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Research Article

AUTONOMOUS WEAPON SYSTEMS: ATTRIBUTING THE CORPORATE ACCOUNTABILITY

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Summary: : 1. Introduction. – 2. Lack of Mechanisms: Respecting the Principles of International Law. – 3. Alternative International Complaint Mechanisms to Corporate Actors. – 4. Conclusions.

Keywords: autonomous weapons system (AWS); corporations; ICC; war crime; accountability; manufacturer.

ABSTRACT

Background: *The use of autonomous weapon systems (AWS) in armed conflict has been rapidly expanding. Consequently, the development of AWS worries legal scholars. If AWS were to operate without ‘meaningful human control’, the violation of international law and human rights would be unpreventable.*

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Methods: This paper indicates that the most important problem arising from the use of AWS is the attribution responsibility for the violation of corporate actors. Nevertheless, it is ambiguous who is legally responsible for these international crimes, thus creating an accountability gap. The main problem regarding corporate responsibility that covers the process of employing AWS is determining who exercises causal control over a chain of acts leading to the crime's commission. The paper proposes a more optimistic view of artificial intelligence, raising two challenges for corporate responsibility. First, the paper maps the framework of the use of AWS regarding corporate actors. Second, the article identifies the problem of accountability by presenting some possible scenarios linked to the AWS context as a solution to this problem.

Results and Conclusions: The results have exposed ambiguity in international law and the absence of essential laws regarding the attribution of responsibility for AWS and the punishment of the perpetrator – international law needs to be improved and regulated.

1 INTRODUCTION

Several aspects of human existence have recently begun to be dominated by artificial intelligence (AI). The power of AI has undeniably been growing along with technology and has redefined what the future holds. What once was thought to be a concept out of a science fiction movie has now become a reality with the creation of autonomous weapon systems (AWS). The states' power depends on the power of their technologies, which are led by corporations representing 'shadow sovereigns'.² Now, the reality is that warfare technology could cause the state to consider waging war. AWS places humans in charge of the targeting decision-making process in warfare technology, and states have presumably begun giving more tasks to AWS on the battlefield. Note that issues not only appeared regarding the use of AWS but also due to the lack of conventions or treaties concerning preparing for any future conflicts in respect of international law. Selecting military targets without human involvement is one of the biggest problems in holding AWS criminals accountable for their violations.³

Despite the fact that states have not listed any reservations about the legality of AWS, the paper intends to search for a possible scenario for imposing accountability on corporations involved with AWS that commit war crimes. Using historical and contemporary cases, Part I presents the inadequacy of substantive international criminal law and the enforcement mechanisms to manage corporate misbehaviour or malfunctioning related to AWS. Part II argues that the exploration of a legal way to enforce corporate accountability for the actions of AWS demands that we study all the difficulties in attributing responsibility to states. That said, it is indisputable that the responsibility of corporations should be where AWS would be produced to violate international law in terms of domestic laws.

2 LACK OF MECHANISMS: RESPECTING THE PRINCIPLES OF INTERNATIONAL LAW

It is critical to understand the nature of the current legal status of AWS in order to analyze how autonomous weapons have been handled within it. It is important to consider that domestic law and international law could be applied to the frameworks controlling the

2 Jackie Smith, 'Challenging Corporate Power: Human Rights Globalization from Above and Below' (2021) 64 *Development* 63, doi: 10.1057/s41301-021-00292-2.

3 Mariarosaria Taddeo and Alexander Blanchard, 'A Comparative Analysis of the Definitions of Autonomous Weapons Systems' (2022) 28 *Science and Engineering Ethics* 37, doi: 10.1007/s11948-022-00392-3.

legality of the use of force, including the use of weapons systems.⁴ Even according to the classical approach,⁵ only states are subjects of international law, while non-state actors might incur international responsibility for the state only in particular acts. This indicates that for some actions committed by non-state actors or corporations, the state might be responsible.⁶ To start, it is important to notice the absence of international conventions that directly regulate autonomous weapons. While there may be no particular convention-based prohibitions, autonomous weapons must be employed by applicable customary international law. Moreover, if the IHL is not respected, these types of weapons will be deemed illegal under the IHL framework.⁷

Subsequently, this section will examine the weaknesses of the current international enforcement procedures with regard to corporate actors in the context of AWS. After analyzing the reasons behind the limitations in enforcing international criminal law on corporate actors, we must explore another alternative. Because a corporation's activities might be a trigger for breaching human rights, civil claims for redress for human rights abuses will be taken into account.

