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Thompson Chengeta

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International Law: History, Military, War and Peace, Science and Technology, Weapons

ACCOUNTABILITY GAP: AUTONOMOUS WEAPON SYSTEMS AND MODES OF RESPONSIBILITY IN INTERNATIONAL LAW

*THOMPSON CHENGETA

If the nature of a weapon renders responsibility for its consequences impossible, its use should be considered unethical and unlawful as an abhorrent weapon.¹

I. INTRODUCTION

The development of unmanned systems that are remotely controlled and those with increased autonomy in making the decision to target or kill humans has been a worry to the international community for more than a decade now. The idea to develop Autonomous Weapon Systems (AWS)—machines that, once activated, are able to make the decision to kill humans without further human intervention—has sparked heated debates across the globe.² The old adage, “technology is a double-edged sword”³ has never, in the history of weapons development, been more pertinent than it is with AWS. On the one hand, there are claims that AWS promise a potential to save lives—to make a change to the unacceptable current state of affairs in armed conflict and elsewhere—where force is used.⁴ On the other hand, however, there are compelling reasons to believe that the deployment of AWS will result in the violation of the right to life, dignity, and other important rights.⁵

* LL.D, University of Pretoria, LL.M., Harvard Law School, LL.M., University of Pretoria, LL.B., Midlands State University., Expert Member, International Committee for Robots Arms Control.

1. Christof Heyns (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), GAOR, ¶ 80, U.N. Doc. A/HRC/23/47 (Apr. 9, 2013) [hereinafter Heyns, *Extrajudicial, Summary or Arbitrary Executions*].

2. There is no internationally agreed definition of AWS. However, a large number of scholars give the above definition. See, e.g., *id.* ¶ 38. The report cites almost similar definitions provided by the US Department of Defense and Human Rights Watch. U.S. Dep’t of Def., Dir. 3000.09, *Autonomy in Weapon Systems*, at 13 (Nov. 21, 2012), <http://www.dtic.mil/whs/directives/corres/pdf/300009p.pdf>; Bonnie Docherty, *Losing Humanity: the Case Against Killer Robots* 1, HUMAN RIGHTS WATCH (Nov. 19, 2012), <https://www.hrw.org/report/2012/11/19/losing-humanity/case-against-killer-robots> [hereinafter Docherty].

3. “We have to realize that science is a double-edged sword. One edge of the sword can cut against poverty, illness, disease and give us more democracies, and democracies never war with other democracies, but the other side of the sword could give us nuclear proliferation, biogermers and even forces of darkness.” Michio Kaku Quotes, BRAINYQUOTE, <http://www.brainyquote.com/quotes/quotes/m/michiokaku574536.html> (last visited Sept. 17, 2016).

4. See Ron Arkin, *Lethal Autonomous Systems and the Plight of Non-combatant*, GA. INST. OF TECH., AISB Q., no. 137, at 2 (July 2013), https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/media/54B1B7A616EA1D10C1257CCC00478A59/file/Article_Arkin_LAWS.pdf.

5. See, e.g., Robert Sparrow, *Robotic Weapons and the Future of War*, in NEW WARS AND NEW

Scholars, organizations and states are divided on how to respond to AWS.⁶ One of the major issues of concern relates to accountability. In this paper, I focus on the challenges of accountability that are posed by AWS and the possible solutions to such.

AWS without 'Meaningful Human Control' are unpredictable on the battlefield or wherever they are used.⁷ In the event of them violating the law—violations that are not intended by the person deploying them—it is not clear who is legally responsible, thereby creating an accountability gap.⁸ Accountability is important in international law because where there is an accountability gap, the victims' right to a legal remedy is adversely affected.⁹ There are four forms of accountability that I am going to discuss in this paper: individual, command, corporate, and state responsibility.¹⁰ Under individual and corporate responsibility, there is civil and criminal liability.

SOLDIERS: MILITARY ETHICS IN THE CONTEMPORARY WORLD 117, 125 (Jessica Wolfendale & Paolo Tripodi ed., 2011) [hereinafter Sparrow, *Robotic Weapons and the Future of War*]; Heyns, *Extrajudicial, Summary or Arbitrary Executions*, *supra* note 1, ¶ 94; Aaron M. Johnson & Sidney Axinn, *The Morality of Autonomous Robots*, 12 J. OF MIL. ETHICS, no. 2, at 134 (2013) [hereinafter Johnson]; Stephen Kershnar, *Autonomous Weapons Pose No Moral Problem*, in KILLING BY REMOTE CONTROL: THE ETHICS OF AN UNMANNED MILITARY 229, 239 (Bradley Jay Strawser ed., 2013) [hereinafter Kershnar]; Peter Asaro, *On Banning Autonomous Weapon Systems: Human Rights, Automation, and the Dehumanization of Lethal Decision-making*, 94 INT'L REV. OF THE RED CROSS, no. 886, at 697 (2012) [hereinafter Asaro, *On Banning Autonomous Weapon Systems*]; ARMIN KRISHNAN, KILLER ROBOTS: LEGALITY AND ETHICALITY OF AUTONOMOUS WEAPONS 98–99 (Ashgate Publ'g Ltd., 2009) (1975) [hereinafter Krishnan]; Noel Sharkey, *Grounds for Discrimination: Autonomous Robot Weapons*, RUSI DEF. SYS: 86, 88–89 (Oct. 2008) [hereinafter Sharkey]; Docherty, *supra* note 2, at 31; Markus Wagner, *The Dehumanization of International Humanitarian Law: Legal, Ethical, And Political Implications of Autonomous Weapon Systems*, 47 VAND. J. TRANSNAT'L L. 1–4, 25–26, (2014), <https://www.law.upenn.edu/live/files/4003-20141120—wagner-markus-dehumanizationpdf> [hereinafter Wagner, *The Dehumanization of International Humanitarian Law*]; HUMAN RIGHTS WATCH, SHAKING THE FOUNDATIONS: THE HUMAN RIGHTS IMPLICATIONS OF KILLER ROBOTS 1–3 (May 2014) [hereinafter HUMAN RIGHTS WATCH, SHAKING THE FOUNDATIONS].

6. Sparrow, *Robotic Weapons and the Future of War*, *supra* note 5, at 117, 125; Heyns, *Extrajudicial, Summary or Arbitrary Executions*, *supra* note 1, ¶ 94; Johnson, *supra* note 5, at 134; Kershnar, *supra* note 5, at 239; Asaro, *On Banning Autonomous Weapon Systems*, *supra* note 5, at 697; Krishnan, *supra* note 5, at 98–99; Sharkey, *supra* note 5, at 86, 88–89; Docherty, *supra* note 2, at 1, 31; Wagner, *The Dehumanization of International Humanitarian Law*, *supra* note 5, at 1–3, 11, 25–26, 28, 39; HUMAN RIGHTS WATCH, SHAKING THE FOUNDATIONS, *supra* note 5, at 1–3.

7. INT'L COMM. OF THE RED CROSS, AUTONOMOUS WEAPON SYSTEMS: TECHNICAL, MILITARY, LEGAL AND HUMANITARIAN ASPECTS, SUMMARY REPORT FROM THE EXPERT MEETING 1, 4, 8–9, 15 (May 9, 2014), <https://www.icrc.org/eng/assets/files/2014/expert-meeting-autonomous-weapons-icrc-report-2014-05-09.pdf> [hereinafter ICRC Summary Report].

8. Geneva Acad. of Int'l Humanitarian L., *Autonomous Weapon Systems Under International Law*, Acad. Briefing no. 8, at 24 (Nov. 2014).

9. Megan Burke & Loren Persi-Vicentic, *Remedies and Reparations*, in WEAPONS UNDER INTERNATIONAL HUMAN RIGHTS LAW 542–89 (Stuart Casey-Maslen ed., 2014) [hereinafter Burke].

10. See Ralph G. Steinhardt, *Weapons And the Human Rights Responsibilities of Multinational Corporations*, in WEAPONS UNDER INTERNATIONAL HUMAN RIGHTS LAW 507, 531–32 (Stuart Casey-Maslen ed., 2014) [hereinafter Steinhardt].

In summary, the arguments I make in this paper are: the above mentioned forms of accountability are complementary to each other; they are not alternatives to the exclusion of the other.¹¹ For example, if AWS create an accountability gap—as far as the individual criminal responsibility of those deploying AWS on the battlefield is concerned—that specific gap is neither closed by suing the responsible individuals under civil responsibility nor holding the manufacturing company liable under corporate responsibility.¹²

Under individual responsibility, as long as there remains the possibility of AWS acting in an unpredictable manner, they may present an unresolvable challenge as far as the establishment of the accused person's *mens rea* is concerned. I also argue that the proposed system of 'split-responsibility' over use of a weapon—where responsibility is divided or shared between the fighter and other persons involved in the production of AWS like manufacturers—is not only foreign to international weapons law as the *lex specialis* on the use of weapons but also inappropriate and hence unwelcome.¹³

As for command responsibility, I argue that it is inapplicable to the relationship between AWS and those deploying them. No analogy may be drawn between the relationship of *human commander* versus a *human subordinate* and that of the *human fighter* versus a *robot*. The continued referral of a person deploying AWS as a *commander* gives a misleading impression that AWS are somewhat combatants or fighters.¹⁴ AWS must be developed in a manner that they remain weapons in the hands of a fighter who is liable on the basis of individual responsibility in cases where crimes are committed.¹⁵ It should not, and must not, be a case of a *commander* and *subordinate* where the notion of command responsibility is invoked. Command responsibility is only applicable to the extent of the responsibilities of a human commander over his or her human subordinates involved in the deployment or use of AWS.¹⁶

Persons involved in the production of AWS have their own responsibilities in the designing, manufacturing, selling and transferring stages.¹⁷ This is where cor-

11. See Andrea Bianchi, *State Responsibility And Criminal Liability of Individuals*, in THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE 16, 18 (Antonio Cassese ed., 2009) [hereinafter Bianchi](reiterating that "state responsibility and individual criminal [responsibility] are considered as distinct in international law.").. See also Case Concerning Application of the Convention on the Prevention And Punishment of the Crime of Genocide (Bosn. & Herz. v. Serb. & Montenegro), Judgment, 2007 I.C.J. Rep. 77, ¶ 173 (Feb. 26).

12. Bianchi, *supra* note 11, at 17; Steinhardt, *supra* note 10, at 531–32; Docherty, *supra* note 2, at 44.

13. Steinhardt, *supra* note 10, at 531.

14. Docherty, *supra* note 2, at 4, 33–34, 42–43.

15. Marco Sassòli, *Autonomous Weapons And International Humanitarian Law: Advantages, Open Technical Questions And Legal Issues to Be Clarified*, 90 INT'L L. STUD. 308, 324 (2014), <http://stockton.usnwc.edu/cgi/viewcontent.cgi?article=1017&context=ils>.

16. See GUÉNAËL METTRAUX, THE LAW OF COMMAND RESPONSIBILITY 55 (2009).

17. INT'L COMM. OF THE RED CROSS, AUTONOMOUS WEAPON SYSTEMS: TECHNICAL, MILITARY, LEGAL AND HUMANITARIAN ASPECTS, REPORT FROM THE EXPERT MEETING 8 (Geneva, Mar. 26–28,

porate responsibility also comes into play. I note, however, that although corporate responsibility is a sound form of accountability, it has an inherent weakness of putting the onus on victims to bring cases against robot corporations which in some cases are registered in foreign countries thereby presenting insurmountable difficulties for the victims. Victims will not only face monetary challenges in terms of legal costs but will also be confronted by jurisdictional challenges.¹⁸

State responsibility is like an umbrella to all the forms of responsibility mentioned above: covering and enforcing corporate responsibility at the design stage of AWS up to selling or transferring stage, enforcing individual and command responsibility when the weapon is finally used on the battlefield or law enforcement situations.¹⁹ As one commentator has observed, when considering accountability over the actions of AWS, state responsibility “is the frame of reference for considering other forms of international responsibility.”²⁰ From a state responsibility perspective, I also acknowledge the genuine fear that AWS may make it possible for some states to deploy force against other states in non-attributable ways.

In conclusion, I recommend that the only way to address the accountability challenges that are presented by AWS is to make sure that humans exercise ‘Meaningful Human Control’ over weapons. Where ‘Meaningful Human Control’ is exercised, AWS will remain mere weapons in the hands of the warriors—that is exactly what they should be. In short, however, I propose that the notion of ‘Meaningful Human Control’ over the use of a weapon is only satisfied where the control that a fighter exercises over a weapon is to such a degree that the actions of an Autonomous Weapon System are entirely his—the system depends on the control of the human fighter to execute the ‘critical functions’ like the decision as to who to kill and legal calculations on the lawfulness of an attack.

II. THE IMPORTANCE OF ACCOUNTABILITY IN INTERNATIONAL LAW

It is necessary to appreciate the seriousness of the problems that are raised by AWS in terms of accountability before going into the details of arguments summarized above. I mentioned in the introduction that the potential accountability gap created by AWS will impact negatively on the victims’ rights to remedy.²¹ This is a very important area of international law. After all, without accountability, interna-

2014), <https://www.icrc.org/eng/assets/files/2014/expert-meeting-autonomous-weapons-icrc-report-2014-05-09.pdf> [hereinafter ICRC Report].

18. *Id.* at 89.

19. *Id.* at 89–90.

20. Thilo Maruhn, Professor, Justus Liebig U., An Analysis of the Potential Impact of Lethal Autonomous Weapon Systems on Responsibility And Accountability for Violations of International Law 2 (May 15, 2014), in CCW EXPERT MEETING ON LETHAL AUTONOMOUS SYSTEMS, Geneva, May 13–16, 2014, http://unoda-web.s3.amazonaws.com/wp-content/uploads/assets/media/35FEA015C2466A57C1257CE4004BCA51/file/Maruhn_MX_Laws_SpeakingNotes_2014.pdf.

21. LUKE MOFFETT, JUSTICE FOR VICTIMS BEFORE THE INTERNATIONAL CRIMINAL COURT 146 (2014).

tional law is nothing but the proverbial *brutum fulmen*—a harmless thunderbolt.²²

Steven Ratner observes that the purpose of international law is “not only in setting standards for governments, non-state actors and their agents, it is to prescribe the consequences of a failure to meet those standards.”²³ International Humanitarian Law norms—some of them part of *jus cogens*—will mean nothing without accountability for failure to abide by them.²⁴ Some scholars have observed that non-accountability of violations may pose a threat to the general maintenance of peace and security.²⁵

The issue of accountability is fundamental in international law because it is inherently connected to the victim’s right to remedy.²⁶ In particular reference to remedies for violations as a result of use of certain weapons, Meagan Burke and Loren Persi-Vicentic categorically state that for both civilian and military victims:

[Unlawful] use of a weapon will give rise to a right to a remedy or reparation. Such unlawful use of weapons includes: any use of a weapon that has been outlawed in all circumstances, such as biological weapons or, at least for any State Party to the relevant treaty, anti-personnel mines or cluster munitions; the use of indiscriminate weapons or the indiscriminate use of a weapon as a method of warfare in an armed conflict; or the use of force that is disproportionate or excessive during law enforcement. Any wilful or negligent failure to protect victims from harmful weapons, especially explosive weapons delivered from drones, mines, sub-munitions or other victim-activated explosive devices has also been recognised [. . .] as unlawful conduct tantamount to a rights violation.²⁷

To the list that is mentioned by Meagan Burke and Loren Persi-Vicentic, I add Autonomous Weapon Systems. The accountability challenges that are posed by AWS must be taken seriously as they threaten some aspects of victims’ right to remedy.²⁸

Victims of violations of International Humanitarian Law and International Human Rights Law have a right to remedy.²⁹ In International Law, victims are understood to be “persons who, individually or collectively, have suffered harm, including physical or mental injury, emotional suffering, economic loss or substan-

22. AARON XAVIER FELLMETH & MAURICE HORWITZ, GUIDE TO LATIN IN INTERNATIONAL LAW 47 (2009).

23. STEVEN RATNER ET AL., ACCOUNTABILITY FOR HUMAN RIGHTS ATROCITIES IN INTERNATIONAL LAW: BEYOND THE NUREMBURG LEGACY 3 (3rd. ed. 2009).

24. ANJA SEIBERT-FOHR, PROSECUTING SERIOUS HUMAN RIGHTS VIOLATIONS 292–93 (2009) [hereinafter SEIBERT-FOHR].

25. See JOHN R.W.D. JONES & STEVEN POWLES, INTERNATIONAL CRIMINAL PRACTICE 2 (3rd. ed. 2003) [hereinafter JONES].

26. SEIBERT-FOHR, *supra* note 24, at 17.

27. Burke, *supra* note 9, at 554.

28. SEIBERT-FOHR, *supra* note 24, at 281.

29. *Id.*

tial impairment” of their fundamental rights.³⁰ In International Criminal Law, such harm is “as a result of the commission of crime”³¹ and may have been directed at the victim’s person, such as “property which is dedicated to religion, education, art or science or charitable purposes, and to their historic monuments, hospitals and other places and objects for humanitarian purposes.”³² In the case of AWS, it means that the victim whose rights are violated by AWS is entitled to a remedy—and the question is: In the case of AWS, are remedies available for the victim?

Given the importance of accountability, it is the paramount duty of states to provide victims with remedies; not only in circumstances where the state is directly responsible for the violations but even where the violations are committed by non-state actors.³³ Thus, states have an obligation to protect human rights through the adoption of various measures.³⁴ This obligation of the state has been confirmed several times by international human rights bodies.³⁵ Courts have also held that as

30. See María del Carmen Almeida de Quinteros et al. v. Uruguay, Communication no. 107/1981, paras. 14, 16, U.N. Doc. CCPR/C/OP/2 (1990) [hereinafter María del Carmen Almeida de Quinteros et al.]; Malawi African Association and Others v. Mauritania, Communications 54/91, 61/91, 98/93, 164-196/97, 210/98, Afr. Comm’n H.P.R., ¶ 149 (May 11, 2000), <http://hrlibrary.umn.edu/africa/comcases/54-91.html>; Basic Principles of Justice for Victims of Crime and Abuse of Power, G.A. Res. 40/34, U.N. Doc. A/RES/40/34, at Annex 1 (Nov. 29, 1985). “Persons” referred in the definition of victims can be “the immediate family or dependents of the direct victim [or] person who have suffered [the] harm.” *Id.* at Annex 2; Declaration on the Protection of All Persons from Enforced Disappearances, G.A. Res. 47/133, U.N. Doc. A/RES/47/133, art. 19 (Dec. 18, 1992).

31. ICC, *Rules of Procedure And Evidence for the ICTY*, Rule 85 (2013).

32. *Id.*

33. See Int’l L. Comm’n., *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, art. 5 (2001), http://legal.un.org/ilc/texts/instruments/english/draft_articles/9_6_2001.pdf; U.N. Human Rights Committee, *General Comment No. 31 [80] on the Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, adopted March 29, 2004, CCPR/C/21/Rev.1/Add.13 ¶ 8 (May 26, 2004) [hereinafter *General Cmt. No. 31 on the Nature of the General Legal Obligation Imposed on States Parties to the Covenant*]; SOLIMAN M. SANTOS JR., THE INTERNATIONAL CRIMINAL COURT AND REBEL GROUPS 5 (2012), http://ibrarian.net/navon/paper/THE_INTERNATIONAL_CRIMINAL_COURT_AND_REBEL_GROUPS_UPS.pdf?paperid=5742873; see also SEIBERT-FOHR, *supra* note 24, at 7.

