

Liability of AI in International Armed Conflicts: A Critical Review

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Abstract. Today we stand at the precipice of another technological revolution, with the advent of Artificial Intelligence (hereinafter AI) in the current paradigm, we are going to witness what is most likely another arms race in the field of AI, with the recent developments such as The United States(US), in its 2008 National Defence Strategy, committing itself to a broad investment in the military application of autonomy, AI and machine learning, inclusive of the factor of research in the field of AI to allow major breakthrough in its research. China is taking the lead with its declaration to invest \$150 billion in the next few years to ensure and establish it becomes the world's leading "innovation centre for AI" by 2030 (Piccone, 2020), and finally The Russian Military-Industrial Committee, a national organization responsible for Russia's and its military-industrial policy has reportedly set a target of integrating and absorbing AI and robotic technologies into 30 percent of military equipment by 2025 (Polyakova, 2020). Thus it is quite clear that the world is entering into a new Arms Race centred around AI, however, the issue that arises is how are we going to regulate these weapons in the international paradigm, and most importantly the issue that lies in the centre of the debate is that on whom the final responsibility lies-

- 1) the software engineers creating the code that instructs an autonomous weapons system to identify and when to attack
- 2) the commanders and generals who supervise and authorize such weapons
- 3) and finally, the operators in the field who carry out such an attack?

Thus, moving forward the review article focuses on the presented issues and also attempts to address the changing paradigm of AI in International conflict, finally, this article tries to analyze the probable solution and theories.

1 Accountability

One of the most important objectives of law is the punishment and sanctions against past unlawful acts, which aims at creating deterrence against similar unlawful acts, this serves multiple functions. First, it deters possible perpetrators from committing

such acts. Secondly, it makes sure that the observers can see the justice is being served, lastly, it makes sure that the perpetrator is held responsible thus serving a retributive function, as the victim who has suffered has the satisfaction of knowing that the guilty party was condemned and punished (Department of Defense, US, 2018).

Regarding this article, international humanitarian law makes sure that there is personal accountability for grave breaches of international humanitarian law called war crimes. International human rights law, moreover, establishes a right to a remedy, which consists various forms of redress and justice delivery mechanisms; for example, it obligates states to investigate and prosecute gross violations of human rights law and war crimes in order to enforce judgments in victims' civil suits against private actors (Human Rights Watch, 2020).

It is apparent that the existing instruments for legal responsibility are ill-suited and deficient to address the unlawful damages that completely self-autonomous weapons may cause. These weapons can possibly carry out criminal acts—unlawful acts that would establish wrongdoing If carried out with intent—for which nobody could be considered liable.

The lack of human control and its ability to perform independently puts AI in a very peculiar position in the legal paradigm as though it would function independently without any human control but still lack human Compassion and judgment. From one perspective, while conventional weapons are apparatuses in the hands of individuals, completely autonomous weapons, once deployed, would make their own conclusions about the utilization of deadly power. They would subsequently challenge long-standing thoughts of the functions of arms in conflicts, and for some legitimate examinations, they would be more likened to a human fighter than to a lifeless weapon. Then again, autonomous weapons would miss the mark concerning being human. In reality, there will be an absence of certain human attributes, for example, judgment, empathy, and purpose. Finally putting them in a niche that is not governed by today's international law governing armed conflicts. Aided by the necessary factor of differentiating between civilians/non-combatants and combatants, highlighted in the Article 48 of the 1977 Additional Protocol I.

2 General Analysis

AI Operated Weapons

When we talk about an Autonomous AI operated weapon, we mean a weapon capable of using lethal force and delivering the same without any human judgment or instruction, a weapon which is supposed to be able to differentiate between a combatant and a non-combatant in the field of battle and which can do the same without any human guidance, the weapons which can operate for a long duration without any support, thus act semi-independently.

Accountability

In the following paper, we will be dealing with the issue of Accountability, in conventional sense dealing with law, ethics, and governance means liability, blameworthiness and the expectation of account giving in the process of holding someone responsible for their actions, in respect of this paper we will be dealing with accountability when it comes to international war crimes.

The issue here is when it comes to accountability. upon whom the responsibility should lie? these issues relating to accountability are compounded by the issue of holding anyone responsible, for the actions of these types of weapons. Even if we succeed in assigning accountability to a certain degree, the nature of accountability might still not be able to realize the aims of deterring future harm and therefore providing retributive justice to the victims. Keeping a clear picture in mind that we are not far from such scenarios in the near future.

In the recent developments we have seen rapid technological advancement in the field of artificial intelligence, with projects such as the Israeli Iron dome defence system. A type of AI defence system that requires a minimum amount of human judgment, which can target incoming projectile and destroy them with extreme precision before they can hit their targets. This is just an example of how weapons systems based on AI's are developing keeping the human out of loop in the process. The problem however arises is the judgment that is expected from such weapons governed by AI, as without a human conscience to back them up, it is unto the machine to adjudge whether the individual in front of them is a combatant or non-combatant, in varying environments, in different scenario and whether they have the ability to do so precisely.

