

Is the Convention on Conventional Weapons the appropriate framework to produce a new law on autonomous weapon systems?

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Introduction

For the past nine years, states, scholars, civil society and other stakeholders have been discussing the challenges that are posed by autonomous weapon systems (AWS). One of the main questions under consideration is whether existing international law is adequate to govern AWS.¹ On one hand, many states and organisations, including the International Committee of the Red Cross (ICRC), take the view that existing law is inadequate and, as such, states must adopt a new treaty on AWS. However, a small number of states, including the United States, Russia, Israel, Australia, the United Kingdom, have disagreed, arguing that existing international law, particularly, international humanitarian law (IHL), is sufficient to govern the challenges raised by AWS. On account of these and other disagreements, states failed to reach consensus on the way forward on AWS during the recently concluded meetings of the United Nations (UN) Group of Governmental Experts on Lethal Autonomous Weapon Systems (2-8 December 2021)² and the Sixth Review Conference of the Convention on Conventional Weapons (13-17 December 2021).³

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- 1 See A/HRC/23/47, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, paras 47 & 114(d); CCW/MSP/2014/3, Report of the 2014 Informal Meeting of Experts on Lethal Autonomous Weapons Systems, para 28; CCW/MSP/2015/3, Report of the 2015 Informal Meeting of Experts on Lethal Autonomous Weapons Systems, paras 23, 54, 60; Report of the 2016 Informal Meeting of Experts on Lethal Autonomous Weapons Systems, paras 16, 47, 50; CCW/GGE.1/2017/CRP.1, Report of the 2017 Group of Governmental Experts on Lethal Autonomous Weapons Systems, paras 5, 6, 7, 49; CCW/GGE.1/2018/3, Report of the 2018 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, paras 8, 39, 46, 53.
- 2 See the third session of the 2021 Group of Governmental Experts (GGE) on emerging technologies in the area of lethal autonomous weapons systems (LAWS), 2-8 December, 2021, Palais des Nations in Geneva, Switzerland, <https://indico.un.org/event/35599/> (accessed 19 December 2021).
- 3 See the Sixth Review Conference of the Convention on Conventional Weapons, 13-17 December 2021, <https://meetings.unoda.org/meeting/ccw-revcon-2021/> (accessed 19 December 2021).

Yet, even if we were to proceed with the view held by the majority of states, a big question that remains to be answered is, on which legal framework should the new treaty on AWS be based? Since AWS are already being discussed under the framework of the UN Convention on Conventional Weapons (CCW), this essay considers the question whether the CCW framework can produce a new law whose scope of application is sufficiently wide to deal with all the challenges that are raised by AWS in all circumstances.

Background

The current CCW discussion on AWS followed the submission of a 2013 AWS Report to the UN Human Rights Council by the then UN Special Rapporteur on extrajudicial, summary or arbitrary executions, the late Professor Christof Heyns (Heyns report).⁴ Unlike the CCW framework that has been focussing on the use of AWS in the context of armed conflict, the UN Human Rights Council considered the human rights violations that may occur both in war and peace time when AWS are used.⁵

While there is no agreed definition of AWS, AWS are generally defined as ‘robotic weapon systems that, once activated, can select and engage targets without further intervention by a human operator’.⁶ According to the Heyns report, the crucial element of the definition is that ‘the robot has an autonomous “choice” regarding selection of a target and the use of lethal force’.⁷ In line with this definition, in 2019, states agreed that what is of core interest in the discussion are ‘autonomous functions in the identification, selection or engagement of a target’.⁸

The Heyns Report noted a number of legal concerns regarding the use AWS, in particular that AWS may not be able to comply or be used in compliance with international humanitarian law (IHL) and international human rights law (IHRL).⁹ The other concern expressed in the Heyns Report is that in the event of AWS violating IHL or IHRL, it may be difficult if not impossible to hold specific persons legally responsible.¹⁰

4 A/HRC/23/47 (n 1).

5 As above.

6 A/HRC/23/47 (n 1) para 37; see also International Committee of the Red Cross (ICRC) ‘ICRC position on autonomous weapon systems’ (2021) 5, <https://www.icrc.org/en/document/icrc-position-autonomous-weapon-systems> (accessed 10 December 2021).

7 A/HRC/23/47 (n 1) para 37; see also ICRC position on AWS (n 6).

8 CCW/GGE.1/2019/CRP.1/Rev.2, Report of the 2019 Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, para 19(a).

9 A/HRC/23/47 (n 1) paras 63 & 85.

10 A/HRC/23/47 (n 1) para 77; T Chengeta ‘Accountability gap: autonomous weapon

In the AWS debate, this is often referred to as the accountability gap challenge.¹¹ The Heyns Report also noted ethical concerns, questioning for example, whether it is ethical to give machines or robots the power over life and death.¹² In this regard, it was considered that the development and use of AWS may violate the right to human dignity.¹³

On the way forward, the Heyns Report recommended the establishment of a High-Level Panel on AWS whose mandate included, among other things, an ‘assessment of the adequacy or shortcomings of existing international and domestic legal frameworks governing [AWS]’¹⁴ and ‘propose a framework to enable the international community to address effectively the legal and policy issues arising in relation to [AWS]’.¹⁵ The question on the adequacy of the existing legal framework to govern AWS has been raised by a number of states throughout the years that the UN has been engaged in AWS discussions.¹⁶

The recommendation to establish a High-Level Panel on AWS was realised in 2016, when, following three UN informal meetings, the state parties to the CCW decided to form the UN Group of Governmental Experts on Lethal Autonomous Weapon Systems (UNGGE).¹⁷ Part of the mandate of the UNGGE is to consider ‘possible options for addressing the humanitarian and international security challenges posed by emerging technologies in the area of lethal autonomous weapon systems’.¹⁸

The need for new law

Whether new rules on AWS are necessary is dependent on whether the current law is adequate.¹⁹ Arguments on why existing law is inadequate

systems and modes of responsibility in international law’ (2016) 45 *Denver Journal of International Law and Policy* 1-50.

