Journal of Infrastructure, Policy and Development 2024, 8(4), 3455.
https://doi.org/10.24294/jipd.v8i4.3455

Article

The responsibility of corporate actors involved in international crimes through autonomous weapons systems (AWS) before the international criminal court (ICC)

Jinane El Baroudy

Prince Sultan University, Riyadh 11586, Kingdom of Saudi Arabia; jbaroudy@psu.edu.sa

CITATION

El Baroudy J. (2024). The responsibility of corporate actors involved in international crimes through autonomous weapons systems (AWS) before the international criminal court (ICC). Journal of Infrastructure, Policy and Development. 8(4): 3455. https://doi.org/10.24294/jipd.v8i4.3455

ARTICLE INFO

Received: 27 November 2023
Accepted: 2 January 2024
Available online: 11 March 2024

Abstract: The use of autonomous weapons systems (AWS) has led to several opposing legal opinions regarding their violations of international law. The responsibility of the state, individuals, and corporations as producers, designers, and programmers is all being taken into consideration. If the decision to kill humans without "meaningful human control" is transferred to computers, it would be hard to attribute accountability for the actions of AWS to their corporations. Consequently, this means that corporate actors will enjoy impunity in all cases. The present paper indicates that the most significant problem arising from the use of AWS is the attribution of responsibility for its violation. Corporations are not subject to liability for the legitimate use of weapons under international law. The main problem with corporate responsibility, according to article 25 (4) of the Rome Statute, is that the provision only relates to individual criminal responsibility and that the ICC shall only have jurisdiction over natural persons. Nevertheless, corporations may be held accountable under aspects of international law. The paper proposes a more positive view on artificial intelligence, raising corporations' accountability in international law by historically linking the judging of business leaders. The article identifies aiding and abetting as well as co-perpetration as the two modes of accountability under international law potentially linked to AWS. The study also explores the main ambiguity in international law relating to corporate aiding and abetting of human rights violations by presenting the confusion on determining the standards of these 2 modes of liability before the ICC and International ad doc Tribunal. Moreover, with the new age of war heavily dependent on AI and AWS, one cannot easily and precisely ascertain who must be held accountable for war crimes because of the unanticipated facts in decision-making combined with the aiding or abetting of violations of international law. International law prioritizes the goal of ending impunity for the individual and largely neglects the need to achieve the same goal for corporate complicity. In sum, progress to regulate the use of AWS by corporate actors could be enormously helpful to the cause of ending impunity.

Keywords: autonomous weapons system—AWS; corporations; ICC; war crime; accountability; manufacturer

1. Introduction

The current use of autonomous weapon systems (AWS) by Turkey installing the 'Kargu' drones in Syria, Israel deploying 'drone swarms in Gaza', and Russia deploying 'KubBla' drones have become the focal points of legal debates surrounding the use of such systems (Nunes, 2022). The debate has recently become even more critical regarding the Russian-Ukrainian conflict. Unfortunately, when software replaces the human decision to kill, controlling the death of a group or the destruction of any village is a call to ensure all of a state's obligations and reparations. According to a report released in February 2022 by the pentagon, after working on projects that

enhance the autonomy of its weaponry, 14 technologies were listed that are thought to be essential for thwarting strategic competitors like Russia and China (Nunes, 2022).

"Trusted artificial intelligence (AI) with trusted autonomous systems" is essential to prevail over any potential war (Nunes, 2022). For this reason, this article aims to show that AWS and AI can be trusted to produce positive outcomes although some consequences or risks may occur when using them, just like any other weapon. And the responsibility for decisions on the use of weapons systems *"must be retained by humans since accountability cannot be transferred to machines."* (Grp. Governmental Experts, 2019). For that, international law has generally focused on whether military commanders, designers, or manufacturers should be held individually accountable in this situation. However, corporate agents are frequently far from the scene of internationals crime while assisting in their commission through their manufactured products or activities in previous domestic and international cases (de Leeuw, 2016). The notion of holding corporations accountable for their illegal actions, as a legal entity (Olson, 2015), is not widely acknowledged before the international courts which it can only extend its jurisdiction to individuals (Malik, 2017). As a consequence of this, it is necessary to look for other situations and to look to history, as described in the Nuremberg trials, in order to determine who should be held accountable for war crimes that are committed by a corporation using autonomous weapons (Winter, 2021). This article focuses on the corporate actors, such as the producers, the software, and the designers relating to AWS that would most likely be prosecuted for secondary liability such as complicity or aiding and abetting, in the commission of crimes by the combatants.

Hence, this poses the following issue: Does the corporate entity in question know or suspect that its operations have led to serious human rights abuses or international crimes? Proving Mens rea is a common issue in corporate criminal prosecutions; moreover, it is challenging to identify a 'guilty mind', especially in large corporations where such guilt is frequently dispersed across several persons and several states (Huisman and van Sliedregt, 2010).

