SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 7 | July 2025 - Peer Reviewed Journal

conflict. The case of Turkey's Kargu-2 drone being supposedly used in Libya in 2021 shows concern about the legality of such a deployment. Other examples include Israel's HAROP, which can autonomously select targets and attack using "loitering munitions."[6] The proliferation of AWS is driven by the applicability of machine learning and AI, enabling these weapons to generate operational and tactical decisions on targeting based on basic pre-programmed sensor data and algorithms that engage, detect and kill the target.[7] The challenges of increased automated decision-making on targeting raise serious questions related to predictability and accountability.

III. INTERNATIONAL HUMANITARIAN LAW'S CORE PRINCIPLES AT RISK

The core principles of IHL includes principles of distinction, proportionality and precaution, these principles primarily protect the individuals in the time of armed conflict.[8] Autonomous Weapon Systems (AWS) pose serious challenges to these principles. In the matter of distinction, there exists the concern on how AWS may identify combatants and civilians, and the hors de combat (out of combat), and how such distinction may be applied in fluid and complicated settings.[9] As an example, machines are significant issues in spotting the details of human behaviours such as serious intent to surrender and AI systems can be used to trace the biasness of their training data, which is a major concern that they may be positive in spotting individuals, and that the decision may not be discriminatory in its targeting situation in the prevailing violence.

Proportionality expects a subjective, ethical and fact specific decision regarding the weighing of the expected military benefit and the anticipated incidental loss to the non-combatant civilians.[10] Decisions on the validity of military advantage involve many layers of considerations, and that machines lack the complexity in making decisions human beings have a special and unique ability to make namely the ability to make moral judgments, and in the case of some important decisions/acts, compassion to people, in order to handle such intricacies,[11] although some have argued that only the clear criteria should be coded for machine decisions on advantage, that military advantage might vary subjectively at different times, and that AWS cannot be used to assess whether military advantage is justifiable without human decisions and updates.

Finally, lack of human control to use greatly restricts the need of precaution in attack. AWS that is not under the direct oversight of human operators causes the impossibility of taking all possible precautionary measures.[12] There is an unpredictability in machine learning systems, in particular in the systems that learn by themselves over time (also known as learning systems), which means that it is hard to predict and prevent unintended damage.

IV. ACCOUNTABILITY & CERTAIN GAPS IN INTERNATIONAL LAW

Autonomous Weapon Systems (AWS) compliance is the primary responsibility of the states, and they should also take responsibility of violations made by their military units and violations which take place due to applying inapplicable systems which have not been properly tested in terms of compliance.[13] Decisions made by commanders and the operators on the deployment of AWS belong to them. Commander, as well as operators can be criminally responsible depending on the circumstance of such system, which presents itself unexpectedly.[14] It is also necessary to remember about the liability of programmer to intentionally or recklessly design such AWS system and the liability of the manufacturer also in case they produced such a system on the basis of ordinary negligence or an intention to make it defective.

The accountability gap is a class of issues that focuses on the problem of establishing a mens rea (intent or knowledge) in a trial over war crimes when the AWS is deriving a course of action that is unpredictable (because of getting machine learning).[15] The fact that such a high standard is set by the International Criminal Court does not imply that it might be a significantly lower standard to be treated as acceptable by national courts in the application of customary law to embrace an accountability gap in terms of such wilfulness (i.e., wilful, not direct intent).

Views of the International Committee of the Red Cross (ICRC) as well as the United Nations (UN) on AWS have depicted useful human oversight over AWS.[16] Although it should be true that meaningful human control needs to exist on the minimum level to evaluate the legality of AWS adherent to the obligations of IHL, it should be more substantial than that. They would not like to leave decision authority of a case that involves life or death without redress to a machine, when they can at least give it consideration under the supervision of an element of meaningful human control.[17] Unpredictability of AWS, in general, poses serious issues to the potential war crimes defendants in future trials in the absence of overt human influence during the AWS life cycle.[18] The trials indicate the absence of international guidance standards.

V. GLOBAL LEGAL AND POLICY RESPONSES

The international legal and policy concern in autonomous weapon systems (AWS) is primarily concerned with the 'UN Convention on Certain Conventional Weapons (CCW).' The AWS is being discussed in the Group of Governmental Experts (GGE) created by the CCW since 2017.[19] The GGE came up with eleven guiding principles whereby one of them was to keep human accountability over the use of weapons, as no one can shift the accountability of weapon use to machines.[20] The impetus of the on-going work by the GGE moves slowly and States have varied definitions and regulatory initiatives,[21] which has compounded the process and resulted in stalling and States making parallel moves.

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The initiatives that aim at managing the dangers of autonomous weapons are getting momentum all over the world. The support to an international treaty to control these technologies increased significantly in 2024. Most of the member states at UN now advocate the taking of a legally binding agreement, even though some countries still disagree or are not committed like the United States, Russia, India, and Israel.[22] The international committee of the Red Cross (ICRC) has been central in the development of the international response, calling states to the development of a treaty on three core principles which states should join pledges to be; prohibited of autonomous weapons targeting human beings, prohibited highly unpredictable weapons and systems, and that others should be meant to be worked on and have human control. Critically, the ICRC is also not against the idea of military application of AI, but the ones that cause grave ethical and humanitarian issues.

The ICRC strongly calls upon the creation of new, binding laws that would ban AWS, including unpredictable AWS (those which the effects cannot be reasonably understood or predicted, such as those that can learn at work) and systems created or employed with the intention of targeting humans, and the maximal regulation of all AWS within each individual country.[23] More than 100 nations in all regions are supporting legally binding action, with preference nurturing a two-tier strategy that incorporates prohibition with control. But development in the UN Convention on Certain Conventional Weapons (CCW) has been stuck along the way because of agreement consensus and opposition. This has prompted a number of states to start holding regional conferences in other forums other than the CCW, which is indication of looking to other options of attaining a treaty.[24] It is everyone who feels the need to act urgently; it is apparent that autonomous weapons are proliferating, but in a way that is highly dangerous as they are not regulated.

Formally, civil society, with care that its actions do not become wholly coopted, is also promoting AWS prohibitions such as the Stop Killer Robots campaign, due to ineffective GGE work. India, who wants to strike the balance between military competence and humanitarian considerations, signed a politically binding instrument, yet as a member of the GGE.[25] However, the influential states have not wanted the facility of a new binding document to be instituted as they say IHL is enough. The advocates of these states (many of which are already paying large sums of money to AWS) refer to potential military benefits, such as accuracy, human error, and endangerment to living forces.

VI. CONCLUSION

International political action with regard to AWS is urgently needed. The International Committee of the Red Cross (ICRC) advises on the adoption of legally binding new international rules that govern them with prohibitions against AWS that yield unpredictable effects, against AWS designed or used to attack individuals and severe limitations on all other AWS. Consequently, the dangers to those enveloped by war would be addressed, and appropriate International Humanitarian Law (IHL) legal safeguards preserved, and the human responsibility of decision-making as concerns the usage of weapons at any given time is extremely crucial. There should also be some substantial human control by countries over such systems. To do this, it is necessary to introduce and follow specific measures of accountability of illegal acts and omissions in the use of AWS by programmers, commanders and state. AWS are an immediate object of humanitarian concern that potentially would fundamentally change war. Perhaps, it is also important that technology does not undermine the legal and ethical protection of IHL. Unregulated and not checked, AWS may lead to the world of automated, depersonalized warfare where machine decisions can make the life or death decisions with unpredictable and uncontrollable harmful effects.

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