34. International Covenant on Civil and Political Rights, art. 2(2), G.A. Res. 2200A (XXI), U.N. GAOR 21st Sess., Supp. No. 16, at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171 (entered into force 1976) [hereinafter ICCPR]; International Convention on the Elimination of All Forms of Racial Discrimination, art. 2(1)(c)-(d), G.A. Res. 2106 (XX) (Dec. 21, 1965), 660 U.N.T.S. 195 (entered into force 1969) [hereinafter CERD]; United Nations Convention on the Elimination of All Forms of Discrimination Against Women, art. 2(a), *opened for signature* Dec. 18, 1979, 1249 U.N.T.S. 13 (entered into force Sept. 3, 1981); Convention on the Rights of the Child, art. 4, G.A. Res. 44/25, U.N. GAOR 44th Sess., Supp. No. 49, at 166, U.N. Doc. A/44/736 (1989); Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, art. 2(1), G.A. Res. 39/46, U.N. GAOR, 39th Sess., Supp. No. 51, at 197, U.N. Doc. A/39/51 (1984) [hereinafter CAT]; African Charter on Human and Peoples’ Rights, art. 1, adopted 1998, came into effect on Jan. 25, 2005; American Convention on Human Rights “Pact of San José, Costa Rica,” art. 2, Nov. 22, 1969, 1144 U.N.T.S. 123 [hereinafter ACHR]; see also Velasquez Rodriguez v. Honduras, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 4 para. 166 (July 29, 1988) [hereinafter Velasquez Rodriguez].

35. U.N. Int’l L. Comm’n, *Draft articles on Responsibility of States for Internationally Wrongful Acts with Commentaries*, art. 34, adopted Rep. of the Int’l L. Comm’n, 53d Sess., 2001, at 140–41,

a result of this duty, states must restore the rights of the victim by allowing them access to justice, information and reparation.³⁶

Likewise, and in the context of accountability and the right of victims to remedy, the Human Rights Committee,³⁷ the European Court of Human Rights,³⁸ and the African Commission on Human and People's Rights³⁹ held that it is the state's duty to give effect to victim's rights by investigating human rights violations and bringing perpetrators to justice through prosecution.⁴⁰ As I will argue below, in certain circumstances, prosecution of crimes committed by AWS is difficult if not impossible.

A victim's remedy has three components namely: access to justice—linked to the states' responsibility to remedy victims; access to reparation—linked to state's responsibility to prosecute offenders as a form of victim's remedy.⁴¹ Reparation is also linked to corporate responsibility and individual responsibility since non-state actors also have an obligation to provide reparations upon their conviction.⁴² Finally, victims also have a right to access information and to know the truth concerning the infringement of their rights.⁴³

Although all the above three components are equally important for victims to

U.N. Doc. A/56/10 (2001), http://untreaty.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf [hereinafter Draft Articles on State Responsibility]; General Comment No. 31 on Article 2 of the Covenant: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, U.N. GAOR, Hum. Rts. Comm., 80th Sess., U.N. Doc. CCPR/C/74/CRP.4/Rev.6, para. 2 (Apr. 21, 2004) [hereinafter General Cmt. No. 31 on Art. 2 of the Covenant].

36. Velasquez Rodriguez, *supra* note 34, at para. 166; *see also* Case X and Y v. Netherlands, Judgment, 8978/80 Eur. Ct. H.R. (ser. A) para. 27 (Mar. 26, 1985) [hereinafter Case X]; Case M.C v. Bulgaria, Judgment, 39272/98 Eur. Ct. H.R. para. 153 (Dec. 4, 2003).

37. *See* General Cmt. No. 31 on Art. 2 of the Covenant, *supra* note 35, para. 2–3.

38. *See* Aksoy v. Turkey, Judgment, Eur. Ct. H.R., Rep. 1996 VI, ¶ 98 (Nov. 26, 1996) [hereinafter Aksoy v. Turkey].

39. *See* Social and Economic Rights Action Centre And Centre for Economic and Social Rights v. Nigeria, Cmt. No. 155/96, para. 44–48 (Oct. 27, 2001) <http://www.achpr.org/communications/decision/155.96/> [hereinafter SERAC v. Nigeria].

40. General Cmt. No. 31 on Art. 2 of the Covenant, *supra* note 35, para. 2–3; Aksoy v. Turkey, *supra* note 38, ¶ 98; SERAC v. Nigeria, *supra* note 39, para. 44–48.

41. SEIBERT-FOHR, *supra* note 24, at 40; Ken Obura, *Duty to Prosecute International Crimes Under International Law*, in PROSECUTING INTERNATIONAL CRIMES IN AFRICA 11–31 (Chacha Murungu & Japhet Biegon ed., 2011) [hereinafter Obura].

42. José Enrique Alvarez, *Alternatives to International Criminal Justice*, in THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE 33–34 (Antonio Cassese ed., 2009) [hereinafter Alvarez].

43. *See* the 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, G.A. Res. 60/147, 2005, ¶ 24, U.N. Doc. A/RES/60/147 (Mar. 21, 2006) [hereinafter Principles on the Right to a Remedy and Reparation for Victims]; *see also* G.A. Res. 217 (III) A, Universal Declaration of Human Rights, art. 8 (Dec. 10, 1948); ICCPR, *supra* note 34, art. 2; CERD, *supra* note 34, art. 6; ACHR, *supra* note 34, art. 7.

realize an effective remedy,⁴⁴ in this paper I will focus on reparation which is directly linked to the accountability challenges posed by AWS. Reparation is a process which is meant to provide victims with justice; remove or redress to the extent possible, the damage done by the unlawful acts through prevention and deterrence.⁴⁵

The right to reparation is provided for in treaty law,⁴⁶ it has been given as a remedy in various cases,⁴⁷ recognized by legal scholars⁴⁸ and is part of customary International Law.⁴⁹ International criminal courts and tribunals have played a sig-

44. See SEIBERT-FOHR, *supra* note 24, at 38. For a remedy to be effective it must be prompt and accessible; there must be speedy and impartial investigation of any gross human right violation, adjudication and enforcement must be by an independent authority. See *General Cmt. No. 31 on the Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, *supra* note 33, para. 15; The African Commission has interpreted the right to remedy in its Principles and Guidelines on the Right to a Fair Trial and Legal Assistance in Africa, Principle C (a). African Comm'n on Human and Peoples' Rights, Principles and Guidelines on the Right to a Fair Trial and Legal Assistance in Africa, Princ. C(a), ACHPR Doc. DOC/OS(XXX) (2001), http://hrlibrary.umn.edu/research/ZIM%20Principles_And_G.pdf. Nevertheless, when it comes to international courts and tribunals, it is apparent that they have been dawdling in their investigation, charging, and prosecution of gross violations that there is no promptness to talk about. A good example is that of the ICC case against Thomas Lubanga which took 9 years from the time of investigation to the time of conviction. *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Judgment Pursuant to Article 74 of the Statute (Mar. 14, 2012). During such a long period, it is highly probable that other victims died before seeing justice. However, while recognizing the significance of promptness in prosecution of international crimes as a form of remedy for victims, it can be argued that sometimes "justice delayed may be justice delivered." A simple consideration of the magnitude of international crimes points one to the fact that more time is needed in their prosecution if victims are to receive true justice. In that regard, there is a need to balance the aspiration for a prompt remedy for victims against the "stubborn but necessary processes that may cause delay." Alex Whiting, *In International Criminal Prosecutions, Justice Delayed Can Be Justice Delivered*, 50 HARV. INT'L L. J. 323, 323 (June 25, 2009). On courts' interpretation of an effective remedy see cases of *Case Concerning Avena and Other Mexican Nationals*, LaGrand Case, *Case of the Caracazo v. Venezuela*, *Silver v. the UK*. *Case Concerning Avena and Other Mexican Nationals* (Mex. v. U.S.), Judgment, 2004 I.C.J. 12, ¶¶ 131–38 (Mar. 31); LaGrand Case (Ger. v. U.S.), Judgment, 2001 I.C.J. 466, ¶ 125 (June 27); *Case of the Caracazo v. Venezuela*, Judgment, 2002 Inter-Am. Ct. H.R. (ser. C) No. 95, ¶ 115 (Aug. 29, 2002); *Case of Silver and Others v. the United Kingdom* (Article 50), Judgment, 61 Eur. Ct. H.R. (ser. A), ¶ 113 (Mar. 25, 1983).

45. See Roman David & Susanne Choi Yuk-ping, *Victims on Transitional Justice: Lessons from the Reparation of Human Rights Abuses in the Czech Republic*, 27 HUM. RTS. Q. 392, 393 (2005); Riccardo Pisillo Mazzeschi, *Reparation Claims by Individuals for State Breaches of Humanitarian Law And Human Rights: an Overview*, 1 J. OF INT'L CRIM. JUST. 339, 344 (2003).

46. ICCPR, *supra* note 34, art. 2(3); Rome Statute of the International Criminal Court, art. 75, Jul. 17, 1998, U.N. Doc. A/CONF.183/9 [hereinafter Rome Statute]; ICCPR, *supra* note 34, art. 3; CAT, *supra* note 34, art. 14; CERD, *supra* note 34, art. 6.

47. Achutan (on behalf of Banda) and Amnesty International (on behalf of Orton and Vera Chirwa) v. Malawi, Communication No. 64/92, 68/92, African Comm'n on Human and Peoples' Rights, ¶ 12 (1995); *Factory at Chorzów (Indemnities)* (Ger. v. Pol.), Judgment, 1927 PCIJ (ser. A) No. 17, ¶ 29 (1928).

48. Liesbeth Zegveld, *Victims' Reparations Claims And International Criminal Courts*, 8 J. OF INT'L CRIM. JUST. 79, 79 (2010) [hereinafter Zegveld]; Alvarez, *supra* note 42, at 33.

49. Jo-Anne Wemmers, *Victim Reparation And the International Criminal Court*, 16 INT'L REV. OF VICTIMOLOGY 123, 123 (2009).

nificant role in recognizing and interpreting the right to reparation.⁵⁰ They have significantly increased the possibility of victims to get adequate reparations, not only from states but also from individuals.⁵¹

In international law, reparation comes in various forms.⁵² It includes restitution, compensation,⁵³ rehabilitation, satisfaction, and effective prosecution of the offender(s) as already mentioned above.⁵⁴

Adequate prosecution of perpetrators is one of the areas that are likely to be adversely affected by the use of AWS. Prosecution of perpetrators reinforces the victims' rights to reparation especially in view of achieving deterrence and non-repetition.⁵⁵ Prosecution of offenders is a victim's right and is inherent in states' general responsibility to ensure effective human rights protection which has been consistently emphasized by many commentators and decisions of judicial or quasi-judicial international bodies.⁵⁶

The duty of the state to prosecute⁵⁷ is connected to the victims' rights to justice⁵⁸ and it has long been accepted by both the UN Security Council⁵⁹ and General

50. Zegveld, *supra* note 48, at 79.

51. See Commentary on art. 58 of Draft Articles on State Responsibility, *supra* note 35, art. 58, Cmt. (1)–(4).

52. See Aloeboetoe et al. Case, Reparations Art. 63(1) American Convention on Human Rights, Judgement, Inter-Am. Ct. H.R. (ser. C) No. 15, ¶ 43 (Sept. 10, 1993).

53. Although the term compensation is used varyingly in national legislation, in international law it is a form of reparation which is given to victims for any economically assessable damage caused by the gross violation of IHL or IHRL. See Principles on the Right to a Remedy and Reparation for Victims, *supra* note 43, ¶ 20; INT'L COMM'N OF JURISTS, THE RIGHT TO A REMEDY AND TO REPARATION FOR GROSS HUMAN RIGHTS VIOLATIONS: A PRACTITIONER'S GUIDE Ser. No. 2, at 123 (2006) [hereinafter A PRACTITIONER'S GUIDE]. Many IHRL and IHL treaties provide for the right to compensation and jurisprudence has shown that compensation can be provided for physical or mental harm, loss of opportunities, material loss of earnings, moral damage and expenses incurred in vindicating one's rights following the gross violations. See ICCPR, *supra* note 34, art. 9(5); Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977, art. 91, *opened for signature* Dec. 12, 1977, 1125 U.N.T.S. 3, 16 I.L.M. 1391 (1977); Convention for the Protection of Human Rights and Fundamental Freedoms, art. 5(5), as amended by Protocols 11 and 14, Nov. 4, 1950, Europ. T.S. No. 5 (entered into force Sept. 3, 1953); ACHR, *supra* note 34, art. 10; League of Arab States, Arab Charter on Human Rights, *opened for signature* May 22, 2004, art. 16, (entered into force Mar. 15, 2008), reprinted in 12 Int'l Hum. Rts. Rep. 893 (2005); Rome Statute, *supra* note 46, art. 85; Geneva Convention Relative to the Treatment of Prisoners of War, art. 68, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135.

54. Basic Principles and Guidelines on the Right to a Remedy and Reparations for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, Comm'n on Hum. Rts. Res. 2005/30, ¶¶ 19–23, U.N. Doc. E/2005/23 (Apr. 22, 2005); U.N. Off. on Drugs & Crime, *Compendium of United Nations standards and norms in crime prevention and criminal justice* 303–5 (2006).

55. See Principles on the Right to a Remedy and Reparation for Victims, *supra* note 43, ¶ 4, Preamble ¶ 8.

56. *Id.*

57. See, e.g., CAT, *supra* note 34, art. 4; Extrajudicial, Summary and Arbitrary Executions, G.A. Res. 57/214, ¶ 6 (Feb. 25, 2003).

58. Rep. of Mr. Louis Joinet on the Question of the Impunity of Perpetrators of Human Rights

Assembly.⁶⁰ The UN Commission on Human Rights,⁶¹ the Human Rights Committee,⁶² the Inter-American Court and Commission of Human Rights,⁶³ European Court of Human Rights⁶⁴ and the African Commission on Human and Peoples' Rights⁶⁵ have all emphasized the importance of states' obligation to prosecute offenders in the fight against impunity on gross violations of human rights and humanitarian law.⁶⁶

When offenders are prosecuted there is the concept of satisfaction as a form of reparation, which is aimed at repairing the moral damage done to the victim when their rights were violated.⁶⁷ Satisfaction can be done through judicial condemnatory judgments,⁶⁸ admission of responsibility by the offender and a sincere apology both to the victim and the public.⁶⁹ The former ICC prosecutor, Morino Ocampo, in his address to the court after conviction of Thomas Lubanga, suggested the stiffest punishment but stated that the Office of the Prosecutor was "willing to cut the sentence to 20 years if Lubanga offered a 'genuine apology' to victims of his crimes."⁷⁰ Of course, in the case of AWS, the person who deployed the machine may offer the apology but it is not the same since he or she was not the person on the ground, the direct perpetrator of the crime—the robot was.

Likewise, tied to the prosecution of offenders, is the right to information that encompasses the right to truth.⁷¹ Under the human rights regime, the UN Human Rights Committee has reaffirmed the victims' right to know the truth about the perpetrators, their accomplices and the motives thereof.⁷² The right to truth has

Violations (Civil & Political Rights), U.N. Doc. E/CN.4/Sub.2/20/Rev. Annex II, Sec. III (June 26, 1997) [hereinafter Joinet]; Obura, *supra* note 41, at 11–31.

59. G.A. Res. 57/228, Khmer Rouge Trials, 77th plenary meeting Dec. 18, 2002, U.N. Doc. A/RES/57/228 B (May 22, 2003).

60. *Id.* ¶ 3; G.A. Res. 57/190, Rights of the Child, sec. III (11) (Feb. 19, 2003).

61. See, e.g., Comm'n H.R., Res. 2003/72, Impunity, ¶ 2, U.N. Doc. E/CN.4/RES/2003/72 (Apr. 25, 2003) [hereinafter Res. 2003/72, Impunity].

62. See, e.g., Irene Bleier Lewenhoff v. Uruguay, Communication No. 30/1978, para. 11.1, U.N. Doc. CCPR/C/15/D/30/1978 (Mar. 29, 1982) [hereinafter Bleier, Communication No. 30/1978].

63. Velasquez Rodriguez, *supra* note 34, ¶¶ 166, 175.

64. Case of X, *supra* note 36, ¶ 27.

65. SERAC v. Nigeria, *supra* note 39, ¶¶ 44–48.

66. Res. 2003/72, Impunity, *supra* note 61, ¶ 2; Bleier, Communication No. 30/1978, *supra* note 62, ¶ 11.1; Velasquez Rodriguez, *supra* note 34, ¶¶ 166, 175; Case of X, *supra* note 36, ¶ 27; SERAC v. Nigeria, *supra* note 39, ¶¶ 44–48.

67. A PRACTITIONER'S GUIDE, *supra* note 53, at 145.

68. See Case of Golder v. the United Kingdom, Judgment, App. No. 4451/70, 18 Eur. Ct. H.R. (Ser. A) (Feb. 21, 1975); Ocalan v. Turkey, Judgment, App. no. 46221/99, 37 Eur. Ct. H.R., para. 250 (Mar. 12, 2003).

69. Principles on the Right to a Remedy and Reparation for Victims, *supra* note 43, ¶ 22(b).

70. David Smith, *Thomas Lubanga Sentenced to 14 Years for Congo War Crimes*, THE GUARDIAN (July 10, 2012), <http://www.guardian.co.uk/law/2012/jul/10/icc-sentences-thomas-lubanga-14-years>.

71. Adolfo Ceretti, *Collective Violence And International Crimes*, in THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE 14 (Antonio Cassese ed., 2009).

72. See Res. 2003/72, Impunity, *supra* note 61, para. 8; María del Carmen Almeida, *supra* note

been held to be substantive,⁷³ inalienable⁷⁴ and non-derogable right,⁷⁵ which entails “knowledge as to how, when, why and by whom violations were committed.”⁷⁶ To that end, states have a duty to disclose the truth to the victims and the public at large.⁷⁷ Access to information about what transpired may be easy in case of AWS since they can leave a digital trail of all events.⁷⁸ In as much as this is a positive aspect, victims may not appreciate, for example, discovering that it was a robot that made an ill-informed decision to kill their relative after mistakenly identifying him or her as a legitimate target. Insult upon injury, the robot cannot offer an apology.

III. AWS AND THE ACCOUNTABILITY GAP

In 2001, a scholar by the name of Perri was among the first to articulate some of the serious challenges when it comes to legal responsibility for actions of intelligent machines.⁷⁹ He argued that where a machine attains a certain level of intelligence—to the extent of “making decisions by itself”—difficulties arise in imputing responsibility.⁸⁰ The problem arises out of the fact that no matter how machines’ autonomy increases, they do not have moral agency.⁸¹

Thus, commenting on the problem of legal responsibility, Kenneth Himma has observed that unless and until machines such as AWS have a free will and deliberative capability, no moral agency or legal responsibility can be attributed to them.⁸² In the absence of moral agency in AWS, it is impossible to hold them accountable for any wrongful acts.⁸³ The question is who, then, is responsible in the event of such machines committing crimes?

Sparrow rightfully notes that the law demands that someone be held accountable for unlawful acts in war and the fact that AWS may never meet this condition makes their deployment unethical.⁸⁴ To elucidate the impossibility of attributing

30, para. 14, 16 (holding that a mother had a right to know about the truth of what happened to her daughter failure of which constitutes cruel, inhuman and degrading treatment).

73. *Id.* ¶ 14.