Consequently, this paper applies to the two modes of 'corporate complicity liability' by requiring the Mens rea standard of secondary purpose or knowledge (Michalowski, 2014). Typically, corporate actors, as potentially principal perpetrators, *"are accomplices through their assistance to the commission of international crimes"* (de Leeuw, 2016). This article examines how various modes of liability have been construed by international criminal courts. It also applies pertinent legal principles to scenarios where corporate business operations are connected to the commission of international crimes related to AWS.

2. The Mens rea for aiding or abetting human rights violations through corporate agent activities for AWS

It is important to start that the *"conflicts typically involve more than just the combatants themselves. External actors encompass States, multinational crime syndicates, potential corporations, terrorists, and leaders of governments working in their capacity in a type of joint criminal enterprise"* (Chatham House, 2006; de Leeuw, 2016). According to the Rome Statute, *"A person shall be criminally responsible ... if*

that person ... commits ... a crime ... through another person, regardless of whether that other person is criminally responsible." (The Rome Statute, 1998). This type of accountability as war crimes is a recognized form of criminal liability through the doctrine of indirect perpetration (Winter, 2021). Article 25(3) (c), aiding and abetting in the commission, and article 25 (3) (d) contributing in any other way to the commission, might offer a pathway to corporate criminal complicity in international crimes. However, article 25 of the Rome Statute does not specify what constitutes this provision to commit a crime, or the forms of contribution for facilitating the commission of a crime required for aiding and abetting liability.

It is highly important to mention that criminal sanctions for war crimes involving autonomous weapons remain dependent on the application of International Humanitarian Law (IHL) obligations because till now there has been no alternative appropriate international agreement on weapons systems upon which to rely. Concerning corporate responsibility for the manufacture of AWS, one should note that a corporation is solely responsible for the situation in which the manufacturer decides to produce weapons illegal per se in terms of treaty law or customary international law (Chengeta, 2016) that prohibits the production or the stockpiling of that weapon (Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, 1997). So, when a manufacturing corporation fulfills the legal requirements to purchase specified weapons, the corporation is then essentially relieved of any liability it may have otherwise been responsible for (Boyle v. United Techs. Corp., 487 U.S. 500, 1998; Malik, 2017). Furthermore, it is indisputable that the manufacturers are not obligated to have any "duty of care" towards those who deploy the weapons in an armed conflict. In addition, a corporation responsible for the design of "AWS may face legal consequences based on their responsibility if they intentionally or recklessly program an autonomous weapon in a manner that violates (IHL). However, without any uncertainty, it is highly doubtful that an AWS would be intentionally programmed to commit war crimes. Moreover, it is more probable that a system, that has not been "*programmed to commit such crimes, could still be used in a way that results in the commission of these crimes"* (Schmitt, 2012). Thirdly, concerning corporations who sell AWS, in terms of treaty obligations imposed on the sale and transfer of weapons, it is the responsibility of a state to make certain that particular types of weapons are prohibited to be sold or transported. To this aim, the state is obligated to put in place procedures that control the corporation to ensure that they do not breach international law. Regarding corporate responsibility for the use of AWS, where corporations are directly engaged in military operations or where force is used, there are guidelines in terms of the liability of such corporations (Mongelard, 2006). Military council or the state bear full responsibility for the weapons they employ during armed conflict (Schmitt and Thurnher, 2013). Thus, states should be active in determining how to enforce stricter sanctions on corporations that engage in conduct that inconsistently violates international law. Therefore, due to limited options, it requires various legal bases to prosecute corporations for their involvement in international crimes (Huisman and van Sliedregt, 2010). In such an option, the corporation might be responsible for the liability of aiding and abetting (Chengeta, 2016; Materials on the Responsibility of States for Internationally Wrongful Acts, 2012; Steinhardt, 2014).

2.1. Analysis of the Mens rea standard for aiding and abetting accountability before international tribunals

Firstly, navigating any approaches of the international tribunal previously taken toward culpable modes of participation in the past is necessary to ascertain the accountability of corporations for their actions under international criminal law (Beard, 2014).

The international criminal responsibility of corporate executives as accomplices has long been recognized (Cassel, 2008) and some business agents have been prosecuted by the Nuremberg Military Tribunal for their involvement in international crimes (Kaleck and Saage-Maass, 2010). In the Zyklon B case, Bruno Tesch and two others were found guilty as accomplices to murder for providing prussic acid, which was used in the extermination of people, and in concentration camps. They were found to be aware of the intended use of the gas. (The Zyklon B Case, Trial of Bruno Tesch and Two Others, in Law Reports of Trials of War Criminals, 1947) However, in the IG Farben case, the judges determined that the corporate defendant could only be responsible if there was sufficient evidence of "*knowledge and active participation" i*n relation to the principal crimes (The I.G. Farben Case', Trials of War Criminals before the Nuernberg Military Tribunals under Control Council Law No. 10, 1952). In other words, these cases (The I.G. Farben Case', Trials of War Criminals before the Nuernberg Military Tribunals under Control Council Law No. 10, 1952) have already set the conditions for the initial classification of corporate involvement in the commission of international crimes: *corporate actors either directly commit such crimes or assist state actors in them by utilizing AWS* (Kaleck and Saage-Maass, 2010).

