



**UNIVERSITY
OF TURKU**

Faculty of Law

Consequences for selling killer robots

The responsibility of war crimes committed by lethal autonomous weapon systems

Critical International Law and Technology

Master's thesis

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This thesis examines the war crimes that are committed by Lethal autonomous weapon systems (LAWS). The first research question is what war crimes could be committed by LAWS. The second research question is how a manufacturer or seller of arms can be responsible if LAWS commits a war crime. The purpose of the thesis is to fill the gap in research as this has only been researched little before. The thesis is both international humanitarian law and international criminal law. The theoretical basis of the thesis is critical theory, and it is examined with the methods of gaps, conflicts, ambiguities and blind spots. The methodology is based, for example, on the Jorge Esquirol article “Making the Critical Moves: A Top Ten in Progressive Legal Scholarship”. The most important sources of international law for the thesis are the 1949 Geneva Conventions, Arms Trade Treaty and the Rome Statute of the International Criminal Court. The existing academic literature is the basis of the thesis. For example, the article “Drones and Unmanned Weapons Systems under International Law” by Stuart Casey-Maslen.

The main conclusions of the thesis are that LAWS will most likely commit war crimes that are tied to the technology not being able to distinguish different targets and therefore attacking civilians or other objects that are unlawful to attack. The responsibility of the manufacturers and sellers of arms can be for aiding and abetting or direct responsibility for either individuals, states or corporations. Critically examined the biggest challenges are international law often requiring intent to deem someone responsible as well as the lack of political will to enforce the regulation.

Key words: LAWS, lethal autonomous weapons, war crimes, human rights, international law, international criminal law, international humanitarian law

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Tämä opinnäytetyö tutkii kuolettavien autonomisten aseiden tekemiä sotarikoksia. Ensimmäinen tutkimuskysymys on, mitä sotarikoksia nämä autonomiset aseet voivat tehdä. Toinen tutkimuskysymys on, miten aseiden valmistaja tai myyjä voisivat olla vastuussa, jos autonomiset aseet tekevät sotarikoksia. Työn tarkoituksena on täyttää tutkimusaukko, sillä aihetta ei ole tutkittu aikaisemmin. Opinnäytetyö perustuu niin kansainväliseen humanitaariseen oikeuteen kuin kansainväliseen rikosoikeuteen. Teoreettinen perusta on kriittisessä lainopissa ja metodina on aukkojen, ristiriitojen, epäselvyyksien ja sokeiden pisteiden etsiminen. Metodi perustuu esimerkiksi Jorge Esquirolin artikkeliin "Making the Critical Moves: A Top Ten in Progressive Legal Scholarship". Kansainvälisen oikeuden tärkeimmät lähteet työssä ovat vuoden 1949 Geneven sopimukset, asekauppasopimus sekä Kansainvälisen rikostuomioistuimen Rooman perussääntö. Opinnäytetyö pohjautuu aikaisempaan tutkimukseen. Keskeinen lähde on esimerkiksi Stuart Casey-Maslenin artikkeli "Drones and Unmanned Weapons Systems under International Law".

Opinnäytetyön keskeisiä päätelmiä ovat, että autonomiset aseet todennäköisesti tekevät sotarikoksia, jotka ovat sidoksissa siihen, että aseiden teknologia ei pysty erottamaan hyökkäyksen kohteita ja kohdistaa hyökkäyksen laittomasti siviilejä tai muihin vastaaviin kohteisiin. Aseiden valmistajien ja myyjien vastuu voi olla joko yksilöiden, valtioiden tai yritysten tasolla avunantoa tai suoraa vastuuta. Kriittisesti tarkasteltuna suurimmat haasteet vastuussa ovat usein kansainvälisen oikeuden vaatimus aikomuksesta teon takana, sekä poliittisen tahdon puute säädösten täytäntöönpanossa.