74. Joinet, *supra* note 58, at princs. 2–5.

75. E/CN.4/1995/20/Annex I, Rep. of the U.N. Special Rapporteur on the Question of Human Rights And States of Emergency, ¶ 39 (1995).

76. PRACTITIONER’S GUIDE, *supra* note 53, at 91.

77. Case of Juan Humberto Sanchez v. Honduras, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 99, ¶ 186 (June 7, 2003).

78. A/HRC/23/47, *supra* note 1, ¶ 52.

79. See 6 Perri, *Ethics, Regulation And the New Artificial Intelligence, Part II: Autonomy And Liability*, 4 INFO., COMM. & SOC’Y 406-34 (2001) (Before 1983, Perri was known as David Ashworth).

80. *Id.* at 414.

81. Markus Wagner, *Taking Humans Out of the Loop: Implications for International Humanitarian Law*, 21 J. OF L. INFO. & SCI. 5 (2011); Asaro, *supra* note 5, at 693.

82. Kenneth Einar Himma, *Artificial Agency, Consciousness, And the Criteria for Moral Agency: What Properties Must an Artificial Agent Have to Be a Moral Agent?*, 11 ETHICS & INFO. TECH. 19–29 (2009).

83. Asaro, *supra* note 5, at 693; see also A/HRC/23/47, *supra* note 1, ¶ 14.

84. Robert Sparrow, *Killer Robots*, 24 J. OF APPLIED PHIL. 62 (2007) [Hereinafter Sparrow, *Killer*

responsibility to AWS, Sparrow gives an analogy of the prohibition on the recruitment and use of child soldiers in combat.⁸⁵ He considers that in as much as child soldiers are autonomous—even much more than AWS, they “lack full moral autonomy.”⁸⁶ This vitiates their “understanding [of] the full moral dimensions of what they do”, therefore making child soldiers “not appropriate objects of punishment”⁸⁷ and ineligible for playing a combatant role.⁸⁸

For the above stronger reason, the considerations that AWS can be more reliable than human beings is not the crux of the matter; for “what makes the attribution of responsibility especially problematic [in the case of child soldiers] is not that child soldiers are necessarily unreliable or unpredictable,” it is their lack of “moral responsibility that makes child armies especially terrifying.”⁸⁹ The heinous actions of child soldiers in countries like DRC, Angola, Liberia, and Uganda have also been explained in terms of children’s lack of moral responsibility.⁹⁰ Moral responsibility, it is argued, is one step towards deterrence.⁹¹

For many decades now and in terms of the International Criminal Law, accountability has been on the basis of individual and command criminal responsibility.⁹² The importance of individual criminal responsibility can never be overstated. In addition to Heyns’ list⁹³ of human factors that influence individuals to refrain from killing others—especially unlawfully—it is the fear of prosecution as one of the legal consequences that may follow after the facts that force humans to exercise restraint.⁹⁴

More so, the concept of individual criminal responsibility has made it impossible for violators to claim superior orders as a defence.⁹⁵ This will not apply in the

Robots].

85. *Id.* at 73–74; see JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, INT’L COMM. OF THE RED CROSS, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW, vol. I, 482–85, Rule 136 (2005) [hereinafter CUSTOMARY INTERNATIONAL HUMANITARIAN LAW].

86. Sparrow, *Killer Robots*, *supra* note 84, at 73.

87. *Id.* at 73.

88. See CUSTOMARY INTERNATIONAL HUMANITARIAN LAW, *supra* note 85, at Rule 136.

89. Sparrow, *Killer Robots*, *supra* note 84, at 73–74.

90. See INT’L LAB. OFF., WOUNDED CHILDHOOD: THE USE OF CHILDREN IN ARMED CONFLICT IN CENTRAL AFRICA (Apr. 2003), http://www.ilo.org/wcmsp5/groups/public/—ed_emp/—emp_ent/—ifp_crisis/documents/publication/wcms_116566.pdf.

91. See generally KIRSTEN J. FISHER, MORAL ACCOUNTABILITY AND INTERNATIONAL CRIMINAL LAW: HOLDING AGENTS OF ATROCITY ACCOUNTABLE TO THE WORLD (2013).

92. Bert Swart, *Modes of International Criminal Liability*, in THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE 89 (Antonio Cassese ed., 2009).

93. A/HRC/23/47, *supra* note 1, ¶ 57 (observing that humans have “built-in constraints . . . against going to war or otherwise using force which continue to play an important (if often not decisive) role in safeguarding lives and international security. Chief among these are unique human traits such as our aversion to getting killed, losing loved ones, or having to kill other people.”).

94. Per-Olof H. Wikström, *Deterrence And Deterrence Experiences: Preventing Crime Through the Threat of Punishment*, in INTERNATIONAL HANDBOOK OF PENOLOGY AND CRIMINAL JUSTICE 350–51 (Shlomo Giora Shoham et al., ed., 2008).

95. YORAM DINSTEIN, THE DEFENSE OF ‘OBEDIENCE TO SUPERIOR ORDERS’ IN INTERNATIONAL

case of AWS especially if a belligerent chooses to program them to commit crimes. If AWS are to be seen as taking the position of human combatants, one level where deterrence considerations have been directed for years is ultimately taken away.

In response to the argument that AWS with full or high levels of autonomy are unpredictable thereby posing a challenge of accountability,⁹⁶ Arkin argues that it is possible with AWS to make “responsibility transparent and explicit, through the use of a responsibility advisor at all steps in the deployment of these systems.”⁹⁷ The ‘responsibility advisor’ can be incorporated into AWS “for pre-mission planning and managing operator overrides.”⁹⁸ Such a ‘responsibility advisor’ will require explicit acceptance and authorization before its use and advises in advance of any mission on the ethical responsibility of commanders and operators. When deploying AWS, such responsibility acceptance is possible at many levels. Acceptance starts with the “authoring [and translation] of the [ethical] constraints that provides the basis for implementing [IHL]”; verification that only military personnel are in charge of the system; it may be during “command authorization of the system for a particular mission”; and, where there is an “override responsibility acceptance”, that is where the operator changes “the system’s ability to use lethal force, either by allowing it when it was forbidden by the ethical controller, or by denying it when it was enabled.”⁹⁹

If this responsibility adviser will allow the fighter to verify targets—thereby being the human who makes the final decision on the release of force and against whom—and overrides AWS actions or choices in cases where they are not in line with international law, then such AWS would be acceptable since the fighter will be exercising ‘Meaningful Human Control’ that clearly establishes his or her responsibility.¹⁰⁰

More in line with Arkin’s argument, Wendell Wallach notes that there is a challenge in computing legal responsibilities for AWS’ actions where a number of individuals are involved from their production up to their deployment.¹⁰¹ He, however, refers to five rules that have been developed by practical ethicists and social

LAW 80–81 (2012); JONES, *supra* note 25, at 459, art. 33.

96. See ICRC, *Autonomous Weapon Systems: Technical, Military, Legal and Humanitarian Aspects* 1, 4, 8, 9, 15 (Mar. 26–28, 2014) [hereinafter ICRC Report].

97. RONALD C. ARKIN, *GOVERNING LETHAL BEHAVIOR: EMBEDDING ETHICS IN A HYBRID DELIBERATIVE/REACTIVE ROBOT ARCHITECTURE* 9 (2011).

98. According to Arkin, cited above, where a system is able to advise the operator of the critical functions it is about to execute and the operator approves, he or she assumes responsibility of all the resulting actions of the machine.

99. Arkin, *supra* note 97, at 77–82.

100. The notion of “Meaningful Human Control” was coined by NGO Article 36 in 2013. This notion is new in international law and there is no agreed definition. I have discussed how this notion should be defined in Thompson Chengeta, *Defining Meaningful Human Control in Autonomous Weapon Systems*, N.Y.U. J. INT’L L. & POL. (forthcoming 2016).

101. Wendell Wallach, *From Robots to Techno Sapiens: Ethics, Law and Public Policy in the Development of Robotics and Neurotechnologies*, 3 LAW INNOVATION AND TECH. 194–195 (2011).

theorists who insist on the “the principle that humans cannot be excused from moral responsibility for the design, development or deployment of computing artefacts.”¹⁰² The rules provide as follows:

Rule 1: The people who design, develop or deploy a computing artefact are morally responsible for that artefact, and for the foreseeable effects of that artefact. This responsibility is shared with other people who design, develop, deploy or knowingly use the artefact as part of a sociotechnical system.

Rule 2: *The shared responsibility of computing artefacts is not a zero-sum game. The responsibility of an individual is not reduced simply because more people become involved in designing, developing, deploying or using the artefact.* Instead, a person’s responsibility includes being answerable for the behaviours of the artefact and for the artefact’s effects after deployment, to the degree to which these effects are reasonably foreseeable by that person.

Rule 3: *People who knowingly use a particular computing artefact are morally responsible for that use.*

Rule 4: People who knowingly design, develop, deploy or use a computing artefact can do so responsibly only when they make a reasonable effort to take into account the sociotechnical systems in which the artefact is embedded.

Rule 5: People who design, develop, deploy, promote or evaluate a computing artefact *should not explicitly or implicitly deceive users about the artefact or its foreseeable effects, or about the sociotechnical systems in which the artefact is embedded.*¹⁰³

Of particular importance to me is Rule 2 which acknowledges that in the development of weapons like AWS, various individuals are involved but that does not mean individual responsibility is “reduced simply because more people become involved in designing, developing, deploying or using the artefact.”¹⁰⁴ This supports the argument I put forward that accountability forms of responsibility are not alternatives to the exclusion of the other. Everyone has a role to play, and if an accountability gap is created in one form or mode of responsibility, it cannot be ignored on the basis that there are other persons who can be held responsible.

102. *Id.*

103. See *Moral Responsibility for Computing Artefacts: The Rules*, UNIV. OF ILL. SPRINGFIELD [hereinafter Rules], https://edocs.uis.edu/kmill2/www/TheRules_ (last visited Sep. 17, 2016) (defining terms and explaining the rules); The rules seem to follow a suggested notion of strict liability where responsibility is fully acknowledged before an autonomous weapon system is deployed. See RONALD ARKIN, *THE ROBOT DIDN'T DO IT 1* (2013), Position Paper for a Workshop on Anticipatory Ethics, Responsibility and Artificial Agents, http://www.cc.gatech.edu/ai/robot-lab/online-publications/position_paper_v3.pdf.

104. Rules, *supra* note 103, Rule 2, <https://edocs.uis.edu/kmill2/www/TheRules/moralResponsibilityForComputerArtifactsV27.pdf>.

Ron Arkin also adds that it is a “roboticist’s duty to ensure that [AWS] are as safe as possible to both combatant and noncombatant alike.”¹⁰⁵ This is agreeable as far as the responsibility of roboticists is concerned. However, the responsibilities of a roboticist do not make the responsibility of the final weapon user irrelevant. The gist of international weapons law is that the warrior is the one in control of his or her weapon, therefore, responsible for violations committed through that weapon.¹⁰⁶ It may even be similar to the case of motor vehicle manufacturers—they put in place many things such as brakes, speedometers etc. in the vehicle to ensure that the vehicle is safe for driving. However, that does not negate the responsibilities of the driver.

A challenge arises with the final user because, in International Criminal Law, it would be an injustice to impute responsibility to fighters who deploy these systems when they are incapable of precisely predicting or fully controlling the behaviour of AWS once they are activated.¹⁰⁷ In my view, there are two choices for combatants or fighters: use AWS when you can meaningfully control them or do not use them at all.

There are commentators who argue that as far as AWS are concerned, “criminal responsibility of individuals can be established for commanders and operators on the basis of command responsibility.”¹⁰⁸ To the same end, Arkin argues that in the case of AWS which are programmed to be ethical, “it should be fairly easy to satisfy and demonstrate” the culpability of the “commander” since “the robot’s beliefs can be well-known and characterized, and perhaps even inspected [. . . therefore] the responsibility returns to those who designed, deployed, and *commanded the autonomous agent to act*, as they are those who controlled its beliefs.”¹⁰⁹ On various occasions, Arkin uses the term “human commander” when referring to those who deploy AWS.¹¹⁰

From the arguments that have been made by scholars so far in connection

105. Arkin, *supra* note 97, at 4.

106. See generally WILLIAM H. BOOTHBY, *WEAPONS AND THE LAW OF ARMED CONFLICT* (2009).

107. Andreas Matthias, *The Responsibility Gap: Ascribing Responsibility for the Actions of Learning Automata*, 6 ETHICS & INFO. TECH. 175–183 (2004).

108. THILO MARAUHN, *AN ANALYSIS OF THE POTENTIAL IMPACT OF LETHAL AUTONOMOUS WEAPONS SYSTEMS ON RESPONSIBILITY AND ACCOUNTABILITY FOR VIOLATIONS OF INTERNATIONAL LAW 5* (Geneva, May 13–16, 2014), [http://www.unog.ch/80256EDD006B8954/%28httpAssets%2935FEA015C2466A57C1257CE4004BCA51/\\$file/Marauhn_MX_Laws_SpeakingNotes_2014.pdf](http://www.unog.ch/80256EDD006B8954/%28httpAssets%2935FEA015C2466A57C1257CE4004BCA51/$file/Marauhn_MX_Laws_SpeakingNotes_2014.pdf); see also Heather Roff, *Killing In War: Responsibility, Liability And Lethal Autonomous Robots*, in *Routledge Handbook on Ethic and War: Just War Theory in the 21st Century* 14 (Fritz Allhoff et al. 2013), https://www.academia.edu/2606840/Killing_in_War_Responsibility_Liability_and_Lethal_Autonomous_Robots (last visited Sep. 17, 2016); Michael Schmitt, *Autonomous Weapon Systems and International Humanitarian Law: A Reply to the Critics*, HARV. NAT’L SEC. J. 33 (2013).

109. Arkin, *supra* note 97, at 76.

110. See Ronald Arkin et al., *Moral Decision-Making in Autonomous Systems: Enforcement, Moral Emotions, Dignity, Trust and Deception*, 13, 18 (2011), <https://smartech.gatech.edu/bitstream/handle/1853/40769/IEEE-ethicsv17.pdf?sequence=1>.

with accountability over the actions of AWS, there are four points that I am going to address: Firstly, whether accountability over AWS's actions is possible under the individual responsibility mode; secondly, whether the International Criminal Law concept of command responsibility is and to what extent applicable to AWS; thirdly, whether the proposed notion of "split responsibility" over the actions of AWS is acceptable in international weapons law as the *lex specialis* on weapons;¹¹¹ fourthly and finally, the role of corporate and state responsibility in establishing accountability for violations committed through AWS.¹¹²

IV. INDIVIDUAL CRIMINAL RESPONSIBILITY AND THE CHALLENGES POSED BY AWS

"If there are recognizable war crimes, there must be recognizable criminals."¹¹³

Accountability of individuals for their unlawful acts is not a new concept of law; it stretches across various branches of law—from domestic law, International Human Rights Law, International Humanitarian Law, and International Criminal Law.¹¹⁴ As Steven Ratner observes, individual accountability is "a complex amalgam of law and a wide spectrum of sanctioning processes that transcends the orthodox divisions of subjects [of] international law."¹¹⁵ Individual criminal responsibility is part of customary International Law¹¹⁶ and ensues whether unlawful acts are committed in international armed conflicts or in non-international armed conflict.

As was observed in the case of *Prosecutor v Tadic*, violations of the law "entail individual criminal responsibility, regardless of whether they are committed in internal or international armed conflicts."¹¹⁷ Thus, whether or not AWS are used in international or non-international armed conflict is of no effect as far as individual responsibility for their use is concerned.

By insisting that AWS are weapons and not combatants or fighters, it means that whenever a crime is committed as a result of the use of AWS, it is the individual who deployed it who is criminally liable.¹¹⁸ However, due to the increased lev-

111. *Lex specialis* – is a principle containing a generally recognized rule of interpretation pursuant to which the more specific provision takes precedence over the more general one. Definition available at <http://www.trans-lex.org/910000>.

112. ICRC Report, *supra* note 96, at 8.

113. See generally MICHAEL WALZER, *JUST AND UNJUST WARS: A MORAL ARGUMENT WITH HISTORICAL ILLUSTRATIONS* (2015).

114. STEVEN R. RATNER ET AL., *ACCOUNTABILITY FOR HUMAN RIGHTS ATROCITIES IN INTERNATIONAL LAW: BEYOND THE NUREMBERG LEGACY* 9–17 (2009); Marco Sassoli, *Humanitarian Law and International Criminal Law*, in *THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE* 111, 112–113 (Antonio Cassese ed., 2009).

115. Ratner *et al.*, *supra* note 114, at 3.

116. Bert Swart, *Modes of International Criminal Liability*, in *THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE* 82, 91 (Antonio Cassese ed., 2009).

117. *Prosecutor v. Tadic*, Case No. IT-94-1-T, Decision on the Defense Motion for Interlocutory Appeal on Jurisdiction, ¶ 129 (Int'l Crim. Trib. for the Former Yugoslavia Oct. 2, 1995).

118. NATHALIE WEIZMANN ET AL., *AUTONOMOUS WEAPON SYSTEMS UNDER INTERNATIONAL*

els of autonomy in some AWS or those that have attained full autonomy, liability is not cast in stone.¹¹⁹ It is inevitable to start by outlining some of the fundamental elements of individual criminal responsibility.

Since time immemorial, wars have been fought by armies and armed groups under the authority of a commander(s) or leader(s).¹²⁰ It was not uncommon that acts that were committed on an individual basis were covered by excuses such as “‘my commander ordered me to do so’ or ‘I had no choice, it was the idea of the group.’”¹²¹ With the intention of ending such kind of impunity and holding individuals accountable for their actions, under the current concept of individual criminal responsibility, individuals can neither claim superior orders as a defence nor can they hide behind the group.¹²²

Individual criminal responsibility thus focuses on the commission of a crime by the individual.¹²³ It is applicable where an individual *directly* commits a crime¹²⁴ or *directly* contributes to it through ordering, planning, instigating, inciting, co-perpetration, joint criminal enterprise, aiding and abetting.¹²⁵ According to Article 25 of the Rome Statute:

2. A person who commits a crime within the jurisdiction of the Court shall be individually responsible and liable for punishment in accordance with this Statute.

3. In accordance with this Statute, a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court if that person:

a) Commits such a crime, whether as an individual, jointly with another or through another person, regardless of whether that other person is criminally responsible;

LAW, Academy Briefing No. 8, (Geneva Acad. of Int'l Humanitarian Law and Human Rights, 2014), http://www.geneva-academy.ch/docs/publications/Briefings%20and%20In%20breifs/Autonomous%20Weapon%20Systems%20under%20International%20Law_Academy%20Briefing%20No%208.pdf.

119. ICRC Report, *supra* note 96, at 1, 4, 8, 9, 15.

120. FRANCIS TREVELYAN MILLER & ROBERT SAMPSON LANIER, *ARMIES AND LEADERS* 272 (describing U.S. Troops serving under a Major and Colonel).

121. See JONES, *supra* note 25, at 459 (2003) (stating that superior orders are no longer a defense in international criminal law).

122. *Id.*

123. Swart, *supra* note 116, at 89; see INT'L CRIMINAL LAW SERV., *MODULE 10: MODES OF LIABILITY: SUPERIOR RESPONSIBILITY*, http://wcjp.unicri.it/deliverables/docs/Module_10_Superior_responsibility.pdf.