A key aspect of the ICTY (International Criminal Tribunal for the Former Yugoslavia), the ICTR (International Criminal Tribunal for Rwanda) (Judgment, Krajisnik, 2009), the Special Court for Sierra Leone, the Extraordinary Chambers for Cambodia, and the Special Tribunal for Lebanon (Bernaz, 2015) is that action toward corporations involves them being questioned for the reasons behind their remoteness from knowledge of an apparent crime and their attribution of other individual criminal acts (Judgment, Krajisnik, 2009).

However, the more contentious question is whether aiders and abettors must just identify that their conduct would facilitate the commission of a crime or if they harbor a purpose to facilitate the crime". To be responsible for aiding and abetting, an accused person must knowingly give the offender substantial assistance (Prosecutor v. Furundzija, 1998). It is noticeable on reviewing the B. Zyklon, that the Nuremberg Tribunals hold them responsible for aiding and abetting murder (Kaleck and Saage-Maass, 2010) even though they weren't there when the use of gas caused deaths in the concentration camps; thus, it was shown that they could still be held accountable for complicity (The Zyklon B Case, Trial of Bruno Tesch and Two Others, in Law Reports of Trials of War Criminals, 1947) and their clear knowledge of the commission of the crimes (Prosecutor v. Furundzija, 1998).

According to the line of adoption of the knowledge test by the standard of the ILC Draft Code (Draft Code of Crimes Against the Peace and Security of Mankind, 1996), the ICTY Trial Chamber in Furundzija states that: *"The Mens rea required is the knowledge that these acts assist in the commission of the offense."* (Prosecutor v.

Furundzija, 1998). Other decisions, such as Prosecutor v Tadic, require that the accomplice act with *"knowledge that the acts performed by the aider and abettor assist the commission of a specific crime by the principal."* This gives rise to the assumption that the statement, *"knowledge must refer to a specific crime,"* does not mean knowledge of the precise crime that would be or has been committed; rather, knowledge of the *type* of crime is sufficient (Michalowski, 2014), Blaskic equally concurs with the above quote from the Trial Chamber in Prosecutor v Furundzija that knowledge *of "the precise crime that was intended and which in the event was committed"* is not necessary and that knowledge that *"one of a number of crimes will probably be committed"* (Prosecutor v. Furundzija, 1998) instead is sufficient (Prosecutor v. Blaski, 2004).

Accordingly, it is crucial to enable the justice system to prosecute criminals before other tribunals as well (Farrell, 2010). This is because they have dealt with criminal leaders who have knowledge of the conduct of crimes through organizations and who are, in some way, remotely involved. Overall, the jurisprudence concerning the aiding of crimes must be stable and consistent.

Despite the difficulty involved, remarkably, some national jurisdictions include the criminal liability of a corporation. Before a Dutch court, businessman Frans van Anraat was found guilty of being complicit in war crimes committed by the Saddam Hussein regime by a Dutch court. Van Anraat knowingly delivered significant quantities of TDG, a precursor for mustard gas, to the dictatorship, *"fully aware of the expected use and the consequences thereof"* (van Anraat, 2007). The Court determined that van Anraat possessed at least the knowledge that it was highly likely for the mustard gas he prepared to be used against Kurds in their own country (Van Anraat, 2009). In another Dutch case, arms trader Guus Kouwenhoven was charged with providing weapons to Charles Taylor's military forces, which were then used to commit crimes during the Sierra Leone civil war. The court determined that the weapons supplied by Kouwenhoven had the potential to be utilized for unlawful activities and those that were not included in the charges (de Leeuw, 2016).

2.2. Confusion on applicability for Mens rea standard before ICC

The ICC has caused confusion with its adoption of the Rome Statute for the purpose test. Article 25 (3) (c) makes criminally responsible one who, "*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"* (The Rome Statute, 1998).

Furthermore, article 25(3) (c) of the ICC can change, replace, or limit established customary international law if it is to be interpreted as a purpose test for complicity in international crimes. As a whole, there are two criteria to determine whether a corporate agent is subject to criminal prosecution for their commercial actions under the double clause (de Leeuw, 2016). First, it must be determined if they have significantly contributed to a group's conduct of international crimes (de Leeuw, 2016). Secondly, participation may be provided by any member 'acting with a common purpose', "*regardless of whether that member personally commits any element of the crime"* (de Leeuw, 2016).

