



Report and Advocacy on the Ethical and Legal Dilemmas of Autonomous Weapons Systems in War



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Introduction and Goal

The topic of AI broadly, and autonomous weapons systems (AWS) in particular, is quite complex. These fields must balance ethical and legal considerations with technological advancements. Beyond that, they also bring into focus complex, and arguably tense, international dynamics. Establishing effective communication between those in the social spheres and those in the technological spheres, two rather distinct fields, is necessary, but has historically been a challenge. Fortunately, such interdisciplinary conversation has taken place more often, such as at CERL's April conference on autonomous weapon systems where technological experts could communicate directly to those who influence policy.

In our paper, we aimed to mirror the interdisciplinary nature of the CERL conference, analyzing the issue from multiple perspectives:

1. Scope and language
2. An analysis and critique of DoD Directive 3000.09
3. An AWS and animal legal analogy framework
4. Global governance and recommendations for the U.S. government

Technology

Our paper outlines specific characteristics of autonomous weapons systems that can bring more clarity to the technological side of the policy conversation.

Namely, autonomous weapon systems are those that

1. Are kinetic and dynamic
2. Are non-deterministic, non-linear, high-dimensional, and self-learning
3. Have potentially emergent capabilities if networked with other systems

Legal

There exists a clear **liability gap** when introducing AWS into war. AWS themselves are arguably not moral agents and cannot be held liable.

By drawing parallels between AWS and wild animals and using tort law, our paper explores a unique method of holding states accountable for their AWS usage.

Ideally, an implementation of this would be a court for war torts, which can be similar to the International Court of Justice (ICJ) or the World Trade Organization's (WTO) settlement claims mechanisms.

Global Governance

In our paper, we identify three main camps. First, groups seeking heavy regulations. Then, on the other extreme, groups opposing more regulations. Then, there are various states who fall somewhere in the middle – most critically the U.S.

While the U.S. recognizes the advantages of AI and AWS, and has historically not signed any legally-binding restrictions, it also recognizes the dangers of such technology in the hands of adversaries.

The U.S. has been engaging with fellow signatories to establish more uniform global norms, and is bilaterally engaging with other non-signatory countries.