Asiasanat: LAWS, automaattiasemat, vastuu, sotarikokset, ihmisoikeudet, kansainvälinen oikeus, kansainvälinen rikosoikeus, kansainvälinen humanitaarinen oikeus,

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List of Abbreviations

AI	Artificial Intelligence
ATT	Arms Trade Treaty
ARSIWA	The Treaty on Responsibility of State for Internationally Wrongful Acts
ICC	International Criminal Court
ICJ	International Court of Justice
ICL	International criminal law
ICTR	International Criminal Tribunal for Rwanda
ICTY	International Criminal Tribunal for the Former Yugoslavia
IHL	International humanitarian law
IHRL	International human rights law
ILC	International Law Commission
IMT	International Military Tribunal; Nürnberg Tribunal
IMTFE	International Military Tribunal for the Far East; Tokyo Tribunal
LAWS	Lethal Autonomous Weapon Systems
UN	United Nations
UNGPs	United Nations Guiding Principles on Business and Human Rights

1 Introduction

This thesis examines the war crimes caused or committed by lethal autonomous weapons (LAWS) and the responsibility of arms manufacturers and sellers. This thesis is structured to move from the more general and theoretical aspects of arms trade and responsibility to practical aspects and approaches. The first chapter lays out the basis for the thesis and gives background information on the topic. Additionally, this chapter defines the research questions as well as the methods and theories and examines previous research.

1.1 Research questions and significance of the research

The focus of this thesis will be on the grave human rights violations, more specifically war crimes, caused by the arms using artificial intelligence and the responsibility of said violations. The research questions of the thesis are: What war crimes can lethal autonomous weapon systems commit and how can arms manufacturers and sellers be responsible if lethal autonomous weapon systems commit war crimes? I wanted to choose a topic that is relevant for the current legal debates and events happening around the world. The trading of arms as a whole is a topic that has been under-researched and under-regulated in international law compared to many other fields.¹ Responsibility regarding LAWS and war crimes has been researched as well as the responsibility of arms manufacturers and sellers. However, these topics combined have not been focused on in depth in previous research. Therefore, I wanted to help with filling this gap in research and bring a new point of view into it.

I have been especially interested in international criminal law (ICL), but I want to focus on different paths to responsibility in both public and criminal international law to get a more all-around view of the topic. Personally, for me the topic is very interesting because there seems to be many gaps in protecting civilians from conflicts. Providing arms for conflicts plays a part in it. The responsibility of that is, therefore, very interesting to me as well. The thesis is intended for the academic community and to be a part of the academic discussions on international humanitarian and criminal law. The goal is to bring more research into the topic as well as raise more discussion on IHL and ICL and to inspire more people to research related topics.

¹ Tan 2020, 2.

The thesis aims to take into consideration the different aspects of the use of autonomous weapons without necessarily making moral arguments on the use of the LAWS. There is a section handling the debate of whether war crimes are committed by LAWS which also touches upon the moral debate. However, that is only deliberated further in the conclusions.

War crimes committed by the rapidly developing LAWS have not materialized on a larger scale yet but there have been examples of states developing and testing the weapons. For example, there have been various unmanned weapon systems found in Ukraine.² It is a matter of time that the autonomous arms are going to get used regularly. Therefore, the topic should be researched and discussed more at the international level. Artificial intelligence (AI) is used in many different ways in warfare and arms. Weapons that are fully controlled by artificial intelligence are part of the future warfare. Even though the advanced use of independent AI is partly hypothetical in the present day, the responsibility of it is a relevant question that will have to be solved eventually. This thesis is focused on LAWS as these are weapons using AI that are being developed and manufactured already in the 2020s.³ LAWS committing war crimes is a topic that is at the centre of the discussion on the regulation of LAWS.

There are numerous armed conflicts in the world where human rights and international humanitarian law are not respected, and the perpetrators will never be held accountable. The trade of arms increases the availability of arms, and it has been proven to have an impact on human rights violations in conflicts.⁴ Artificial Intelligence is a rapidly developing field of technology that reaches all fields of law and life, including the arms industry and arms trade. Artificial Intelligence is a relatively new phenomenon in the arms industry, and it brings a new layer for conflicts. Responsibility for war crimes is harder to determine when there are more factors to be taken into consideration, and the source of the decision making is not clear.⁵

Even when most of the conflicts, and therefore war crimes, are not happening in the western countries, the most rapid development of AI is happening in the western countries and the superpowers like the United States, Russia and China. These are also the biggest manufacturers and sellers of arms in the world. Therefore, the issues around trading lethal

² Lee 2025, 1–2.