124. Swart, *supra* note 116, at 89; see PROF. DR. GERHARD WERLE & DR. J. BUNG, *SUMMARY (INDIV. CRIM. RESPONSIBILITY) INTERNATIONAL CRIMINAL JUSTICE*, http://werle.rewi.huberlin.de/07_Individual%20Criminal%20Responsibility-Summary.pdf.

125. Swart, *supra* note 116, at 83; see PROF. DR. GERHARD WERLE & DR. J. BUNG, *SUMMARY (INDIV. CRIM. RESPONSIBILITY) INTERNATIONAL CRIMINAL JUSTICE*, http://werle.rewi.huberlin.de/07_Individual%20Criminal%20Responsibility-Summary.pdf.

- b) Orders, solicits or induces the commission of such a crime which in fact occurs or is attempted;
- c) For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, including providing the means for its commission;
- d) In any other way contributes to the commission or attempted commission of such a crime by a group of persons acting with a common purpose. *Such contribution shall be intentional and shall either:*
 - i) Be made with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of a crime within the jurisdiction of the Court; or
 - ii) Be made *in the knowledge of the intention of the group* to commit the crime;
- e) In respect of the crime of genocide, directly and publicly incites others to commit genocide;
- f) attempts to commit such a crime by taking action that commences its execution by means of a substantial step, but the crime does not occur because of circumstances independent of the person's intentions. However, a person who abandons the effort to commit the crime or otherwise prevents the completion of the crime shall not be liable for punishment under this Statute for the attempt to commit that crime if that person completely and voluntarily gave up the criminal purpose.¹²⁶

The question that will be considered below is whether it will be possible to charge a fighter who deploys an Autonomous Weapon System that subsequently commits a crime in terms of Article 25 of the Rome Statute.¹²⁷ Thilo Marauhn argues that Article 25(3)(c) of the Rome Statute is best suited to deal with designers and manufacturers of AWS.¹²⁸ In order to agree or disagree with this statement, I will consider in what ways a designer or manufacturer can be said to have “aided, abetted or otherwise assisted in the commission of a crime”¹²⁹ when the weapon is finally used. I will argue that this will depend first of all, on whether the crime allegedly abetted or aided by the designer or manufacturer is within the jurisdiction of the International Criminal Court.¹³⁰ In any event, the commission of a crime re-

126. Rome Statute, *supra* note 46. Similar provisions are found in Article 7 of the Statute of the International Criminal Tribunal of the Former Yugoslavia and Article 6 of the Statute of the International Criminal Tribunal of Rwanda. (*emphasis added*)

127. See Rome Statute, *supra* note 46, art. 25.

128. Marauhn, *supra* note 108, at 4.

129. Jack M. Beard, *Autonomous Weapons and Human Responsibilities*, 45 GEO. J. INT'L L. 617, 646 (2014).

130. Rome Statute, *supra* note 46, art. 5.

quires the proving of both the *actus reus* and *mens rea*.¹³¹

A. Importance of mens rea and actus reas for individual responsibility

It is important to note that in general, the basis for individual criminal responsibility hinges on a guilty criminal state of mind (*mens rea*) coupled with wrongful action (*actus reas*) of the perpetrator.¹³² In armed conflict, this is where a combatant or fighter, fully aware that certain conduct or weapon is prohibited by law, nonetheless proceeds to engage in that conduct or use that particular weapon.¹³³ The idea of punishing only those with a guilty mind is well grounded in natural justice and human rights.¹³⁴ As early as 1819, Bagshaw observed that the fact that “no man ought to be punished, except for his own fault” is a clear maxim of natural justice.¹³⁵

B. Forms of participation for individual responsibility

The forms of participation outlined in Article 25 of the Rome Statute have been interpreted by international courts most of which emphasize the need to make clear which form of liability is applicable to the accused person.¹³⁶ The form of liability is of paramount importance for the court when it comes to sentencing. For example, “there may be an enormous difference in terms of sentencing between an instigator, an aider and abettor and a direct perpetrator of a completed offense.”¹³⁷

In terms of the jurisprudence of international courts and tribunals, a person who commits the crime is the perpetrator.¹³⁸ It is important to note that there can be many perpetrators of one crime, as long as the actions of each person satisfy the

131. FAIZ KAZI, PROJECT ON THE CONSTITUENT ELEMENTS OF CRIME IN THE INDIAN PENAL CODE 9, https://www.academia.edu/4374247/Constituent_Elements_of_Crime (last visited Sep. 17, 2016).

132. See JONES, *supra* note 25, at 414–24; MOHAMED BADAR, THE CONCEPT OF MENS REA IN INTERNATIONAL CRIMINAL LAW: THE CASE FOR A UNIFIED APPROACH 234–52 (2013); ANDRÉ KLIP & GÖRAN SLUITER ANNOTATED LEADING CASES OF INTERNATIONAL CRIMINAL TRIBUNALS: THE INTERNATIONAL CRIMINAL TRIBUNAL FOR THE FORMER YUGOSLAVIA 321 (2001); JOSE DORIA ET AL., THE LEGAL REGIME OF THE INTERNATIONAL CRIMINAL COURT: ESSAYS IN HONOUR OF PROFESSOR IGOR BLISHCHENKO 144 [1930–2000] (2009); IRYNA MARCHUK, THE FUNDAMENTAL CONCEPT OF CRIME IN INTERNATIONAL CRIMINAL LAW: A COMPARATIVE LAW ANALYSIS 134 (2013); BEATRICE BONAFÉ, THE RELATIONSHIP BETWEEN STATE AND INDIVIDUAL RESPONSIBILITY FOR INTERNATIONAL CRIMES 247 (2009); Trial of Bruno Tesch et al., (Zyklon B Case), UNWCC, Case Number 9, British Military Court (1946), in LAW REPORTS OF TRIALS OF WAR CRIMINALS 93–104 (1949).

133. See JONES, *supra* note 25, at 414–24.

134. ETHAN ALLEN, REASON, THE ONLY ORACLE OF MAN, OR, A COMPENDIOUS SYSTEM OF NATURAL RELIGION 87 (1836).

135. See WILLIAM COBBETT, COBBETT’S PARLIAMENTARY HISTORY OF ENGLAND: FROM THE NORMAN CONQUEST, IN 1066 TO THE YEAR 1803 1079 (1819).

136. See the case of Prosecutor v. Furundzija, Case No. IT-95-17/1-T, Trial Judgement, ¶ 189 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 10, 1998).

137. JONES, *supra* note 25, at 414–415.

138. JUSTIPEDIA, Legal encyclopedia, <https://www.justipedia.com/definition/18597/perpetrator> (last visited Sep. 17, 2016).

requisite substantive elements of the crime.¹³⁹ In all cases, for individual criminal liability to be established, both *actus reus* and *mens rea* must be proved.¹⁴⁰

A person who instigates plans and orders the commission of the crime is the co-perpetrator.¹⁴¹ This includes a person(s) who, with full knowledge and intention, participates in a crime in what is referred to as the “common criminal purpose” doctrine.¹⁴² The activities of the person participating “must have a direct and substantial effect on the commission of the crime.”¹⁴³ The said conduct must also be performed with *mens rea*, knowledge that participation “will assist the principal in the commission of the criminal act.”¹⁴⁴ As far as co-perpetration is concerned, all the participants may have the same criminal intent while one or more of them executes the criminal conduct.¹⁴⁵ Criminal intent can also be said to be present where participants had knowledge of the alleged criminal conduct or its planning and they intentionally furthered it.¹⁴⁶ Even where one of the participants will act out of the common plan, if his actions were foreseeable, courts have held that the other participants will be held to have possessed the criminal intent.¹⁴⁷

In this regard, for persons involved in the production of AWS to be held as co-perpetrators, they must have been aware that a particular Autonomous Weapon System was going to be used to commit a crime and they made a conscious decision to provide the system to principal perpetrator all the same.¹⁴⁸ Furthermore, they must also have been aware that the autonomous system was going to commit a specific crime, knowledge of which was shared with the one deploying the system.¹⁴⁹ It can be argued that if the actions of AWS with full autonomy are unpredictable to the individual deploying them, they are as well unpredictable to the individual who manufactured or programmed the robot. Establishing a criminal state

139. See the cases of Prosecutor v. Kunarac et. al. (Foca), Case No. IT-96-23-T& IT-96-23/1-T, Trial Judgement, ¶ 390 (Int'l Crim. Trib. for the Former Yugoslavia Feb. 22, 2001); Prosecutor v. Kayishema & Ruzindana, Case No. ICTR 95-1-A, Judgement, ¶ 187 and 192 (Int'l Crim. Trib. for the Former Yugoslavia June 1, 2001); Prosecutor v. Krstic, Case No. IT-98-33-T Trial Judgement, ¶ 601 (Int'l Crim. Trib. for the Former Yugoslavia Aug. 2, 2001).

140. JACQUELINE MARTIN & TONY STORY, UNLOCKING CRIMINAL LAW 18 (2015).

141. Rome Statute, *supra* note 46, art 25(b).

142. See generally the cases of Prosecutor v. Delalic et al., Case No. IT-96-21-T, Trial Judgement ¶ 328 (Int'l Crim. Trib. for the Former Yugoslavia Nov. 16, 1998); Prosecutor v. Tadic, Case No. IT-94-1-A, Appeals Chamber Judgement, ¶¶ 185–92 (Int'l Crim. Trib. for the Former Yugoslavia Jul. 15, 1999) and Prosecutor v. Furundzija, *supra* note 136, ¶ 216; Swart, *supra* note 116, at 83–88; Chacha Murungu, *Prosecution and Punishment of International Crimes by the Special Court for Sierra Leone' in PROSECUTING INTERNATIONAL CRIMES IN AFRICA* 97, 114–17 (Chacha Murungu & Japhet Biegon eds., 2011).

143. Prosecutor v. Delalic et al., *supra* note 142, ¶ 326; Swart, *supra* note 116, at 83–88.

144. Prosecutor v. Delalic et al., *supra* note 142, ¶ 345; Swart, *supra* note 116, at 83–88.

145. Prosecutor v. Tadic, Appeals Judgement, *supra* note 142, ¶ 220; Swart, *supra* note 116, at 83–88.

146. *Id.*

147. *Id.*

148. See Prosecutor v. Delalic et al., *supra* note 142, ¶ 326 (supporting this reasoning).

149. This is in line with the concept of Command Responsibility cited above.

of mind may be difficult if not impossible on all the levels of responsibility.

In relation to planning as part of co-perpetration, the manufacturer or programmer of the AWS would have helped in the preparation of the commission of a specific crime through manufacturing or programming a weapon in a specific way that would assist in the execution of a particular crime. Planning as a form of co-perpetration has thus been defined as the “designing the commission of the crime at both the preparatory and executive phases.”¹⁵⁰ Chances, where this will actually happen in terms of the development of AWS, are very slim.

Further, it is also important to remember that individual criminal responsibility arises on various levels. For example, political leaders have been held individually responsible for having directly influenced the commission of war crimes.¹⁵¹ This may point to a scenario where an individual who is involved in the production of AWS directly influences the commission of a crime; such an individual may be held individually responsible. Thus in both the ICTY and ICTR, “both leaders and executants’ are held responsible.”¹⁵² Leaders who make irresponsible decisions on the deployment of AWS may also be held responsible—the UN Security Council in Resolution 1329 of 30 November 2000 emphasized the prosecution of leadership figures for war crimes.¹⁵³

Nevertheless, as was noted in the trial judgement of *Prosecutor v Delalic*, responsibility of political leadership and other high ranking figures—in the case of AWS, political leadership and those involved in the production of the technology—does not excuse the responsibility of the “ordinary soldier” involved in the commission of the crime. In the case of AWS, the individual involved in the final deployment of the weapon.¹⁵⁴ In as much as international tribunals and courts may, as a matter of policy concentrate on the “big fish”, “small fish” still need prosecution in national courts for example.¹⁵⁵

C. Actus reus and mens rea for participation

As far as the objective elements of *actus reus* and *mens rea* in a criminal act

150. *Prosecutor v. Akayesu*, Case No. ICTR-96-4-T, Trial Judgement, ¶ 480 (Int’l Crim. Trib. for Rwanda Sep. 2, 1998); see also the case of *Prosecutor v. Kordić & Erkez*, Case No. IT-95-14/2-T, Trial Judgement, ¶ 386 (Int’l Crim. Trib. for the Former Yugoslavia Feb. 26, 2001).

151. See the case of *Prosecutor v Karadžić et al.*, Case No. IT-95-5-D, In the Matter of a Proposal for a Formal Request for Deferral to the Competence of the Tribunal Addressed to the Republic of Bosnia and Herzegovina in Respect of Radovan Karadzic, Ratko Mladic and Mico Stanisic, ¶ 25 (Int’l Crim. Trib. for the Former Yugoslavia May 16, 1995); see also John R.W.D. Jones & Steven Powles, *supra* note 25, at 410 (observing that in international criminal tribunals and courts, there is always a ‘subtle and often complex interplay between different levels of responsibility and policy choices to be made as to whom it is most appropriate to prosecute. . .’).

152. Statute of the International Criminal Tribunal For the Former Yugoslavia, article 7(1) (May 25, 1993) [hereinafter ICTY Statute] and Statute of the International Tribunal for Rwanda, article 6(1) (Nov. 8 1994) [hereinafter ICTR Statute].

153. S.C. Res. 1329, U.N. Doc. S/RES/1329 (Nov. 30, 2000).

154. See the case of *Prosecutor v. Delalic*, *supra* note 142, ¶ 1283.

155. JONES, *supra* note 25, at 412–14.

are concerned, the *Tadic case* observed that for *actus reus* of perpetrators in a common criminal purpose or joint criminal enterprise, there is no need for an organized military, political or administrative structure.¹⁵⁶ All that is needed is “the existence of a common plan, design or purpose which amounts to or involves the commission of a crime.”¹⁵⁷ It is not necessary, for example, for the plan to have pre-existed before the perpetration of the crime since “common plan or purpose may materialise extemporaneously and be inferred from the fact that a plurality of persons acts in unison to put into effect a joint criminal enterprise.”¹⁵⁸ The manufacturer or developer of AWS does not need to be involved in the commission of a specific crime as long as there is some form of “contribution to the execution of the *common plan*” by the individual deploying AWS.¹⁵⁹

As far as the *mens rea* element of perpetrators in a joint criminal enterprise is concerned, what needs to be satisfied is that the accused person(s) had “intent to perpetrate a certain crime; or intent to pursue the common criminal design plus foresight that those crimes outside the criminal common purpose were likely to be committed.”¹⁶⁰

In the case of aiders and abettors, regarding *actus reus*, the accused must have carried out acts that were “specifically directed to assist, encourage or lend moral support to the perpetration of a certain specific crime.”¹⁶¹ The support that was given by the aider or abettor must also have “a substantial effect upon the perpetration of the crime” as already indicated above.¹⁶² Since some commentators have pointed out that manufacturers and designers of AWS may be perfectly charged under Article 25(3)(c) of the Rome Statute,¹⁶³ questions may arise as to how one would prove that there was a common plan between the manufacturer and the individual who deploys AWS that subsequently commit crimes. However, according to the jurisprudence on aiding and abetting, an “aider and abettor is always an accessory to a crime perpetrated by another person”¹⁶⁴ and because of that “no proof is required of the existence of a common concerted plan, let alone of the pre-existence of such a plan.”¹⁶⁵ The person deploying the AWS who is the principal may not even know about the accomplice’s [manufacturer or programmer’s] contribution. All that is needed is that there was a contribution to the commission of the crime with “knowledge that the acts performed by the aider and abettor assist the commission of a specific crime by the principal.”¹⁶⁶

156. Prosecutor v. *Tadic*, Appeals Judgement, *supra* note 142, ¶¶ 227–9.

157. *Id.*

158. *Id.*

159. Swart, *supra* note 116, at 83–88.

160. See Prosecutor v. *Tadic*, *supra* note 142, ¶¶ 227–9.

161. *Id.*

162. *Id.*

163. Maruhn, *supra* note 108, at 4.

164. Prosecutor v. *Kordić & Erkez*, *supra* note 150, ¶ 399.

165. See Prosecutor v. *Tadic*, *supra* note 142, ¶¶ 227–9.

166. *Id.*

The above interpretations of aiding and abetting by international criminal tribunals¹⁶⁷ also point to the argument I emphasize in this paper that while the responsibility of manufacturers, programmers, and other actors is important, it does not, however, repudiate the responsibilities that are borne by the person involved in the final deployment of the weapon.¹⁶⁸ The number one rule that governs the final user of the weapon is that the means and methods of warfare are not unlimited.¹⁶⁹ Belligerents and specifically combatants may only choose weapons whose effects they can control.¹⁷⁰ If there is a possibility that AWS, on account of high levels of autonomy or full autonomy, will act in an unpredictable way – unpredictability that may result in the commission of crimes – then the fighter or combatant has no ‘meaningful control’ over the weapon since he or she cannot limit its effects.¹⁷¹

D. The challenges posed by AWS to individual responsibility

But it would be still a greater injustice to lay blame and vindictive punishment of a guilty [manufacturer, programmer, roboticist] upon an innocent and inoffensive being [the combatant or fighter], for, in this case, the guilty would be exempted from their punishment, and the innocent unjustly suffer for it; which holds up to view two manifest injustices; the first consists in not doing justice to the guilty, and the second in actually punishing the innocent.¹⁷²

There are two issues that I note concerning the concept of individual criminal responsibility and AWS technology. Firstly, it has been pointed out that AWS may be too complex to the extent that those who deploy them may not understand how

167. ICTY Statute, *supra* note 152.

168. For example Article 25(4) of the Rome Statute clearly provides that the provision relating to individual criminal responsibility shall not affect other forms of responsibilities in international law like state responsibility.

169. This rule is provided for in Article 22 of the 1907 Hague Regulations Respecting the Laws and Customs of War on Land and Article 35(1) of the Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflicts (Protocol I); see also International Committee of the Red Cross, *A Guide to the legal review of new weapons, means and methods of warfare: measures to implement Article 36 of Additional Protocol I of 1977* 88 INT’L REVIEW OF THE RED CROSS 931 (2006), https://www.icrc.org/eng/assets/files/other/irrc_864_icrc_geneva.pdf.

170. Protocol additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflicts (Protocol I), art. 51(4) (c).

171. However, Schmitt argues that “autonomous weapon systems are not unlawful per se. Their autonomy has no direct bearing on the probability they would cause unnecessary suffering or superfluous injury, does not preclude them from being directed at combatants and military objectives, and need not result in their having effects that an attacker cannot control.” See Michael Schmitt, *Autonomous weapon systems and international humanitarian law: A reply to the critics* HARV. NAT’L SEC. J. 35 (2013).