2.1 The framework related to corporations for the AWS action at the international level

Following customary international law,⁸ any state that studies, develops, acquires, or adopts a new weapon, means, or method of warfare must conform with Additional Protocol I (API) to the Geneva Conventions of 1949.⁹ Furthermore, the IHL concentrates on analysing whether a weapon is explicitly banned by an international treaty or if it is essentially incapable of adhering to the two 'cardinal principles' stated in the texts defining humanitarian law. These are the only two criteria that can be used to determine whether a weapon is legitimate.¹⁰ The ICJ affirmed in its advisory opinion that the first rule to respect is the principle of distinction between combatants and civilians.¹¹ The ICJ also confirmed the second cardinal concept of the IHL framework that any state's first duty is to outlaw any weapons that would result in superfluous injury or unnecessary suffering.¹² Also, according to the ICRC's study, these criteria, under this norm, should apply strictly to any persons or groups acting by following the instructions. In addition, these studies make it clear from the second criterion that any act by a person or group operating on its instructions, under its direction, or control, as well

4 Emily L Drake, 'Evaluating Autonomous Weapons Systems: A Dichotomic Lens of Military Value and Accountability' (2021) 53 (1) Columbia Human Rights Law Review 308, doi: 10.7916/xcl1f-n417.

5 Jonathan I Charney, 'Transnational Corporations and Developing Public International Law' (1983) 32 (4) Duke Law Journal 753, doi: 10.2307/1372465; Emeka Duruigbo, 'Corporate Accountability and Liability for International Human Rights Abuses: Recent Changes and Recurring Challenge' (2008) 6 (2) Northwestern Journal of Human Rights 233.

6 Arts 5 and 9 of the 'Draft Articles on Responsibility of States for Internationally Wrongful Acts' in *Yearbook of the International Law Commission, 2001* (UN 2007) vol 2, pt 2, 26. The text of the Articles and the commentaries thereto are reproduced in Report of the International Law Commission on the Work of its 53rd session, UN Doc A/56/10 (2001).

7 Jack M Beard, 'Autonomous Weapons and Human Responsibilities' (2014) 45 Georgetown Journal of International Law 635.

8 Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law: Rules* (CUP 2005) vol 1, rule 139.

9 Beard (n 7) 635.

10 *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (ICJ, 8 July 1996) para 78 <<https://www.icj-cij.org/case/95>> accessed 31 May 2023.

11 *ibid*: "states must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets".

12 Henckaerts and Doswald-Beck (n 8) rule 70, 238-9.

as by its own armed forces using the weapons, should be controlled by the state. This is a consequence of Rule 149¹³ and supported by the ICJ,¹⁴ which holds states accountable for the actions of these individuals or corporations.

One might deduce that there is no reason to exclude armed conflict involving the use of AWS from the state's obligation. Also, there is the obligation of a state to 'ensure respect', which provides an element of ambiguity in determining whether the actions violate the law of armed conflict. We agree with some scholars that the problem with AWS is not so much a lack of legal basis as it is a lack of precision of what 'due diligence to ensure respect' means.¹⁵ In the context of military operations using AWS, there is a concern with risk management and state accountability resulting from any violations of this legal framework because accidents can occur with any form of weapon, even those that have broad testing. It is clear that AWS that is unable to adhere to the laws of armed conflict, should not be deployed. When examining these points, the issues with AWS include the fact that, despite considerable testing, it is unclear how exactly they will operate in a conflict. There will always be some level of risk and unpredictability.¹⁶

Focusing on state practice, most domestic legal systems and numerous military manuals include a rule prohibiting the methods of warfare that cause superfluous injury or unnecessary suffering and restrict the use of lethal force in certain situations.¹⁷ Moreover, international human rights law also defends the right to life, which restricts police on the use of lethal force by police officers.¹⁸ Several state laws consider violations of this rule to be crimes, and their domestic courts have applied it as a rule.¹⁹

2.2 The necessity for states to impose the corporate obligations

To respect the concept of state sovereignty, regardless of the technology that will be used during wars, each deployed state gives guidance on IHL to its armed forces, specifically to its military commanders.²⁰ Moreover, commentators have long observed that Art. 57(2) (a) of the API charges 'those who plan or decide upon an attack' to adopt a number of preventative actions to avoid or minimise the killing of civilians when preparing to conduct attacks. These requirements demonstrate the necessity for states to have military leaders who are charged with planning and selecting an attack exercising 'constant care', as well as 'all feasible precautions in the choice of means and methods of attack' in order to prevent harm to innocent civilians (Art. 57 (2)(a)(ii) of the API).²¹ To clarify this ambiguity, Art. 31(1) of the Vienna Convention on the Law of Treaties²² requires the rule to be applied in

13 *ibid* 237.

