Legal and Ethical Issues and the Global South Perspectives on LAWS Development

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Abstract

This study explores legal and ethical issues raised by the development in the new military autonomous weapons systems that are empowered to initiate attacks to kill without human input in the future war. The development has generated international controversy, with some countries in support and others opposing it. Against this backdrop, this study also investigated Global South viewpoints in the ongoing international debates on lethal autonomous weapons systems. As exploratory research, the study qualitatively reviewed extant literature on international discussions at the UN disarmament forums, as well as regional deliberations on lethal autonomous weapons systems. The study finds out that the absence of humans in the loop when lethal autonomous weapons systems are firing remain the central argument against its development, as this is seen as a risk to humanity and global security. For humanitarian consideration and international security, the Global South countries and the international NGO's and other states have called for lethal autonomous weapons systems regulation, both in their designs and deployment in the future war. It is advised that humanity and global security must be given the right consideration in the development of the new military weapons system.

Keywords: The Global South, autonomous weapons, artificial intelligence, legal issues, ethical issues

Introduction

As artificial intelligence (AI) has found its way and secured footholds in the industries like healthcare, engineering and finance, the race for its development

and deployment in the military technologies has begun with increasing investments in autonomous weapons systems. Though countries have yet to deploy lethal autonomous weapons systems, nevertheless, the development of military AI is accelerating (Kirsten, 2019). By design, fully autonomous weapons systems would require the integration of a mobile combat platform, such as a drone aircraft, ship, or ground vehicle, sensors to scrutinize the platform's surroundings; processing systems to classify objects discovered by the sensors; and algorithms directing the platform to initiate attack when an allowable target is detected. Experts describe fully autonomous weapons as advancements in military technology that include various degrees of autonomy, such as drones/unmanned aerial vehicles (UAVs), and unmanned ground and water vehicles. Sharkey (2010), (2012); Asaro (2012), Kastan (2013) aver that when LAWS are fully developed, the new weapon systems would possess a distinguishing feature based on (a) their ability to operate without human control or supervision in dynamic, unstructured, and/or open environments; (b) their ability to engage in autonomous (lethal) decision-making, targeting and force; and (c) their ability to engage in defensive and/or offensive combat.

The International Committee of the Red Cross (ICRC) defines LAWS as "any weapon system that can select and attack its targets without any human intervention" (ICRC, 2016: 1). It is important to note that some autonomous weapons have already been deployed in combat, albeit operated remotely or within limited ranges (Fard, 2021; Human Rights Watch, 2024). The Human Rights Watch (2024) further observes that defining feature of these developing military technologies is the complete absence of human involvement in their operation, as the systems are programmed to identify and engage targets without human input. Nash (2015) defines lethal autonomous weapons systems as weapons capable of identifying, selecting, and engaging targets without meaningful human control. In a contrary view, according to Reichberg and Syse (2021), autonomous weapons systems aim to reduce human involvement in military operations, both in terms of control and decision-making, potentially decreasing the number of combatants deployed and ultimately leading to fewer casualties.

Since 2014, state parties to the UN-CCW have engaged in debates regarding LAWS development, in accordance with Article 36 of the 1977 Additional Protocol I to the Geneva Conventions. Analysis of these discussions reveals a geopolitical rivalry marked by conflicting interests between Global South nations advocating for LAWS regulation and Global North powers favoring unrestricted lethal autonomous weapons systems (Garcia, 2015). This ongoing debate reflects a wider geopolitical and strategic competition, highlighting historical inequalities in technology-driven military innovation (Ray, 2019). Sajduk (2021) argues that developed nations in the Global North adapt to emerging military technologies to fulfil their military objectives, which align with their foreign policy aims. Similar to the nuclear arms race of the 20th century, the pursuit of robotic weaponry by major powers mainly from North is driven by the desire to maintain strategic superiority over potential adversaries (Pedron & Cruz, 2020). The first Gulf War (1990-1991) exemplified this, as US-led coalition forces, equipped with advanced military technology, decisively defeated Iraqi forces in 1991, underscoring the importance of technological superiority in warfare (Toffler and Toffler, 2006: 55–64). Indeed, countries in the Global North, including the US, UK, France, Russia, China, Israel, South Korea, and Germany, have intensified their efforts to develop lethal autonomous weapons systems, investing heavily in AI research for military applications.