- 11 Human Rights Watch ‘Mind the gap: Lack of accountability for killer robots’ (2015) 4.
- 12 A/HRC/23/47 (n 1) para 95; See in general, P Asaro ‘On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making’ (2012) 94 *International Review of the Red Cross* 687-709; A Krishnan *Killer robots: legality and ethicality of autonomous weapons* (2009) 150; ICRC position on AWS (n 6) 8.
- 13 C Heyns ‘Autonomous weapons in armed conflict and the right to a dignified life: an African perspective’ (2017) 33 *South African Journal on Human Rights* 57-66; See also T Chengeta ‘Dignity, ubuntu, humanity and autonomous weapon systems (AWS) debate: an African perspective’ (2016) 13 *Brazilian Journal of International Law* 460-502; ICRC ‘Ethics and autonomous weapon systems: An ethical basis for human control?’ Geneva, 3 April 2018; ICRC position on AWS (n 6) 8.
- 14 A/HRC/23/47 (n 1) para 114 (d).
- 15 A/HRC/23/47 (n 1) para 114 (c).
- 16 A/HRC/23/47 (n 1) para 114 (d); CCW/MSP/2014/3 (n 1) para 28; CCW/MSP/2015/3 (n 1) paras 23, 54, 60; CCW/GGE.1/2017/CRP.1 (n 1) paras 5, 6, 7, 49; CCW/GGE.1/2018/3 (n 1) paras 8, 39, 46, 53.
- 17 See UNGGE [https://www.unog.ch/80256EE600585943/\(httpPages\)/5535B644C2AE8F28C1258433002BBF14?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/5535B644C2AE8F28C1258433002BBF14?OpenDocument) (accessed 30 December 2021).
- 18 CCW/GGE.1/2019/CRP.1/Rev.2 (n 8) para 11(5)(e).
- 19 See T Chengeta ‘Is existing adequate to govern autonomous weapon systems’ (2019)

and why new law is needed have been addressed elsewhere.²⁰ For purposes of this essay, it is sufficient to state that the ICRC – an organisation considered to be the ‘guardian’ of IHL – also points to the insufficiency of existing law.²¹ In 2021, in its highly publicised position on autonomous weapon systems, the ICRC noted that as follows:²²

In the view of the ICRC, existing IHL rules do not hold all the answers to the humanitarian, legal and ethical questions raised by AWS. New rules are needed to clarify and specify how IHL applies to AWS, as well as to address wider humanitarian risks and fundamental ethical concerns. New legally binding rules would offer the benefits of legal certainty and stability. The ICRC is concerned that without such rules, further developments in the design and use of AWS may give rise to practices that erode the protections presently afforded to the victims of war under IHL and the principles of humanity.

The above ICRC position notwithstanding, states have expressed diverging views on the question whether existing law can adequately address the challenges posed by AWS ‘or if further norms, regulations, rules or clarifications were needed’.²³ In that consideration, some states²⁴ and non-governmental organisations²⁵ suggested that an additional legally binding instrument is needed while others posited that a ‘faithful compliance with already existing obligations under applicable international law’ can suffice.²⁶

In its 2021 submission to the UNGGE, Russia noted that it considers ‘existing legal regulation to be sufficient’ and that ‘restrictions and principles deriving from IHL apply to all types of weapons without exception, including LAWS [Lethal Autonomous Weapon Systems].’²⁷ Similar sentiments were expressed by the United Kingdom which noted that ‘IHL and the existing regulatory framework for the development, procurement and use of weapons systems are capable of sufficiently regulating new capabilities’.²⁸ This position is similar to that of the

http://ceur-ws.org/Vol-2540/FAIR2019_paper_9.pdf (accessed 5 December 2021).

20 As above.

21 See ICRC position on AWS (n 6); ICRC, *Artificial intelligence and machine learning in armed conflict: A human-centred approach*, 6 June 2019.

22 ICRC position on AWS (n 6) 11.

23 UNGGE, Chair’s non-paper: Conclusions and Recommendations, 21 August, morning, para 17(c), available on file (Chair’s non-paper).

24 These states include Austria, Brazil, Cuba, Finland, and African Group of States.

25 See the Campaign to Stop Killer Robots, available at www.stopkillerrobots.org (accessed 21 December 2021).

26 Chair’s non-paper (n 23) para 17(e).

27 See ‘Russia’s Considerations for the report of the Group of Governmental Experts of the High Contracting Parties to the Convention on Certain Conventional Weapons on emerging technologies in the area of Lethal Autonomous Weapons Systems on the outcomes of the work undertaken in 2017-2021’ (2021) 2.

28 See United Kingdom, ‘written contributions on possible consensus recommendations in relation to the clarification, consideration and development of aspects of the normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems’ (2021) 1.

United States.²⁹ Other states like France and Germany suggested non-binding solutions such as a political declaration; guidelines, principles or codes of conduct.³⁰

However, many states have taken the position that existing law is inadequate and that new law is needed.³¹ As such, of the policy options that have been suggested in the UNGGE, the majority view supports a new legally binding instrument on AWS.³² In their 2021 joint statement submitted to the UNGGE, Costa Rica, Panama, the Philippines, Sierra Leone and Uruguay noted that ‘a legally-binding instrument would strengthen the existing framework of international law’³³ and that ‘anything short of this, including a political declaration or voluntary applicable guidance, can only be acceptable as an intermediary and/or complementary step towards a legally-binding instrument’.³⁴

Likewise, the Non-aligned Movement (NAM) made it clear that ‘different proposals on a political declaration, code of conduct and other voluntary measures, including national weapons review process, confidence building measures (CBMs) as well as the establishment of a committee of experts, cannot be a substitute for the objective of concluding a legally-binding instrument stipulating prohibitions and regulations’.³⁵ Thus, this essay proceeds on the view that AWS raise complex legal, ethical and operational issues that are outside the arm’s reach of existing law – issues that can only be resolved by an additional legally binding instrument or treaty. The critical question, as stated earlier, is which legal framework should produce new rules on AWS? Can the CCW framework produce a new law whose scope of application is sufficiently wide to cover all possible contexts within which AWS can be used?