14 *ibid*, rule 139, 496; *Legality of the Threat or Use of Nuclear Weapons* (n 10) para 238.

15 Robert Geiss, 'Autonomous Weapons Systems: Risk Management and State Responsibility' (Third CCW Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS), Geneva, 11-15 April 2016) para 7.

16 *ibid* 1-2.

17 Henckaerts and Doswald-Beck (n 8) rule 70, 238. This rule includes the military manuals of the United Kingdom, United States, Australia, Spain Sweden Switzerland Belgium, Bosnia, and Herzegovina, Canada Croatia France Germany, and Yugoslavia.

18 Beard (n 7) 636.

19 Henckaerts and Doswald-Beck (n 8) rule 70, 238: Japan.

20 *Case of the SS "Lotus" (France v Turkey)* (PCIJ, 7 September 1927) <<https://www.icj-cij.org/pcij-series-a>> accessed 31 May 2023.

21 Afonso Seixas-Nunes, 'Autonomous Weapons Systems and Deploying States. Making Designers and Programmers Accountable' (2022) 161 *Nação e Defesa* 79.

22 Vienna Convention on the Law of Treaties (done at Vienna on 23 May 1969) (2005) 1155 UN Treaty Series 331.

good faith in its framework and in light of its object and purpose.²³ So, it is wrong to assume that ‘those who plan or decide upon an attack’ refers only to human beings. The state practice²⁴ applies to military commanders who are in charge of launching any attack, as well as to all those who have the ability to control any attack.²⁵ State practice could be extended to require further instruction for the corporate actors in order to avoid any mistake or malfunction in the use of AWS. In addition, the ‘parties to the conflict,’ which include states and organised military forces, are the ones responsible for the protection of IHL duties. In this instance, the action of their agents by military forces and their soldiers could be attributed to the parties to a conflict.²⁶ One must also provide an interpretative extension of Art. 57 of the API, which makes clear that ‘plan or determine’ is intended to include all decision-makers at all levels of command. Consequently, it should be remarked that those who control autonomous systems in war would belong to this category.²⁷ Additionally, military operators must make sure the autonomous system can exercise ‘constant care.’²⁸ If weapon systems utilising machine learning and artificial intelligence prove to be more capable of LOAC compliance or have the potential to become so, and the legal requirement is the ‘best application possible’, states may have a legal obligation to develop and employ such systems.²⁹ In doing so, it is stated that the state’s obligation to make sure that AWS complies with IHL criteria differs from its obligation to use ‘due care’ placed on autonomous systems. For example, the DoD 3000.09,³⁰ in line with existing treaties, the law of war, weapon system safety regulations, and applicable rules of engagement, specifically states that anybody using, directing the use of, or operating autonomous weapons must do so with ‘appropriate precautions’ (ROE).³¹ What occurs if ROE is inadequately constructed and leads to IHL violations on the battlefield? The answer to this issue may be found by considering situations like the Horizon controversy in the UK and the Robodebt crisis in Australia. Both times, the consequences of IT programs that were improperly and badly designed produced a significant amount of public indignation due to erroneous results.³² Given the nature of computers and software, it is appropriate to state that an autonomous software entity’s behaviour ultimately depends on decisions made by those in key roles, particularly designer and operator. The system of control³³ comprises a

23 *ibid.*

24 Henckaerts and Doswald-Beck (n 8) ch 5, 51.

25 Tim McFarland, ‘Minimum Levels of Human Intervention in Autonomous Attacks’ (2022) 27 (3) *Journal of Conflict and Security Law* 398, doi: 10.1093/jcsl/krac021.

26 Marco Sassóli, ‘Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions And Legal Issues to Be Clarified’ (2014) 90 *International Law Studies* 308.

27 Eric Talbot Jensen, ‘Autonomy and Precautions in the Law of Armed Conflict’ (2020) 96 *International Law Studies* 589-90.

28 *ibid* 587.

29 *ibid* 585-6.

30 DoD Directive 3000.09 ‘Autonomy in Weapon Systems’ (21 November 2012) <<https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodd/300009p.pdf>> accessed 31 May 2023. However, It Is Our Understanding That This Definition Leaves Creates More Problems than Solution’.