In another breath, the Global South has actively pursued norm-making initiatives, collaborating with international NGOs, civil society organizations and other states to raise awareness about the threats posed by LAWS and advocate for their regulation, including a potential ban on their development (Behringer, 2005). Considering the legal, ethical, humanitarian and security concerns in the discussions on LAWS, the legal and ethical aspects in the debate associated with the development of lethal autonomous weaponry, as well as the Global South viewpoints would be explored in this study. In deference to the above, this study explores the issues generated in the international discussions on the application of AI in military technology in the area of autonomous weapons systems (AWS). These insights would provide us adequate knowledge and informed discussions about issues raised by LAWS development in relation to the application of AI in military technology for future warfare. In conducting this research, relevant literature is qualitatively reviewed to scrutinize the discussions on LAWS at the

UN disarmament forums, UN-GGE meetings as well as the Global South viewpoints on AWS.

As exploratory research, this study is divided into four major parts. The first part explores the legal issues in the debate on lethal autonomous weapons systems. An investigation into the ethical debate associated with the development of lethal autonomous weaponry constitutes the second part of the study. The third part analyzed the Global South standpoints and norm-making approach to regulate lethal autonomous weapons systems. The study ends with findings and conclusion.

Legal Issues in LAWS development

At the meeting of experts on the Convention on Conventional Weapons (CCW), first in 2014 and later in 2015, 2016, 2018, and 2019, various organizations that include civil society groups, human rights advocates, scientists, religious bodies, diplomats, and some states expressed the fear whether lethal autonomous weapons systems could comply with existing international law, specifically, international humanitarian law (IHL), including the 1949 Geneva Conventions, the Martens Clause and customary international law. Experts' opinions in this regard, however, clearly show that lethal autonomy in weapons systems might be indiscriminate between lawful and unlawful targets. This thus sets in motion the non-conformity with the principle of distinction in international humanitarian law (Protocol I, 1899). In the laws of war, for instance, a weapon is classified as inherently indiscriminate if such a weapon is incapable of being used in accordance with the principles of distinction and proportionality. Therefore, the argument against LAWS subsists for its inability to discriminate proportionately between the civilians and the lawful target- the combatants during war. The DoD's (2015) assertion that "weapons that are specifically designed to conduct attacks against civilians would be prohibited" is of significance in this discussion. Again, as long as there would be no human in the loop in the design and operations of lethal autonomous weapons, the principle that requires armed combatants to at all the time make a clear distinction between combatants'-cum military objectives and civilian objects would be jeopardized. Also, the civilian population and civilian objects which the law of armed conflict seeks to protect from the effects of military operations would be at risk too.

In view of the above, the fear is nurtured that it is most unlikely that artificial sensory devices in autonomous weapons could possess processing capabilities to distinguish between an active combatant from a non-combatant (a civilian) including *hors de combat* (injured, sick, or surrendering soldiers and shipwreck) in conformity with international humanitarian law and customary international law. In this nuance, there is no denying the fact that artificial intelligence in military robots is no substitute for human intelligence which functions with human psychology. With respect to the principle of distinction, the question remains whether the operations of LAWS during armed conflicts could distinguish between civilians and combatants. Since the decision to launch attacks against targets during the war is judgmental only peculiar to human beings, it is argued that no amount of artificial intelligence can assist a machine (military robot) to function effectively in this regard. "Human beings", Human Rights Watch and IHRC (2016) say, "possess the unique capacity to identify with other human beings and are thus equipped to understand human behavior, which programmed machines cannot".

Another argument against the development and deployment of LAWS in future wars is the doubt as to whether fully autonomous weapons would be consistent with the principle of necessity and proportionality in accordance with international humanitarian law. The principle requires a belligerent to apply the minimum force necessary to defeat an enemy, as attacks on military objects must not cause loss of civilian life in the deployment of excessive force for a direct military advantage. As in this case, Michael et al (2013) observes that a fully autonomous weapon would be unlikely to calculate and apply minimum force necessary against an enemy, and that deployment of excessive force by a fully autonomous weapon could as well cause loss of civilian life. This is because military advantage determinations are always contextual, invariably difficult to balance by a machine (Michael et al, 2013). On this note, the doubt persists that the planned uses of fully autonomous weapons would be consistent with the principles of distinction and proportionality in accordance with international humanitarian law, as the decision to attack would be exercised by fully autonomous weapons that is not judgmental unlike humans.

