Human Rights and Humanitarian Law' (2015) 93, no. 4 Nebraska Law Review 1036

⁷ Autonomous weapon Systems are known by different connotation such as Lethal Autonomous weapons systems (LAWS), fully autonomous weapons systems, killer Robots, Lethal Autonomous Robots (LAR), AI weapons and others. Such terms are used interchangeably in the scholarly discussions.

⁸ Thompson Chengeta, 'Accountability Gap: Autonomous Weapon Systems and Modes of Responsibility in International Law' (2016) 45 Denver Journal of International Law and Policy 1

⁹ See Grut, above n. 1 at 5

to attacking the targets.¹⁰ Autonomous weapons are presently in the advanced stage of development and may be deployed in the future.¹¹

The emergence of autonomous weapons is a matter of serious concern for the international community and they have ignited serious debates around the world.¹² Proponents of the killer robots are of the opinion that such weapons would be more likely to respect the law of armed conflict than soldiers will.¹³ Whereas, the opposition of killer robots led by Human Rights Watch and Harvard Law School's International Human Rights Clinic¹⁴ have argued for banning such weapons because they lack human attributes which are necessary during war. As a result, such weapons would not be compatible with the basic norms of international humanitarian law.¹⁵ Meanwhile, Professor Christoff Heyns, the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions opined in a report to the United Nations Council on Human Rights that, "the deployment of lethal autonomous robots (LARs) may be unacceptable because no adequate system of legal accountability can be devised, and because robots should not have the power of life and death over human beings."¹⁶ On a similar note, Mr. Antonio Guterres, the United Nations Secretary-General expressed his opinion concerning the deployment of killer robots that "the prospect of machines with the discretion and power to take human life is morally repugnant."¹⁷ More importantly, leading experts of AI¹⁸ and robotics have expressed their worry in an open letter to the United Nations Convention on Certain Conventional Weapons which had deliberations on lethal AWS with the representatives of governments.¹⁹ They opined that, "Lethal autonomous weapons threaten to become the third revolution²⁰ in warfare. Once developed, they will permit armed conflict to be fought at a scale greater than ever, and at timescales faster than humans can comprehend."²¹ This will no doubt undermine the customary international law principle of prohibition of the use of force given under Article 2 Para (4)²² of the UN Charter.²³ Hence, one of

¹⁰ Maura Riley, 'Killer Instinct: Lethal Autonomous Weapons in the Modern Battle Landscape' (2016) 95 Texas Law Review 20

¹¹ U. C. JHA, 'Lethal Autonomous Weapon Systems and International Humanitarian Law' (2011-2017) 16 ISIL Year Book of International Humanitarian and Refugee Law 112

¹² See Chengeta, above n.8 at 1

¹³ Above n. 1 at 7-8

¹⁴ See Bonnie Lynn Docherty, "Losing humanity: The case against killer robots" Human Rights Watch. Available at https://www.hrw.org/sites/default/files/reports/arms1112_ForUpload.pdf Accessed 15 January 2024; Also see https://www.hrw.org/sites/default/files/reports/arms0514_ForUpload_0.pdf Accessed 15 January 2024; See https://www.hrw.org/sites/default/files/reports/arms0415_ForUpload_0.pdf Accessed 15 January 2024; https://www.hrw.org/sites/default/files/report_pdf/arms0818_summaryheedthecall.pdf . Accessed 15 January 2024

¹⁵ Bradan T. Thomas, 'Autonomous Weapon Systems: The Anatomy of Autonomy and the Legality of Lethality' (2015) 37 Houston Journal of International Law 238

¹⁶ See Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, U.N.G.A., Human Rights Council, 23d Sess., U.N. Doc. A/HRC/23/47, Summary; also available at https://www.ohchr.org/sites/default/files/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf Accessed 15 January 2024

¹⁷ See "Secretary-General's Address to the General Assembly," UN, 25 September 2018 <https://www.un.org/sg/en/content/sg/statement/2018-09-25/secretary-generals-address-general-assembly-delivered-trilingual> Accessed 15 January 2024

¹⁸ AI is understood as the ability of computer systems to emulate human behaviours such as learning, reasoning, planning and creativity. Available at <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-ai> Accessed 15 January 2024

¹⁹ Charles P. IV Trumbull, 'Autonomous Weapons: How Existing Law Can Regulate Future Weapons' (2020) 34 Emory International Law Review 534-535