172. Allen, *supra* note 134, at 87.

they function.¹⁷³ Marco Sassoli disagrees, noting that there is no need for individuals deploying AWS to understand the complexities of their programming, rather, all they need to understand is the result of what an Autonomous Weapon System can do and not do.¹⁷⁴

If Sassoli's argument¹⁷⁵ is followed to its logical conclusion, it does not hold water. If AWS are said to be unpredictable, how then can one understand what they can and cannot do? Fighters may learn all year what AWS can and cannot do but as long as there remains a chance of AWS being unpredictable once they are deployed,¹⁷⁶ then the individual that deploys an Autonomous Weapon System may not anticipate all the actions of the robot. As a result of that unpredictability, it is difficult if not impossible to establish a guilty mind, therefore, diminishing the culpability of the individual deploying it.¹⁷⁷ Even in the development of AWS, there are reports that it is impossible to anticipate all situations that AWS may face on the battlefield, therefore, making it hard to effectively control them or understand all they can and cannot do as suggested by Sassoli.¹⁷⁸

In the 2014 CCW Expert meeting on AWS, the US delegation suggested that there should be thorough training of individuals who deploy AWS.¹⁷⁹ That is a valid point. However, and as pointed out above, as long as there remains an iota of unpredictability of how the robot will act, then imputing responsibility to the one who uses the weapon will always be problematic.¹⁸⁰

Some commentators have suggested strict responsibility for those who deploy AWS.¹⁸¹ However, in International Criminal Law and in view of the rules of fairness and natural justice, such an approach will vitiate the rights of the accused person.¹⁸² It would be unfair for governments to develop weapons that are sophisticated and highly unpredictable once they are deployed, with input from many actors like roboticists, manufacturers, programmers, engineers, etc. and put all the blame

173. U.N. Human Rights Council, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, A/HRC/23/47, ¶ 78 (Apr. 9, 2013); Nathalie Weizmann et al., *supra* note 118, at 24.

174. Marco Sassoli, *Autonomous weapons and international humanitarian law: Advantages, Open Technical Questions and Legal Issues to be Clarified*, 90 INT'L L. STUD. 324 (2014).

175. *Id.*

176. Nathalie Weizmann et al., *supra* note 118, at 24.

177. See MINISTRY OF DEFENCE, DEVELOPMENT, CONCEPTS AND DOCTRINE CENTRE, THE UK APPROACH TO UNMANNED AIRCRAFT SYSTEMS, 2011, JDN 2-11, ¶ 510 (U.K.).

178. See U.S. CHIEF AIR FORCE SCIENTIST (AF/ST), REPORT ON TECHNOLOGY HORIZONS: A VISION FOR AIR FORCE SCIENCE & TECHNOLOGY DURING 2010–2030, at 105 (2010), available at <http://www.flightglobal.com/assets/getasset.aspx?ItemID=35525>.

179. *The Convention on Certain Conventional Weapons (CCW), Informal Meeting of Experts on Lethal Autonomous Weapons Systems (2014)*, U.S. Delegate closing statement, [http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/6D6B35C716AD388CC1257CEE004871E3/\\$file/1019.MP3](http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/6D6B35C716AD388CC1257CEE004871E3/$file/1019.MP3) (last visited Sep. 17, 2016).

180. See MINISTRY OF DEFENCE, *supra* note 177, ¶ 510.

181. Maruhn, *supra* note 108, at 3.

182. Allen, *supra* note 134, at 87.

on the deploying individual.¹⁸³ This is where other scholars suggest a system of splitting responsibility, from the roboticist up to the individual who deploys the machine.¹⁸⁴ This suggestion is addressed below.

The second point concerning the use of AWS and the concept of individual criminal responsibility relates to the watering down of the power of deterrence as far as the individual responsibility of soldiers on the ground is concerned.¹⁸⁵ As mentioned above, individual criminal responsibility deters the foot soldier at an individual level – neither can he or she claim superior orders nor can he or she hide behind a group.¹⁸⁶ Thus in armed conflict, deterrence from committing crimes operates on two levels: i) at the commanding level, where commanders do not give criminal or unlawful orders for fear of being held individually responsible.¹⁸⁷ Commanders also ensure that their subordinates are not committing crimes by preventing, stopping or punishing those who have committed crimes.¹⁸⁸ ii) At the primary level, where the individual fighter on the ground refrains from committing crime because they are aware they can be held individually liable.¹⁸⁹

Now, where the individual soldier is replaced by an Autonomous Weapon System—a bloodless robot with no sense of self-preservation, fear of prosecution after the fact or punishment by the commander—an important part of deterrence is watered down.¹⁹⁰

In view of the idea of protecting and saving lives, Heyns argues that soldiers in armed conflict do not automatically kill because they have a right to kill legitimate targets.¹⁹¹ When faced with a target, human soldiers rethink whether it is nec-

183. See Allen, *supra* note 134, at 87 (arguing that punishment must come only when one is to blame).

184. See Nathalie Weizmann et al., *supra* note 118, at 25 (noting that Heyns and other scholars' approach on split responsibility is criticized "for violating the fundamental principle that no penalty may be inflicted on a person for an act for which he or she is not responsible.").

185. See, EZIO DI NUCCI AND FILIPPO SANTONI DE SIO, DRONES AND RESPONSIBILITY: LEGAL, PHILOSOPHICAL AND SOCIO-TECHNICAL PERSPECTIVES ON REMOTELY CONTROLLED WEAPONS 22–24 (2016).

186. YORAM DINSTEIN, THE DEFENCE OF 'OBEDIENCE TO SUPERIOR ORDERS' IN INTERNATIONAL LAW 80–81 (1965); JONES, *supra* note 25, at 459. However, I note that there are scholars who argue that there are many factors that contribute to an individual committing a crime and in many cases fear of prosecution is not much of a deterrent factor. Notwithstanding such arguments, there is wide agreement that fear of prosecution plays its part as far as deterrence is concerned.

187. See Rome Statute, *supra* note 46, art. 28; see also T. MARKUS FUNK, VICTIMS' RIGHTS AND ADVOCACY AT THE INTERNATIONAL CRIMINAL COURT (2010) 16 n.28.

188. See Rome Statute, *supra* note 46, art. 28; see also T. MARKUS FUNK, *supra* note 187, at 16 n.28.

189. See Rome Statute, *supra* note 46, art. 25; see also T. MARKUS FUNK, *supra* note 187, at 16 n.28.

190. T. MARKUS FUNK, *supra* note 187, at 16 n.28.

191. U.N. Human Rights Council, Report of the Special Rapporteur, *supra* note 173, ¶57; see also DAVE GROSSMAN, ON KILLING: THE PSYCHOLOGICAL COST OF LEARNING TO KILL IN WAR AND SOCIETY xv (2009).

essary to kill that legitimate target in that particular circumstance.¹⁹² This is not to say that this has any bearing on individual criminal responsibility but just to note that there is a lot of consideration that goes on before a human soldier pulls the trigger.¹⁹³ The same happens, albeit not always, before a human soldier commits a crime. There is, at least, some consideration of the criminal sanction that will follow.¹⁹⁴ This is not the case with AWS. The situation will be worse where an individual will specifically program the robot to commit crimes. There is no guarantee that such situations will not arise because once the technology is available, conscience will only be the limit and conscience fails us many times.

As far as the notion of individual responsibility and AWS is concerned, it can be summarized that persons involved in the production of AWS up to the final user of the system can be held individually responsible.¹⁹⁵ The pillars of criminal liability – *mens rea* and *actus reus* – must be satisfied in all cases.¹⁹⁶ For designers, manufacturers, and other actors, it is likely that their prosecution may be in terms of the domestic law in domestic courts. In the event, however, that they are aiders and abettors to the commission of a crime within the jurisdiction of the International Criminal Court, for example, satisfying all the constitutive elements of aiders and abettors, then, they can be prosecuted at the international level.¹⁹⁷ In terms of international law accountability principles, the responsibility of a particular person does not affect the responsibility of another.¹⁹⁸ In other words, the fact that a manufacturer has certain responsibilities does not mean the end users do not have responsibilities.¹⁹⁹ For the end user – the fighter or combatant deploying the weapon – the golden rule is that he or she must never use a weapon whose effects he or she cannot control.²⁰⁰ The combatant or fighter must only use those weapons that do not obfuscate his or her responsibilities under international law.²⁰¹ To that end,

192. See generally Dave Grossman, *supra* note 191; see also Ryan Goodman, *The Power to Kill or Capture Enemy Combatants*, 24 EUR. J. OF INT'L L. (2013) (discussing the legal question regarding 'the scope of authority to choose whether to kill or capture enemy combatants).

193. GROSSMAN, *supra* note 191, at 3–16.

194. See Perf-Olof H. Wikström, *Deterrence and Deterrence Experiences: Preventing Crime Through the Threat of Punishment*, in INTERNATIONAL HANDBOOK OF PENOLOGY AND CRIMINAL JUSTICE 345, 350–51 (2007).

195. Maruhn, *supra* note 20, at Part D.

196. See JONES, *supra* note 25, at 414–16.

197. Prosecutor v. Tadic, Case No. IT-94-1-A, Appeals Judgment, ¶¶ 227–29 (Int'l Crim. Tri. for the Former Yugoslavia July 15, 1999), <http://www.icty.org/x/cases/tadic/acjug/en/tad-aj990715e.pdf> (describing the elements that need to be satisfied for aiding and abetting).

198. *Id.*

199. See Rome Statute, *supra* note 46, at art. 25(4); Prosecutor v. Delalic, Case No. IT-96-21-A, Appeals Judgment, ¶ 182 (Int'l Crim. Tri. for the Former Yugoslavia Feb. 20, 2001), <http://www.icty.org/x/cases/mucic/acjug/en/cel-aj010220.pdf>; see also, MORAL RESPONSIBILITY FOR COMPUTING ARTIFACTS, *supra* note 103, at rule 2 (providing "[t]he shared responsibility of computing artefacts is not a zero-sum game. The responsibility of an individual is not reduced simply because more people become involved in designing, developing, deploying or using the artifact").

200. Geneva Convention Protocol I, *supra* note 53, art. 51(4)(c).

201. *Id.* at art. 51(4).

the combatant must be in “Meaningful Human Control” of the weapon. “Meaningful Human Control” of a weapon in terms of the responsibilities of the combatant or fighter deploying it is where all the decisions to employ lethal force are made by the fighter in real time and there is an abort function.²⁰² This eliminates the question of unpredictability of AWS – an issue that presents an accountability gap in terms of the responsibility of the weapon user.²⁰³

V. COMMAND RESPONSIBILITY AND AWS

As indicated above, there are commentators who suggest that command responsibility can be used to establish the responsibility of those who deploy AWS.²⁰⁴ It is not uncommon that in the debate on AWS, some commentators refer to persons deploying AWS as the *commanders* while the Autonomous Weapon Systems are referred to as *agents*.²⁰⁵ This gives an impression that AWS are replacing the human fighters as robot combatants. I object to this idea. Hereupon, I consider whether the notion of command responsibility²⁰⁶—a concept founded and developed to govern the relationship between a *human commander* and a *human subordinate*—can be used to govern this new relationship between a *human commander* and a *robot*.²⁰⁷

To ascertain the applicability of command responsibility to the case of AWS, it is inevitable to start by explaining what this notion entails. Command responsibility is an International Criminal Law mode of imputing responsibility that has been developed in the jurisprudence of various international criminal tribunals and courts.²⁰⁸ Command responsibility is part of customary International Law²⁰⁹ and has been considered an important tool as far as reinforcing deterrence and countering impunity is concerned.²¹⁰ Command responsibility is where a commander is held responsible for actions of her or his subordinates by virtue of her or him failing to prevent or punish the commission of crimes by the subordinates.²¹¹

202. Michael C. Horowitz & Paul Scharre, *Meaningful Human Control in Weapon Systems: A Primer* 9 (Ctr. for a New Am. Soc’y, Working Paper, 2015), https://www.files.ethz.ch/isn/189786/Ethical_Autonomy_Working_Paper_031315.pdf.

203. MINISTRY OF DEFENCE, *supra* note 177, ¶ 510 (discussing the issues of predictability of AWS, suggesting unpredictability); see Directorate-General for External Policies of the Union, Pol’y Dept., *Human Rights Implications of the Usage of Drones and Unmanned Robots in Warfare*, at 39 (May 2013); GENEVA ACAD. OF INT’L HUMANITARIAN LAW, *supra* note 8, at 24; REPORT OF THE ICRC EXPERT MEETING, *supra* note 7, at 2.

204. Roff, *supra* note 108, at 14; Schmitt, *supra* note 108, at 33; Marauhn, *supra* note 20, at Part E.

205. See generally Arkin et al., *supra* note 110.

206. *Id.*

207. *Id.* at 3–5.

208. Swart, *supra* note 92, at 88–89.

209. Prosecutor v. Delalic, Case No. IT-96-21-T, Trial Judgment, ¶¶ 330-343 (Int’l Crim. Trib. For the Former Yugoslavia Nov. 16, 1998), http://www.icty.org/x/cases/mucic/tjug/en/981116_judg_en.pdf; JONES, *supra* note 25, at 432–33.

210. FUNK, *supra* note 187, at 16 n.28.

211. Swart, *supra* note 92, at 88; see INT’L CRIMINAL LAW SERV., MODES OF LIABILITY: SUPERIOR RESPONSIBILITY 3–7,

The idea of command responsibility goes back to as early as the 15th century when in 1439, Charles VII of Orleans promulgated a law stating that:

The King orders that each captain or lieutenant be held responsible for the abuses, ills, and offences committed by members of his company, and that as soon as he receives any complaint concerning any such misdeed or abuse, he bring the offender to justice . . . If he fails to do so or covers up the misdeed or delays taking action, or if, because of his negligence or otherwise, the offender escapes and thus evades punishment, the captain shall be deemed responsible for the offence as if he had committed it himself and shall be punished in the same way as the offender would have been.²¹²

The modern form of command responsibility was clearly spelt out after the World Wars and during the prosecution of war criminals.²¹³ For example, after World War I, the Commission that was tasked to work on issues of responsibilities of those responsible for the war noted and emphasized that rank and position does not excuse one from criminal liability but rather can be a basis for it.²¹⁴ The position of a commander or superior can also be used to establish individual responsibility for example where the commander ordered, aided and abetted the commission of a crime.²¹⁵ There is a number of cases after World Wars I and II that clearly spells out the duties of the commander as far as his or her obligation towards the conduct of subordinates is concerned.²¹⁶

It was, however, only in 1977 that the concept of command responsibility was included in a binding international treaty—Additional Protocol I to the Geneva Conventions of 1949.²¹⁷ In Article 86 (2), it provides that the fact that the unlawful act was committed by a subordinate does not absolve the superior of responsibility when the commander “knew or had information which should have enabled” him

http://wcjp.unicri.it/deliverables/docs/Module_10_Superior_responsibility.pdf.

212. THEODOR MERON, *HENRY'S WARS AND SHAKESPEARE'S LAWS: PERSPECTIVES ON THE LAW OF WAR IN THE LATER MIDDLE AGES* 149 n.40 (1993) (citing Meron's translation of LOUIS GUILLAUME DE VILEVAULT & LOUIS G.O.F. DE BREQUIGNY, *ORDONNANCES DES WIS DE FRANCE DE LA TROISIEME RACE* (1782)).

213. JONES, *supra* note 25, at 424–27; Michael L. Smidt, Yamashita, Medina, and Beyond: *Command Responsibility in Contemporary Military Operations*, 164 MIL. L. REV. 155, 176 (2000).

214. *Commission on the Responsibility of Authors of War and on Enforcement of Penalties: Report Presented to the Preliminary Peace Conference*, 14 AM. J. OF INT'L L. 95, 116 (1920).

215. *E.g.*, Prosecutor v. Akayesu, Case No. ICTR-96-4-T, Trial Judgment, ¶ 692–94 (Sept. 2, 1998), <http://unictr.unmict.org/sites/unictr.org/files/case-documents/ict96-4/trial-judgements/en/980902.pdf>; JONES, *supra* note 25, at 441.

216. *See, e.g.*, In re Yamashita, 327 U.S. 1, 14–16 (1946); U.S. v. Araki, Case No. 1, Indictment, 47–49 (Int'l Mil. Trib. for the Far East 1946); U.S. v. Wilhelm von Leeb, 11 Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10, Nuremberg, October 1946 – April 1949, 462, 463–65 (1948); U.S. v. Wilhelm List, 11 Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10, Nuremberg, October 1946 – April 1949, 1230, 1233–34 (1948); *Conclusion to Pre-Trial Hearings Filed in Belgium Before the Brussels Court of Appeals Chambre des Mises en Accusation*, 12 PALESTINE Y.B. INT'L L. 259, 276–77 (2002).

217. JONES, *supra* note 25, at 429–30.

to know that subordinates were committing crimes and did not take feasible steps to stop or prevent them.²¹⁸

The modern form of command responsibility is contained in Article 28 of the Rome Statute—applicable to both military and civilian commanders.²¹⁹ Article 28 of the Statute provides that in addition to other grounds of criminal responsibility under [the Rome] Statute for crimes within the jurisdiction of the [ICC]:

a) A military commander or person effectively acting as a military commander shall be criminally responsible for crimes within the jurisdiction of the Court committed by *forces* under his or her effective command and control, or effective authority and control as the case may be, as a result of his or her failure to exercise control properly over such *forces*, where:

- i) That military commander or person either knew or, owing to the circumstances at the time, should have known that the *forces* were committing or about to commit such crimes; and
- ii) That military commander or person failed to take all necessary and reasonable measures within his or her power to prevent or repress their commission or *to submit the matter to the competent authorities for investigation and prosecution.*

b) With respect to *superior and subordinate* relationships not described in paragraph (a), a superior shall be criminally responsible for crimes within the jurisdiction of the Court committed by *subordinates* under his or her effective authority and control, as a result of his or her failure to exercise control properly over such subordinates, where:

218. Geneva Convention Protocol I, *supra* note 53, art. 86(2). Likewise, Article 87 of Additional Protocol I also provides that:

1. The High Contracting Parties and the Parties to the conflict shall require military commanders, with respect to members of the armed forces under their command and other persons under their control, to prevent and, where necessary, to suppress and to report to competent authorities breaches of the Conventions and of this Protocol.
2. In order to prevent and suppress breaches, High Contracting Parties and Parties to the conflict shall require that, commensurate with their level of responsibility, commanders ensure that members of the armed forces under their command are aware of their obligations under the Conventions and this Protocol.
3. The High Contracting Parties and Parties to the conflict shall require any commander who is aware that subordinates or other persons under his control are going to commit or have committed a breach of the Conventions or of this Protocol, to initiate such steps as are necessary to prevent such violations of the Conventions or this Protocol, and, where appropriate, to initiate disciplinary or penal action against violators thereof.

Id. at art. 87(1)–(3). See George W. Mugwanya, *The Contribution of the International Criminal Tribunal of Rwanda to the Development of International Criminal Law*, in PROSECUTING INTERNATIONAL CRIMES IN AFRICA 63, 88 (Chacha Murungu & Japhet Biegion, eds., 2011).

219. See W.J. Fenrick, *Some International Law Problems Related to Prosecutions Before the International Criminal Tribunal for the Former Yugoslavia*, 6 DUKE J. COMP. & INT'L L. 103, 116–17 (1995).

- i) The superior either knew, or consciously disregarded information which clearly indicated, that the *subordinates* were committing or about to commit such crimes;
- ii) The crimes concerned activities that were within the effective responsibility and control of the superior; and
- iii) The superior failed to take all necessary and reasonable measures within his or her power to prevent or repress their commission or to submit the matter *to the competent authorities for investigation and prosecution*.²²⁰

According to Thilo Maruhn, Article 28 of the Rome Statute on command responsibility is best suited to deal with programmers and operators of AWS since they are “much closer to ‘effective command and control’” as required under command responsibility.²²¹ As will be discussed below, this may be a wrong approach to responsibility for AWS—the concept of command responsibility as developed under international criminal law and as contained in Article 28 of the Rome Statute may not be applicable to a *human-machine* relationship.²²²

As interpreted by courts, command responsibility provides that a commander may only be held responsible where he or she “knew or should have known” that his or her subordinates were about to or are committing a crime and the commander fails to take action to prevent or stop them or that no punishment was meted against the perpetrators after commission.²²³

Furthermore, in order to be held accountable for the actions of his or her subordinates, the commander must have “*exercised effective control*” over them.²²⁴ The ICTY, ICTR and the ICC have articulated some elements of what constitutes effective control for the commander to be held responsible.²²⁵ There must be a superior-subordinate relationship between the commander and the combatants or fighters²²⁶ that allows the commander to control his or her subordinates²²⁷ while

220. Rome Statute, *supra* note 46, art. 28 (*emphasis added*); see ITCR Statute, *supra* note 152, art. 6(3); ICTY Statute, *supra* note 152, art. 7(3); *see also* Muringu, *supra* note 142, at 114–17.