29 See USA Submissions, CCW/GGE.1/2017/WP.6, 10 November 2017.

30 See Germany-France proposed political declaration [https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/895931D082ECE219C12582720056F12F/\\$file/2018_LAWSGeneralExchange_Germany-France.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/895931D082ECE219C12582720056F12F/$file/2018_LAWSGeneralExchange_Germany-France.pdf) (accessed 21 December 2021).

31 Chair’s non-paper (n 23) para 17(c); See also CCW/GGE.1/2019/1/Rev.1, at 1.

32 Suggested by 28 states in the GGE. Also, the United Nations Secretary General, Antonio Guterres, also stated that there should be new international law to ban ‘machines with the power and discretion to take lives without human involvement’, see *Secretary-General’s message to Meeting of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems*, 29 March 2019.

33 See ‘Joint Working Paper Submitted by the Republic of Costa Rica, the Republic of Panama, the Republic of the Philippines, the Republic of Sierra Leone and the Eastern Republic of Uruguay’ (2021) 5.

34 As above.

35 See Working Paper of the Non-Aligned Movement (NAM) and Other States Parties to the Convention on Certain Conventional Weapons (CCW), Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems Geneva, 28 June-5 July 2021, at 4 para 19.

Contextualising use of AWS

In order to correctly frame the scope of application of new law on AWS, it is important to understand the contexts within which AWS may be used and the applicable laws. There are basically three contexts within which AWS may be used: use of AWS in situations of armed conflict; use of AWS in counterterrorism operations outside armed conflict and use of AWS in law enforcement situations.

Use of AWS in armed conflict and jus in bello

The Heyns Report indicates that one of the obvious context within which AWS may be deployed is that of armed conflict.³⁶ AWS may be used in the context of both international armed conflict (IAC) and non-international armed conflict (NIAC) to which *jus in bello* or IHL applies.³⁷ In June 2021, a UN Report indicated that AWS were deployed in Libya in the context of armed conflict where combatants were 'hunted down and remotely engaged by the unmanned combat aerial vehicles or the lethal autonomous weapons systems such as the STM *Kargu-2* and other loitering munitions.'³⁸ Further, the UN report also noted that 'the lethal autonomous weapons systems were programmed to attack targets without requiring data connectivity between the operator and the munition.'³⁹

Indeed, in the current AWS discussions in the CCW, stakeholders have generally focussed on the context of armed conflict, that is, the potential use of AWS in times of war and whether AWS can be used in compliance with IHL.⁴⁰ Basically, many stakeholders regard the technology of AWS as typical conventional weapons whose use is restricted to armed conflict.

Whether used in the context of IAC or NIAC, AWS raise similar concerns.⁴¹ It is important to note that AWS may be used by both states

36 A/HRC/23/47 (n 1) paras 63-74.

37 See the Geneva Conventions of 1949 and their Additional Protocols.

38 See S/2021/219, Letter dated 8 March 2021 from the Panel of Experts on Libya established pursuant to resolution 1973 (2011) addressed to the President of the Security Council, (2021) para 63, available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N21/037/72/PDF/N2103772.pdf?OpenElement> (accessed 21 December 2021). Note, however, that the Turkish company that developed the drone, regardless of describing the system as autonomous, countered the UN report noting that 'autonomous technologies are advancing so fast, but we are not there yet. At STM, we always think ethically a human should be involved in the loop'. See S Tavsan 'Turkish defense company says drone unable to go rogue in Libya' (2021) <https://asia.nikkei.com/Business/Aerospace-Defense/Turkish-defense-company-says-drone-unable-to-go-rogue-in-Libya> (accessed 21 December 2021).

39 As above.

40 See CCW/GGE.1/2019/CRP.1/Rev.2 (n 8).

41 A/HRC/23/47 (n 1) paras 63-74.

and non-state actors. In the context of armed conflict, because AWS lack human judgment, it will be difficult for them to be used in compliance with rules of IHL.⁴² Recently in June 2021, in its widely publicised position on AWS, the ICRC noted that because ‘unpredictability is inherent in the effects of using all AWS due to the fact that the user does not choose, or know, the specific target(s), and the precise timing and/or location of the resulting application(s) of force’,⁴³ they pose a serious challenge to compliance with IHL rules.⁴⁴ Where there is no compliance with IHL rules such as distinction and proportionality, the lives and well-being of protected persons such as civilians – who ought to be protected at all times – are placed at risk.⁴⁵

Without a doubt, and as will be discussed under the scope of application section below, the CCW framework is suited to deal with use of weapons, including AWS, within the context of armed conflict. In other words, if the concerns raised by AWS were only limited to contexts of armed conflict, the CCW framework would be capable of producing a comprehensive new law to deal with the challenges they raise. However, as shown below and as was indicated right from the beginning in the Heyns Report, AWS may also be used outside the context of armed conflict.⁴⁶

Counterterrorism operations and jus ad bellum

Closely related to the potential use of AWS in situations of armed conflict is the context of inter-state use of AWS in counterterrorism operations. Just like how armed drones have been used by a number of states to target suspected terrorists located in the territories of other sovereign states⁴⁷, there is also a potential that AWS will be similarly used in counterterrorism operations. While counter-terrorism operations are conducted by states, it is also important to note that AWS may end up in the hands of terrorist and presenting a formidable risk to domestic and national security.⁴⁸

42 A/HRC/23/47 (n 1) paras 31 and 55; T Chengeta ‘Measuring autonomous weapon systems against international humanitarian law rules’ (2016) 5 *Journal of Law & Cyber Warfare* 103.

43 ICRC position on AWS (n 6) 7.

44 ICRC position on AWS (n 6) 7; See also V Boulanin & others ‘Autonomous weapon systems and international humanitarian law: Identifying limits and the required type and degree of human–machine interaction’ (2021) *SIPRI*.