²⁰ Invention of gunpowder and nuclear weapons is the first and the second revolution in warfare. Available at <https://www.theatlantic.com/technology/archive/2021/09/i-weapons-are-third-revolution-warfare/620013/>. Accessed 15 January 2024

²¹ "An Open Letter to the United Nations Convention on Certain Conventional Weapons," 22 June 2023, <https://www.cse.unsw.edu.au/~tw/ciair/open.pdf> Accessed 15 January 2024

²² Article 2 (4) of the UN Charter prohibits the threat or use of force and calls on all Members to respect the sovereignty, territorial integrity and political independence of other States. The exception to this rule is given under article 51 of the Charter which provides for self-defence in case of armed attack.

²³ See Dr. Tim McFarland, "Autonomous Weapons and The Jus Ad Bellum," Law school policy review, 20 March 2021, <https://lawschoolpolicyreview.com/2021/03/20/autonomous-weapons-and-the-jus-ad-bellum-an-overview/> Accessed 15 January 2024



the main purposes of the UN establishment is to maintain international peace and security²⁴ which is under threat. Eventually, there would be instability in the world order²⁵. This is a grave concern due to the rise of autonomous weapons which needs to be explored and so requires thorough investigation. Against this backdrop, this paper analyses how the utilisation of AWS may impact or more specifically pose a threat to the UN Charter Peace Framework.²⁶

This paper proceeds as follows: The first part of this article sets the stage as an introduction, the second part explains what really are autonomous weapons, the third part unveils challenges posed by autonomous weapons, the fourth part delves into how the use of killer robots threatens the UN Peace Framework, and the last part concludes the article.

1. Understanding Autonomous weapon systems: what really are they?

Before defining autonomous weapons, it is pertinent to understand autonomy. The terms autonomy and autonomous are different²⁷, which are erroneously believed as same. Autonomy is referred to as a device's capacity to function independently of human intervention,²⁸ and are developed to maneuver in a fluid and unorganised circumstances.²⁹ Moreover, such device's activities are volatile like human beings particularly in circumstances such as war. In short, such machines are intelligent like humans but not exactly. On the other hand, automatic machines are designed to function in an organised and expected path.³⁰ It can be inferred that automatic weapons follow a defined pathway, whereas autonomous weapons do not follow a planned pattern or structure rather they make their own suitable way to attack the target.

On the basis of level of human involvement in the usage of weapons, there are three types of autonomous weapons: human in the loop, human on the loop, and human off the loop. 'Human in the loop' weapons systems are the lowest degree of autonomous weapons in which weapons are capable of attacking only after the initiation of human beings.³¹ Examples of such weapons are Predator or Reaper Unmanned Aerial Vehicles (UAVs).³² Human on the loop weapons are weapons systems capable of identifying and attacking the targets with the supervision of human beings who can override the weapons actions.³³ Israel's Iron Dome is an example of such weapons systems.³⁴ Human off the loop weapons are fully autonomous weapon systems which can use force against the target without human intervention. These weapons do not yet exist.³⁵ The scope of this paper is limited to fully autonomous weapons or man off the loop weapons. That means human in the loop and human on the loop weapons are beyond the scope of this paper.

²⁴ See Article 1 Para1 UN Charter

²⁵ Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, U.N.G.A., Human Rights Council, 23d Sess., U.N. Doc. A/HRC/23/47, Summary; also available at https://www.ohchr.org/sites/default/files/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf Accessed 15 January 2024

²⁶ For the purpose of this paper, the term 'The UN Charter Peace framework' includes the preamble, purposes (see Article 1 of the Charter), principles (see Article 2 of the UN Charter) and other essential ingredients (For instance Chapter 6 of the Charter mentions about pacific settlement of disputes) embodied in the Charter to maintain international peace and security.