221. Maruhn, *supra* note 20, at Part D.

222. Rome Statute, *supra* note 46, art. 28.

223. Geneva Convention Protocol I, *supra* note 53, arts. 86(2), 87; INTERNATIONAL COMMITTEE OF THE RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949 ¶ 3543 (Yvez Sandoz et al., eds., 1987); JONES, *supra* note 25, at 437–40.

224. *See, e.g.*, Prosecutor v. Delalic, Case No. IT-96-21-T, Trial Judgment, ¶ 354 (Int'l Crim. Trib. for the Former Yugoslavia Nov. 16, 1998), http://www.icty.org/x/cases/mucic/tjug/en/981116_judg_en.pdf; Prosecutor v. Galić, Case No. IT-98-29-T, Trial Judgment, ¶ 173 (Dec. 5 2003), <http://www.icty.org/x/cases/galic/tjug/en/gal-tj031205e.pdf>; Prosecutor v. Rašević, Case No. X-KR/06/275, Verdict 149 (Ct. Bosn. & Herz. Feb. 28, 2008); Prosecutor v. Stupar, Case No. X-KRŽ-05/24-3, Verdict, ¶¶ 32, 54 (Ct. Bosn. & Herz. April 28, 2010).

225. *See supra* note 223–24 and accompanying text.

226. Prosecutor v. Bemba, Case No. ICC-01/05-01/08, Decision Pursuant to Article 61(7)(a) and (b) of the Rome Statute on the Charges of the Prosecutor Against Jean-Pierre Bemba Gombo, ¶ 417 (June 15, 2009), https://www.icc-cpi.int/CourtRecords/CR2009_04528.PDF; JONES, *supra* note 25, at

the subordinates depend on his or her orders.²²⁸ The question, therefore, is whether this mode of responsibility is applicable to AWS.

A. Inapplicability of command responsibility to AWS

I disagree with commentators who suggest that responsibility for the actions of AWS can be ascertained by resorting to the rules of command responsibility.²²⁹ I disapprove of the labelling of Individuals who deploy AWS as *commanders* and AWS as *agents or combatants*.²³⁰ Whether scholars who do this do it intentionally or unwittingly, referring to individuals who deploy AWS as *commanders* give the impression that AWS are the combatants or fighters. AWS must not be referred to or treated as combatants or fighters. They must be weapons and when they are developed, they must not be given autonomy or functions that make them cease being weapons but robot combatants.

I, therefore, argue that the concept of command responsibility cannot and should not be applied to AWS. This is so because in International Criminal Law and International Humanitarian Law, command responsibility as a mode of computing criminal liability has been introduced and developed as a concept governing the relationship between a *human commander* and a *human subordinate*.²³¹ Referring to the person who deploys an Autonomous Weapon System as a commander is wrong and misleading. Even the simple literal meaning of a commander states that it is an individual in authority over a body of troops during a military operation.²³² In IHL and International Criminal Law, a commander has been understood to be a natural person exercising authority over natural persons in a military opera-

434–36.

227. See, e.g., Bemba, ICC-01/05-01/08 ¶¶ 414–17; Prosecutor v. Delalic, Case No. IT-96-21-A, Appeal Judgment, ¶ 256 (Int'l Crim. Trib. for the Former Yugoslavia Feb. 20, 2001), <http://www.icty.org/x/cases/mucic/acjug/en/cel-aj010220.pdf>; Delalic, IT-96-21-T ¶ 354; Prosecutor v. Halilović, Case No. IT-01-48-A, Appeals Judgment, ¶ 210 (Int'l Crim. Trib. for the Former Yugoslavia Oct. 16, 2007), <http://www.icty.org/x/cases/halilovic/acjug/en/071016.pdf>; Prosecutor v. Orić, Case No. IT-03-68-A, Appeal Judgment, ¶ 20 (Int'l Crim. Trib. for the Former Yugoslavia July 3, 2008), <http://www.icty.org/x/cases/oric/acjug/en/080703.pdf>; Prosecutor v. Orić, Case No. IT-03-68-T, Trial Judgment, ¶ 311 (Int'l Crim. Trib. for the Former Yugoslavia June 30, 2006), <http://www.icty.org/x/cases/oric/tjug/en/ori-jud060630e.pdf>; Rašević, X-KR/06/275 at 148; Stupar, X-KRŽ-05/24-3 ¶ 34–35; see also METTRAUX, *supra* note 16, at 157.

228. See, e.g., Bemba, ICC-01/05-01/08 ¶¶ 411–19; Delalic, IT-96-21-A ¶ 255; Delalic, IT-96-21-T ¶ 354; Halilović, IT-01-48-A ¶¶ 206–07; Orić, IT-03-68-A ¶¶ 20–21; Orić, IT-03-68-T ¶¶ 311–12; Rašević, X-KR/06/275 at 148; Stupar, X-KRŽ-05/24-3 ¶¶ 34–35; see also METTRAUX, *supra* note 16, at 157–58.

229. Roff, *supra* note 108, at 14; Schmitt, *supra* note 108, at 33; Maruhn, *supra* note 20, at Part E.

230. See generally Arkin et al., *supra* note 110.

231. Rome Statute, *supra* note 46, art. 28. In terms of international law rules on treaty interpretation, surely, the drafters of the Rome Statute and other treaties providing for command responsibility did not intend this concept to apply to a relationship between a human commander and a machine. A weapon cannot be a subordinate in the strict sense of the word.

232. *Commander*, THE FREE DICTIONARY, <http://www.thefreedictionary.com/commander> (last visited Oct. 20, 2016).

tion.²³³ Likewise, Article 28 of the Rome Statute uses terms such as “forces” and “subordinates” who are capable of being subjected to prosecution and punishment.²³⁴ That alone shows that the drafters of the Rome Statute clearly intended and rightly so, for the concept to be applied to a *human to human* relationship.²³⁵

More so, a consideration of the key elements of command responsibility referred to above clearly shows that it is a concept that was developed strictly to govern the relationship between *humans* on the battlefield. In order for a commander to be held responsible for the actions of his or her subordinate, there are three important elements that should be satisfied:

- i) That the commander knew or ought to have known that crimes were about to or were being committed by his or her subordinates;
- ii) That the responsible commander failed to prevent or stop commission of the crimes by his or her subordinates;
- iii) And that the commander did not punish the subordinate after the fact.²³⁶

The above elements have been developed by courts over the years and they are the thumb rule when establishing command responsibility in any court.²³⁷ Now, the first two elements refer to commanders and subordinates, terms that have consistently been used to refer to humans, not machines.²³⁸ Furthermore and more importantly, the third element refers to the duty of the commander to punish his or her subordinates when they commit crimes.²³⁹ As I have mentioned above, machines have no moral agency and for obvious reasons cannot be punished.²⁴⁰ This shows clearly that when it was introduced and developed, the concept of command responsibility was and still is only meant to cover *human to human* relationships on the battlefield.²⁴¹ Of course concepts of law are sometimes extended and fine-tuned to cover and address new situations but in the case of AWS and the concept of command responsibility, this cannot and should not be done.

Thus, in regard to the concept of command responsibility and AWS, Peter Asaro also observes that:

233. JONES, *supra* note 25, at 424; Smidt, *supra* note 213, at 168–69, 176.

234. Rome Statute, *supra* note 46, art. 28.

235. Compare Rome Statute, *supra* note 46, art. 28, with Smidt, *supra* note 213, at 168–69, 176, and Commander, *supra* note 232.

236. Rome Statute, *supra* note 46, art. 28; see also Geneva Convention Protocol I, *supra* note 53, arts. 86(2), 87.

237. See, e.g., Prosecutor v. Delalić, Case No. IT-96-21-T, Trial Judgment, ¶¶ 338–40 (Int'l Crim. Trib. for the Former Yugoslavia Nov. 16, 1998), http://www.icty.org/x/cases/mucic/tjug/en/981116_judg_en.pdf; Prosecutor v. Galić, Case No. IT-98-29-T, Trial Judgment, ¶ 173 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 5, 2003), <http://www.icty.org/x/cases/galic/tjug/en/gal-tj031205e.pdf>.

238. See METTRAUX, *supra* note 16, at 5–11.

239. Rome Statute, *supra* note 46, art. 28.

240. See *supra* notes 81–83 and accompanying text.

241. See Geneva Convention Protocol I, *supra* note 53, at. 86(2) and 87; Rome Statute, *supra* note 46, art. 28; see also Asaro, *supra* note 5, at 700–01.

The nature of command responsibility does not allow one to abdicate one's moral and legal obligations to determine that the use of force is appropriate in a given situation. One might transfer this obligation to another responsible human agent, but one then has a duty to oversee the conduct of that subordinate agent. Insofar as autonomous weapon systems are not responsible human agents, one cannot delegate this authority to them.²⁴²

The only instance where the issue of command responsibility is relevant is when the commander or civilian who supervises the individual programming or deploying an AWS knew or should have known that his or her subordinate was programming or using an AWS in an unlawful manner and did nothing to prevent or stop his or her subordinate or punish them after the fact.²⁴³ This is just the same line of reasoning in relation to other weapons.

The argument I maintain in this case is that AWS should be weapons and those who deploy them are the warriors. From a legal perspective, AWS cannot and should not commit crimes. As Seneca observed, "a sword is never a killer, it is a tool in the killer's hands."²⁴⁴ Therefore, if this is a case of a warrior and his weapon, to establish liability of the combatant or fighter over the use of an AWS, the correct mode of imputing criminal liability is individual criminal responsibility.²⁴⁵ Command responsibility is restricted to the situation highlighted above, where a command of the person who used an AWS is liable for having failed to prevent, stop or punish his subordinate in relation to the use of AWS.

Nevertheless, as discussed above, AWS present serious challenges to the concept of individual criminal responsibility if they have full autonomy or high levels of autonomy to the extent that the weapon bearer is no longer exercising "Meaningful Human Control." Meaningful control over AWS by the fighter or combatant is thus emphasized. Michael Schmitt however, expresses a different view as far as control of weapons during their use is concerned. He states as follows:

The mere fact that a human might not be in control of a particular engagement does not mean that no human is responsible for the actions of the autonomous weapon system. A human must decide how to program

242. Asaro, *supra* note 5, at 701.

243. See Schmitt, *supra* note 108, at 33.

244. *Id.* at 1 (quoting Seneca).

245. Sassòli, *supra* note 15, at 324–25. Although Sassoli uses the term 'commander' to refer to the individual deploying the AWS, he supports the above noted argument when he states that

[i]t is obvious that a commander deploying autonomous weapons must understand how they function, just as for any other means and method of warfare. In my view, the responsibility of such a commander is not a case of—nor is it analogous to—command responsibility, but a case of direct responsibility, just as that of a soldier firing a mortar believing that it can land only on the targeted tank, but which will kill civilians he knows are following the tank. This is a question of the *mens rea*, intent and recklessness with which criminal lawyers are familiar.

Id. at 324.

the system. Self-evidently, that individual would be accountable for programming it to engage in actions that amounted to war crimes.²⁴⁶

Like Sassòli, Schmitt also ignores the problem of unpredictability of AWS with full autonomy or high levels of autonomy and functioning in unstructured environments.²⁴⁷ If followed to its logical conclusion, Schmitt's argument is that once one has programmed an AWS and deployed it, all the eventual actions of the AWS are attributable to the programmer or the individual deploying it.²⁴⁸ In this regard, Schmitt's argument suggests that programming of an AWS alone is sufficient control by the weapon user leading to responsibility for all ensuing acts.²⁴⁹ This idea has a chilling effect of throwing the important element of *mens rea* out of the window and putting in place some form of "strict criminal liability."²⁵⁰ It suggests that once programmed all actions of AWS are foreseeable.²⁵¹ This is arguably not true, since there can be situations where a combatant with no intentions to commit any crime programs and deploys an AWS to kill legitimate targets but the system ends up killing innocent civilians. AWS with full autonomy, for example, will make other important decisions once they are deployed—decisions that may not be in line with the intentions of the person deploying them.²⁵² The situation is even more horrendous where the system does not allow or need human intervention once it is activated. In those circumstances, establishing the important element of *mens rea* becomes difficult.

Thus, contrary to what Schmitt seems to suggest, the idea of control over the weapon one uses is central to their responsibility.²⁵³ For it to be meaningful control, programming alone is not sufficient. There is a need for some form of supervision after activation. Such supervision must be in real time. The actions of an Autonomous Weapon System must be well within the control of a human combatant who approves targets, prevent or abort missions whenever the situation requires.²⁵⁴

VI. INAPPROPRIATENESS OF THE PROPOSED CONCEPT OF 'SPLIT RESPONSIBILITY'

Arguments have been made that the control of AWS is done by various stakeholders, such as manufacturers, programmers, roboticists, and other players in the development of AWS²⁵⁵; therefore, the need to take into account a number of individuals when assigning responsibility for their actions.²⁵⁶ Other scholars have thus

246. Schmitt, *supra* note 108, at 33.

247. *Id.* at 16–17.

248. *See id.* at 16–17, 33.

249. *See supra* note 246–48 and accompanying text.

250. *See* Schmitt, *supra* note 108, at 33.

251. *Id.* at 16–17.

252. *See id.*

253. *See, e.g.,* Sassòli, *supra* note 15, at 324–25; Marauhn, *supra* note 20, at Part D.

254. Sassòli, *supra* note 15, at 323–25.

255. Heyns, *supra* note 1, ¶ 79.

256. *Id.* ¶ 81.

suggested the sharing and splitting of responsibility among all these actors.²⁵⁷

For example, in the 2014 Convention on Conventional Weapons expert meeting on AWS, the U.S. delegation suggested that “Meaningful Human Control” starts right from manufacturing of different components of AWS, programming of software up to the final deployment of autonomous weapon systems.²⁵⁸ Thus, there was a suggestion that in considering what “Meaningful Human Control” of AWS means, there should be a “capture [of] the full range of human activity that takes place in weapon systems development, acquisition, fielding and use; including a commander’s or an operator’s judgment to employ a particular weapon to achieve a particular effect on a particular battlefield.”²⁵⁹

In as much as the suggestion of splitting responsibility may sound attractive, I contend that it is misdirection. As noted above, these many players are responsible in their own capacity, individually, through command or corporate responsibility.²⁶⁰ Within those forms of responsibilities, there is no “splitting of responsibility” as it were.²⁶¹ In particular, if we are discussing the issue of the responsibility of the combatant or fighter over their use of a particular weapon—in this case, AWS—that responsibility cannot be split or shared with manufacturers for example. For the purposes of holding a combatant or fighter responsible for war crime, International Humanitarian Law and International Criminal Law is not concerned about the manufacturer of the weapon he or she used.²⁶² It is concerned about the bearer of the weapon; the one who chose to use that particular weapon.²⁶³ The reasoning behind it is that the combatant or fighter who is in control of the weapon and who makes choices regarding which weapon to use. Of course, as discussed above, this is not to say the manufacturer cannot be a co-perpetrator, aider or abettor of the crime if conditions are fulfilled. Those forms of liability, however, are not “splitting of responsibility”; persons are being held individually liable in their own capacity.²⁶⁴ Likewise, the same reasoning applies in connection with corpo-

257. Noel Sharkey, *Killing Made Easy: From Joysticks to Politics*, in *ROBOT ETHICS: THE ETHICAL AND SOCIAL IMPLICATIONS OF ROBOTICS* 111, 123–24 (Patrick Lin et al., eds., 2010); Sparrow, *supra* note 84, at 69–73.

258. *Closing Statement U.S.*, *supra* note 179.

259. *Id.*

260. Heyns, *supra* note 1, ¶ 79.

261. *See id.* ¶ 81.

262. *See infra* note 263 (noting the lack of reference to manufacturers).

263. *See Geneva Convention Protocol I*, *supra* note 53, art. 75(4)(b); Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), art. 6(2)(b), June 8, 1977, 1125 U.N.T.S. 609; Geneva Convention Relative to the Protection of Civilian Persons in Time of War, art. 33, Oct. 21, 1950, 75 U.N.T.S. 287; Convention (IV) Respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land, art. 50, Oct. 18, 1907; JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, *CUSTOMARY INTERNATIONAL HUMANITARIAN LAW* 1, rule 102 (2009); GENEVA ACAD. OF INT’L HUMANITARIAN LAW, *supra* note 8, at 25 (noting in footnote 159 that Heyns and other scholars’ approach on split responsibility is criticized “for violating the fundamental principle that no penalty may be inflicted on a person for an act for which he or she is not responsible”).

264. *See Rome Statute*, *supra* note 46, at art. 25.

rate responsibility which will be discussed below.

Therefore, a suggestion of “split responsibility” over the use of AWS by combatants or fighters is a dangerous attempt to conflate different modes of responsibility such as individual, command and corporate responsibility—modes that stand independently.²⁶⁵ From an International Humanitarian Law perspective, companies and their workers are not part of an armed conflict unless they directly participate in an armed conflict.²⁶⁶ This body of law is concerned with the combatant and his weapons, not the manufacturers or other individuals involved in the production of the weapon—unless of course they become a party by directly participating.²⁶⁷

VII. CORPORATE RESPONSIBILITY AND AWS

As already noted, the above is not to say that other players in the production of AWS such as manufacturers, engineers, roboticists, etc. are exonerated from any form of responsibility. There are other laws, ethics, and codes of conduct that govern them.²⁶⁸ Article 25(4) of the Rome Statute clearly provides that the provision relating to individual criminal responsibility, for example, shall not affect other forms of responsibilities in international law like state responsibility.²⁶⁹ This supports the argument which I highlighted in the introduction that forms of responsibility are complementary. They are not mutually exclusive or alternatives to the exclusion of the other.²⁷⁰ Thus, in her book titled *The Relationship Between State and Individual Responsibility for International Crimes*, Béatrice Bonafè observes that “state and individual responsibility are two separate sets of secondary rules attached to the breach of the same primary norms.”²⁷¹ She argues that it is important to understand them as “two different regimes, each of which aims to foster compliance with the most important obligations owed to the international community as a whole.”²⁷²

Other persons—natural and legal—involved in the production of AWS can be held criminally liable or sued under civil law.²⁷³ Corporate responsibility used to be the domain of domestic jurisdictions to the exclusion of the international com-

265. *Contra* Sharkey, *supra* note 257, at 123–24; Sparrow, *supra* note 84, at 69–73.

266. See T McCormack & A McDonald *Yearbook of International Humanitarian Law* (2006)84.

267. T McCormack & A McDonald, *Yearbook of International Humanitarian Law* 84 (2006).

268. Sassòli, *supra* note 15, at 325.

269. Rome Statute, *supra* note 46, art. 25(4).

270. BONAFÈ, *supra* note 132, at 3–4.

271. *Id.* at 24–25.

272. *Id.* at 241.