On legal accountability during armed conflict, it is thus argued that lethal autonomous weapons systems would be unable to comply with international humanitarian law and customary international law due to its nature. This remains a critical issue when fully autonomous weapons are developed and deployed in future war. When it comes to the issue of war crime during an armed conflict (which is punishable) under international humanitarian law (Geneva Convention, 1949) and international customary law, it thus established the fact that fully autonomous weapons cannot be held accountable for their own unlawful acts. The reason is that "autonomous weapons systems would not assume any jurisdiction; hence the offence committed could not be punished because they would be machines" (Sparrow, 2007). It is also ascertained that there is the burden of personal prosecution by the International Criminal Court (ICC) to adjudicate on disputes arising from or related to LAWS (Hammond, 2015). This is because there would be no evidence to establish criminal responsibility against LAWS during the war. Besides, the Rome Statute of the

International Criminal Court clearly states that "a weapon would not fall within the natural person jurisdiction of international courts". This implies that autonomous weapons would be unable to comply with international humanitarian law and international human rights law, thus creating a gap in accountability. So far, fully autonomous weapons would be designed to act autonomously, independent of humans, however, there is the likelihood of "an indiscriminate attack against civilians or *hors decombats* during an armed conflict without criminal liability" (Human Rights Watch and IHRC, 2016).

During the armed conflict combatants are held accountable under the principle of legal accountability. This is to prevent the belligerents from violating the human rights of civilians who are not a party to the conflict and also to make combatants account for war crimes (Hammond, 2015). On this note, scholars of international law have identified two major actors to be held accountable for war crimes and rights abuses during the war; the commanding officer on the battle field and the state entity. According to Kastan (2013: p. 14), "the principle of individual and state accountability for violations is important to keep the legal system on track". But to Lin et al. (2008), since it would be difficult to make fully autonomous weapons accountable, the situation would make no one is held accountable for

their mistakes. This in effect could create "an avenue for the perpetrators of war crimes to evade justice" (Asaro, 2012), thus giving a fillip to unethical practices during the war (Sparrow, 2009). However, under the principle of "command responsibility", the international humanitarian law stipulates that commanding officer can be held liable for war crimes committed under his command; the horrific action he himself authorized or failed to prevent from happening (UNIDR, 2014; Hammond, 2015). Given the prevailing circumstances under lethal autonomous weapons systems when there would be no human in the loop, it would be difficult to hold a commanding officer "responsible for LAWS action that is beyond the traditional scope of command responsibility" says Hammond (2015, p. 665).

The noticed gap in the law of armed conflict and other Protocols notwithstanding, the critics have voiced out that the "principles of humanity" and "dictates of public conscience" under the Martens Clause could be applied to analyze the legality of lethal autonomous weapons. Put simply, it is a way to be in conformity with international humanitarian law and customary international law as well as other existing Protocols. The argument here is that for lethal autonomous weapons systems to pass the threshold of international humanitarian law, the "principles of humanity" and "dictates of public conscience" should be applied to autonomous weapons.

Ethical Issues in LAWS development

Apart from the legal questions raised by the development of lethal autonomous weapons systems, the debates on lethal autonomous weapons have generated some ethical concerns too. Those who criticized lethal autonomous weapons systems believe that no technological innovations can substitute a machine for a life-and-death decision. They have argued that a machine lacks the human qualities necessary to make a moral decision to terminate human life in armed conflict; that it is a threat to human dignity to leave in the hands of a machine the decision to terminate human life; and the fact that a machine is not a moral agent. In this line of thought, they believe that any killing orchestrated by a machine is arguably inherently wrong since machines are unable to exercise human judgment and compassion. In the view of the Holy See (2015), only human beings possess "prudential judgment", the ability to apply broad principles to particular

situations, interpreting and giving a "spirit" to laws rather than blindly applying an algorithm. In a report by UN Human Rights Council, decisions over life and death in armed conflict may require compassion and intuition only possessed by human beings" (UN Human Rights Council Report, 2013). In another sense, the moral question raised by the deployment of fully autonomous weapons is the threat it poses to the principle of human dignity. It has been argued too that allowing inanimate machines to make a life-and-death decision is like dignifying a machine that lacks the knowledge and value of human life or the significance of its loss. Similarly, the value of human life may be diminished if the decisions to terminate human life in armed conflict are left in the hands of machines (Elias, 2016).