31 Seixas-Nunes (n 21) 79.

32 ‘Post Office and Horizon IT Scandal – Government and Post Office Must Take Urgent Action on Compensation for Sub-Postmasters’ (*UK Parliament*, 17 February 2022) <<https://committees.parliament.uk/committee/365/business-energy-and-industrial-strategy-committee/news/161072/post-office-and-horizon-it-scandal-government-and-post-office-must-take-urgent-action-on-compensation-for-subpostmasters>> accessed 31 May 2023; Peter Whiteford, ‘Robodebt Was a Fiasco with a Cost We Have yet to Fully Appreciate’ (*The Conversation*, 16 November 2020) <<https://theconversation.com/robodebt-was-a-fiasco-with-a-cost-we-have-yet-to-fully-appreciate-150169>> accessed 31 May 2023.

33 McFarland (n 25) 400.

range of measures applied in multiple stages.³⁴ In essence, autonomous software entities are collections of human-written instructions implemented by human-constructed. As a result, in programming, using AWS will surely require extra caution and attention to the degrees of significant risk associated with a mission. Only military leaders should be trusted with that kind of responsibility. Demanding that military leaders possess information about AI that is inherent to neural networks would be unreasonable. Therefore, corporate actors like designers and programmers should be held responsible for illegal consequences brought about by a lack of care in the assessment of the risks associated with the task given to AWS.³⁵ Regardless of how much care a state takes in deploying AWS, it is impossible to rule out scenarios where the system can malfunction and provide results that violate IHL standards. Beyond the requirements for controlling weapons during armed conflict, it is expected that a hypothetical state's overall system of control will ensure that the conduct of the weapon system complies with the state's IHL duties.³⁶

Therefore, it is strongly recommended that all operators who are involved in the design and development of an AWS for a particular mission be subject to the duties of states according to Art. 57 of the API.³⁷ In order to avoid mistakes that might result in losses and damage to civilians, states have a responsibility to consult with specialists in the use of AWS. It follows that military training for the use of AWS may be taken into account in determining whether the state complied with the principle of precaution in a conflict.³⁸

Finally, for corporations, it is essential to understand the distinction between direct and indirect responsibility. If international law imposes indirect obligations on corporations, then the corporate actors only have to worry about domestic law in the states in which they operate.³⁹ But, if the international responsibility is direct and a corporation violates IHL, it may be taken before an international court or before an international tribunal *ad hoc*.⁴⁰

Although it would not be a conceptual change from the traditional paradigm, states are being recognised as having the right to impose responsibilities on corporations. International law has recognised for a long time that a state may decide to impose a responsibility to stop or correct harm caused to civilians by other private parties.⁴¹

3 ALTERNATIVE INTERNATIONAL COMPLAINT MECHANISMS FOR CORPORATE ACTORS

The most pertinent alternative criteria for evaluating how well corporations uphold their obligations to protect human rights are the Conventions of the International Labor

34 Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, 'Australia's System of Control and applications for Autonomous Weapon Systems' (26 March 2019) CCW/GGE.1/2019/WP.2/Rev.1 <[https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_\(2019\)/CCW/GGE.12019WP.2Rev.1.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2019)/CCW/GGE.12019WP.2Rev.1.pdf)> accessed 31 May 2023.

35 Seixas-Nunes (n 21) 85.

36 McFarland (n 25) 400.

37 Seixas-Nunes (n 21) 80.

38 *ibid* 81.

39 Ole Kristian Fauchald and Jo Martin Stigen, 'Corporate Responsibility before International Institutions' (2009) 40 *The George Washington International Law Review* 1031.

40 *ibid* 1037.

41 Carlos M Vázquez, 'Direct vs Indirect Obligations of Corporations Under International Law' (2005) 43 *Columbia Journal of Transnational Law* 980.

Organization (ILO),⁴² the Guidelines for Multinational Enterprises of the Organization for Economic Co-operation and Development (OECD)⁴³ on bribery of foreign public officials,⁴⁴ the Convention on the financing of terrorism,⁴⁵ and the convention on transnational organised crime, which give states the opportunity to prosecute legal persons. More specifically, there are treaties that prohibit the development, transfer, and stockpiling of certain weapons that extend to the private sector, which includes corporations.⁴⁶ For instance, Art. 9 of the 1977 Convention⁴⁷ is founded on the idea that corporations must uphold specific social and environmental norms and protect human rights. Although these processes do not explicitly aim to hold corporations liable for their violations through AWS, several of these criteria are supplemented with non-legal complaint mechanisms. These mechanisms incorporate aspects of factual and legal analysis and provide a platform for examining corporate activity.⁴⁸