Moreover, knowledge is stated in the legal test in the same provision as the *"awareness that a circumstance exists, or a consequence will occur in the ordinary course of events."* The related term: 'intentional' can be construed as simply referring to the act of contribution in art: 25 (3) (d) (i), (ii) the content of art and 25 (3) (c), that which deals with 'intentionally provided assistance'. The knowledge of the contributor must be related to the 'specific crime' the organization plans to commit, not just to its broader illegal actions, goals, or the overall criminal activities or purpose of the group" (Farrell, 2010). In sum, the relatively low actus reus of any contribution is reinforced by the relatively high standard of knowledge.

Several variables can determine whether a corporate agent has the required knowledge of their contribution to fulfill the Mens rea standard under article 25 (3) (d) (ii) (de Leeuw, 2016). It is clear that it can be challenging to attribute knowledge to corporate agents due to the complexity of the corporate structure in which they work, including the reporting lines, communication channels, decision-making processes, and the division of duties and responsibilities. Additionally, complex corporate structures can give individual corporate actors plausible deniability even in cases where there are obvious connections between particular business operations and international crimes (de Leeuw, 2016).

Furthermore, if article 25 (3) (c) is read, as it must be, in the context of the 'object and purpose' of the ICC Statute, then this seems to be the only plausible meaning of the word 'purpose'. It also appears that the answer is found in Rome, where article 25 (3) (d) of the ICC Statute was created through the insertion of text from the International Convention on the Suppression of Terrorist Bombings, with slight modifications to it (Cassel, 2008). It is likely that the differences between common law and civil law lawyers, in addition to various linguistic interpretations, according to Professor Bassiouni, are the cause of the controversy. If this is the case, the terminology appears to be the same in both English and French: a 'purpose' test (Cassel, 2008) that was taken from the 'Model Penal Code of the American Law Institute'. However, this ambiguity should be 'interpreted in good faith' and in line with the common understanding of the provisions (Cassel, 2008).

In the context of AWS, it is necessary to address the challenge of establishing the existence of a common plan between a manufacturer and an individual responsible for deploying AWS, which ultimately results in the commission of crimes under article 25(3) (c) of the Rome Statute. Nevertheless, based on the legal precedent of aiding and abetting, the *"'aider and abettor is always an accessory to a crime perpetrated by another person' that requires a proof of the existence of a common concerted plan"* (Tadic, 1999). Therefore, a corporation that manufactures AWS in state A for instance, will not be held accountable for the use of the AWS in state B unless the AWS is delivered with full or substantive knowledge that it is going to be used to commit war crimes (Steinhardt, 2014). Secondly, if a manufacturer produces AWS that are used illegally, this will not "*trigger liability unless the company has substantial knowledge of the illegal use by that particular customer,"* for planning, aiding, and abetting (Steinhardt, 2014).

Concerning the use of AWS, the manufacturer and the combatant would be accountable for programming it to commit acts that qualify as war crimes. Both of them have to assume their responsibility for the use of AWS, but they may split the

responsibility for the crimes committed in the battlefield (Schmitt and Thurnher, 2013). If the manufacturer deploying AWS is aware of the use of AWS, it is considered an 'accessory of the crime' for aiding (Sassoli, 2014). However, in order to be charged with a war crime as a direct perpetrator, co-perpetrator, aider, or abettor, the roboticist or manufacturer of AWS must have a direct connection to the armed conflict in question and satisfy the legal requirements of Mens rea and actus reus (Trial of Bruno Tesch and Two Others, 1946). In that case, the manufacturer is no different from a political leader like Charles Taylor who aided the commission of war crimes and crimes against humanity (Prosecutor v. Taylor, 2012). Also, it can be explained in terms of the case of Tesch et al., the prosecution particularly argued that the accused persons were war criminals because they knowingly supplied gas to a state organization that used it to commit war crimes (Trial of Bruno Tesch and Two Others, 1946). However, if a manufacturer produces and distributes AWS without knowing that the weapons would be used to commit international crimes, one cannot be prosecuted for those specific war crimes because Mens rea must be specific to the particular war crime alleged (Chengeta, 2016). In addition, 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 potentially subject to prosecution under domestic criminal laws (Chengeta, 2016). 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.' 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 (Chengeta, 2016; Trial of Bruno Tesch and Two Others, 1946).

3. Corporate actors who participate in collective crime

One must recognize that combatants are seldom engaged in these conflicts alone. External actors encompassing entities such as governments, private criminal enterprises and corporations could act and commit a crime in a type of "joint criminal enterprise". Significantly, the Joint Criminal Enterprise (JCE) doctrine has been developing in the ICTY's jurisprudence since the Tadic case and has since been acknowledged by the ICTY, ICTR, Special Court for Sierra Leone (SCSL), and through an early judgment of the Extraordinary Chambers in the Courts of Cambodia (ECCC). This doctrine is important for the prosecution of corporate actors for international crimes (Farrell, 2010). The jurisprudence of the ICTY shows that when a group of persons with a 'common purpose' participate in criminal conduct, either collectively or by some of the group; as a whole, it results in them holding criminal responsibility. Furthermore, anyone who assists in the commission of crimes by a group of people or by some members of a group, while carrying out a common criminal purpose, may be held criminally liable (Tadic, 1999). Nevertheless, *"To prosecute the corporation for participation in collective action, it must be proved."* The three criteria of JCE liability are 'plurality of persons', 'the existence of a common plan, design, or purpose which amounts to or involves the commission of a crime provided for in the Statute", and 'participation of the accused in the common design' (Tadic, 1999). Regarding the objectives, these three standards consider the