²⁷ Roni A. Elias, 'Facing the Brave New World of Killer Robots: Adapting the Development of Autonomous Weapons Systems into the Framework of the International Law of War' (2016) 3 Indonesian Journal of International & Comparative Law 104

²⁸ Kelly Cass, 'Autonomous Weapons and Accountability: Seeking Solutions in the Law of War' (2015) 48 Loyola of Los Angeles Law Review 1022

²⁹ See Elias, above n. 27 at 104

³⁰ Ibid at 104

³¹ Gwendolynn Bills, 'LAWS unto Themselves: Controlling the Development and Use of Lethal Autonomous Weapons Systems' (2014) 83 George Washington Law Review 181

³² Gregory P. Noone; Diana C. Noone, 'The Debate over Autonomous Weapons Systems' (2015) 47 Case Western Reserve Journal of International Law 47, no. 1 (Spring 2015): 28

³³ Bonnie Lynn Docherty, "Losing humanity: The case against killer robots" Human Rights Watch, 30 June 2023 https://www.hrw.org/sites/default/files/reports/arms1112_ForUpload.pdf Accessed 15 January 2024

³⁴ See Noone and Noone, above n. 32 at 28

³⁵ Ibid at 28

As of now, no universal definition of autonomous weapons is there.³⁶ However, there are multiple definitions³⁷ of such weapons given by many states and other entities. For this paper, we are mentioning the most widely used and popular definitions. According to the US Department of Defense, autonomous weapons are defined as, “a weapon system that, once activated, can select and engage targets without further intervention by an operator. This includes, but is not limited to, operator-supervised autonomous weapon systems that are designed to allow operators to override operation of the weapon system, but can select and engage targets without further operator input after activation.”³⁸ This definition indicates that autonomous weapons include both human on the loop and human off the loop weapons systems. Meanwhile, the International Committee of the Red Cross (ICRC) defines autonomous weapon systems as, “any weapon system with autonomy in its critical functions—that is, a weapon system that can select (search for, detect, identify, track or select) and attack (use force against, neutralize, damage or destroy) targets without human intervention.”³⁹ In short, fully autonomous robots are capable of identifying and attacking the targets independently.⁴⁰ There are some autonomous weapons which need human involvement to attack the target, though they have their motion autonomously.⁴¹ Such weapons are not considered as fully autonomous weapons. Most importantly, AWS will be powered with artificial intelligence which would enable them to understand the situations and pave the way for calculated decisions.⁴²

³⁶ Shin-Shin Hua, ‘Machine Learning Weapons and International Humanitarian Law: Rethinking Meaningful Human Control’ (2019) 51 *Georgetown Journal of International Law* 121

³⁷ For example, 1. France has defined AWS as “LAWS are lethal weapon systems programmed to be capable of changing their rules of operation and therefore are likely to depart from the employment framework initially defined. Their software may compute decisions in order to perform actions without any assessment of the situation by the command.” Available at https://www.defense.gouv.fr/sites/default/files/ministere-armees/20210429_Comit%C3%A9%20d%27%C3%A9thique%20de%20la%20d%C3%A9fense%20-%20Avis%20int%C3%A9gration%20autonomie%20syst%C3%A8mes%20armes%20l%C3%A9aux%20-%20Version%20anglaise.pdf.pdf Accessed 15 January 2024.; 2. Germany defined AWS as “LAWS are weapons systems that completely exclude the human factor from decisions about their employment. Emerging technologies in the area of LAWS need to be conceptually distinguished from LAWS. Whereas emerging technologies such as digitalization, artificial intelligence and autonomy are integral elements of LAWS, they can be employed in full compliance with international law” (Federal Foreign Office, 2020, p. 1) available at <https://documents.unoda.org/wp-content/uploads/2020/07/20200626-Germany.pdf> Accessed 15 January 2024; 3. United Kingdom Defines AWS as “An autonomous system is capable of understanding higher-level intent and direction. From this understanding and its perception of its environment, such a system is able to take appropriate action to bring about a desired state. It is capable of deciding a course of action, from a number of alternatives, without depending on human oversight and control, although these may still be present. Although the overall activity of an autonomous unmanned aircraft will be predictable, individual actions may not.” (Ministry of Defence, 2018a, p. 13); Available at https://assets.publishing.service.gov.uk/media/5a823670ed915d74e6236640/doctrine_uk_uas_jdp_0_30_2.pdf Accessed 15 January 2024.; 4. China defines AWS as “LAWS should include but not be limited to the following 5 basic characteristics. The first is lethality, which means sufficient pay load (charge) and for means to be lethal. The second is autonomy, which means absence of human intervention and control during the entire process of executing a task. Thirdly, impossibility for termination, meaning that once started there is no way to terminate the device. Fourthly, indiscriminate effect, meaning that the device will execute the task of killing and maiming regardless of conditions, scenarios and targets. Fifthly evolution, meaning that through interaction with the environment the device can learn autonomously, expand its functions and capabilities in a way exceeding human expectations”. (China, 2018, p. 1). Available at [https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_\(2018\)/CCW_GGE.1_2018_WP.7.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2018)/CCW_GGE.1_2018_WP.7.pdf) Accessed 15 January 2024