3.1 Violation of human rights by the corporation: potential accountability

The accountability of corporations for breaching human rights that qualify as international crimes is presently the subject of intense debate, though undoubted that states generally have the onus of responsibility to provide effective human rights protection, and this duty includes the responsibility to prosecute criminals when necessary.⁴⁹ The UN Security Council⁵⁰ and General Assembly⁵¹ have long recognised that the state's obligation to prosecute⁵² is related to the victim's right to justice.⁵³ Although there are few established mechanisms that allow victims to hold such corporations responsible, intergovernmental organisations are commonly known to have obligations that respect human rights compared to those of states and actors comprised of states.⁵⁴ Moreover, neither corporate legal entities nor specific business actors are subject to the jurisdiction of regional human rights courts.⁵⁵

42 ILO Declaration on Fundamental Principles and Rights at Work (adopted in 1998, amended in 2022) <<https://www.ilo.org/declaration/lang--en/index.htm>> accessed 31 May 2023.

43 OECD, *Guidelines for Multinational Enterprises* (OECD Pub 2011) doi: 10.1787/9789264115415-en.

44 Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (adopted by the Negotiating Conference on 21 November 1997) art 2 <https://www.oecd.org/daf/anti-bribery/ConvCombatBribery_ENG.pdf> accessed 31 May 2023.

45 International Convention for the Suppression of the Financing of Terrorism (adopted 9 December 1999 UNGA Res 54/109) art 5 <<https://undocs.org/en/A/RES/54/109>> accessed 31 May 2023.

46 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention) (Geneva, 3 September 1992) <<https://treaties.unoda.org/t/cwc>> accessed 31 May 2023.

47 *ibid.*

48 Wolfgang Kaleck and Miriam Saage-Maaß, 'Corporate Accountability for Human Rights Violations Amounting to International Crimes: The Status Quo and Its Challenges' (2010) 8 *Journal of International Criminal Justice* 711, doi: 10.1093/jicj/mqq043.

49 Thompson Chengeta, 'Accountability Gap: Autonomous Weapon Systems and Modes of Accountability Gap: Autonomous Weapon Systems and Modes of Responsibility in International Law' (2016) 45 (1) *Denver Journal of International Law & Policy Denver Journal of International Law & Policy* 9.

50 Khmer Rouge Trials (adopted 22 May 2003 UNGA Res 57/228 B) <<https://undocs.org/en/A/RES/57/228B>> accessed 31 May 2023.

51 Extrajudicial, Summary and Arbitrary Executions (adopted 25 February 2003 UNGA Res 57/214) <<https://digitallibrary.un.org/record/482001?ln=en>> accessed 31 May 2023.

52 *ibid.*

53 Chengeta (n 49) 11.

54 Megan Burke and Loren Persi-Vicentic, 'Remedies and Reparations' in Stuart Casey-Maslen (ed), *Weapons under International Human Rights Law* (CUP 2014) 545, doi: 10.1017/CBO9781139227148.024.

55 Kaleck and Saage-Maaß (n 48) 710.

Because of the potential violations of the right to life that might result from the unlawful use of weapons, the subject of accountability is crucial to international law. The use of a legal weapon in an illegal manner or in the wrong circumstances can both constitute violations.⁵⁶ Regarding remedies for breaches brought on by the use of specific weapons, no one can omit that the illegal use of a weapon will give the right to get reparation or restitution for both civilian and military casualties.⁵⁷

The difficulties with AWS accountability⁵⁸ need to be taken seriously since they endanger a number of victims' claim compensation for violations of human rights.⁵⁹ Following the Basic Principles and Guidelines on the Rights to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law,⁶⁰ in addition to failing to uphold human rights, the state also has a responsibility to protect human rights under its authority from the use of weapons unlawfully. In these instances, the state must search for a remedy.

In the case of AWS, in situations when the state is directly responsible for actions perpetrated by non-state actors, it is the obligation of governments to offer victims remedies.⁶¹ Thus, states must protect human rights by implementing a number of new regulations,⁶² although this duty has been repeatedly reaffirmed by the state.⁶³ In addition, courts like the European Court of Human Rights⁶⁴ and the African Commission on Human and People's Rights have also ruled that states have a duty to ensure that victims have access to justice,⁶⁵ information, and redress as a result of this obligation⁶⁶ by investigating human rights violations and prosecuting the perpetrators.⁶⁷ In order to pursue an effective remedy, which requires having all knowledge by whom the violations were committed, victims should have access to information⁶⁸ about the violation of their rights.⁶⁹ To that end, states have a responsibility to tell the victims and the general public the truth in order to achieve this.⁷⁰ Since AWS may leave a digital trail of every occurrence, getting access to information about what happened may be simple in this situation.⁷¹ Hence, in the AWS case, the UN Human Rights Committee has confirmed that the victims have a right to identify the person who deployed the device,

56 Burke and Persi-Vicentic (n 54) 542.

57 *ibid.*, 554.