45 Human Rights Watch ‘Losing humanity: The case against killer robots’ (2012) 30, <https://www.hrw.org/report/2012/11/19/losing-humanity/case-against-killer-robots> (accessed 21 December 2021); art 51 of Additional Protocol I to the Geneva Conventions of 1949.

46 A/HRC/23/47 (n 1) paras 82-85.

47 C Heyns & others ‘The right to life and the international law framework regulating the use of armed drones’ in D Akande and others (eds) *Human rights and 21st century challenges: poverty, conflict, and the environment* (OUP 2020) 158.

48 CCW/GGE.1/2019/3, Report of the 2019 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons

The use of force through emerging technologies such as armed drones and AWS in counterterrorist operations has implications for *jus ad bellum* – the law governing inter-state use of force. Article 2(4) of the UN Charter prohibits the use of force by one state against the territorial integrity of another state. The prohibition of the threat or use of inter-state force is part of customary international law.⁴⁹

Already, there are a number of scholars who argue that the use of emerging technologies, new means and methods of ‘warfare’ in the wake of terrorism make the current legal classification of conflicts inadequate. Traditionally, there are three broad classifications in use of force and respective legal regimes applicable: *jus ad bellum* relating to the general prohibition on the inter-state use of force; situations of armed conflict to which *jus in bello* is the *lex specialis* and use of force in peace time to which IHL is the governing regime. Yet, in the wake of terrorism, counterterrorism and use of emerging technologies, some scholars have argued for the creation of another classification, the so-called *jus ad vim*, ‘the just use of force short of war’.⁵⁰ Of course, the idea of *jus ad vim* has been hotly debated, with those in favour arguing that it will ‘shift away from mechanised slaughter of modern warfare towards more calibrated applications of force’⁵¹ while those against it indicating that ‘it may encourage greater profligacy on the part of states in respect of the recourse to arms’.⁵²

Along the same lines, the Heyns Report, notes that AWS may aggravate the idea of expanding the battlefield beyond IHL contexts where ‘terrorists are targeted wherever they happen to be found in the world, including in territories where an armed conflict may not exist’.⁵³ The danger of this *jus ad vim* proposition is that ‘the world is seen as a single, large and perpetual battlefield and force is used without meeting the [armed conflict] threshold requirements’.⁵⁴ Thus, in the context of inter-state use of force and concerns about situations of aggression, it

Systems, p.13, Guiding Principle (f).

49 Heyns & others (n 47).

50 CN Braun ‘*Jus ad vim* and drone warfare: a classical just war perspective’ in C Enemark (ed) *Ethics of drone strikes: constraining remote control killing* (Edinburgh University Press 2021) 31; See also D Brunstetter ‘*Jus ad vim*: a rejoinder to Helen Frowe’ (2016) 30 *Ethics and International Affairs* 131-6; H Frowe ‘On the redundancy of *jus ad vim*: a response to Daniel Brunstetter and Megan Braun’ (2016) 30 *Ethics and International Affairs* 117-129; SB Ford ‘*Jus ad vim* and the just use of lethal force-short-of-war’ in F Allhoff & others (eds) *Routledge handbook of ethics and war: just war theory in the 21st century* (Routledge 2013) 63-75; M Walzer ‘On fighting terrorism justly’ (2007) 21 *International Relations* 480-484; ME Vaha ‘The ethics of war, innocence, and hard cases: a call for the middle ground’ in C Navari (ed) *Ethical reasoning in international affairs: arguments from the middle ground* (Palgrave 2013) 182-202.

51 As above.

52 As above.

53 A/HRC/23/47 (n 1) para 83.

54 As above.

has been indicated that the development and use of AWS risk lowering the threshold on the use of force.⁵⁵ AWS will make it too easy for states to resort to use of force and has a potential of increasing cases of inter-state uses of force.⁵⁶ States have thus noted the concern that the advent of AWS may jeopardise world peace and security.⁵⁷

The potential inter-state uses of force through AWS in contexts of counterterrorist operations is critical for a number of reasons. First, this context is very important because such uses has far-reaching implications for state sovereignty and the protection of fundamental rights such as the right to life. As noted by Heyns *et al* in relation to use of armed drones, the law on the use of inter-state force not only protects state sovereignty but also protects the important 'right and interest of the state to have the lives of its citizens and inhabitants protected from acts of aggression.'⁵⁸ It is also important to contextualise the identity of the likely victims in this regard. A number of UN reports have indicated that where inter-state force is used in the context of counterterrorism – even so, through emerging technologies such as armed drones – civilians in the Muslim communities, including women and children, are disproportionately affected.⁵⁹

Second, the potential inter-state uses of force through AWS is also critical to states who are often on the receiving end when it comes to aggression or unlawful use of inter-state force. Contending with the challenges raised by AWS from the *jus ad bellum* lens is thus important because the technology of AWS is not necessarily neutral. It is important for stakeholders to interrogate the issue through the lens of critical theories such as decolonial theory and critical race theories.⁶⁰ These critical theories are social theories that critique society and culture in order to dig beneath the surface, uncover and challenge power structures that shape not only society and geopolitics but technological inventions such as AWS. Indeed, science has been instrumental in creating systems that are oppressive to certain peoples, reproducing social structures of authority, hierarchies of race and oppressive geopolitics.

The *jus ad bellum* lens and context give a broader view on use of force through AWS than the *jus in bello* which does not concern itself with whether a particular war is just or not. To overly or exclusively focus on the use of AWS in the context of armed conflict and the application of

55 A/HRC/23/47 (n 1) para 58.

56 As above.

57 CCW/GGE.1/2019/CRP.1/Rev.2 (n 8) para 24(a).

58 Heyns & others (n 47).

59 See for example, A/75/18, Report of the Committee on the Elimination of Racial Discrimination, Ninety-ninth session (5-29 August 2019), 100th session, (25 November-13 December 2019), para 22.