In a submission on LAWS development, Heyns (2013) argues that leaving the decision of life and death in the hands of a machine through autonomous weapons systems dehumanizes armed conflict, as machines are not morally qualified to have life and death powers over human beings (UN Human Rights Council Report, 2013). On the threshold of moral agency which autonomous weapons faltered, Duncan Purves et al (2015) say that the possibility of installing artificial intelligence in autonomous weapons systems to make a moral judgment is no substitute for human consciousness, intentionality, and free will. As a result, fully autonomous weapons would act according to algorithms and therefore cannot be liable for their actions in armed conflict (Elias, 2016). Only human beings who are ethical agents have consciousness, intentionality and free will and can make moral judgments that can be said to be morally right or wrong (Moor, 2006). Given all these considerations, autonomous weapons systems would not be adjudged to be morally responsible in armed conflict in tandem with the threshold of moral agency requisite for the taking of human lives (Beavers, 2012). The Holly See argues further that "it is fundamentally immoral to utilize a weapon the behavior of which we cannot completely control"
(Holy See, 2015). On a moral pedestal in the debate on full autonomy in military weapons, Tomhill (2016) quoted the Nobel Laureate Jordy Williams as saying "Where is humanity going if some people think it is ok to cede the power of life and death of humans over to a machine?"

Global South Perspectives and Norm-making on LAWS

In discussions on LAWS at UN-CCW meetings, economically disadvantaged countries in the Global South have raised humanitarian, legal, ethical, and security concerns regarding the production, deployment and use of lethal autonomous weapons, advocating for human oversight in remote autonomous warfare and emphasizing the need for humans to make lethal decisions (Riesen, 2022; Pfaff et al., 2023). To strengthen their campaign against LAWS, these countries have formed alliances with other states and international NGOs, including Human Rights Watch, Amnesty International, and the International Red Cross Society - the coalition members of the "Stop Killer Robots", which comprises over 160 organizations sharing similar goals and perspectives on lethal autonomous weapons systems. In their norm-making efforts, the Global South has emphasized the necessity of human control over attacks conducted by fully autonomous weapons systems, in accordance with international humanitarian law (IHL) and principles of distinction, proportionality, and precaution in armed conflict (UNIDR, 2017: 26; Private Meeting 5, 2018). On legal accountability during armed conflict, the Global South countries hold the view that lethal autonomous weapons systems cannot be held liable for any infractions given their peculiarity as machines. From the Global South perspective, the issue of legal accountability is critical in the development and deployment of fully autonomous weapons systems.

It is important to note therefore that at various UN forums discussing LAWS, Global South nations, particularly from Africa, have advocated for a legal ban on the development and deployment of these systems. During UN-GGE discussions in 2019, several African countries adopted guidelines for the use of LAWS. Notably, Algeria, Djibouti, Morocco, South Africa, and Uganda participated as members of the group, contributing to the application of international humanitarian law (IHL) in the development and use of LAWS and advocating for the inclusion of human responsibility clauses in decisions related to these weapons systems (UN-GGE, 2019). Additionally, Egypt and Sudan, as signatories to the CCW/GGE, have been active participants in the discussions (UN-GGE, 2019). As influential members of the Non-Aligned Movement,

African nations and others at the CCW/GGE meeting in 2021 called for a legally binding instrument to prohibit and regulate LAWS (NAM, 2021).

Garcia (2015) highlights that the overarching consensus among these nations is a call for regulation of LAWS in line with existing protocols and international humanitarian laws. This was evident at the UN-CCW meetings in 2019 where the Global South state parties argued that human decision-making is crucial in the design and operation of autonomous weapons systems (Human Rights Watch, 2020). Central to the Global South's concerns is the absence of human involvement in decisions that could result in the loss of life, as machines would lack moral agency in determining when to initiate an attack. Additionally, there is skepticism about whether machines can effectively differentiate between civilians and combatants or adhere to key principles of international humanitarian law (Mission of Brazil, 2014).