58 *ibid.*, 543.

59 Chengeta (n 49) 5.

60 Burke and Persi-Vicentic (n 54) 544.

61 Draft Articles (n 6) arts 5, 9.

62 Chengeta (n 49) 6.

63 Draft Articles (n 6) art 34.

64 *Aksoy v Turkey* App no 21987/93 (ECtHR, 18 December 1996) <<https://hudoc.echr.coe.int/eng?i=001-58003>> accessed 31 May 2023.

65 Chengeta (n 49) 6.

66 *X and Y v The Netherlands* App no 8978/80 (ECtHR, 26 March 1985) <<https://hudoc.echr.coe.int/eng?i=001-57603>> accessed 31 May 2023.

67 *Aksoy v Turkey* (n 64).

68 Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (adopted 15 December 2005 UNGA Res 60/147) <<https://www.ohchr.org/en/instruments-mechanisms/instruments/basic-principles-and-guidelines-right-remedy-and-reparation>> accessed 31 May 2023.

69 Chengeta (n 49) 7.

70 *Juan Humberto Sanchez v Honduras* (Inter-American Court of Human Rights, 7 June 2003) <<https://legal-tools.org/doc/32445c>> accessed 31 May 2023.

71 Christof Heyns, 'Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions' (UNGA Human Rights Council, 23rd ses, 9 April 2013) UN Doc A/HRC/23/47 para 52 <<https://digitallibrary.un.org/record/755741?ln=en>> accessed 31 May 2023.

their collaborators, and their motivations.⁷² Despite the fact that this is a beneficial side, victims would not be pleased to learn, for instance, that a robot wrongly believed their relative to be a valid target and killed him or her. The robot cannot apologise for being affronted after being injured.⁷³ The ECtHR, for example, has imposed sanctions on many states for failing to bring charges for human rights violations.⁷⁴ Hence, the process of accountability continues to be significantly influenced by corporate responsibility through state responsibility.⁷⁵ Governments would recommend a minimum level of behaviour for corporations that could be observed by interested parties; the recognition of obligations on corporations under international law might motivate them to do so.⁷⁶

3.2 Enforcement mechanisms at the national level to corporate actors for AWS actions

From a conceptual standpoint, there are primarily two methods to address the issue of who must be held accountable when it comes to AWS. The first option is to set up a 'strict liability' or reverse the burden of proof of 'presumed liability' for AWS. Second, the emphasis might be moved to state liability resulting from failing to uphold risk mitigation and damage reduction duties at the pre-deployment stage.⁷⁷

In accordance with international law, corporate actors can be held accountable at four different points: design, production, sale and transfer, and the use of the weapon.⁷⁸ It could be easier to assign corporate responsibility when the structural flaws in AWS lines are clearly attributable to their manufacturers.⁷⁹ In addition, it is not complicated to hold accountability to the corporate actors when a corporation commissions for the sale of AWS violates international law or domestic laws⁸⁰ to supply such weapons to those parties. Similarly, the corporation may be held liable if AWS's designer wilfully breaks international law⁸¹ when the system is unable to distinguish between civilians and combatants or causes unnecessary suffering.⁸² Because international law bans the production or stockpiling of that specific weapon, it is possible to prove that weapons are being produced illegally. The manufacturer is solely responsible for this.⁸³ Moreover, the manufacturer should respect customary international law⁸⁴ in their product due to the absence of any international agreement over

72 Chengeta (n 49) 10.

73 *ibid* 11.

74 *X and Y v The Netherlands* (n 66).

75 *DeShaney v Winnebago County Department of Social Services* (US Supreme Court, 22 February 1989) <<https://supreme.justia.com/cases/federal/us/489/189>> accessed 31 May 2023.

76 Steven R Ratner, 'Corporations and Human Rights: A Theory of Legal Responsibility' (2001) 111 (3) *The Yale Law Journal* 463, doi: 10.2307/797542.