273. See Nadia Bernaz, *Establishing Liability for Financial Complicity in International Crimes*, in MAKING SOVEREIGN FINANCING AND HUMAN RIGHTS WORK 61, 63 (Juan Pablo Bohoslavsky & Jernej Letnar Cernic eds., 2014); ERROL P. MENDES, GLOBAL GOVERNANCE, HUMAN RIGHTS, AND INTERNATIONAL LAW: COMBATING THE TRAGIC FLAW 210–11 (2014); PENELOPE SIMONS & AUDREY MACKLIN, THE GOVERNANCE GAP: EXTRACTIVE INDUSTRIES, HUMAN RIGHTS, AND THE HOME STATE ADVANTAGE 205–10 (2014); Tara L. Van Ho, *Transnational Civil and Criminal Litigation*, in CORPORATE ACCOUNTABILITY IN THE CONTEXT OF TRANSITIONAL JUSTICE 52, 54–57 (2013).

munity.²⁷⁴ However, this is no longer the case since corporate responsibility is now the subject of International Law.²⁷⁵

A. International Law on Responsibility and Corporations

There used to be arguments that International Law is concerned about states; therefore, corporations and other entities are outside the purview of International Law.²⁷⁶ However, currently, there is a general agreement that criminal liability of corporations is well grounded in International Law.²⁷⁷ Treaties, general principles of International Law and customary International Law support that corporations are not immune from responsibility under International Law.²⁷⁸ For example, the European Convention on the prevention of terrorism provides in Article 10 that:

1. Each Party shall adopt such measures as may be necessary, in accordance with its legal principles, to establish the *liability of legal entities* for participation in the offences set forth in Articles 5 to 7 and 9 of this Convention.
2. Subject to the legal principles of the Party, the *liability of legal entities may be criminal, civil or administrative*.
3. *Such liability shall be without prejudice to the criminal liability of the natural persons who have committed the offences.*²⁷⁹

In furthering the argument that treaty law supports the criminal liability of corporations, Ralph Steinhardt argues that there is nothing, for example, in the drafting history of the 1948 Genocide Convention to suggest that the drafters did not intend to include corporations.²⁸⁰ That argument is premised on the fact that Article IV of the Convention provides that persons responsible for genocide must be punished “whether they are constitutionally responsible rulers, public officials or *private individuals*”.²⁸¹ Steinhardt argues that private individuals may include corporations since there is no suggestion that the referred “private individuals” should be humans.²⁸²

More directly, treaties proscribing development, transfer and stockpiling of

274. Steinhardt, *supra* note 10, at 508.

275. MENDES, *supra* note 273, at 210–11.

276. Steinhardt, *supra* note 10, at 510–20.

277. *See id.* (reasoning that arguments suggesting that corporations may not be subjects of international law since they are a creation of domestic laws are misdirected); *see also supra* note 273.

278. Steinhardt, *supra* note 10, at 520.

279. Council of Europe Convention on the Prevention of Terrorism art. 10, *opened for signature* May 16, 2005, C.E.T.S. No. 196 (*emphasis added*); *see also* United Nations Convention Against Transnational Organized Crime art. 10, *opened for signature* Nov. 15, 2000, T.I.A.S. No. 13127, 2225 U.N.T.S. 209; Convention on Combating Bribery of Foreign Public Officials in International Business Transactions art. 2, *opened for signature* Dec. 17 1997, 2802 U.N.T.S.1; International Convention on the Suppression and Punishment of the Crime of Apartheid art. I(2), Nov. 30, 1973, 1015 U.N.T.S. 243.

280. Steinhardt, *supra* note 10, at 521.

281. Convention on the Prevention and Punishment of the Crime of Genocide art. IV, *adopted* Dec. 9, 1948, 78 U.N.T.S. 277.

282. Steinhardt, *supra* note 10, at 521.

certain weapons transcend to the private sector which includes corporations.²⁸³ For example, Article 9 of the 1977 Convention on the prohibition of the Use, Stockpiling, Production and Transfer of Anti-personnel Mines provides as follows:

Each State Party shall take all appropriate legal, administrative and other measures, including the imposition of penal sanctions, to prevent and suppress any activity prohibited to a State Party under this Convention undertaken by *persons* or on territory under its jurisdiction or control.²⁸⁴

Notwithstanding that responsibility of corporations is pronounced in International Law, given the non-human nature of corporations, Ralph Steinhardt points out that there are various difficult technical questions that arise particularly in relation to corporations involved in the production of weapons:

When will the corporation be responsible for the acts of its human agents? When will a parent company be responsible for the acts of its subsidiaries and joint ventures, its suppliers and distributors, or its contractors? For those wrongs that require a mental element – *mens rea* – what does it mean for a corporation to have a mental state at all, and how would one go about proving what it is or was? And even if the corporation was in principle responsible, how could a punishment be devised and administered without punishing innocent third parties such as investors, customers, employees, or the public?²⁸⁵

Although there is no definite answer to some of these questions, the discussion below will attempt to map the way out with a specific focus on the responsibilities of corporations involved in the design and manufacturing of AWS.

B. Corporate Criminal Responsibility

A company that manufactures or designs AWS in a way that will violate the International Law can be held criminally liable.²⁸⁶ There is a number of jurisdictions providing for criminal sanctions against corporations that involve themselves in criminal conduct.²⁸⁷ A corporation can, for example, be charged with manslaughter and punishment ranges from the termination of operation licence, repara-

283. See, e.g., Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, *opened for signature* Apr. 29, 1997, 1974 U.N.T.S. 469; Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and toxin Weapons and on Their Destruction, *opened for signature* Apr. 10, 1972, T.I.A.S. No. 8062, 26 U.N.T.S. 583.

284. Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and Their Destruction art. 9, *opened for signature* Sept. 18, 1997, 2056 U.N.T.S. 211.

285. Steinhardt, *supra* note 10, at 508.

286. GENEVA ACAD. OF INT'L HUMANITARIAN LAW, *supra* note 8, at 22.

287. Mark Pieth & Radha Ivory, *Emergence and Convergence: Corporate Criminal Liability Principles in Overview*, in CORPORATE CRIMINAL LIABILITY: EMERGENCE, CONVERGENCE, AND RISK 3, 7–13 (Mark Pieth & Radha Ivory eds., 2011) (providing examples of such states as the US, Israel, France and the UK).

tions and deregistration.²⁸⁸

Corporate criminal responsibility is not, however, universally accepted as certain jurisdictions refute the fact that entities “with no soul to damn and no body to kick” can be meaningfully penalized for unlawful acts.²⁸⁹ More so, one of the challenges to corporate criminal responsibility is that in certain jurisdictions it is subject to limitations.²⁹⁰ For example, a corporation is only criminally liable when the conduct alleged was the intention of the top executive rather than some low level personnel.²⁹¹

Furthermore, some jurisdictions also exclude the criminal liability of corporations if the alleged conduct relates to military sanctioned developments or public functions related developments.²⁹² In such jurisdictions, corporate criminal liability for AWS manufacturing companies will face the same limitations.

C. Corporate civil responsibility

As mentioned above, one of the forms of remedies available to victims—in this case, victims of AWS—is reparations in the form of compensation. The victims can sue the responsible parties such as state agents who deployed AWS, persons involved in the development of such weapons such as manufacturers and programmers.²⁹³ However, suing a manufacturer may be difficult to sustain because the manufacturer or other individuals may not be directly linked to the harm suffered by the victim. Manufacturers of many different kinds of weapons are not necessarily liable when those weapons are used to violate the rights of other people.²⁹⁴ More importantly, “product liability laws are largely untested in robotics.”²⁹⁵ This means that for victims of AWS, launching a successful civil lawsuit will be an uphill task unless where it is clear that the corporation operated with *ma-la fides*.²⁹⁶

Both in a civil lawsuit and corporate criminal responsibility, the victim as-

288. GENEVA ACAD. OF INT’L HUMANITARIAN LAW, *supra* note 8, at 22.

289. Ralph G. Steinhardt, *Weapons and the Human Rights Responsibilities of Multinational Corporations*, in WEAPONS UNDER INTERNATIONAL HUMAN RIGHTS LAW 508, 508 (Stuart Casey-Maslen ed., 2014).

290. Geneva Acad. of Int’l Humanitarian L., *Autonomous Weapon Systems Under International Law*, 8 ACADEMY BRIEFING 22 (2014) (Switz.).

291. *Id.*

292. *Id.* at 22 n.140.

293. STEVEN R. RATNER ET AL., ACCOUNTABILITY FOR HUMAN RIGHTS ATROCITIES IN INTERNATIONAL LAW 272, 355 (3rd ed., 2009).

294. *E.g.*, 15 U.S.C. §§ 7901–7903 (2012).

295. Patrick Lin, *Introduction to Robot Ethics* in ROBOT ETHICS: THE ETHICAL AND SOCIAL IMPLICATIONS OF ROBOTICS, 12, 16 (Patrick Lin et al eds., 2012); See also Geneva Acad. of Int’l Humanitarian L., *Autonomous Weapon Systems Under International Law*, 8 ACADEMY BRIEFING 24 (2014) (Switz.).

296. See Brian F. Havel, *An International Law Institution in Crisis: Rethinking Permanent Neutrality*, 61 OHIO ST. L.J. 167, n.23 (2000).

sumes an onus to start a claim usually in a foreign jurisdiction.²⁹⁷ There are various jurisdictional technicalities and difficulties that the victim has to face in addition to monetary costs. Christof Heyns has questioned whether such an approach is equitable to the victim.²⁹⁸

There are four entry points at which responsibility of corporations can be articulated in International Law: at the point of design, at the point of manufacture, at the point of sale and transfer and at the point of the use of the weapon already discussed above.²⁹⁹ I am now going to address these in turn.

D. Corporate responsibility for the design of AWS

Corporate responsibility will attach clearly where AWS would be designed to violate International Human Rights and International Humanitarian Law or other relevant laws.³⁰⁰ For example, a corporate entity that intentionally designs an Autonomous Weapon System that once activated, “shuts out” the human controller while at the same time it is incapable of distinguishing civilians and combatants or engages in unlawful acts or cause unnecessary suffering.³⁰¹ The responsibility of corporations at this stage will be, in most cases, in terms of domestic laws where such corporations are registered. Nevertheless, as noted by Steinhardt, the challenge is that most weapons may not be specifically designed to violate International Human Rights Law or International Humanitarian Law; such weapons might have:

Sufficient dual uses to make them lawful at the design stage; moreover the design of such weapons without the actual deployment or operational use of the weapon might belong in the realm of sadistic fantasy before it triggered legal sanction. The *mens rea* or mental state for a violation is generally a necessary but insufficient condition for liability in the absence of some *actus reus*.³⁰²

The argument on the dual use of technology has been noted in relation to AWS.³⁰³ Various components of AWS have dual use making it difficult if not impossible to impose an obligation on states to proscribe the design of such components.³⁰⁴ The first part of Steinhardt’s statement is agreeable; however, the second

297. Geneva Acad. of Int’l Humanitarian L., *supra* note 290, at 24.

298. Christof Heyns (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), *Report of the Special Rapporteur on Extrajudicial, Summary, or Arbitrary Executions*, p. 15 ¶ 79, U.N. Doc. A/HRC/23/47 (Apr. 9, 2013).

299. Steinhardt, *supra* note 289 at 508, 531–32.

300. *Id.* at 531.

301. See Peter Asaro, *On Banning Autonomous Weapon Systems: Human Rights, Automation, and the Dehumanization of Lethal Decision-Making*, 94 INT’L REV. RED CROSS 687, 693 (2012) (addressing the ethical concerns related to lack of criminal accountability with AWS).

302. See Steinhardt, *supra* note 289, at 531.

303. See Matthias Bieri & Marcel Dickow, *Lethal Autonomous Weapon Systems: Future Challenges* (2014), Ctr. for Sec. Studies, *Analysis in Security Policy* 3, <http://www.css.ethz.ch/publications/pdfs/CSSAnalyse164-EN.pdf>.

304. See Presentation of Michael Biontino, *Expert Meeting Lethal Autonomous Weapon Systems*, 3

part in relation to *mens rea* and *actus reus* needs qualification. Where for example, there is a domestic criminal sanction against the designing of AWS that violates international law, the *mens rea* is the guilty mind to create such a design and the *actus reus* is the actual designing of the AWS—the *actus reus* is thus present. To that end, it would be possible to prosecute the designer in the circumstances without necessarily having to wait until that particular design is used to create the AWS or it being used to commit the actual crime.³⁰⁵

E. Corporate responsibility for the manufacture of AWS

The clear cut responsibility of the manufacturer at this stage is where the manufacturer chooses to manufacture weapons that are illegal *per se*—such illegality may be established in terms of treaty law prohibiting the manufacture or stock piling of that particular weapon.³⁰⁶ The weapon may also be illegal on the basis of customary International Law.³⁰⁷ In the case of AWS, this is tricky because AWS are not as yet proscribed by any treaty and there is no agreement as to whether they are prohibited under customary International Law. In the case where the manufacturer produces AWS which are not illegal *per se* but are then used illegally, this will not “trigger liability unless the company has substantial knowledge of the illegal use of that particular customer” as already indicated above when forms of perpetration such as planning, aiding and abetting were discussed.³⁰⁸ Thus a machete manufacturing company in India, for example, will not be liable for the use of the machetes in Africa unless it supplied the machetes to a customer in full or substantive knowledge that they were going to be used to commit war crimes. In that case, the manufacturer is liable for aiding and abetting.³⁰⁹

F. Corporate Responsibility for the Sale and transfer of AWS

Of course in terms of treaty obligations on the sale and transfer of weapons, it is the duty of the state to ensure that certain kinds of weapons are not sold or transported.³¹⁰ To that end, the state has an obligation to put in place measures that govern both natural and legal persons not to act in a manner that would be inconsistent with the international obligations of the state.³¹¹ Thus, where a corporation engages in conduct that is inconsistent with the hosting state’s international obligations like

(May 13–16, 2014), [http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/6035B96DE2BE0C59C1257CDA00553F03/\\$file/Germany_LAWS_Technical_Summary_2014.pdf](http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/6035B96DE2BE0C59C1257CDA00553F03/$file/Germany_LAWS_Technical_Summary_2014.pdf).

305. *See id.*

306. *E.g.*, Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction, Sept. 18, 1997, 2056 U.N.T.S. 211.

307. *E.g.*, Int’l Committee of the Red Cross [ICRC], *Customary IHL Rule 74. Chemical Weapons*, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule74 (last visited Oct. 8, 2016).

308. *See* Steinhardt, *supra* note 289, at 531.

309. *See* Steinhardt, *supra* note 289, at 532.

310. *See* Steinhardt, *supra* note 289, at 532.

311. UNITED NATIONS LEGISLATIVE SERIES, *Materials on the Responsibility of States for Internationally Wrongful Acts*, at 51, U.N. Doc ST/LEG/SER.B/25 (2012).

arms embargoes, for example, a state can choose various forms of sanctions against such a corporation discussed above.³¹²

G. Corporate Responsibility for the use of AWS

Where corporations are directly involved in military operations or where force is used, there are guidelines in terms of the liability of such corporations.³¹³ For example, and in relation to direct involvement in combat, military companies are of course liable for the weapons they use in combat.³¹⁴ However, stakes are different if the issue is where the weapon is used by other actors other than by the corporation in a direct manner. A question thus arises whether corporations can be held criminally liable for the use of weapons by fighters under the *lex specialis* of weapons—International Weapons Law.³¹⁵

In as much as corporate criminal liability is important, it is a separate issue and should not be conflated with individual criminal liability of the individual deploying or using a weapon during war time or law enforcement as already noted above.³¹⁶ The manufacturer and the combatant may not split or share responsibility for the final use of a weapon because that will dilute the responsibility that the latter must exercise over weapons they choose to use.³¹⁷ There is no weapon in use presently, where the user of the weapon—after committing a war crime for example—will say “*it was not me, something went wrong with my weapon; ask the manufacturer.*” The manufacturers and other players have their own responsibilities related to the producing of the weapon. Likewise, the warriors or fighters have their own responsibilities when using the weapon. However, as noted already, employees of these corporations may incur individual criminal responsibility.³¹⁸

Scholars like Marco Sassòli have questioned whether, in terms of International Humanitarian Law, roboticists and other actors can be held accountable for war crimes committed by AWS when they did their job before the armed conflict started.³¹⁹ Marco Sassòli considers it to be a tricky issue but, however, suggests that the

312. See generally, PUTTING TEETH IN THE TIGER: IMPROVING THE EFFECTIVENESS OF ARMS EMBARGOES (Michael Brzoska & George A. Lopez eds., 2009).

313. See Eric Mongelard, *Corporate Civil Liability for Violations of International Humanitarian Law*, 88 INT'L REV. RED CROSS 665, 667 (2006) (describing the legal basis for corporate liability for violations of international humanitarian law).

314. See ICRC, *The Montreux Document on Pertinent International Legal Obligations and Good Practices for States Related to Operations of Private Military and Security Companies During Armed Conflict*, (Sept. 17, 2009).

315. See Steinhardt, *supra* note 289, at 530.

316. See ICRC, *Customary IHL Rule 151. Individual Responsibility*, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_cha_chapter43_rule151 (last visited Oct. 8, 2016) [hereinafter ICRC Rule 151].

317. See Michael N. Schmitt & Jeffrey S. Thurnher *Out of the Loop: Autonomous Weapon Systems and the Law of Armed Conflict*, 4 HARV. NAT'L SECURITY J. 231, 278–79 (2013).

318. See ICRC Rule 151, *supra* note 316.

319. Marco Sassòli, *Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions and Legal Issues to be Clarified* (2014), 90 INT'L L. STUD. 308, 325 (2014).

individual who knowingly and intentionally programs an AWS to commit crimes is an “indirect perpetrator of the war crime committed during the conflict.”³²⁰ In the event that the person who is deploying the AWS is aware of the defect, then the programmer is considered to be an accessory to the crime.³²¹

Marco Sassòli’s proposition is correct and a close scrutiny of the modes of responsibility as developed by international tribunals and courts may even show that the issue is not tricky at all.³²² For the roboticist or manufacturer to be prosecuted for a war crime as a direct perpetrator, co-perpetrator, aider or abettor, there must be a direct link with the armed conflict in question and the legal requirements of *mens rea* and *actus reus* must be satisfied.³²³ Otherwise, where there is no direct link with the war crime in question, the manufacturer or the roboticist may be prosecuted under the general domestic criminal law.³²⁴

An example of the above proposition is where a manufacturer, aware of the existence of an armed conflict or an impending war (preparations for war) produces and supplies AWS to one of the parties to the armed conflict fully aware that the system is going to be used to commit war crimes.³²⁵ In that case, the manufacturer is not different from a political leader like Charles Taylor who aided the commission of war crimes and crimes against humanity.³²⁶

This example can be explained in terms of the British case of *Bruno Tesch et al*, where an owner of a firm, Bruno Tesch, his assistant Weinbacher, and a gassing technician, Drohishn, were charged with war crimes for supplying poisonous gas used in the killing of people in concentration camps.³²⁷ The charge specified that the accused persons fully knew what the gas was being used for.³²⁸ The prosecution particularly argued that the accused persons were war criminals because they knowingly supplied gas to an organization of a state which used it to commit war crimes.³²⁹ The gas so provided, or the formulas used to make it, may as well have been produced or formulated before the outbreak of the war, but that would not ex-

320. *Id.*

321. *Id.*

322. See ANDRE KLIP & GORAN SLUITER, ANNOTATED LEADING CASES OF INTERNATIONAL CRIMINAL TRIBUNALS: THE INTERNATIONAL CRIMINAL TRIBUNAL FOR THE FORMER YUGOSLAVIA 321 (2001) (emphasizing that the crux of attribution of responsibility over war crimes and other international crime is proving *mens rea*).