³⁸ US Department of Defense Directive 3000.09; available at <https://media.defense.gov/2023/Jan/25/2003149928/-1/-1/0/DOD-DIRECTIVE-3000.09-AUTONOMY-IN-WEAPON-SYSTEMS.PDF> Accessed 15 January 2024

³⁹ Neil Davison, ‘A legal perspective: Autonomous weapon systems under international humanitarian law’ International Committee of the Red Cross: 5

⁴⁰ Jason S. DeSon, ‘Automating the Right Stuff - The Hidden Ramifications of Ensuring Autonomous Aerial Weapon Systems Comply with International Humanitarian Law (2015) 72 *Air Force Law Review* 91

⁴¹ Jeroen Van Den Boogaard, ‘Proportionality and Autonomous Weapons Systems’ (2015) 6 *Journal of International Humanitarian Legal Studies* 251

⁴² See Cass, above n. 28 at 1024



From the above, it is clear what constitutes autonomous weapons. However, for better clarity, we need to understand: what does not include autonomous weapons.⁴³ Weapons such as drones, and automated weapons fall outside the purview of autonomous robots. The use of artificial intelligence by autonomous weapons is the primary factor that distinguishes them from other weapons systems.⁴⁴

2. The challenges posed by autonomous weapon systems: mounting concerns for the international community

Before outlining what are the challenges posed by autonomous weapons, let us briefly understand the benefits of such weapon systems. There are numerous advantages of deploying those weapons in armed conflict such as they are quick to assess the situation and respond accordingly; they are robotic machines which means they would not respond out of emotions such as anger, fear; they can be deployed in warfare for long duration without getting tired; and they are cheaper than traditional soldiers in the battlefield.⁴⁵

However, those weapons systems pose challenges to international law. Opponents of killer robots have advocated for a complete prohibition on AWS due to growing concerns related to autonomous weapons. Some experts argue that software developers cannot programme killer robots so as to be compatible with IHL standards. They assert that these weapons cannot adhere to the principles of international law because algorithms must discriminate between military personnels and civilians and must apply force proportionately, both of which require human decision-making, which is lacking in those machines and which would be even difficult for humans to uphold.⁴⁶ They contend that Such weapons in essence would be unlikely to be compatible with the standards of law of armed conflict. Moreover, any malfunctions of AWS may result in the loss of civilian lives. Autonomy in AWS might help to distinguish between civilians and combatants though the same is questionable but any tragic error in machines would be disastrous. These machines are prone to malfunctions. Additionally, artificial intelligence (AI)-enabled AWS are doubtful of adapting to unforeseen circumstances.⁴⁷ At the same time, any enemy may cause the failure of the system by corrupting the data or hacking the software of AI-enabled autonomous weapons. Opponents of AWS also argue that it is not possible to programme all circumstances which AWS may come across during war and any error in the weapons systems may cause large-scale civilian casualties or unintended assault on the enemies. Furthermore, once AWS is activated, it cannot be recalled when there is a malfunction in autonomous weapons, so it will carry on the assault unless energy or ammunition is over.⁴⁸ Opponents⁴⁹ also warn that the use of AWS may abrogate the sense of compassion and dignity in armed conflict. A combatant(soldiers) would not attack a defenceless adversary like in the situation of sleeping or bathing however AWS would not make such moral judgments. Moreover, granting machines the power to make life and death choices deprives the armed forces⁵⁰ of their human dignity and reduces soldiers to mere objects⁵¹ rather than that humans should have power to take such decisions.