77 Geiss (n 15) para 12.

78 Ralph G Steinhardt, 'Weapons and the Human Rights Responsibilities of Multinational Corporations' in Stuart Casey-Maslen (ed), *Weapons under International Human Rights Law* (Cambridge University Press 2014) 531-2, doi: 10.1017/CBO9781139227148.023.

79 Swati Malik, 'Autonomous Weapon Systems: The Possibility and Probability of Accountability' (2017) 35 (3) *Wisconsin International Law Journal* 630.

80 Steinhardt (n 78) 531.

81 Geneva Academy of International Humanitarian Law and Human Rights, *Autonomous Weapon Systems under International Law* (Academy Briefing no 8, Geneva Academy 2014) 22.

82 Peter Asaro, 'On Banning Autonomous Weapon Systems: Human Rights, Automation, and the Dehumanization of Lethal Decision-Making' (2012) 94 (886) *International Review of the Red Cross* 693, doi: 10.1017/S1816383112000768.

83 Chemical Weapons Convention (n 46).

84 ICRC, 'Practice relating to Rule 74: Chemical Weapons' (*International Humanitarian Law Databases*, November 2022) <<https://ihl-databases.icrc.org/en/customary-ihl/v2/rule74>> accessed 31 May 2023.

whether or not AWS is forbidden under customary international law. It is important to note that AWS can be used unlawfully even when it is legal to manufacture it. If the perpetration via planning, assisting, and abetting is demonstrated,⁸⁵ this will not 'trigger liability' unless the corporation has considerable knowledge of the illicit usage of AWS, at which point the corporation is accountable for aiding and abetting under international law.⁸⁶

The victims' only option is to file civil cases, and many domestic legal systems strongly emphasise the necessity to include accountability for the failure of machines. Manufacturers' liability is a common term used to describe corporate liability in the context of the accountability of AWS.⁸⁷

It is possible in some jurisdictions for claimants to file product liability cases in civil lawsuits. It would be against corporate manufacturers of AWSs⁸⁸ for harm caused by the product's manufactured liability regime, including various forms of negligence, failure to take proper care of guide product or prevent anticipated risks, and failure to inform reasonable instructions.⁸⁹ Manufacturers would be obligated to cover any damages and provide victims' or their families with compensation under this option, which might consider any AWS crime as a legal accident.⁹⁰

AWS opponents have pointed out a few issues with a strict liability strategy because the weapon is apparently not intended to conduct such violations.⁹¹ First, it is uncommon for weapon manufacturers to be held liable for design defects,⁹² particularly when they notify customers that the AWS might be inaccurate.⁹³

Furthermore, it becomes challenging to invoke product liability in order to bring a claim based on the manufacturer's liability. It is impossible to prove negligence⁹⁴ if the manufacturer of the product informed the buyer of the potential nature and extent of impairments that might happen while the product is being used.⁹⁵ In fact, the idea of autonomy as a whole assumes that AWS will operate in ways that are different from those that their designers anticipated or planned⁹⁶ for several reasons, from simple malfunctions and software bugs to more complicated system failures,⁹⁷ shifting environmental conditions, hacking, and human mistake.

85 Steinhardt (n 78) 531.

86 Chengeta (n 49) 41.

87 Daniel Hammond, 'Autonomous Weapons and the Problem of State Accountability' (2015) 15 (2) *Chicago Journal of International Law* 665-7.

88 Human Rights Watch, *Losing Humanity: The Case Against Killer Robots* (Human Rights Watch 2012) 44 <<https://reliefweb.int/report/world/losing-humanity-case-against-killer-robots>> accessed 31 May 2023.

89 Beard (n 7) 647.

90 Human Rights Watch (n 88) 43-4.

91 Robert Sparrow, 'Killer Robots' (2007) 24 (1) *Journal of Applied Philosophy* 69, doi: 10.1111/j.1468-5930.2007.00346.x.

92 Hammond (n 87) 666.

93 Sparrow (n 91) 69.

94 Human Rights Watch (n 88) 43.

95 Even if this is an example of US domestic law, it does exemplify the kind of arguments that can be used in other jurisdictions to restrict manufacturer liability. It also goes on to show that instituting civil suits against non-domestic manufacturers may prove to be even more difficult.

96 Sparrow (n 91).

97 Rebecca Crootof, 'War Torts: Accountability for Autonomous Weapons' (2016) 164 (6) *University of Pennsylvania Law Review* 1374.