³ Ibid.

⁴ Summers 2012, 100–101.

⁵ Christie et al. 2024, 236–237.

autonomous weapons exceed the conflict areas. For example, The United States has been trading arms with countries that are suspected of committing grave human rights violations including war crimes.⁶ I wanted to explore the responsibility of the parties involved in the trade of arms especially regarding LAWS because there is little previous research on the topic and the situations on responsibility are more complicated than with traditional weapons. Especially when the countries that perform the violations have rarely faced consequences, it is interesting to research if there is a way for the parties to the arms trade to face consequences.

Critically examined, it seems quite clear that the enforcement of serious international human rights and humanitarian law violations is not effective. The responsible parties are rarely facing consequences for their actions. For example, states are not fulfilling their obligations to act on the arrest warrants of the International Criminal Court (ICC). Those can be seen to have more symbolic value as the court cannot prosecute without the accused being physically present. The symbolic value cannot be undermined as the public opinion affects the political will of the states. Regardless, it is important to research the existing international criminal law and international humanitarian law (IHL) principles on responsibility, as the reasons for the ineffectiveness are multifactorial and the existing regulations can be interpreted to fit many situations. The thesis is mostly focused on the international system in general with individual, state and corporate responsibility. However, the biggest manufacturers of arms, the United States, China and Russia, are taken into account more specifically.⁷ These countries are all developing LAWS and have been active in the debates regarding the regulation of autonomous weapons.⁸ The basis on the responsibility of these states is also theoretically similar, for example, as these countries are not states parties of the Rome Statute.

This thesis is on one hand part of a larger discussion on international criminal law and responsibility in international law and on the other hand part of the discussion on the development of artificial intelligence. The responsibility in the international criminal law is raising discussion widely and the issue of responsibility regarding international arms trade adds to that discussion. With the development of AI, the topic of lethal autonomous weapons is going to become even more relevant. In general, the use of AI and on what level it should

⁶ Clarke 1995, 90.

⁷ Summers 2012, 106.

⁸ Longpre et al. 2022, 50.

be regulated is a prominent part of academic and political discussion in which the arms industry is a part of.

The system of international arms trade around the world is tied to a wide variety of human rights violations from exploitation of labour and slavery to violations of children's rights. Most of the time the human rights implications regarding artificial intelligence include data protection and violations of privacy.⁹ AI can also be tied to human rights violations caused by the climate crisis. The thesis focuses on war crimes because these are the relevant crimes in the context of both Artificial Intelligence arms and LAWS. I also wanted to focus on one of the most serious crimes for which the role of LAWS is still under-researched. The defence-, war- and arms industries acquire new technology and try to develop it to gain as much benefit from it as possible. Many technological advancements have also been developed for arms and military use before becoming commonly used in civil society.

It is important to note that the illicit arms trade is a huge part of the global arms trade. There are unique traits to it that can be tied to the phenomenon of organized crime around the world. The industry is profitable and the degree to which an arms company is trading arms illicitly may differentiate depending on who the arms are sold to. There are also huge amounts of corruption within the industry.¹⁰ The same regulations, however, are in place for the war crimes and arms trade, so the thesis does not differentiate the legal and illicit arms trade in further chapters.

1.2 Methods, theories and previous research

I am going to examine the topic through critical legal theory. It is a broad theory, and it is based on a critical point of view of the existing structures and developments. The critical legal theory claims that law is not a neutral this, but that it has inherent biases and supports current power dynamics. It examines law and legal systems beyond the written law.¹¹ The basis of responsibility in international criminal law and public international law in general is in the sovereignty of states. The system and responsibility for crimes are dependent on the political will of the states. This constitutes a system where getting justice for the victims of the gravest crimes is nearly impossible as the interests of the states are not focused on it. Therefore, the

⁹ Greiman 2021, 50–54.