Lastly, there is another issue associated with the usage of AWS, which involves a possible absence of accountability regarding violations of IHL.⁵² If AWS were to breach the law of armed conflict,

⁴³ See Boogaard, above n. 41 at 252

⁴⁴ Ibid at 253

⁴⁵ Erica H. Ma, 'Autonomous Weapons Systems under International law' (2020) 95 New York University Law Review 1444-1445

⁴⁶ Ibid at 1446

⁴⁷ Charles P. Trumbull IV, 'Autonomous Weapons: How Existing Law Can Regulate Future Weapons' (2020) 34 Emory International Law Review 551

⁴⁸ Ibid at 552

⁴⁹ For instance, Campaign to Stop Killer Robots (see <https://www.stopkillerrobots.org/stop-killer-robots/facts-about-autonomous-weapons/> Accessed 15 January 2024), Human Rights Watch (see <https://www.hrw.org/news/2019/09/26/killer-robots-ban-treaty-only-credible-solution> Accessed 15 January 2024), Amnesty International (see <https://www.amnesty.org/en/latest/news/2021/11/global-a-critical-opportunity-to-ban-killer-robots-while-we-still-can/> Accessed 15 January 2024)

⁵⁰ See Trumbull IV, above n. 47 at 552

⁵¹ Ibid at 553

⁵² Ibid

identifying the responsible individual or assigning accountability might not only be challenging but may also not be entirely possible at all⁵³ to determine responsibility. Arguably, in essence, there is a kind of accountability gap. On the contrary, IHL holds individuals accountable for any unlawful killings of civilians. Any weapon used in war, making it extremely difficult to hold accountable for violation of IHL, renders such weapons do not meet the standards of law of war and consequently they should not be used in hostilities.⁵⁴

3. The implications of autonomous weapons on international peace, security, and stability: A threat to the UN Charter Peace Framework

After the end of the Second World War, the United Nations Organisation (UNO) was established to save the world from the horrors of another world war.⁵⁵ Fortunately, the UN is successful in protecting the Earth from yet another global war. However, the global body failed to prevent countless wars since 1945.⁵⁶ The main objective of the UN is to maintain international peace and security.⁵⁷ The Makers of the international institution promised to make this world a secure habitat. In essence, the UN was formed to stop any kind of war which devastated the world previously.⁵⁸

However, the rise of AWS may turn the world order upside down. More specifically, such weapons might end up eroding the international peace, security and stability maintained by the UN peace framework and thus endangering the main purpose of the UN. In this section, we will highlight the grounds that are posing such a threat to the primary mandate of the UN. The grounds are manifold but some are more alarming than others such as the deployment of AWS in warfare may lower the threshold of the use of force; and the risks of AI weapons falling into the wrong hands. Those grounds are discussed below:

A. Lowering the threshold for the use of force

The UN Charter regulates the use of force in international relations. The most significant principle of the Charter prohibits the use of force except in two circumstances: self-defence⁵⁹ and the Security Council authorisation.⁶⁰ Overall, the Charter did the job fairly in substantially decreasing armed conflicts amongst states since 1945.⁶¹ The prohibition of use of force is one of the essential

⁵³ Nathan Gabriel Wood, 'Autonomous weapon systems and responsibility gaps: a taxonomy' (2023) 25 Ethics and Information Technology 1

⁵⁴ Amitai Etzioni and Oren Etzioni, 'Pros and Cons of Autonomous Weapons Systems' available at <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/> Accessed 15 January 2024

⁵⁵ Ramesh Thakur, *The United Nations, Peace and Security: From Collective Security to the Responsibility to Protect* (Cambridge University Press: New York, 2006), 1

⁵⁶ Ibid at 50

⁵⁷ Ibid at 2

⁵⁸ Jussi M. Hanhimäki, *The United Nations: A Very Short Introduction* (Oxford University Press: New York, 2008) 17

⁵⁹ Article 51 of the UN Charter provides, "Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security." ; Available at <https://www.un.org/en/about-us/un-charter/full-text#:~:text=Article%2051,maintain%20international%20peace%20and%20security>. Accessed 15 January 2024

⁶⁰ Article 51 of the UN Charter provides, "Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security." ; Available at <https://www.un.org/en/about-us/un-charter/full-text#:~:text=Article%2051,maintain%20international%20peace%20and%20security> Accessed 15 January 2024

⁶¹ Bode, Ingviold and Huelss, Hendrik, 'The Implications of Emerging Lethal Autonomous Weapons Systems for International Peace and Security' Conflict Analysis Research Centre, University of Kent; available at https://kar.kent.ac.uk/64224/1/LAWS%20and%20the%20use%20of%20force_CARC_Nov2017.pdf Accessed 15 January 2024



ingredients to maintain international peace and security⁶², which is inscribed under Article 2(4)⁶³ of the UN Charter.