323. See *id.*; see also Trial of Bruno Tesch and Two Others, Case No. 9, Judgment, 93–104 (Mar. 8, 1946), <http://www.unwcc.org/wp-content/uploads/2013/03/Law-Reports-Volume-1.pdf>.

324. As argued above; see *id.*

325. See Trial of Carl Krauch and Twenty-Two Others, Case No. 57, Judgment, 168–72 (Aug. 14, 1947); see also Bruno Tesch, *supra* note 323, at 93–104.

326. See Prosecutor v. Taylor, SCSL-03-01-A-1389, Judgment, (Sept. 23, 2012).

327. See Bruno Tesch, *supra* note 323, at 93–104; see also MOHAMED ELEWA BADAR, THE CONCEPT OF MENS REA IN INTERNATIONAL CRIMINAL LAW 234–52 (2013); Klip & Sluite, *supra* note 322, at 321.

328. See Bruno Tesch *supra* note 323, at 93–10; see also IRYNA MARCHUK, THE FUNDAMENTAL CONCEPT OF CRIME IN INTERNATIONAL CRIMINAL LAW 134 (2013).

329. See Bruno Tesch, *supra* note 323, at 94; see also Badar, *supra* note 327, at 234–52.

cuse the accused persons from being part of a war crime as long as there is a direct link to the war crime alleged and *mens rea*.

Another scenario is when a manufacturer produces and sells AWS to a customer who is either a party to an armed conflict or becomes a party thereafter but without knowledge that the AWS are to be used to commit crimes. That manufacturer may not be charged for committing those specific war crimes because *mens rea* must be specific to the particular war crime alleged.³³⁰ However, if the AWS manufactured are illegal *per se*, the manufacturer may not be prosecuted for the specific war crime for lack of *mens rea* to the alleged crime but is still subject to prosecution under domestic criminal laws for example.³³¹

The above reasoning was particularly the argument that was raised by the Defense Counsel for Bruno Tesch and others.³³² In principle, counsel correctly argued that a war crime charge is not in blanket form but specific.³³³ Therefore, there is a need for specific intent. It is not enough to say that accused persons supplied toxic gas; the supply will only be considered to be part of the alleged war crime if the gas was supplied with the supplier's specific intention to contribute to the killing of humans in the concentration camps.³³⁴ Otherwise "to supply material which also had quite legitimate purpose is no war crime."³³⁵ In principle, the court agreed with the Defense Counsel noting, specifically that in order for the court to convict the accused persons of having committed a war crime, three points must be proved: that people were killed by gas in concentration camps; that the gas was supplied by the accused persons; and, that the accused persons knew the purpose for which the gas was going to be used.³³⁶

Likewise, in the U.S. case of *IG Farben, the Trials of War Criminals before the Nuremberg Military Tribunals*, employees of IG Farben—a German multinational corporation of chemical firms—Fritz Gajewski, in his capacity as Director of Agfa-Gevaert NV; Heinrich Hörlein, as the Head of Chemical Research; Christian Schneider, as the Head of Department in charge of nitrogen and gasoline production plant leaders Hans Kühne and Carl Lautenschläger; Wilhelm Rudolf Mann as Head of Pharmaceuticals, August von Knieriem, as Chief Counsel and Head of the legal department; intelligent plant police officers Heinrich Gattinea and Erich von der Heyde—were charged along with others of conspiracy to commit war crimes and crimes against humanity through participation by providing Zyklon B, the poison gas that was used at the extermination camps.³³⁷ The accused persons were ac-

330. See Trial of Carl Krauch, *supra* note 325, at 1168–72.

331. See above on corporate criminal responsibility.

332. See Bruno Tesch, *supra* note 323, at 98.

333. *Id.*

334. *Id.*

335. See Bruno Tesch, *supra* note 323, at 98; J Doria et al., THE LEGAL REGIME OF THE INTERNATIONAL CRIMINAL COURT: ESSAYS IN HONOUR OF PROFESSOR IGOR BLISHCHENKO 144 (José Doria et al. eds., 2009).

336. See Bruno Tesch, *supra* note 323, at 101; see also Badar, *supra* note 327, at 234–52.

337. See Trial of Carl Krauch, *supra* note 325, at 168–72.

quitted as the tribunal concluded that they reasonably believed that the gas they were providing was being used for lawful purposes.³³⁸

An important issue can also be noted from these cases; even provision of lawful material may constitute a war crime if the material is provided with full or substantive knowledge that it is going to be used for unlawful purposes.³³⁹

H. Case study: Use of weapons and corporate responsibility

Complicated issues of extra-territorial application of Human Rights and competence of courts in terms of jurisdiction always arise when foreign nationals are involved. To give a hypothetical case: A fictitious company called RoboAWS is registered in country A and is involved in the production of AWS. RoboAWS has branches operating in country B and C. It sells its products to country D which in turn uses the AWS against citizens of country E in the territory of country E. Relatives of victims who are killed unlawfully by AWS in country E are residing in country B and they bring a civil lawsuit against RoboAWS in the supreme court of country B claiming that RoboAWS aided and abetted country D by providing it with malfunctioning AWS.

Although of different facts, the above situation is similar to the *Kiobel* case that was brought to the U.S. Supreme Court in 2013.³⁴⁰ In this case, petitioners were a group of Nigerian nationals residing in the U.S.³⁴¹ They filed a law suit in the U.S. Federal Court against certain Dutch, British and Nigerian corporations.³⁴² None of the corporations are registered in the U.S.³⁴³ The petitioners sued under the *Alien Tort Statute 28 U.S.C 1350* (ATS) alleging that the corporations aided and abetted the Nigerian Government by enlisting it to violently suppress demonstrations by the Ogoni people who felt their environment was being polluted by the activities of the corporations.³⁴⁴

To that end, petitioners alleged that corporations helped in the commission of extra-judicial killings, crimes against humanity, torture and cruel treatment, arbitrary arrests and detention only to mention a serious few.³⁴⁵ In relation to the jurisdiction of the U.S. courts in such matters, the ATS provides that “the district courts shall have original jurisdiction of any civil action by an alien for a tort committed in violation of the law of nations or a treaty of the United States.”³⁴⁶ The legal question in this case was “whether and under what circumstances” the

338. *Id.*

339. *Id.*; see also Bruno Tesch, *supra* note 323, at 93–104.

340. See *Kiobel v Royal Dutch Petroleum Co.*, 133 S. Ct. 1659 (2013); see also Steinhardt, *supra* note 289, at 533–41 (analyzing the *Kiobel* case from the view of weapons responsibility of corporations).

341. *Kiobel*, 133 S.Ct. 1659, 1660–1677 (2013).

342. *Id.*

343. *Id.*

344. *Id.*

345. *Id.*

346. See United States Alien Tort Statute, 28 U.S.C § 1350 (2012).

US courts may recognize “a cause of action under ATS for violations of the law of nations occurring within the territory of a sovereign other than the US”,³⁴⁷ and consequently, whether the petitioners’ law suit can be entertained in the U.S. courts.

The court held that corporations can be found liable for human rights violations, and cannot be “harbored” when they have committed serious human rights violations.³⁴⁸ It also noted that there are certain serious crimes of international concern that obligate states to prosecute or remedy victims of such crimes.³⁴⁹ Such victims include of piracy, genocide, and crimes against humanity.³⁵⁰ To such crimes, the presumption against extraterritoriality is inapplicable because whoever commits such crimes becomes “enemy of mankind.”³⁵¹ However, the court found that the presumption against extraterritoriality was applicable in the present case.³⁵² It reasoned that there was no clear indication of extraterritorial application of the ATS in the petitioners’ case since all the relevant conduct took place outside the borders of the U.S.³⁵³ Consequently, the petitioners were denied relief in the U.S. courts.³⁵⁴ This was notwithstanding the fact that the concerned corporations were listed on the U.S. stock exchange and had offices in New York.³⁵⁵

In arriving at that decision, the U.S. Supreme Court reasoned that extraterritorial application will only be allowed where claims “touch and concern the territory of the U.S. with sufficient force to displace the presumption.”³⁵⁶ The court further stated that since both petitioners and respondents³⁵⁷ are aliens and remotely associated with the U.S., the “sufficient attachment” test was not satisfied,³⁵⁸ and as a result, the presumption against extraterritorial application must be respected as it is important because it avoids clashes between not only the judiciary and policy makers but also other sovereigns;³⁵⁹ that entertaining the petitioners and applying ATS “extraterritorially” would lead to a situation where U.S. citizens would be haled

347. See Gentian Zyberi, *The US Supreme Court Decides Kiobel: Denies Extraterritoriality for the ATS*, INTERNATIONAL LAW OBSERVER (Apr. 18, 2013, 12:13 AM), <http://www.internationallawobserver.eu/2013/04/18/the-us-supreme-court-decides-kiobel-denies-extraterritoriality-for-the-ats/?session-id=67d7533a494f702f31c230a26fb3c8fe>.

348. *Kiobel*, 133 S.Ct. at 1674–77 (Breyer, J., concurring).

349. *Id.*

350. *Id.* at 1672 (Breyer, J., concurring).

351. *Id.* at 1671 (Breyer, J., concurring).

352. *Id.* at 1669.

353. *Id.*

354. *Kiobel*, 133 S.Ct. at 1669.

355. *Id.*

356. See *id.* Examples of such issues are spelt out in the ATS and include piracy, which in the court’s view is fair game since pirates have been, from time immemorial, considered enemies of humanity.

357. See *Kiobel*, 133 S.Ct. at 1677 (Breyer, J., concurring) (the concerned corporations were however, on the US stock exchange and had offices in New York).

358. *Kiobel*, 133 S.Ct. at 1669.

359. *Id.*

before foreign jurisdictions,³⁶⁰ that the U.S., after all, is neither a “uniquely hospitable forum for the enforcement of international norms” nor the “*custos morum* of the whole world”;³⁶¹ and that allowing the court to entertain the case would lead the court into an arena of decision—making where it has no right, clearly violating the separation of powers doctrine.³⁶²

Ralph Steinhardt, and in view of the idea of holding corporations responsible for weapons they manufacture, criticises the U.S. Supreme Court’s interpretation of the ATS, and that such precedent may not be in the interest of victims in the future.³⁶³ He, however, notes that the ATS “offers a normatively and logistically superior approach to assuring that corporations are accountable for their role in weapons-related violations of international human rights law.”³⁶⁴

Now that AWS are a product of various companies with operations likely to be carried out across borders, it is foreseeable that some of the above challenges may be faced by victims who will attempt to file civil lawsuits against corporations. As such, states may not proceed to develop AWS on the basis that if things go wrong and individual criminal liability is impossible; victims can rely on civil lawsuits. In any event, very few victims will be able to afford such legal processes.

VIII. STATE RESPONSIBILITY AND AWS

Another facet of accountability over the actions of AWS is through state responsibility for violations committed by AWS. In terms of International Law, there are three ways by which the state will assume responsibility for the actions of AWS on the battlefield or wherever they are used:

(i) Where a state agent deploys – be it lawfully, unlawfully or extralegally – AWS which end up violating protected rights. This is so because the conduct of a state’s organs or agents is attributable to the state.³⁶⁵

(ii) Where, with the authorisation, “acquiescence, complicity or acknowledgment of state agents” a non-state actor deploys an Autonomous Weapon System which violates protected rights.³⁶⁶

(iii) Where a private party – like corporations in the production of AWS – without attribution to the state is involved in the production of AWS not up to the standard which in the end violate certain protected

360. *Id.*

361. *Id.* at 1668.

362. *Id.* at 1668.

363. See Steinhardt, *supra* note 289, at 509–10.

364. See Steinhardt, *supra* note 289, at 509–10.

365. See Int’l Law Comm’n, Rep. on the Work of Its Fifty-Third Session, U.N. Doc. A/56/10, at 40–42 (2001)[hereinafter *ILC Report*].

366. See ILC Report, *supra* note 365, at 42–43, 47–49, 52–54.

rights.³⁶⁷

Needless to say, for item i) and ii), the state is liable and has a duty to give effect to the rights of victims by providing reparations.³⁶⁸ The general rule to provide reparations whenever a state is responsible was well enunciated in the *Chorzow Factory case*, which held that as a principle of International Law, whenever there is a violation by the state, "reparation is the indispensable complement of a failure to apply a convention."³⁶⁹ This rule is also applicable to International Humanitarian Law violations.³⁷⁰

Of course in terms of state responsibility, reparations were understood to be applicable to a situation between two countries, where one state would pay reparations to another state.³⁷¹ There is, however, an acknowledgment of "the right of individuals to seek reparations directly from a state."³⁷² In any event, the Draft Articles on the Responsibility of States for International Wrongful Acts declare that its provisions are "without prejudice to any right, arising from the international responsibility of a state, which may accrue directly to any person or entity other than a state."³⁷³

With regard to violations by private parties, the state still has a duty to take diligent steps to protect its citizens from actions of private parties,³⁷⁴ and as such should investigate and prosecute private parties like corporations and rebel groups.³⁷⁵

There are two main reasons why the state should accept primary responsibility for AWS used by non-state actors and provide reparation to the victims. Firstly and as referred to above, the state has failed in its duty to protect the rights of persons within its jurisdiction whose rights were abused by the non-state actor.³⁷⁶ Secondly, in line with principles of fairness and non-discrimination, a state must not "discriminate against one set of victims because their rights were abused by a

367. This is where the State fails to regulate the conduct of a corporation registered in its territory for example.

368. See ILC Report, *supra* note 365, at 91–94; ICRC, JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW – VOLUME I: RULES, at 537 (2005); Hague Convention (IV) Laws and Customs of War on Land art. 3, Oct. 18, 1907, 36 Stat. 2277; Protocol Additional to the Geneva Conventions of 1949, Art. 91; Art. 2(3) of the ICCPR.

369. See the Case Concerning the Factory at Chorzów (*Germany v Poland*) Judgment, (1927) Permanent Court of International Justice.

370. See Art. 91 of Additional Protocol I to the Geneva Conventions; Art. 3 of the 1907 Hague Convention IV; Rule 149 of the ICRC Customary International Humanitarian Law Study (2005).

371. Geneva Academy, *supra* note 290, at 23.

372. Geneva Academy, *supra* note 290, at 23.

373. Art. 33(2) of the Draft Articles.

374. General Comment Number 31, CCPR/C/21/Rev.1 Add. 13, ¶ 8.

375. MS Soluman, *The international Criminal Court and rebel groups* 5 (2012); see also SEIBERT-FOHR, *supra* note 24, at 34, 36.

376. This is a duty that has been well-developed within the inter-American human rights system, for example. See the seminal decision in the *Velasquez-Rodriguez* case by the Inter-American Court of Human Rights, Series C, No. 4, 29 July, 1988, para. 172.

non-state actor.”³⁷⁷ Fairness and non-discrimination when dealing with victims are extremely important especially in post war scenarios where the state needs to achieve reconciliation amongst different groups. Thus, if the international community is going to insist on the development of AWS and their deployment, states assume the risk of bearing responsibility in cases where this technology ends up in the hands of irresponsible non-state actors.

If a case ends up in international criminal tribunals, victims can access reparations for violations perpetrated against them by non-state actors. This is because most international criminal tribunals or courts, the ICC, for example, have a victim’s fund.³⁷⁸ Where a leader of a rebel group is indicted by the ICC, victims who are admitted to participate in the proceedings have access to reparations irrespective of the fact that the violation was committed by a non-state actor.³⁷⁹

Commentators have also noted that AWS may affect the notion of state responsibility because AWS and other unmanned systems can be deployed in non-attributable ways.³⁸⁰ This may see states using force against each other in ways that are difficult to pin point the source of the armed attack. Furthermore, because of the unpredictability of AWS in certain circumstances, commentators have argued that some “states may be tempted to plead force *majeure* in order to evade international responsibility for an armed robot’s unforeseen ‘decision’, for example, to attack civilians.”³⁸¹

IX. CONCLUSIONS

The challenges that are posed by AWS as far as accountability of violations is concerned must be taken seriously. This is so because accountability is the crux of International Law—without accountability, we may as well forget about it. Not only does accountability counter impunity, it is the basis on which victims of international crime, violations of International Human Rights and International Humanitarian Law realize their right to a remedy.

Where a victim’s right is violated, he or she must be able to find a remedy through state responsibility, individual and command responsibility, civil and criminal responsibility of corporations. All these forms of responsibility are complementary to each other, each being important in its own right and therefore not

377. Baldo S & Magarrell L, *Reparation and the Darfur peace process: Ensuring victims’ rights*, *International Center for Transitional Justice* 13 (2007).

378. Rome Statute, *supra* note 46, arts. 75, 79.

379. *See generally* Questions and Answers: The Victims Trust Fund of the ICC, ICC, <http://www.iccnw.org/documents/FS-VTFC-FAQ.pdf>.

380. A/68/30532, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns, August 12, 2013, para. 14.

381. N Melzer, ‘Human Rights Implications of the Usage of Drones and Unmanned Robots in Warfare’, (2013) *European Parliament Directorate-General for External Policies* 39, http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/410220/EXPO-DROI_ET%282013%29410220_EN.pdf (accessed 23 December 2014).

alternatives to the exclusion of the other.³⁸² AWS—those with full autonomy or high levels of autonomy to the extent of no “Meaningful Human Control” after deployment—create accountability gaps in terms of individual criminal responsibility of weapon users.

As was discussed in this paper, that accountability gap can only be dealt with by making sure that humans maintain a “Meaningful Human Control” over AWS even after deployment. AWS must be developed in a way that they remain mere weapons in the hands of warriors. The potential accountability gap as far as individual criminal responsibility is concerned cannot be dealt with by splitting responsibility between the user of the weapon and other individuals who are involved in the production of AWS such as manufacturers, programmers and roboticists. These actors have their own individual responsibilities.

The notion of command responsibility is inapplicable to the relationship between a human and a machine or robot. AWS are not human subordinates—command responsibility is only applicable in the relationship between a *human commander* and his or her *human subordinate*. The relationship between AWS and the person deploying it must remain that of a *weapon* and a *warrior*. Referring to the person deploying an Autonomous Weapon System as the “commander” may thus be misleading. To that end, command responsibility only remains applicable to the extent that the human commander is responsible for the actions of the human subordinate deploying the AWS if he/she knew or ought to have known that the human subordinate was programming or deploying an Autonomous Weapon System in a way that would violate international law and failed to prevent, stop the human subordinate or punish him or her after the fact.

Other forms of accountability such as civil and criminal liability of corporations are important. However, in the case of AWS, they present various challenges to the victim who chooses to pursue such legal remedies. To this end, prosecution—at the instance of the state or international community—of the individual persons who commit crimes through AWS remains an integral and indispensable part of accountability.

382. See A Bianchi, *State responsibility and criminal liability of individuals in THE OXFORD COMPANION TO INTERNATIONAL CRIMINAL JUSTICE* 16, 18 (A Cassese eds., 2009). Bianchi, for example reiterates that “state responsibility and individual criminal responsibility are considered as distinct in international law.” See also the case of *Bosnia and Herzegovina v Serbia and Montenegro* concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide 173 (2007).