perpetrator's intentions for committing the crime. If the perpetrator is in a position of responsibility in a military or administrative unit, has direct knowledge of the system of abuse, and "intends to further this common concerted system of abuse", that is another factor that has to be taken into account. Finally, additional actors in the common design, likely to assist in committing the perpetrator's activities as intended, are included in the common criminal design (Tadic, 1999).

3.1. Rejection of the JCE doctrine on corporate actors by ICC

Article 25 (3) (d) (ii) stipulates that corporate actors who contribute to the attempted commission of a crime by a group of individuals acting with a common purpose are capable of being held accountable for their actions, provided that the corporate actors were aware of the group's intention to commit the crime (The Rome Statute, 1998). This article on contribution liability is an effective method to convey the common purpose that corporate agents play as well as the criminal liability that is associated with the corporation. Due to the nature of corporate `agents' contributions to international crimes (Huisman and van Sliedregt, 2010), where they occur, it is often doubtful or difficult to prove whether the corporate agents involved had the requisite intent under art. 25 (a)–(c) to commit, order, solicit, induce, or aid and abet in the crime, or that they conducted their business *with the aim* to assist the principal perpetrators in the crime, as required under Art. 25 (3) (d) (i). In contrast to ad hoc tribunals, joint commissions are subject to a higher actus reus threshold at (ICC) (The Rome Statute, 1998), known as the requirement that the accused must have "joint control" over the crime (Judgement Mbarushimana, 2012). Even though the conduct of corporate agents can constitute a major contribution to the commission of international crimes, this is not sufficient to incur culpability for aiding and abetting or co-perpetration in accordance with the Rome Statute (de Leeuw, 2016).

The determination of whether or not a corporate agent related to AWS is subject to criminal culpability for the business activities that they engage in is dependent of a double test. To begin, it is necessary to determine whether or not his or her involvement in the commission of the international crimes committed by a group is considered a significant contribution (Judgement Mbarushimana, 2012). For instance, the corporate agents responsible can offer their corporate counterparts, who are responsible for committing international crimes, the provision of AWS, or the purchase of commodities. Any member of the group that contributes to their common purpose, *"Regardless of whether that member personally commits any element of the crime."* As a general rule, *"Mere background contributions with little effect are insufficient to generate liability"* in the context of the ad hoc tribunals (Ohlin, 2011). In addition, with regard to the contribution, it is important to emphasize that the act of contributing itself does not necessarily have to be illegal in accordance with the Statute. There are a variety of elements that determine whether or not the contribution of a corporate agent passes the actus reus threshold. When a manufacture is an important consumer of a state that is involved in the commission of international crimes in the course of business, that purchaser runs the risk of becoming an accomplice to the crimes if their business is used in the commission of international crimes, or if the purchaser ex post facto benefits from involvement in the commission of core crimes,

such as by laundering "blood diamonds" (Burchard, 2010). For the purpose of subparagraph (d), even certain sorts of activities provided the causal nexus on the criminal result can be proved from the evidence. In other words, even "neutral acts" such as "selling gas to those who are driving to the scene of the intended massacre" may be judged to constitute a "contribution" as in article 25 (3) (d) of the Statute. This is because the Statute defines "contribution" as "making a contribution." This interpretation is reinforced by the fact that subparagraph (d) does not expressly require the 'contribution' itself to be criminalized under the Statute (Sanikidze, 2012). The second component of the legal test is to establish whether the corporate agent make this contribution voluntarily, either with the knowledge that it would contribute to the commission of international crimes by a group or with the awareness that it will contribute to the commission in the normal course of events (de Leeuw, 2016).The question is whether the contribution is intentional, meaning that it was either made with the intention to further the criminal activity or criminal purpose of the group or with the knowledge that the group intended to commit the crime. If both of the criteria that were presented earlier are answered in the positive, it is only then possible for the contribution to a collective crime to result in individual criminal responsibility for the offenses that fall under the jurisdiction of ICC (Sanikidze, 2012).