However, the potential use of autonomous weapons may disrupt the UN Charter Peace framework due to the happenings of more frequent wars. This is because the costs of war will be reduced, in two ways, first autonomous weapons might be less expensive and second, soldiers will not be involved in war, then there will be no casualties or less fatalities.⁶⁴ Moreover, it is generally desired that the costs of warfare should be less. But, less the cost of war, will be a kind of encouragement for waging more wars. Marko Kovic has succinctly put, “Reducing the cost of war might, in other words, lower the threshold for engaging in war.”⁶⁵ Hence, there will be more warfare for even those issues which could have been resolved by peaceful settlement of disputes. This way the fundamental principle of prohibition of use of force is under threat from the onset of autonomous weapons. Consequently, the purpose of the UN peace framework to maintain international peace and security may be jeopardised.

B. The danger of arms races and the proliferation of autonomous weapons

Despite of severe opposition against the advent of autonomous weapons, it is highly unlikely to prohibit such weapons. The reasons are twofold: First, the UN-led Convention on Certain Conventional Weapons⁶⁶ (CCW) is obliged only to pursue conventional weapons. As a result, issues such as concerns about AI-enabled autonomous weapons may be beyond the scrutiny of the CCW. Second, major international players in autonomous weaponry like the US, UK, Russia, China, and Israel are against restrictions on lethal autonomous weapons.⁶⁷

This entails that the usage and development of autonomous weapons will possibly increase in the future because of several benefits such as human soldiers are likely to be pulled away from the harm of war, a decrease in dependency on humans during armed conflict, impressive pace, high precision of attack, and above all they are free from human needs such as hunger, thirst, tiredness and also devoid of human emotions such as anger, fear, and others.⁶⁸ These attributes of AI weapons set them apart from traditional weapons and make them an ideal weapon and that is why states are allured to develop such weaponry. Consequently, there will be a proliferation of autonomous weapons across the globe and will be used for security and military.⁶⁹ Besides those traits, AI weapons could be less costly and easily accessible and can be manufactured in large quantities. On the contrary, a bomber jet costs millions of US dollars for a unit, meanwhile, UAVs or unarmed drones cost much less than a bomber jet could.⁷⁰ No doubt, qualities of killer robots such as the ability to work more quickly than opponents in war, and the capability to strike the target accurately captivate countries to develop and deploy⁷¹ such weapons in the future. Countries such as the US, Russia and China are allocating significant amounts of money in AI weaponry for harnessing the military pursuit. This naturally triggers arms races amongst the major powers of the world. Moreover, there is a likelihood of an increase in arms races because of prudency among the rivals over the ability of the AI weapons to be

⁶² Denise Gracia, ‘Lethal Artificial Intelligence and Change: The Future of International Peace and Security’ (2012) 20 International Studies Review 336

⁶³ Article 2(4) of the UN Charter provides that All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

⁶⁴ Marko Kovic, ‘The strategic paradox of autonomous weapons’ osf, February 2018. <https://osf.io/preprints/socarxiv/3k7x4/> (last accessed 15 January 2024) Accessed 15 January 2024

⁶⁵ Ibid at 10

⁶⁶ See <https://disarmament.unoda.org/the-convention-on-certain-conventional-weapons/> Accessed 26 September 2023 Accessed 15 January 2024

⁶⁷ Liran Antebi, ‘The Proliferation of Autonomous Weapons Systems: Effects on International Relations’ inss, available at <https://www.inss.org.il/wp-content/uploads/2019/10/liran-antebi.pdf> Accessed 15 January 2024

⁶⁸ Ibid at 77

⁶⁹ Ibid at 84

⁷⁰ “The strategic paradox of autonomous weapons,” osf, February 2018. <https://osf.io/preprints/socarxiv/3k7x4/> Accessed 15 January 2024

⁷¹ Michael C. Horowitz, ‘When speed kills: Lethal autonomous weapon systems, deterrence and stability’ (2019) 42 Journal of Strategic Studies 774

developed.⁷² As a result, there is a likelihood of proliferation amongst states. However, rivalry amongst states over such weapons could be problematic and ensue tension.⁷³ That would potentially undermine international peace, security maintained by the UN.