Another phase of the existing problem is that we haven't identified upon whom the final liability lies whether the software engineer who has coded the program governing the capabilities and discretion of the autonomous weapons system, that will define its differing capabilities between a combatant and a non-combatant, thus the problem of liability of a war crime under international law becomes problematic, with the inherent problem to identify whether the error in the code forming the AI is responsible for a war crime was a genuine mistake or a concise conspiracy to cause such harm.

The problem with both these scenario is that in a case where we absolve the coder of any onus, we risk a situation where the coder can get away with anything, on the other hand, if we do the opposite it would be disadvantageous as at the end of the day the final user can always use these weapons for a harmful purposes.

when we look at the current paradigm pinning the liability on the authorities using such weapons also seems short-sighted. keeping in mind that holding someone responsible in the chain of command is very problematic because anyone from a low ranked operative to a high-ranking general could be responsible, but the real issue is to choose from the chain of command.

The option of pinning all the liability on operative is disproportionate, doing the same for a high ranking general in problematic as well. Keeping in mind that common military doctrine the superiors are only held accountable when they knew what their subordinates were going to do and despite their knowledge failed to prevent or punish it. Keeping in mind how sprawling and chaotic a battlefield could be in the modern scenario, the issue becomes more complicated. Keeping in mind that an AI operated weapons will be analogous to that of a human soldier without a proper intent governed by human morality. therefore, the robot could not have a mental state to commit an underlying crime vital when pinning ability, also keeping in mind the commander in most of the situations would not have the technological know-how to identify that the AI operated weapon is going to commit an unlawful act.

Therefore, because of these facets, the issue becomes problematic as combined with the issue of accountability and adding to the factor about who is liable in the chain of command the problem remains unresolved.

3 International Human Rights Law: Right to Life and Human Dignity

Fully autonomous weapons have the potential to contravene the right to life, which is the bedrock of international human rights law. According to the International Covenant on Civil and Political Rights (ICCPR), “No one shall be arbitrarily deprived of his life.” (United Nations, 1966)

The use of lethal force is only lawful if it meets three cumulative requirements for when and how much force may be used: be applied in a manner proportionate to the threat, constitute the last resort and it must be necessary to protect human life. Each of these situations requires a deep and qualitative assessment of a battlefield where individuals are actively trying to hide their identity. Due to a large number of possible scenarios and situations possible, robots could not be pre-programmed to handle every specific circumstance. Also, when encountering unforeseen situations, fully autonomous weapons would be prone to carrying out arbitrary killings because they lack the human qualities that allow us to make such determination inclusive of challenges in meeting the three aforementioned requirements for the use of force.

According to many roboticists and experts, it is highly improbable in the foreseeable future that robots could be developed to have certain human qualities, and a sophisticated enough tech to allow it to have the judgment and the ability to identify with humans, that facilitate compliance with the three criteria.

proportionality

The obstacles presented by the principle of distinction are compounded when it comes to proportionality, which prohibits attacks in which expected civilian harm outweighs anticipated military advantage. Because proportionality relies heavily on a

multitude of contextual factors, the lawful response to the situation could change considerably by slightly altering the facts. According to the US Air Force, “proportionality in attack is an inherently subjective determination that will be resolved on a case-by-case basis.” (Human Rights Watch and IHRC, 2014)

We also need to understand that international customary law also highlights proportionality, in dealing with threats. Such as a minor threat cannot be met with a disproportionate response when it comes to dealing with combatants. Things such as proximity of civilians or the location of the targets in dense urban areas, also make up important factors when it comes to dishing out a lethal response. Thus, it is important to note that when it comes to weapons controlled by AI there are multiple facets that are to be kept in mind, while deploying them in combat roles.

4 Conclusions

As of right, not fully autonomous weapons are not a reality, but the current technology is moving in their direction, and weapons resembling the characteristics of fully autonomous weapons are in the picture. For example, the US Phalanx and CRAM or be it the Israeli Iron Dome both of whom are designed to respond automatically to threats from incoming munitions. In addition to these, there has been a lot of progress on aircraft that could operate independently be it the US X- 47B or the UK Taranis.

The lack of human control and its ability to perform independently puts AI in a very peculiar position in the legal paradigm as though it would function independently without any human control but still lack human Compassion and judgment. From one perspective, while conventional weapons are apparatuses in the hands of individuals, completely autonomous weapons, once deployed, would make their own conclusions about the utilization of deadly power. They would subsequently challenge long-standing thoughts of the functions of arms in conflicts, and for some legitimate examinations, they would be more likened to a human fighter than to a lifeless weapon. Then again, autonomous weapons would miss the mark concerning being human. In reality, there will be an absence of certain human attributes, for example, judgment, empathy, and purposefully. Finally putting them in a niche that is not governed by today's international laws governing armed conflicts.

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