Even in situations when there is a direct correlation between particular corporate actions and international crimes, the complex systems that exist inside of the corporations in question related to AWS may nonetheless be able to provide plausible deniability for individual corporate agents (de Leeuw, 2016). In relation to AWS, the JCE concept for collective criminality may be barely used when software engineers, business executives, military forces, and others collaborate to deploy autonomous weapons that result in violations of international law (Winter, 2021). However, sudden risks or bugs can become major problems when using AWS. In short, upon the use of AWS, the consequences should be of normal expectation and foreseeable between militaries and corporations, or the perpetrators; The criminals must be conscious that crime is a possible result even if the action is to serve a 'common purpose' (Winter, 2021). In other words, a closer examination of JCE reveals that its liability involves on those in charge of autonomous weapons in exceptional circumstances where a common criminal purpose is present and an intention to deliberately target civilians can be proven (Beard, 2014). Adoption of the severe requirements of Mens rea is not too complicated to be proven, but it is too challenging to attain any real accountability due to the production and use of AWS (Drake, 2021). Additionally, owing to the importance of the element of the common purpose of the joint criminal enterprise, it is also the interaction and collaboration between individuals—their joint action—as a group. All in all, it must be demonstrated that they work in concert or as a unit (Krajisnik, 2006; Vest, 2010).

While the issue of Mens rea centers on whether its application is standard: the standard of purpose or that of knowledge—the actus reus requires one to think about which standard to use, the standard of 'specific direction' or that of 'substantial effect' (Prosecutor v. Cearles Geankayhaylrdr, 2013). Furthermore, a participant can only be considered a co-perpetrator if he provides a concerted, significant contribution and can prevent a crime's execution by failing to make the agreement contribution. This action requires a test through a hypothetical judgment (Prosecutor v. Lubanga, 2014).

3.2. The problems of 'many hands' for AWS corporate actors

This instance illustrates the substantial contribution of a manufacturer to AWS and the government committing a war crime, in turn, significantly aiding the execution of a criminal objective. The conduct of corporate and governmental actors can be best illustrated by the mode of liability as represented here, supposing that the elements required for crimes against humanity or war crimes are clear (Farrell, 2010). In order to prosecute a corporate actor as a participant in a joint criminal enterprise, involving the forms of aid that could go through multiple 'middlemen' before reaching the main perpetrators of the crime, it is needed to follow a clear chain of prosecution (Farrell, 2010).

In addition, this assistance may appear in a supply chain where the difficulty of proving Mens rea depends on the complexity of the links in this chain. When it comes to the use of autonomous weapons, the manufacturer's membership in the majority of 'groups' makes it simple to ascertain their Mens rea (Winter, 2021). Certainly, the use of autonomous weaponry by one ethnic group in an attempt to wipe out another from their zone would undoubtedly still constitute ethnic cleansing, genocide, and other crimes (Winter, 2021). Surprisingly, the 'many hands' problem and the opaque process of software development make it difficult to demonstrate JCE as an element of proof. In order to avoid losing accountability at this last obstacle; state and corporate cooperation in the form of adopting black box technology and preserving the list of contributors to each system, would be crucial (Winter, 2021).

According to the ICC, the subjective element, or Mens rea, of co-perpetration by joint control over a crime, necessitates that the co-perpetrators are mutually aware and accept that execution of their common plan will lead to the identification of the objective elements of the crimes (Katanga and Ngudjolo Clwi, 2008). The level set is even greater than the common aim of both parties concerning the legal need for mutual knowledge and acceptance. As a result, there are requirements for it with regard to business leaders in the collaboration scenario. Realization of the objective elements of a coordinated essential contribution by each perpetrator of the crime gives them the ability to prevent the commission of the crime by failing to complete the task, making it even more demanding legally, and in terms of acquiring evidence (Vest, 2010).

The main challenge here comes from shedding light on how such a foreseeable requirement operates in the context of autonomous weapons and software developers. It is assumed that the corporation being held responsible for the predictable outcomes of a 'common purpose' is aware of it (Winter, 2021). Therefore, given that autonomous weapons are currently unable to adhere to the principle of distinction (Winter, 2020), or to use those weapons to illegally occupy the territory of another state when that territory holds civilians (Schmitt and Widmar, 2014), the violations of IHL seem to be objectively foreseeable. In contrast, if the common purpose is to employ an autonomous weapon to carry out a targeted killing (Schmitt and Widmar, 2014), it is foreseeable that it could potentially violate (IHL) since the corporation is unable to conform to the principle of proportionality (Winter, 2018). As a result, a logical presumption would be added to the programmers working for the military who are deemed to have anticipated the possibility of IHL breaches using autonomous weapons "as a result of pursuing the common purpose" (Winter, 2021). As Schmitt

and Widmar point out, *"While the weaponry and tactics of targeting continue to evolve with unprecedented advances in technology and innovation, the fundamental principles of targeting law will remain binding rules for the foreseeable future."*

Finally, it is uncertain that corporate actors would exercise the necessary level of control over a crime, that is required under this mode of accountability (Farrell, 2010).