C. Potential Accidental Risks of AI-enabled autonomous weapons in warfare

The introduction of automation in a war would potentially enhance the accuracy of attack, and decrease in civilian fatalities. However, increased autonomy in war may cause unforeseen mishaps. However, automation in self-driving cars and airline autopilot has increased the protection of passengers. But war is way more complicated environment than flying planes or driving cars.⁷⁴ Additionally, extreme confidence in AI-powered autonomous weapons may backfire.⁷⁵ Furthermore, lethal autonomous robots may not understand that there is any fault in their system. However, any error made by armed personnel may be comprehended and corrected later. But AI weapons might not be able to comprehend and correct themselves, therefore they will be doing the same fault unless they are dismantled or recoded.⁷⁶

Nation-states may employ killer robots even before the complete inspection of such weapons systems, which may result in untoward incidents.⁷⁷ Any mishap in autonomous weapons may cause serious harm and such weapons may exterminate civilians or intensify the war. Apart from mishaps, AI weapons are prone to hacking which may erode the crisis stability.⁷⁸

D. Nuclear stability risks

To understand the nuclear stability threats by AWS, it is noteworthy to mention here the incident of the Cuban Missile Crisis,⁷⁹ wherein high-ranking former Soviet military officers were stuck in the B-59 Submarine powered with nuclear torpedoes, and they were not able to communicate with the high command. They wrongly believed that American soldiers were planning to exterminate them. However, American warships were putting pressure on the Soviet submarine to come on the surface of water. Americans were unaware about the nuclear capability of the submarine. To make the situation worse, the submarine was highly heated to 45 degrees Celsius, and the sailors were fatigued, in this storm, they had to decide whether to use the nuclear-powered torpedoes in self-defence. Vasili Arkhipov, a high-ranking Russian military officer rejected the proposal to attack the US in self-defence because Americans were not attacking them, thus using force against them would not be legitimate. Later the crisis was over.⁸⁰

Imagine the above situation where the decision to use the force was to be taken by AI-enabled autonomous weapons instead of soldiers.⁸¹ They might have attacked the USA entities thus ensuing the full-blown nuclear war between the two world's largest nuclear-armed state. In the future, machines will take the targeting decisions in such situations⁸², which may destabilise the world

⁷² Peter Burt, 'The arms race towards autonomous weapons - industry acknowledge concerns' drone wars, <https://dronewars.net/2023/05/09/the-arms-race-towards-autonomous-weapons-industry-acknowledge-concerns/> Accessed 15 January 2024

⁷³ Ibid

⁷⁴ Melanie Sisson et al., 'The Militarization of Artificial Intelligence' stanley center, June 2020. <https://stanleycenter.org/publications/militarization-of-artificial-intelligence/> Accessed 15 January 2024

⁷⁵ See Horowitz, above n. 71 at 773

⁷⁶ Ariel Shapiro, 'Autonomous weapon systems: Selected implications for international Security and for Canada' Parliament of Canada, December 20, 2019. <https://lop.parl.ca/staticfiles/PublicWebsite/Home/ResearchPublications/InBriefs/PDF/2019-55-e.pdf> Accessed 15 January 2024

⁷⁷ Above n. 75 at 780

⁷⁸ See Sisson et al., above n. 74 at 14

⁷⁹ In October 1962, the Cuban Missile Crisis was an immediate and grave conflict between the two superpowers the United States and the Soviet Union during the Cold War. Never ever in history than during this time both parties were so close to nuclear Armageddon. Available at <https://history.state.gov/milestones/1961-1968/cuban-missile-crisis#:~:text=The%20Cuban%20Missile%20Crisis%20of,came%20closest%20to%20nuclear%20conflict> Accessed 15 January 2024

⁸⁰ Nathan Leys, 'Autonomous Weapon Systems, International Crises, and Anticipatory Self-Defense' (2020) 45 Yale Journal of International Law 377-378

⁸¹ Ibid at 378

⁸² Ibid at 378.

order.⁸³ Therefore, it can be argued that the emergence of autonomous weapons might threaten the nuclear stability risks, and thus endangering the stability maintained by the global body.