60 S Mohamed & others 'Decolonial AI: decolonial theory as sociotechnical foresight in artificial intelligence' (2020) *Philosophy and Technology* 659.

jus in bello is to approach the technology of AWS as if it was a neutral technology. AI technologies like AWS are neither a simple matter of algorithms nor a mere case of great man's imaginations in pursuit of science but rather, such technologies are shaped by specific political and ideological projects of the powerful that permeate geopolitics.⁶¹ Studies have already noted that racialised AI military technologies will lead to algorithmic coloniality, algorithmic oppression, exploitation and dispossession of those who have been historically oppressed.⁶² It is, therefore, important to emphasise the social context of AWS and confront epistemic forgeries where AI technologies like AWS are presented as if they are neutral technologies that are free from social context. Some scholars have argued that, AI technologies like AWS 'come from a rather specific, White, and privileged place' and are 'racialised, gendered, and classed models of the self.'⁶³

In view of the above, focussing on the context of armed conflict alone is to equally adopt a non-contextual and ahistorical approach to a technology that is likely to be deployed more in certain contexts such as counter-terrorism operations. *Who's* developing *what*, and *where* will it be deployed and against *who*? What has been the historical experience on use of force through emerging technologies such as armed drones? Where have they been deployed? It is critical for stakeholders to contend with these questions and with this context because excluding them may result in the adoption of a new law on AWS with a very narrow scope of application.

As indicated above, the debate on AWS is currently occurring within the CCW framework. The relevant question – to be discussed under the scope of application section of this essay – is whether the CCW framework can produce a new law on AWS that sufficiently addresses issues that are raised by AWS under *jus ad bellum* or the law governing inter-State use of force, particularly, in counter-terrorist operations.

Use of AWS in peace time and IHRL

The Heyns Report notes that AWS may also be used in situations outside the armed conflict context such as law enforcement situations.⁶⁴ Noting that 'the experience with UCAVs (armed drones) has shown that this type of military technology finds its way with ease into situations outside recognized battlefields'⁶⁵, the Heyns Report notes that AWS

61 Y Katz *Artificial whiteness: politics and ideology in artificial intelligence* (Columbia University Press 2020) 3-13.

62 See A Birhane 'Algorithmic colonisation of Africa' (2020) 17 *Scripted* 2; Mohamed & others (n 60) 659.

63 Katz (n 61).

64 A/HRC/23/47 (n 1) paras 82-85.

65 A/HRC/23/47 (n 1) para 82; See also Heyns & others (n 47) 181; C Enemark 'Armed drones and ethical policing: risk, perception, and the tele-present officer'

'could be used by states to suppress domestic enemies and to terrorize the population at large, suppress demonstrations and fight 'wars' against drugs.'⁶⁶ It further notes that 'the possibility of [AWS] usage in a domestic law enforcement situation creates particular risks of arbitrary deprivation of life, because of the difficulty that [AWS] are bound to have in meeting the stricter requirements posed by IHRL'.⁶⁷

Thus, in cases where AWS are used in peace time, for example in law enforcement situations, there are risks that are posed to a number of human rights such as the right to life and the right to non-discrimination.⁶⁸ AWS do not have situational awareness and understanding of the nuances of human behaviour in order to comply with fundamental principles on the use of force such as the 'protect life principle'.⁶⁹ This principle demands that states agents must only use lethal force as a last resort to protect the life of another person that is in immediate danger.⁷⁰

Regulation of use of AWS in law enforcement situations is particularly important to people of colour who are often disproportionately affected when force is used by state agents. In 2020, a UN report on the United States – one of the states that are currently developing AWS – noted various concerns regarding racial bias and the use of lethal force. It noted 'the continuing practice of racial profiling, the use of brutality and the excessive use of force by law enforcement officials against persons belonging to racial and ethnic minorities'.⁷¹ Similar concerns have been noted regarding other countries such as the United Kingdom, France and Israel.⁷² In cases where people of colour are involved, the UN Report noted the disproportionate use of lethal force regardless of whether or not the victim concerned is armed.⁷³ The Report further noted that racism associated with use of lethal force is a matter of 'systemic and structural discrimination [that] permeates state institutions and disproportionately promotes racial disparities against [people of colour and ethnic minorities]'.⁷⁴ UN has also recommended that UN institutions

(2021) 40(2) *Criminal Justice Ethics* 124-144.

66 A/HRC/23/47 (n 1) para 84.

67 A/HRC/23/47 (n 1) 85.

68 A/HRC/23/47 (n 1) 30.

69 A/HRC/23/47 (n 1) para 85.

70 UN Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, A/HRC/26/36, 2014 para 72.

71 See A/75/18, Report of the Committee on the Elimination of Racial Discrimination, Ninety-ninth session (5-29 August 2019), 100th session, (25 November-13 December 2019), para 22.

72 As above.

73 As above.

74 As above.

should condemn ‘modern day racial terror lynchings and [should call] for systematic reform and justice.’⁷⁵

Now that AWS raise various complex issues in different contexts of application and use, some scholars have already recommended a comprehensive and coordinated response that not only covers one context, but all possible situations discussed above.⁷⁶ The enduring question in this paper is whether the CCW framework is capable of producing a new law on AWS whose scope of application covers all contexts and circumstances.

Scope of application of new law on AWS

Given that many stakeholders agree that existing law is inadequate to govern AWS uses in various contexts and that states need to adopt new rules, it is necessary to consider the forum in which the new rules might be developed. As already indicated, AWS are currently being discussed by the UNGGE in the CCW framework. Indeed, Principle (k), one of the eleven Guiding Principles of the UNGGE on AWS, provides as follows:⁷⁷

The CCW (Convention on Conventional Weapons) offers an appropriate framework for dealing with the issue of emerging technologies in the area of lethal autonomous weapons systems within the context of the objectives and purposes of the Convention, which seeks to strike a balance between military necessity and humanitarian considerations.