¹⁰ Lustgarten 2015, 574.

¹¹ Hunt 1986, 1–15; Critical Legal Theory, Cornell Legal Information Institute.

premise of the thesis is critical towards the existing system and assumes that there is something fundamentally wrong with the concept of responsibility in international criminal law and humanitarian law. The critical approach also critically examines the events that have led to the regulation and the system being the way they are currently shaped.¹² Technological optimism and pessimism are two ways to look at the rapid development of technology and the impact it has on the different fields of society. Both share a view that technology is a big part in determining life and society. However, the difference is in the stance on whether technological development constitutes a better society and fixes problems rather than causes them. The critical point of view brings a more pessimistic stance towards technological development of Artificial intelligence and its use within military and in arms.¹³

The thesis uses the gaps, conflicts and ambiguities method as well as the blind spots method as the research methods. The method of gaps, conflicts and ambiguities aims to reveal the lack of neutrality, naturalness and determinacy of law. In this thesis the method is used to spot the gaps in the regulation of the arms trade and the responsibility for the grave human rights violations. There are gaps, conflicts and ambiguities in all regulation and practice of international law. This is because most of the time the final text of the regulation is a product of many compromises.¹⁴

The blind spots method adds to the other method as it is aimed to show what crucial aspects of the regulation are excluded. The blind spots are things that have not been taken into consideration even if they should have been included in the regulation.¹⁵ Blind spots can be caused by several different factors in international law. For example, Kanetake argues that blind spots are caused by implicit biases. In the context of international law these biases materialize in the things that are deemed important in political decision making. Biases in prosecution and courts also cause blind spots, which is worth mentioning even when it is not in the centre of this thesis.¹⁶ The difference with gaps and blind spots is that the gaps in regulation are something that are left outside of some regulation on purpose. With the methods this thesis aims to find the responsible parties of the human rights violations caused

¹² Koskenniemi 2013, 239.

¹³ Korhonen 2023, 2–4.

¹⁴ Esquirol 2021, 1108–1110.

¹⁵ Ibid, 1110–1112.

¹⁶ Kanetake 2018, 209–213.

by the trade of LAWS. Also, the aim is to examine the gaps, conflicts, ambiguities and blind spots in the regulation and in practice.

Two examples of these gaps are the technological gap and the accountability gap. The technological gap between the global north and global south, or the developing and developed countries, is also something that the thesis will take into consideration. Most of the conflicts happen in the less developed countries but most of the artificial intelligence is developed along with the arms manufactured in the developed countries. This is a part of a bigger discussion on the technical gap and how the consequences of the development of AI are distributed around the world. For example, the international criminal court is often criticized in the public for taking more cases that deal with African conflicts and prosecuting African people more easily. The technological gap is something that helps with distinguishing that the western countries and other superpowers have control over selling most of the autonomous weapons in the world. Therefore, it is worth examining whether there is a possibility of getting accountability in the manufacturing states that are not actively participating in the conflict. Furthermore, most of the conflicts in the world are somehow militarily supported by the western superpowers. Therefore, there might also be a technical gap within the parties of the conflict. This is not a major theme in this thesis, but it is mentioned later.

The most important gap in the thesis is the accountability gap. This is because it applies both in purely theoretical review of the topic of responsibility but also within the practical responsibility. The thesis aims to find accountability gaps in the regulation, implementation and enforcement within arms trade of lethal autonomous weapons, especially for the war crimes committed by LAWS. Accountability gap is a concept that comes up constantly in the literature that deals with either LAWS or arms trade. This thesis aims to connect these two topics and find the accountability gaps, as well as other gaps, conflicts, ambiguities and blind spots, that are applicable for the research question and examining responsibility from the perspective of arms trade.

