

Weapons reviews, autonomous weapons systems, and the international criminal trial

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A much-debated challenge for the development and use of autonomous weapon systems (AWS) is how to ensure accountability for their use. There is a fear that an AWS might be involved in a serious violation of international law and that no one is held accountable. One way to promote accountability for the use of AWS is through rigorous testing of the weapons and subsequent clear documentation of their capabilities and reliability. The paper shows how the legal obligation on States to carry out these actions (often known as a weapons review process) links with the high threshold that has been set for individual criminal responsibility for crimes triable before the International Criminal Court (ICC).

AWS are not specifically prohibited by international law

There is no current legal framework that specifically regulates the use of AWS. This means that their use, in armed conflict, will usually be governed by the general rules and principles of international humanitarian law (IHL) and international criminal law (ICL). It is not automatically a breach of IHL, much less a war crime, to deploy a weapon system with some autonomous functions. The lawfulness of the use of an AWS (indeed, any weapon system) depends on the features of the system, its technical capabilities, and its use in the circumstances prevailing at the time.



Weapons are used by military personnel when they decide it is operationally useful. They are ultimately responsible for what happens when a weapon is used. This is important: the legal framework does not allow for the 'outsourcing' of the responsibility to a machine for the use of a weapon. The focus should not be on whether these systems can 'apply' the law, but whether the AWS can be used by human operators in compliance with the law. The focus of IHL and ICL is on the conduct of humans, not the conduct of States nor the operation of any military equipment or capability itself.

Proving the requisite intent for international crimes may be more difficult when AWS are used

The Statute of the ICC sets a particularly high knowledge and intent threshold for criminal responsibility. Generally speaking, in order to be held criminally responsible under the Statute, the prosecution must prove the accused either deliberately engaged in the conduct and intended that the prohibited consequence occur, or they engaged in the conduct knowing that the consequence was 'virtually certain' to occur but were ambivalent about whether it did. It does not provide for criminal liability for recklessness.

That there is no international criminal liability for recklessness has important consequences for the potential liability of the use of an AWS. It will make it very difficult to prosecute an individual for an AWS that has 'gone rogue', or where a machine has engaged in self-learning and re-written its code to override, for example, a prohibition on targeting civilians. The central challenge is that the autonomous nature of the weapon means the operator might not be 'virtually certain' of the factual circumstances establishing the victims are protected or that an AWS was going to target them.

As it stands, the drafters of the ICC Statute made a policy decision to limit criminal accountability to situations when a person directly or obliquely intended the unlawful outcome. This limitation does not mean that anything goes when it comes to AWS. For example, where a person deliberately designed or used an AWS to attack civilians it would be a crime under the ICC Statute. This means to convict someone of an ICC crime, the prosecution show what the perpetrator knew about the operation of the weapon to satisfy the mental element of the crime.

Weapons reviews will help demonstrate the intent of the user

In order to make a decision to deploy an AWS lawfully and strategically it will be necessary for the weapon user to have confidence that it can comply with IHL. Given this, and despite the limitations of the weapons review process, there is some information that we can say with more confidence will be generated by the review of a weapon. The kind of information that could be expected from a review of a conventional weapon includes, for example, the range of the weapon, its effects and failure rate.

In addition, and depending on the level of autonomy, the review of an AWS would also need to include information about the data used to program or teach the system, its predictability, and any evidence of self-learning. Of course, not everyone deploying a weapon will have full access to this information. The level of detail about the operation of an AWS that should be made available to different levels of the military hierarchy will depend on the nature of the weapon system, the level of risk, and the weapon's intended use.

The production and dissemination of this information will be key to promoting accountability for the use of AWS. The way this information is distributed throughout the armed forces needs to be documented and, should the need arise, be available to investigators. This will allow for the identification of the information available to the commander or weapon user about the AWS — information that will be crucial to ascertaining their level of knowledge about the operation of the weapon, and directly relevant to the question of intent.

The weapons review process is an important part of ensuring accountability for the use of AWS

Developing a robust weapons review mechanism for AWS is an important aspect of promoting accountability for the use of this complex and potentially risky technology. If militaries decide that it is acceptable to use AWS in armed conflict, then ensuring the appropriate testing and reviews of these machines will not only help minimise the risk of the weapon acting in unexpected ways, but may also provide evidence that the person deploying or operating the weapon has acted consistently with IHL or vice versa. ●



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