In its 2021 submission to the UNGGE, Australia noted that ‘it is a strong supporter of the Convention on Certain Conventional Weapons (CCW)⁷⁸ and that ‘the CCW maintains broad global support and is the appropriate forum to discuss issues, regulations, frameworks and legal aspects related to lethal autonomous weapons systems.’⁷⁹ Likewise, Canada submitted that ‘given the mixture of states party to the CCW and the fact that it includes major military powers, Canada views the CCW as the appropriate forum for international discussions on such weapons.’⁸⁰ In the same vein, in their 2021 submissions to the UNGGE, France and Germany noted that a normative framework on AWS ‘could include a reaffirmation of the role and objectives of the CCW which remains the appropriate forum, notably because of its multilateral

75 See also General Recommendations 31 of 2005 on the prevention of racial discrimination in the administration and functioning of the criminal justice system, 34 (2011) on racial discrimination against people of African descent and 35 (2013).

76 Heyns & others (n 147) 153.

77 CCW/GGE.1/2019/CRP.1/Rev.2 (n 8) Annex IV, p.13.

78 See ‘Convention on Certain Conventional Weapons Group of Governmental Experts on Lethal Autonomous Weapons Systems, Submission of Australia’ (2021) 1.

79 As above.

80 See the ‘Commentary by Canada on the operationalization of the Guiding Principles affirmed by the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems’ (2021) 4.

nature.⁸¹ The same sentiments were expressed by the United Kingdom that noted that ‘the CCW remains the optimum forum to discuss and progress the issue of Lethal Autonomous Weapons Systems’.⁸²

The above notwithstanding, the appropriateness of the CCW framework has been previously questioned on the grounds that the CCW is a consensus framework – a consensus that is unlikely to be achieved given the issues raised by AWS.⁸³ For a new rules to be adopted in the CCW framework, there has to be consensus among the High Contracting parties of the CCW. Given that some of the critical concerns on, and objections to the use of AWS are anchored on moral values – values that are arguably subjective – it has been argued that chances of new rules on AWS emerging from the CCW framework are very low.⁸⁴ Relevant values such as dignity, virtue, compassion, religion, peace, security etc. and points of divergence in perception, present challenges to achieve multi-lateral consensus on a value-based regulation on AWS.⁸⁵

In considering the appropriateness of the CCW framework to produce new law on AWS, this section considers the question whether the CCW framework can produce new rules whose scope of application covers situations outside the contexts of armed conflict that have been discussed above.

CCW and protocols’ scope of application

After noting that ‘existing IHL rules do not hold all the answers to the humanitarian, legal and ethical questions raised by AWS’⁸⁶ the ICRC recommended states ‘to establish internationally agreed limits on autonomous weapon systems to ensure civilian protection, compliance with international humanitarian law, and ethical acceptability’.⁸⁷ In relation to the forum where that new law may come from, the ICRC noted that it ‘supports initiatives by states aimed at establishing international limits on autonomous weapon systems ... such as efforts pursued in the Convention on Certain Conventional Weapons to agree on aspects of a normative and operational framework’.⁸⁸

81 See ‘Franco-German contribution: Outline for a normative and operational framework on emerging technologies in the area of LAWS’ (2021) 1.

82 See United Kingdom, ‘Written contributions on possible consensus recommendations in relation to the clarification, consideration and development of aspects of the normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems’ (2021) 1.

83 T Chengeta ‘Autonomous armed drones and challenges to multilateral consensus on value-based regulation’ in C Enemark (ed) *Ethics of drone ethics: restraining remote-control killing* (Edinburgh University Press 2021) 171-184.

84 As above.

85 As above.

86 ICRC position on AWS (n 6) 11.

87 ICRC position on AWS (n 6) 2.

88 As above.

Likewise, in its recent statement to the UNGGE, the International Committee for Robot for Robot Arms Control (ICRAC) also noted that ‘existing international law is not sufficient’⁸⁹ and ‘considers it vital that the CCW moves to the negotiation of an international legal instrument’ on AWS.⁹⁰ Similarly, other stakeholders who are advocating for new law on AWS have indicated that such new law could take form of an additional Protocol to the CCW. For example, in its 2021 submission to the UNGGE, the Republic of the Philippines noted that ‘a normative and operational framework [on AWS] should ultimately be institutionalized through a legally-binding Protocol of the Convention on the Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or To Have Indiscriminate Effects (CCW)’.⁹¹ As indicated above, the fundamental question is whether the CCW framework is appropriate for the production of new rules on AWS whose scope of application covers all contexts within which AWS may be used. In other words, is the *purpose* of the CCW framework and scope of application wide enough to cover all the contexts within which AWS may be used?

Article 1 on the Scope of Application of the CCW provides that the CCW ‘and its annexed Protocols *shall apply in the situations referred to in Article 2 common to the Geneva Conventions of 12 August 1949 for the Protection of War Victims, including any situation described in paragraph 4 of Article 1 of Additional Protocol I to these Conventions.*’⁹² The referred Article 2 Common to the Geneva Conventions of 12 August 1949 and paragraph 4 of Article 1 of Additional Protocol 1 to the Geneva Conventions refer to contexts of armed conflict. Indeed, it is indicated that the ‘the purpose of the Convention (CCW) is to ban or restrict the use of specific types of weapons that are considered to cause unnecessary or unjustifiable suffering to combatants or to affect civilians indiscriminately.’⁹³ Clearly, it is only in the context of armed conflict that the terms ‘combatants’ and ‘civilians’ are used, not in law enforcement or other violent situations during peace time. Thus, basically, the CCW framework focusses on armed conflict and IHL.

Furthermore, all the Protocols to the CCW, namely, Protocol I on Non-Detectable Fragments, Protocol II on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices, Protocol III on

89 See Written contribution from the International Committee for Robot Arms Control to the CCW GGE on LAW (2021) 1 (Written contribution).