The themes of LAWS, arms trade and responsibility all have been topics in research and literature. The themes have been examined separately in significant amounts. For example, the responsibility of autonomous weapons is researched actively. Additionally, there is some research on the responsibility of arms trade and the trade of arms impacting human rights violations. As established before, the research is lacking the combination of these topics. There is little previous research or literature on the responsibility of trading LAWS. The

existing literature on autonomous weapons focuses mainly on how the arms work and how the arms are perceived in international humanitarian law. These are mostly theoretical as the autonomous weapons are not yet used in combat, apart from maybe some instances of partly autonomous weapons.¹⁷ Most of the literature takes the stance that lethal autonomous weapon systems are causing more human rights violations. The majority seemed to support regulations on LAWS or even its prohibition. The argument was that the technology is not developed enough to perform any fewer human rights violations compared to humans or to fix the discrepancies happening in the present.¹⁸

The lack of technical capabilities of LAWS was concurred in many pieces of literature, but I wanted to have sources that have opposite or otherwise different takes on the issues at hand. It was harder to find, but there are more positive takes on LAWS and arguments for the use of autonomous weapons. These pieces of literature are taking a more positive stance on the development of artificial intelligence used in autonomous weapons and argue on the behalf of using LAWS to reduce the deaths of combatants and civilians.¹⁹

1.3 Key concepts defined

The thesis deals with concepts that don't always have a strict or an established definition in international law or that have several definitions. These key concepts include lethal autonomous weapons, war crimes, arms manufacturer, aiding and abetting and direct responsibility. The definition of LAWS is a weapon system that works independently once activated by a human. LAWS can attack objects, systems and people without further human intervention. These are differentiated from unmanned aircrafts or drones that are operated by humans as those are not autonomous, as well as from autonomous antimissile defence systems as those are not lethal. A similar definition is used in many articles and other academic literature.²⁰ This definition is important to distinguish as there is not one precise universal definition that would, for example, be used in regulation. In addition to physical weapons, LAWS can be cyber weapons used in cyberattacks. These can cause lethal consequences, for

¹⁷ Lee 2025, 1–2.

¹⁸ Jiwaei 2025, 34–35.

¹⁹ For example, Forrest 2012.

²⁰ Russell 2022, 60–61.

example, by attacking the controls of nuclear plants.²¹ However this thesis will focus on physical autonomous weapons to narrow the definition down more.

War crimes are part of the gravest crimes in international criminal law and international humanitarian law. There is no one exclusive definition for war crimes and throughout history it has been used in different contexts. More traditionally war crimes have been defined as violations of the law of war, but this is too simplified and leads to varied answers. The concept cannot be only looked at from the point of view of already criminalized acts as the definitions need to evolve through times. To be an international war crime an act must be a serious breach of IHL.²² Serious breaches of IHL are defined in this thesis as serious breaches of the 1949 Geneva Conventions and additional protocols.²³ The Rome statute of the International Criminal Court article 8²⁴ has a definition of war crimes which includes grave breaches of the Geneva conventions as well as other serious violations of laws and customs applicable in international or non-international armed conflicts. There is a long list of examples of war crimes, some of which will be focused on later as the thesis examines what war crimes autonomous weapons are able to commit.

The trade of arms and arms transfers are defined according to the Arms Trade Treaty (ATT)²⁵ article 2 as exporting, importing, transiting, trans-shipping and brokering of arms. The requirement of arms transfer is that the ownership of the weapons is changed from one party to another. The transfers where a state moves arms beyond international borders but retains the ownership are not within the jurisdiction of the ATT. What the ATT definition does not express is whether the transfers need to be commercial in nature.²⁶ This is not hugely relevant for the scope of this thesis, but it creates an interesting gap within the treaty.

²¹ Forrest 2021, 121.

²² Hathaway et al. 2019, 54–55.

²³ Geneva Convention I: Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (1949), 75 UNTS 31; Geneva Convention II: Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (1949), 75 UNTS 85; Geneva Convention III: Treatment of Prisoners of War (1949), 75 UNTS 135; Geneva Convention IV: Protection of Civilian Persons in Time of War (1949), 75 UNTS 287; Additional Protocol I (API - 1977): Relates to the Protection of Victims of International Armed Conflicts, strengthening protection for civilians and limiting methods of warfare; Additional Protocol II (APII - 1977): Relates to the Protection of Victims of Non-International Armed Conflicts, applying to internal conflicts; Additional Protocol III (APIII - 2005): Relates to the Adoption of an Additional Distinctive Emblem (the Red Crystal).