E. The risks of lethal autonomous robots falling into the wrong hands

In the future, killer robots could become tiny and inexpensive.⁸⁴ As a result, rogue entities including both state and non-state actors (NSAs) like North Korea and ISIS⁸⁵ also known as ‘Daesh’ would race to acquire the same. Those weapons systems could be misused by the notorious elements for their illicit purposes. In the past, for example, ISIS has used armed drones against the US military with grenades in Iraq. Therefore, more likely, Daesh and other non-state actors might use killer robots.⁸⁶ As the international community has voiced concern that terrorism is causing risk to international peace and security⁸⁷, consequently, NSAs acquiring lethal robots would be a challenge to the main purpose of the UN.

Likewise, in the case of states for instance North Korea nuclear programme has threatened the peace and security of the Korean peninsula⁸⁸, and if the same state acquiring autonomous weapons would further escalate the tension and jeopardise the peace and security at the regionally.

CONCLUSION

In the future, nation-states might deploy autonomous weapons instead of soldiers at the forefront of the battlefield. That means machines will taking over the combatant roles. AI-enabled autonomous weapons may be a game changer in the battlefield. Then, armed conflict may be fought at a speed beyond the calculation of the human mind.⁸⁹ That could threaten the primary purpose of the UN.⁹⁰ Now, the future seems bleak because autonomous weapons may disrupt the world order.⁹¹ The grounds mentioned in the previous section are many, but one of the primary reasons is the advent of autonomous weapons may reduce the threshold for the use of force and thus more wars will be fought and the peaceful dispute settlement mechanism⁹² may become ineffective. Secondly, threats to nuclear stability by the use of AWS may prompt full-blown nuclear wars. Lastly, such weapons systems in wrong hands (rogue states or terrorist groups) would undermine peace. Thus, it can be argued that the advent of AWS poses a genuine threat to the international peace, security and stability maintained by the UN. Therefore, international community must pay heed to the clear and present danger knocking the door. There must be a binding treaty⁹³ pertaining to AWS. Otherwise, the rise of Terminator-like killer robots will unleash unimaginable loss to humanity.

⁸³ Report of the Special Rapporteur on extrajudicial, summary, or arbitrary executions, Christof Heyns, Human Rights Council Twenty-third Session Agenda item 3; A/HRC/23/47, April 9, 2013. https://www.ohchr.org/sites/default/files/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf Accessed 15 January 2024

⁸⁴ See Shapiro, above n. 76 at 7; available online at <https://lop.parl.ca/staticfiles/PublicWebsite/Home/ResearchPublications/InBriefs/PDF/2019-55-e.pdf> Accessed 15 January 2024

⁸⁵ See <https://www.nbcnews.com/storyline/smart-facts/what-isis-what-you-need-know-about-islamic-state-iraq-n859996> Accessed 15 January 2024

⁸⁶ Ibid

⁸⁷ “Threats to international peace and security caused by terrorist acts,” December 9, 2008. <https://www.un.org/unispal/document/auto-insert-184742/>

⁸⁸ “Understanding the North Korean Nuclear Issue,” July 9, 2023. https://www.mofa.go.kr/eng/wpge/m_5474/contents.do

⁸⁹ “An Open Letter to the United Nations Convention on Certain Conventional Weapons,” 22 June 2023, <https://www.cse.unsw.edu.au/-tw/ciair/open.pdf>

⁹⁰ See Thakur, above n. 55 at 1-2

⁹¹ Christoff Heyns, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, A/HRC/23/47, 9 April 2013

⁹² See <https://www.aalco.int/59thsession/Final%20Peaceful%20Settlement%20of%20Disputes%20on%2011.10.2021.pdf> Accessed 15 January 2024

⁹³ For instance, the Comprehensive Nuclear-Test-Ban Treaty (CTBT) prohibits nuclear explosions entirely, either for military or peaceful purposes. Available at [https://www.ctbto.org/our-mission/the-treaty#:~:text=The%20Comprehensive%20Nuclear%20Test%20Ban%20Treaty%20\(CTBT\)%20bans,a%20Protocol%20with%20two%20annexes](https://www.ctbto.org/our-mission/the-treaty#:~:text=The%20Comprehensive%20Nuclear%20Test%20Ban%20Treaty%20(CTBT)%20bans,a%20Protocol%20with%20two%20annexes). (Accessed on 26 September 2023); Also see Non-Proliferation of nuclear weapons (NPT) available at <https://disarmament.unoda.org/wmd/nuclear/npt/> Accessed 15 January 2024



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