As revealed in the literature, Brazil also called for a ban on fully autonomous weapons at the UN-CCW meeting with the argument that such systems would likely violate international humanitarian and human rights laws (Human Rights Watch, 2020, pp. 7-8). Similarly, during discussions on LAWS from 2014 to 2016 and in 2018-2019, Ghana, representing a Global South perspective, demanded a preemptive ban, remarking that proponents of these systems believe they will not be the ones affected (Human Rights Watch, 2020, p. 14). Ecuador has also called for a ban on fully autonomous weapons, echoing a previous ban on blinding lasers, and in August 2018, it supported negotiations for a legally binding instrument ensuring meaningful human control over critical functions of lethal autonomous weapons systems (Human Rights Watch, 2020). Other Global South nations have similarly condemned the delegation of lethal decision-making to machines as unacceptable (Mission of Ecuador, 2014, 2015, 2016). Moreover, the African Group within the Global South issued a joint resolution advocating for a preemptive ban on LAWS, describing it as "inhumane, abhorrent, and against public conscience" to allow machines to determine life and death (African Group, 2018). In October 2022, several Latin American and Caribbean states endorsed a joint statement at the UN General Assembly regarding autonomous weapons systems (Human Rights Watch, 2023).

Countries from Latin America and the Caribbean participating in the Group of Governmental Experts on LAWS have been recognized as active contributors to discussions aimed at formulating normative proposals and drafting Protocol VI under the Convention on Certain Conventional Weapons (CCW). In 2023, over 30 countries at a Latin American and Caribbean conference on autonomous weapons expressed their commitment to negotiating an international treaty to prohibit and regulate autonomy in weapon systems, in line with international legal standards and humanitarian law (Belén Communiqué, 2023). In a related development, the Caribbean states of the Global South under the auspices of the Caribbean Community (CARICOM) in a conference on autonomous weapons systems highlight the ethical, legal, humanitarian and security implications of lethal autonomous weapons systems without meaningful human control. The Caribbean states in their deliberations at the regional conference on LAWS in 2023 further called for negotiation of an internationally binding instrument for the prohibition and regulation of lethal autonomous weapons systems in compliance with international law, and international humanitarian law (IHL). The conference further resolved to advance alliance by strengthening cooperation with international organisations, and other stakeholders in important disarmament forums on LAWS (CARICOM, 2023).

While discussions continue at UN disarmament forums regarding the review of new military weapon systems, this study highlights the contending issues surrounding LAWS development, and identified the Global South viewpoints and norm-making on autonomous weapons systems. The Global South norm-making strategies include coalition building and alliance formation, as the Global South collaborates with civil society groups and international NGOs like the "Campaign to Stop Killer Robots" to advocate for human and international security interests. Through regional initiatives, these countries have developed guidelines that provide legal, humanitarian, and ethical guidance on LAWS. Furthermore, the vocal participation of the Global South at various UN forums has proven to be an effective means of shaping international opinion in favor of comprehensive regulation or a preemptive ban on lethal autonomous weapons systems. This engagement counters the prevailing views from Global North nations that are pursuing the unregulated lethal autonomous weapons systems. Unlike earlier international forums with limited representation, the Global South has

significantly increased its presence at multilateral disarmament discussions on LAWS. For instance, Egypt and Sudan, as Global South representatives, were signatories to the UN-CCW/GGE in 2021. Additionally, African nations such as Algeria, Djibouti, Morocco, South Africa, and Uganda have participated in the CCW, contributing to the application of international humanitarian law in the development and use of LAWS and advocating for human responsibility in all decisions regarding these systems. Several African countries also adopted guidelines for LAWS during UN-GGE meetings in 2019.

Conclusion

Despite the uncertainties surrounding LAWS development, as reflected in the perspectives of Global South states and the contrasting views of developed states from the North on full autonomy for new military weapons systems, it is significant to note that the international community is taking important steps to address the critical issues raised regarding the regulation of LAWS, particularly the need for human oversight in their design and operation. Historically, the UN has conducted similar reviews of weapons at disarmament forums, including those concerning nuclear, biological, chemical, cluster munitions, and anti-personnel-mine weapons. Given the significant contribution of Global South states to international discussions on LAWS, along with their collaborations with civil society groups, NGOs, and regional coalitions, this study concludes that the Global South perspectives and norm-making initiatives on lethal autonomous weapons systems demonstrate an attempt to leverage geopolitical power for security and humanitarian concerns in the international order. It is hoped that the international community will prioritize human safety and global security in the development of LAWS.

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