²⁴ Rome Statute of the International Criminal Court (1998), 2187 UNTS 2.

²⁵ Arms Trade Treaty (2013), 3013 UNTS 1.

²⁶ Lustgarten 2015, 578–579.

Arms manufacturer and seller are concepts central to the thesis. Arms manufacturer is defined as the party that plans and manufactures the arms and codes the AI. The seller of the arms can be the same party as the manufacturer, but it can also be a third party. These parties could be corporations, states or individuals. With individual responsibility, the person in charge of deciding on the trade or the highest person to oversee the codes for the autonomous weapons, could be potentially held responsible. States and corporations are often parties of arms transactions, however, this thesis focuses mostly on state and individual responsibility with only one chapter examining corporate responsibility in the end. The other type of responsibility is “direct responsibility”.²⁷ This is more specific to autonomous weapons only, as the thesis tries to examine whether the arms manufacturer or seller could be directly the one responsible for the actions of the AI. If an autonomous weapon commits a war crime by attacking civilians, for example, could the manufacturer or coder be somehow responsible for it. This is a more hypothetical question that has not been previously researched much.

The main paths to responsibility that were found regard aiding and abetting or so-called direct responsibility. Aiding and abetting is prohibited in international criminal law by the Rome statute article 25(3)(c) with the following wording

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:

(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;

With this definition the thesis examines whether the arms manufacturer or seller providing and trading arms can be criminally or civilly considered aiding and abetting and whether the arms trade could be considered as providing means for committing a crime. Additionally, it can be examined whether arms trade can be classified to have direct responsibility through this article as facilitating the commission of a crime. The arms trade treaty provides regulation on direct state responsibility. Article 6(3) of the ATT states the following:

A State Party shall not authorize any transfer of conventional arms covered under Article 2 (1) or of items covered under Article 3 or Article 4, if it has knowledge at the time of authorization that the arms or items would be - 6 - used in the commission of genocide, crimes against humanity, grave breaches of the Geneva Conventions of

²⁷ Bryk and Saage-Maass 2019, 1134.

1949, attacks directed against civilian objects or civilians protected as such, or other war crimes as defined by international agreements to which it is a Party.²⁸

This provides a clear definition for the state responsibility in arms transfers. The article has a clause about the state being required to have knowledge about the possible crimes the arms will be used to commit. This, especially, is examined later in the thesis.

²⁸ Jørgensen 2014, 725.

2 Doctrinal basis

This chapter goes over the doctrines that are used and examines why these doctrines are chosen and important for the topic. The doctrine of sources examines both treaties and non-binding sources of international law relevant to the thesis. The doctrine of human rights examines and defines the grave human rights violations caused by LAWS and the trading of autonomous weapons. Lastly, the doctrine of responsibility is the doctrine that is the most central to the research questions. It is examined with the doctrine of jurisdiction as those are linked together strongly. There are several subjects that are relevant for the topic. These are individuals, states, corporations and international organizations, including courts and tribunals. On one hand, states and corporations are parties of the arms trade. On the other hand, international organizations and tribunals are on the side of regulating and prosecuting the possible crimes. The doctrine of human rights examines the implications different regulations and phenomena have on human rights.

2.1 Sources

The doctrine of sources examines the legal instruments, binding and non-binding, regarding the topic. In the Statute of the International Court of Justice (ICJ) article 38 there are listed the sources the tribunal applies in its work. These include, for example, international conventions, customary law, general principles and with some restrictions judicial decisions and highly qualified publications of law.²⁹ The conventions that are the most relevant to international arms trade and grave human rights violations are the arms trade treaty, the Hague Conventions and the additional protocols, the Rome statute of the International Criminal Court and the Statute of ICJ.