90 Written contribution (n 89) 2.

91 See ‘Commentary of the Republic of the Philippines on the Normative and Operational Framework in Emerging Technologies in the Area of Lethal Autonomous Weapon Systems’ (2021) para 2.

92 Art 1 of the UN Convention on Conventional Weapons (emphasis added).

93 See the UN CCW and its Protocols, <https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/> (accessed 7 December 2021).

Prohibitions or Restrictions on the Use of Incendiary Weapons, Protocol IV on Blinding Laser Weapons, Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices and Protocol V on Explosive Remnants of War are contemplated to apply in the context of armed conflict.⁹⁴ For example, the CCW Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices as amended on 3 May 1996 provides that while the Protocol is applicable to both IAC and NIAC⁹⁵, the 'Protocol *shall not apply* to situations of internal disturbances and tensions, such as riots, isolated and sporadic acts of violence and other acts of a similar nature, as not being armed conflicts'.⁹⁶

As is clear from the above, stakeholders in the current debate on AWS in the CCW need to contend with the fact that the CCW framework is limited to contexts of armed conflict and use of weapons during times of war. The CCW has not, in the past, produced a Protocol or rules that applies both in times of armed conflict and peace. It is also to no surprise why the UNGGE, in its Guiding Principles states that IHL, states that the law of armed conflict, 'should guide the continued work of the Group'.⁹⁷

Already, in its 2021 contribution to the UNGGE, France emphasised that a normative framework on AWS should be 'in line with the objectives and purposes of the CCW'⁹⁸ and that it 'should primarily aim at ensuring that *International Humanitarian Law* (IHL) will continue to apply fully to all weapons systems'.⁹⁹ Indeed, IHL only applies to situations of armed conflict.

Likewise, in its 2021 submission, while noting that 'the CCW as an optimal forum to address the issue of LAWS',¹⁰⁰ Russia emphasised that 'discussions within the GGE on AWS should be structured fully in line with the objectives of the CCW and should not go beyond its scope'¹⁰¹ and as such 'the subject of the discussion within the GGE on LAWS

94 See the UN CCW and its Protocols, <https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/> (accessed 17 December 2021).

95 Art 2 and 3 of Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices.

96 Art 2 of Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices (emphasis added).

97 CCW/GGE.1/2019/CRP.1/Rev.2 (n 8) 13.

98 See 'Possible consensus recommendations in relation to the clarification, consideration and development of aspects on the normative and operational framework on emerging technologies in the area of LAWS, Written contribution by France' (2021) 2.

99 As above.

100 See 'Russia's Considerations for the report of the Group of Governmental Experts of the High Contracting Parties to the Convention on Certain Conventional Weapons on emerging technologies in the area of Lethal Autonomous Weapons Systems on the outcomes of the work undertaken in 2017-2021' (2021) (Russia's Considerations) at 4.

101 As above.

should be limited to *fully autonomous military systems*.¹⁰² In the recently concluded UNGGE meeting on AWS (2-8 December 2021), while states like France, the UK, Switzerland, the US etc. reiterated their views that IHL is the applicable regime to AWS, some states went as far as insisting that references to IHRL in the UNGGE draft report should be deleted.¹⁰³ For example, during the GGE session on 3 December 2021, the Israel delegation noted as follows: ‘the CCW is an IHL-focused framework, we think that other legal frameworks that are outside the CCW mandate and objectives should not be mentioned (in the CCW report on AWS). We therefore, support what several delegations have already suggested: to delete the words “international human rights law” (from the report)’.¹⁰⁴ The delegation from India also spoke strongly against the inclusion of IHRL in the report of the CCW report on AWS. It noted as follows: ‘For my delegation, we cannot accept the inclusion of international human rights law ... in this paragraph or elsewhere in the report ... We can keep discussing these issues till the cows go home but we will not be able to agree to this’.¹⁰⁵ Given the legal limitations or parameters that exists on the scope of application of laws that are adopted in the CCW framework, states and other stakeholders should seriously consider if the CCW framework is the appropriate framework within which new law on AWS should be negotiated and adopted.

Of course, one of the questions that may arise is whether prohibitions that are imposed in the context of armed conflict are not automatically applicable to law enforcement or other situations where force is used outside war situations. Ordinarily, there is a strong reason to argue that surely, what is bad for the goose must also be bad for the gander. In other words, if new rules are adopted in the CCW framework and provides for certain prohibitions on AWS, such prohibitions should also apply to contexts of law enforcement and other situations where force is used in peace time. Yet, this is not always the case. An example is the Chemical Weapons Convention which provides that ‘each State Party undertakes not to use riot control agents as a method of warfare’,¹⁰⁶ but ‘may be used for certain law enforcement purposes including riot control’.¹⁰⁷ Thus, while the use of tear gas is prohibited in the context of armed conflict, it can be lawfully used in the context of law enforcement. Thus, the CCW will have to expressly deal with potential uses of AWS outside the context of armed conflict and consider IHRL and other laws that

102 Russia’s Considerations (n 100) at 3.

103 See the CCW UNGGE meetings on AWS (2-8 December 2021), recordings available at <https://conf.unog.ch/digitalrecordings/> (accessed 21 December 2021).

104 As above.

105 As above.

106 Article 1(5) of the Chemical Weapons Convention.

107 Article II(9)(d) of the Chemical Weapons Convention.

more fully apply outside the context of armed conflict. The argument in this section is that in terms of the CCW mandate and framework, there is no legal room to do that unless the state parties to the CCW choose to change the CCW scope of application and purpose of the Convention and its framework.

Furthermore, some may argue that the adoption of new rules or a treaty on AWS in the CCW framework does not stop states from negotiating another law or treaty outside the CCW framework to cover situations outside armed conflict. While this may be true, it is not an ideal situation. The challenges and issues raised by AWS are inter-related and they should be dealt with in a single and comprehensive treaty on AWS. On account of the limitations on the CCW framework and its purpose, it is doubtful that the CCW framework can produce such a comprehensive treaty.

