

CLEIMUN19

“Collaboration in a Polarized World: Hope for the Future?”

A Research Report

COMMITTEE: Disarmament and International Security

QUESTION OF: The Question of the Use of Lethal Autonomous Weapons Systems (AWS)

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Introduction & Background

Throughout the past century, major developments have been made to provide autonomy to weapon systems. Warfare has become accustomed to self-guiding missiles, auto-navigating vehicles, and other implementations of autonomous weapon systems. Lethal Autonomous Weapon Systems pose a challenge to global order in that they constitute a 3rd revolution in warfare, the first and second being gunpowder and nuclear warheads. The topic at hand serves as a means of preemptively determining the response to such such systems. Currently, Artificial Intelligence research is the most recent advancement in creating AWS, but the wide range of applications presents difficulty in categorizing such systems. A distinction must be made between AWS and general autonomous weapon systems. AWS are widely defined as systems which are capable of identifying targets and executing actions based on collected information without human control, but such a definition is neither universal nor concrete. It will be the responsibility of nations to determine the impact of such systems and make commitments to courses of action. There has been a great deal of non-governmental action originating amongst global populations and the private sector, an example of which would be the Campaign to Stop

Killer Robots which drafted an open letter with hundreds of signatories from leaders and thinkers in the field including Elon Musk, Stephen Hawking, and Noam Chomsky. Ultimately the time has come for governments to make meaningful headway in determining the fate of AWS and global order.

What benefits do AWS provide?

It is difficult to quantify exactly the effects of AWS, but many experts and think tanks have made predictions. Foremost, AWS provide military advantages. They reduce casualties, expand the battlefield, and act as a force multiplier. Furthermore, robots are better suited for completing dull and dangerous missions. Incredibly, once developed, AWS are often cheaper than soldiers. In 2013 an article was published by Francis Jones in *The Fiscal Times* showed that each soldier in Afghanistan cost the United States \$850,000 a year as opposed to the TALON robot which was outfitted with weapons and cost the United States only \$230,000 per unit. They also provide far better at perception, planning, learning, human-robot interaction, natural language understanding, and multi-agent coordination (Etzioni). A moral case has even been made for their use. Soldiers on the battlefield may become clouded with fear and emotion whereas computer systems would not suffer from these consequences allowing them to make better decisions. For example, an AWS would not have the same “shoot first ask questions later” response that a soldier might adopt. Robots could even be used to report ethical infractions which would aid in maintaining a good public opinion. The question of AWS does not lay in the duality between morals and efficiency, it is important for leaders to elucidate the complexity of the challenge at hand. That begins by recognizing the benefits of such systems, of which, as has been shown, there are many.

What limits and threats do AWS pose?

The main opposition to an AWS arm race has originated from the open letter mentioned previously. One established argument against the weaponization of AI is a potential backlash toward such a technology and a tarnishing of its reputation. Such a response would impede upon the benefits it offers humanity. However, beyond moral implications, a legal confusion can arise by allowing machines to delegate uses of force. For instance, it is difficult to track the capabilities of machines, a fact which could elicit a breach in the Principle of Distinction, a widely accepted law of combat which ensures that civilians are not targeted as combatants. Furthermore, a machine which operates on its own accord would challenge *jus in bello*, international humanitarian law, in which a critical aspect is the ability to hold a person accountable for actions committed in war. There is a great deal of unclarity when autonomous systems become involved in the domains of both ethics and efficacy. It is the task of leaders to illuminate the fear and uncertainty involved with AWS and ensure that any benefits are acquired by safe and established means.

Past Efforts To Solve This Problem

The main problem, as mentioned previously, is determining what categorizes AWS and making the distinction between general autonomous systems. Large implementers of advanced weapon technology including autonomous weapons, such as the United States, maintain that AWS “do not exist” in modern warfare with the justification that they do not encompass weaponized drones, precision-guided munitions, or defensive capabilities which each contain human oversight. Other nations, predominantly those lacking the capability to develop such systems or

those which are concerned about it creating a threat to their own sovereignty, prefer to seek solutions before problems arise. With these implications in mind, it explains why not much action has taken place. The topic currently falls under the domain of the Convention on Conventional Weapons (CCW) which established a Group of Governmental Experts (GGE). The group including over 70 nations, members of UNIDIR, representatives from the Campaign to Stop Killer Robots, and others meet in November of 2017 and agreed on some future goals, but were unable to reach a full consensus and therefore could not make significant progress. Later meetings are planned, but it has become difficult due to the fact that many member states, such as Brazil, have failed to pay their dues, making it difficult to keep the process going. Although unsuccessful, the attempts have indicated a greater awareness toward the cause and the path forward requires leaders to organize solutions to the challenge at hand.

Possible Solutions

AWS, at the moment, are mainly in development and will not be readily available for several years, but an upstream effort is required to ensure that such tools are incorporated into international code while avoiding a great deal of turbulence. The way to begin is by eliminating the greatest threats, such as by banning AWS whose missions cannot be aborted and working into the more specific details within the capacity of what certain nations are willing to agree on. In order to avoid undermining established law codes such as *jus de bello*, it is necessary that within the bounds of disarmament and international security a focus is maintained on ensuring reliability rather than “moral righteousness”. Following the example from before, such a behavior would involve discussing human out of the loop scenarios in AWS. A discussion would

involve pointing out the threats involved with creating a system whose mission cannot be aborted for the purpose avoiding significant collateral or unintended damage while also pointing out the benefit such a system would provide in maintaining a red line in certain political and military situations such as the use of chemical weapons in Syria. Ultimately, it comes down to a question of reliability in AWS. The goal has been revealed but is the task of the delegates to create the language and responses required to determine a course of action. It is not an easy task, but now is the moment in which it matters most.

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