Human operators can take certain restrictions into account when these failures can be predicted in advance.⁹⁸ However, when failures are unforeseen, the result may be uncontrollable autonomous systems.⁹⁹ Evaluating the risk of using autonomous systems is crucial to comprehend the possibility and effects of a loss of control.¹⁰⁰ AWS decisions could be influenced by much more than just the original programming as they learn from their experiences.¹⁰¹

We must address the problem that as long as the design and production of the weapons are legal,¹⁰² corporations' private weapons manufacturers will not be held accountable for the use of the AWS by individuals or governments, especially when manufacturers are vigilant¹⁰³ to disclose any uncertainties of malfunctions to military consumers.¹⁰⁴

A stronger controlling principle for evaluating the presence of a 'substantial conflict' is provided by the discretionary function exception to the Federal Tort Claims Act (FTCA).¹⁰⁵ The Court determined that the armed services might choose the best design for military equipment by using their discretion under the terms of this clause.¹⁰⁶ Nevertheless, at least one American court has determined that a weapon's manufacturers are not obligated to take reasonable precautions to avoid harming any potential adversary combatants or individuals connected to enemy forces. As a result, manufacturer liability in tort for defective products cannot be based on the effects of employing weapons during an attack.¹⁰⁷ However, attempting to sue a manufacturer could be challenging to bear for the reason that the manufacturer or other parties might not have been responsible for the victim's damages. More importantly, as a primary hypothesis, it is submitted that product liability laws are largely untested in robotics.¹⁰⁸ This indicates that it will be difficult for AWS victims to file a successful civil lawsuit unless it is evident that the corporation acted dishonestly with *mala fides*.¹⁰⁹

Without anticipating the question of whether or not these requirements are too firm, the victim must deal with a number of jurisdictional technicalities and challenges in addition to financial expenses. Even if there are legal provisions in place that would permit them to claim damages, it is absurd to anticipate that the disadvantaged and geographically¹¹⁰ displaced civilian victims of conflict will be able to file a lawsuit against a manufacturer in a foreign jurisdiction.¹¹¹ Therefore, the strict liability paradigm would be unable to hold manufacturers accountable or provide retribution for victims.¹¹²

98 Paul Scharre, *Autonomous Weapons and Operational Risk: Ethical Autonomy Project* (Center for a New American Security 2016) 9.

99 *ibid* 13.

100 *ibid* 9.

101 Sparrow (n 91) 70.

102 *Boyle v United Technologies Corp* 487 US 500 (1998) (US Supreme Court, 27 June 1988) <<https://supreme.justia.com/cases/federal/us/487/500>> accessed 31 May 2023.

103 Beard (n 7) 647.

104 Human Rights Watch (n 88) 44.

105 28 US Code § 1346(b) - United States as defendant, 2680(a) - Exceptions <<https://www.law.cornell.edu/uscode/text/28/1346>> accessed 31 May 2023.

106 *Boyle v United Technologies Corp* (n 102).

107 *Koohi v United States*, 976 F.2d 1328 (1992) (United States Court of Appeals for the Ninth Circuit, 8 October 1992) <<https://cite.case.law/f2d/976/1328>> accessed 31 May 2023; Malik (n 79) 629.

108 Geneva Academy of International Humanitarian Law and Human Rights (n 81) 24.

109 Chengeta (n 49) 39-40.

110 Human Rights Watch (n 88) 44.

111 Geneva Academy of International Humanitarian Law and Human Rights (n 81) 24.

112 Human Rights Watch (n 88) 44.

4 CONCLUSIONS

Although there is no agreement on whether it is legal to give autonomous robots the ability to kill innocent civilians, it should be kept in mind that states should include their perspective when deciding the commands of public conscience¹¹³ and principles of humanity introduced in the Martens Clause and IHL.¹¹⁴

Holding a corporation accountable for negligence in any given situation may be hard in reality due to lack of control or proximate cause, which would deliberate 'impunity for all AWS use', despite the fact that AWS are specifically designed for independent decision-making. Evidently, the core problem is not located only in how AWS works without human intervention because the mistake could be made by a person, AWS, or any weapon. Remarkably, there is an assumption that AWS analysis is reliable, but the key issue here is that humans are held more accountable than AWS.

To conclude, in the lack of a convention that governs the use of AWS, corporate roles are defined as a by-product of automation. Presumably, there are no present indicators that the development of AWSs will be banned. According to Harold Koh,¹¹⁵ the former US State Department Legal Advisor, there is no limitation on the employment of technologically sophisticated weapon systems in armed conflict under the laws of war, and the type of the weapon should not affect the rules of controlling the intervention as long as they are used in accordance with the relevant rules of war.¹¹⁶

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