Scope of application suggested by civil society

In its proposal of elements of a new treaty on AWS, the Campaign to Stop Killer Robots suggested a broad scope of application that covers both war and peace time.¹⁰⁸ In support of that broad scope of application, the Campaign gave examples of treaties such as the Chemical Weapons Convention, the Mine Ban Treaty, the Convention on Cluster Munitions and the Treaty on the Prohibition of Nuclear Weapons.¹⁰⁹ The Campaign particularly noted as follows:¹¹⁰

All four treaties prohibit these activities ‘under any circumstances.’ As a result, they apply in times of peace and war. This broad scope is important in the fully autonomous weapons context given that the systems could be used in law enforcement operations as well as in situations of armed conflict.

While the examples given by the Campaign are compelling, it is important to note that all the four treaties referred to were not adopted in the CCW framework – a framework that focusses on situations of armed conflict and the application of IHL or *jus in bello*. The Chemical Weapons Convention is administered by the Organisation for the Prohibition of Chemical Weapons (OPCW), not the CCW.¹¹¹ The Mine Ban Treaty was adopted through a UN General Assembly Resolution, not the CCW.¹¹² Likewise, the Treaty on the Prohibition of Nuclear

108 See Human Rights Watch, ‘New weapons, proven precedent: Elements of and models for a treaty on killer robots’ (2020) <https://www.hrw.org/report/2020/10/20/new-weapons-proven-precedent/elements-and-models-treaty-killer-robots> (accessed 10 December 2021).

109 As above.

110 As above.

111 See OPCW, available at <https://www.opcw.org/about-us> (accessed 10 December 2021).

112 See UN General Assembly Resolution 52/38.

Weapons was adopted through a UN General Assembly Resolution.¹¹³ Finally, the Convention on Cluster Munitions was adopted outside the CCW framework.¹¹⁴ Thus, while there are disarmament treaties whose scope of application covers situations outside armed conflict, such treaties are not products of the CCW framework.

Importance of a broad scope of application

As already noted above, it is fundamental that when a new treaty on AWS is adopted, its scope of application should be broad to cover situations outside armed conflict because there is a real potential that AWS may be used in the context of law enforcement and counterterrorism operations.¹¹⁵ Such a broad scope of application is also critical for those approaching the challenges raised by AWS from a racial justice standpoint. All contexts within which AWS may be used absolutely matter and should be equally governed by the new law that may be adopted on AWS.

As indicated above, several UN reports indicate that when state agents use force in the context of law enforcement and counterterrorist operations, people of colour and civilians in the Muslim communities are disproportionately affected.¹¹⁶ Therefore, If AWS are used in the context of law enforcement and counterterrorism operations, it is highly likely that people of colour and Muslim communities will be disproportionately affected. Already, there have been indications that use of AWS may exacerbate racial and gender discrimination.¹¹⁷ If used in the context of law enforcement and counterterrorism, AWS are not a neutral technology, they are not just conventional weapons but have far-reaching discriminatory consequences for certain groups of peoples. Such discriminatory consequences cannot be fully addressed in the CCW framework whose focus is IHL and contexts of armed conflict.

The 2020 Report of the UN Special Rapporteur on contemporary forms of racism notes that *'states must reject a 'colour-blind' approach to governance and regulation of emerging technologies, one that ignores the specific marginalisation of racial and ethnic minorities and conceptualises problems and solutions relating to such technologies without accounting*

113 See UN General Assembly Resolution A/71/L.52.

114 See the Convention on Cluster Munitions, available at <https://www.clusterconvention.org/> (accessed 10 December 2021).

115 A/HRC/23/47 (n 1); Human Rights Watch (n 45), ICRC (n 89).

116 See the Committee on the Elimination of Racial Discrimination, <https://www.ohchr.org/en/hrbodies/cedr/pages/cedrindex.aspx> (accessed 16 December 2021); See A/75/18, Report of the Committee on the Elimination of Racial Discrimination, Ninety-ninth session (5-29 August 2019), 100th session, (25 November-13 December 2019), para 22.

117 See UNGGE 2020 Report, https://documents.unoda.org/wp-content/uploads/2020/07/CCW_GGE1_2020_WP_7-ADVANCE.pdf (accessed 21 December 2021).

for their likely effects on these groups.¹¹⁸ If there is an agreement that AWS may be used in contexts outside armed conflict – contexts such as law enforcement and counterterrorist operations where certain peoples are disproportionately affected by the use of force – insisting that a framework that does not fully address such contexts is the appropriate forum to produce new law on AWS is to unjustifiably adopt a colour-blind approach to governance of AWS. It is equally contrary to the recommendations of the UN Committee on Convention on the Elimination of Racial Discrimination that noted that on every issue – including emerging technologies – states must seek to eliminate any forms of ‘modern day racial terror lynchings’ and must call for systematic reform and justice.¹¹⁹

Conclusion

In the AWS discussions in the CCW, many states and organisations such as the ICRC have reached the conclusion that existing law is insufficient to deal with the challenges that are raised by AWS. They have recommended the negotiation of a new legally binding instrument or treaty on AWS. This essay considered the question whether the CCW framework is the appropriate framework to produce a new law on AWS given the limitations of the CCW framework as far as scope of application is concerned. The essay showed that while the CCW framework can only produce new rules whose scope of application is limited to situations of armed conflict, AWS may be used in law enforcement, counterterrorism and other situations outside armed conflict. As such, unless adjusted, the CCW framework cannot produce a comprehensive law that can adequately govern AWS in all circumstances. This conclusion is not to say that the CCW framework is without merit or advantages, rather, it is to point out that stakeholders should contend with the issue relating to limitation of scope of application of treaties or protocols that are adopted in the CCW framework.

118 UN Special Rapporteur on contemporary forms of racism, Report, A/HRC/44/57, (2020), para 48.

119 See also General Recommendations 31 (of 2005) on the prevention of racial discrimination in the administration and functioning of the criminal justice system, 34 (of 2011) on racial discrimination against people of African descent and 35 (of 2013).