4. Conclusion

It is clear that no one can ignore that the programs, the designers, and the manufacturers that substitute human decision-making on the battlefield have become the 'corporate power' (Smith, 2021). Therefore, it is imperative to regulate how corporations may be held accountable when their activity results in violations of IHL in order to prevent the accountability gap from widening further.

As discussed above, the core problem of AWS is to determine the legality of using AWS and to regulate the unforeseeable consequences of using these weapons. The legal framework for AWS is a must. The AWS has two legal issues which start by determining the legality of the weapons under international law and finish by stating how they will be employed. However, it should always be taken into consideration that even if an AWS is lawful, it can be employed unlawfully like any weapon in a war. In other words, if nobody can be held legally responsible for the use of AWS, it is useless to discuss illegality and ethics. An autonomous weapon system is critically important for states to act to show commitment to respect, protect, and uphold human rights and freedoms, thus one must be aware of the fast growth of armed conflict.

To sum up, corporate responsibility can be more easily established when the responsibility for defects in AWS can be clearly attributed to corporations. One should also note that regulation of foreseeable consequences and lowering the risks of bugs should be an obligation for any state to regulate and provide measures over the corporations. States have a responsibility to continuously assess new weapons as they are developed, from conception and design through technological development and prototype to manufacturing and deployment (International Committee of the Red Cross (ICRC), 2006). Further, the corporations related to AWS are responsible for upholding all relevant laws and respect for human rights from their aspect as a specialized part of society (Ruggie, 2011). Furthermore, states are required, and also interested in, putting all efforts possible into training their military forces on the complexities of AWS to guarantee adherence to the rules of war "under all circumstances." Designers and programming corporations must not only be knowledgeable about the capabilities of the system as to the complexities of the battlefield, but also be capable and responsible for encodement of the rules of engagement ROE.

This has been made clear through the first foundational principle of the General Principles on Business and Human Rights: *"States must protect against human rights abuse within their territory and/or jurisdiction by third parties, including business enterprises"* (Ruggie, 2011). This requires taking appropriate steps to prevent, investigate, punish, and redress such abuse through effective policies, legislation, regulations, and adjudication (Garon, 2022). To this aim, states should put in place

measures that control corporations to ensure their conduct is compatible with international law and human rights (Chengeta, 2016). This is very important to avoid being accused of recklessness due to the absence of due care by autonomous system programmers, and reasonable precautions taken by system makers, and operators (Königs, 2022). However, expecting such a high degree of dedication from states without also expecting comparable accountability from the designers and programmers participating in AWS implementation, is unfeasible. With this in mind, consideration must be given to the answer to one last question: Would the international community be willing to make such a change to the ICC Statute to make a corporation responsible for its acts? (Nunes, 2022). Finally, cooperation would be needed here to ensure that autonomous weapons are outfitted with black boxes to help the ICC or any international court to determine their involvement in international crimes. It could be suggested that these boxes would need to have associated name lists of all those who participate in the production of the code behind the operation of the machine. While states are unlikely to adopt these measures unilaterally, they may be open to them on a multilateral basis (Winter, 2018). According to Walzer, the deployment of autonomous technology is neither entirely ethically permissible nor completely morally undesirable. This is due, in part, to the fact that technology, like all military force, may be just or unjust depending on the context. It is essential to the international community to create a new set of norms to govern the use of these technologies and to incorporate them into international laws and treaties (Asaro, 2008). To conclude, when prosecuting corporations for complicity in international crimes, it is shown that the mode of accountability is incomplete. This is because an autonomous weapon *"would be nothing but a tool in the criminal hands of human agents" and this would make "responsibility ascription relatively unproblematic"* (Winter, 2021).

Acknowledgments: The author would like to thank Prince Sultan University for supporting this publication. Special acknowledgment is given to the Governance and Policy Design Research Lab (GPDRL) at Prince Sultan University (PSU) for their academic support to conduct this research.

Conflict of interest: The author declares no conflict of interest.

References

Beard, J. (2014). Autonomous Weapons and Human Responsibilities. Georgetown Journal of International Law 617.

Bernaz, N. (2015). Corporate Criminal Liability under International Law: The New TV S.A.L. and Akhbar Beirut S.A.L. Cases at the Special Tribunal for Lebanon. Journal of International Criminal Justice, 13(2), 313–330. https://doi.org/10.1093/jicj/mqv014

Bothe M. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction. Available online: https://legal.un.org/avl/ha/cpdpsucw/cpdpsucw.html (accessed on 25 February 2024).

Boyle v. United Technologies Corp., 487 U.S. 500 (1998). Available online: https://supreme.justia.com/cases/federal/us/487/500/ (accessed on 25 February 2024).

Cassel, D. (2008). Corporate Aiding and Abetting of Human Rights Violations: Confusion in the Courts. Northwestern Journal of Human Rights. 304.

Chengeta, T. (2026). Accountability Gap: Autonomous Weapon Systems and Modes of Accountability Gap:

Autonomous Weapon Systems and Modes of Responsibility in International Law.' Denver Journal of International Law & Policy Denver Journal of International Law & Policy, 45.

