

Chapter Eight: What Can Be Learned from the Autonomous Weapon Systems?

In the security field in general and in that of the battlefield in particular, autonomous weapon systems (AWS) are extensively discussed in terms of autonomy and AI. The public discussion has focused on the limitations of these systems for several years, and since 2014 the official UN discussions have also focused on them. This test case focused on AWS seeks to expand the understanding of some of the challenges presented by the development of AI.

AWS can be defined as systems that are capable of performing a lethal operation without direct human input, as a result of interaction between the environment and the computer system.¹⁸⁴ Nonetheless, some bodies use wider or more operative definitions.¹⁸⁵ Various AWS are operational today on the battlefield and are used in different applications, ranging from active defense systems to systems for conquering and attacking targets on land, air, and sea.¹⁸⁶

A key reservation about these systems relates to the ethical and legal implications of implementing lethal action without a person being involved in the process. Those opposed to these systems claim that their use violates ethical norms, since they are lacking human compassion and sensitivity. In warfare, international humanitarian law prohibits targeting civilians who are neither involved in the hostilities nor vital to the armed struggle, in addition to prohibiting any disproportionate harming of military targets; thus, the legal claim against the AWS is that they do not have any decisive ability to distinguish between civilians and combatants, which even people lack.¹⁸⁷

In addition to the principle of distinction, international law dictates the principle of proportionate response, meaning that harming the target should

be done according to the estimate of the target's contribution and importance to the success of the adversary's efforts.¹⁸⁸ This estimate varies and is affected by the characteristics of the battle and its progress—often in many arenas at the same time—which AWS (today) find difficult to weigh during their operation,¹⁸⁹ especially given that single-valued criterion specified in the law that can be encoded into the system for implementing principles.

The difficulty in implementing these principles within the autonomous systems is just one example that the law poses to new autonomous systems. Another dilemma is the issue of legal liability, which is unenforceable when a person is not involved in making the decision. It is not clear who should be prosecuted if these systems cause undesirable consequences that contradict international law.¹⁹⁰ Similar to the field of AWS, AI systems may also challenge the conventional law and moral codes and may compel humanity to provide practical answers to complex questions. Undoubtedly, ethical and legal dilemmas will emerge wherever autonomous devices can make decisions about human life or can endanger human lives, such as when they are on the road or used in medicine.

AWS also poses a regulatory dilemma, which includes the problem of defining the technology and the challenge of limiting its development. The United Nations has been discussing these systems since 2014, and even more so since 2016 when it established a group of governmental experts on lethal autonomous weapon systems (GGE on LAWS) to discuss the possible limitations on the development or use of these systems and their integration into the battlefield.¹⁹¹ As of 2020, however, the member states of the GGE on LAWS have not yet managed to agree even on the definition of AWS so that they can present recommendations for coping with the challenges the technology poses.¹⁹² Even if the GGE on LAWS can agree on a definition, restricting the development of these technologies requires the cooperation of all countries, including Russia and the United States, which do not restrict development.¹⁹³ Instead of imposing restrictions, they want to encourage economic growth in AI and an open market, in addition to maintaining their military superiority—even if they choose not to use autonomous weapon systems.¹⁹⁴ Therefore, these countries support the regulation of a particular field only after developing the technology, rather than limiting its development in advance.¹⁹⁵ Limiting the development and use of these

systems might also become difficult to implement, due to the fast speed of development and the slow pace of regulation.

Some have argued that formulating a response to the ethical dilemmas of AI and advanced technologies will benefit humanity.¹⁹⁶ The case of AWS, however, shows that the political and international arena will most likely not reach a consensus on the regulatory framework, due to the opposing interests of the various players. Moreover, the ability of the systems to change and develop as a result of their ability to learn will undoubtedly affect the challenges that AI poses, such as being difficult to define or limit with existing legal and regulatory means.

The technological development of AI presents decision makers with ethical, legal, and regulatory challenges at both the national and international levels. Given the complexity of the issue, it is advisable for countries to act and formulate a position on the subject so that they can ensure their interests.