Court of Appeal in The Hague (Gerechtshof Den Haag). Judgement. van Anraat, 2007.

de Leeuw, L. (2016). Corporate Agents and Individual Criminal Liability under the Rome Statute. State Crime Journal, 5(2). https://doi.org/10.13169/statecrime.5.2.0242

Garon, L. M. (2022). When AI Goes to War: Corporate Accountability for Virtual Mass Disinformation, Algorithmic Atrocities, and Synthetic Propaganda. Northern Kentucky Law Review. 181.

Grp. Governmental Experts. Report of the 2019 Session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems. Available onlien: https://documents.unoda.org/wp-content/uploads/2020/09/CCW_GGE.1_2019_3_E.pdf (accessed on 25 February 2024).

Huisman, W., van Sliedregt, E. (2010). Rogue Traders: Dutch Businessmen, International Crimes and Corporate Complicity. Journal of International Criminal Justice, 8(3), 803–828. https://doi.org/10.1093/jicj/mqq040

International Committee of the Red Cross (ICRC). A guide to the legal review of new weapons, means and methods of warfare. Available online: https://www.icrc.org/en/doc/assets/files/other/irrc_864_icrc_geneva.pdf (accessed on 25 February 2024).

Kaleck, W., & Saage-Maass, M. (2010). Corporate Accountability for Human Rights Violations Amounting to International Crimes: The Status Quo and its Challenges. Journal of International Criminal Justice, 8(3), 699–724. https://doi.org/10.1093/jicj/mqq043

Königs, P. (2022). Artificial intelligence and responsibility gaps: what is the problem? Ethics and Information Technology, 24(3). https://doi.org/10.1007/s10676-022-09643-0

Krajisnik (IT-00-39-A), Appeals Chamber. Judgment. 2009.

Malik, S. (2017). Autonomous Weapon Systems: The Possibility and Probability of Accountability. Wisconsin International Law Journal, 35, 609.

Materials on the Responsibility of States for Internationally Wrongful Acts, at 51, U.N. Doc ST/LEG/SER.B/25, 2012.

Mbarushimana (ICC-01/04-01/10 OA 4). Judgement, 2012.

Michalowski, S. (2014). The "Mens Rea" Standard for Corporate Aiding and Abetting Liability—Conclusions from International Criminal Law. UCLA Journal of International Law and Foreign Affairs, 18, 237.

Nunes, A. S. (2022). Autonomous Weapons Systems and Deploying States. Making Designers and Programmers Accountable. University of Saint Louis.

Olson, D. (2015). Corporate Complicity in Human Rights Violations Under International Criminal Law. International Human Rights Law Journal.

Prosecutor v. Blaski, Case No. IT-95-14-A, Judgment, 54-64 (Int'l Crim. Trib. for the Former Yugoslavia, Appeals Chamber, 2004.

Prosecutor v. Cearles Geankayhaylrdr(Appeal Judgment), SCSL-03-01 -A, AC, SCSL, 2013.

Prosecutor v. Furundzija, Case No. IT-95-17/1-T, Trial Chamber, Judgment, 10 December 1998.

Prosecutor v. Kordid & Erkez, Case No. IT-95-14/2-T, Trial Judgement, 26 February 2001.

Prosecutor v. Lubanga, Appeals Chamber, Judgment on the appeal of Mr Thomas Lubanga Dyilo against his conviction, ICC-01/04-01/06 A 5, 2014.

Prosecutor v. Taylor, SCSL-03-01-A-1389, Judgment, 2012.

Sassóli, M. (2014). Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions and Legal Issues to Be Clarified. International Law Studies. 308.

Schmitt, M. N., Thurnher, L. (2013). "Out of the Loop": Autonomous Weapon Systems and the Law of Armed Conflict.

Smith, J. (2021). Challenging Corporate Power: Human Rights Globalization from Above and Below. Development, 64(1–2), 63–73. https://doi.org/10.1057/s41301-021-00292-2

Supreme Court of The Netherlands (Hoge Raad der Nederlanden). Judgement. Van Anraat, 2009.

Tadic (IT-94-1-A), Appeals Chamber. Judgment. 15 July 1999.

The United Nations War Crimes Commission. The Zyklon B Case, Trial of Bruno Tesch and Two Others, in Law Reports of Trials of War Criminals. 1, 1947.

Winter, E. (2018). Autonomous Weapons in Humanitarian Law: Understanding the Technology, Its Compliance with the Principle of Proportionality and the Role of Utilitarianism. Groningen Journal of International Law, 6(1), 183. https://doi.org/10.21827/5b51d56abd19e

Winter, E. (2021). The Accountability of Software Developers for War Crimes Involving Autonomous Weapons. University of Pittsburgh Law Review, 83(1). https://doi.org/10.5195/lawreview.2021.822