Arms have been valuable trade goods for centuries. The discussions on restricting arms trade internationally started after the first world war but stayed theoretical. The arms trade treaty (ATT) was established in 2013, and it entered into force in 2014 which was arguably a long time coming for a treaty. Critically examining the treaty does not solve the problems within arms trade but in many cases the symbolic power carries a meaning as well. The purpose of the treaty is a dual objective. It aims to regulate international trade and restrict the illicit trade

²⁹ Kennedy 1987, 2–4.

of arms as well as reduce human suffering and contribute to international and regional peace, security and stability.³⁰

Relevant principles of the ATT are the right to self-defence, peaceful settlement of international disputes, prohibition of the use of force and respecting and ensuring respect for international relations. Regarding human rights and respect for the international humanitarian law, the treaty prohibits the trade of arms if the arms would be used to commit or facilitate a serious violation of international humanitarian law or a serious violation of international human rights law which include war crimes. The limitation is taken into consideration when the exporting party has had knowledge of the likely violations at the time of authorizing the sale of the arms or items. These principles on international humanitarian law are written in articles 6 and 7 of the treaty.

There is little universal regulation on artificial intelligence. One example of the regulation is the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.³¹ The scope of the Convention is to cover activities that have the potential to interfere with human rights, democracy and rule of law. These activities are to be in the lifecycle of artificial intelligence. The challenge with the international regulation on artificial intelligence is the fact that the technology is developing very rapidly and the process of international regulation is very slow compared to that. There will be more new technology that would need to be regulated by the time the previous regulations have been established and entered into force. Therefore, there are gaps in the regulation regarding AI. There are currently no binding treaties regarding LAWS. The United Nations Secretary General has taken a stance against LAWS and called for the prohibition of them in international law. The UN Office for Disarmament Affairs has established a Group of Governmental Experts of the High Contracting Parties related to emerging technologies in the area of lethal autonomous weapon systems.³² The group has gathered to discuss at the Convention on Conventional Weapons meetings, but there have not been any substantive outcomes for a treaty.³³

³⁰ Jørgensen 2014, 722–724.

³¹ Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, Council of Europe Treaty Series No. 225.

³² United Nations Office for Disarmament Affairs, Emerging Challenges, Lethal Autonomous Weapon Systems.

³³ "UN: Start Talks on Treaty to Ban "Killer Robots", Human Rights Watch.

Regulation of war crimes is found in the Rome statute of the International Criminal Court and the 1949 Geneva Conventions. The Rome statute provides definitions for war crimes, it establishes the International Criminal Court and its jurisdiction and includes the obligation to criminalize war crimes and other violations in municipal law. The jurisdiction of the permanent criminal court, the prosecutors and the trial systems were established by a treaty. The previous international criminal tribunals were established by a United Nations security council resolution with the mandate from the UN Charter which could not be interpreted to mandate a permanent court. It is the most important treaty on international criminal law and established a system for enforcing it.

The Geneva Conventions on international humanitarian law are referenced in the articles of the Rome statute regarding war crimes. In the Geneva Conventions there is regulation on the treatment of sick and wounded, shipwrecks, prisoners of war and civilians. The conventions include the additional protocols that regulate the victims of international and non-international armed conflicts as well as the adoption of a third distinctive emblem. Out of these treaties and additional protocols the most important for this thesis are the IV convention on the protection of civilian persons in time of war, I additional protocol on the protection of victims of international armed conflicts and II additional protocol on the protection of victims of non-international armed conflicts.

The articles on Responsibility of state for internationally wrongful acts (ARSIWA)³⁴ include regulation on the responsibility for acts or omissions that are attributable to the state under international law and constitute a breach of international obligations. In the articles, a state aiding or assisting a breach of international obligations may be considered guilty of said breach if they have been informed of the circumstances of the breach. The thesis examines whether arms trade of LAWS could be considered aiding and abetting war crimes and, therefore, be considered as international obligations under the treaty.

Customary international law means non-binding regulations that may be written or otherwise largely consented to in the international community. The relationship between treaties and customary international law is a debated topic in international law.³⁵ For International Humanitarian law the long list of customary law is complementary to the Geneva Conventions. The customary regulations include more detailed regulation regarding

³⁴ Responsibility of States for Internationally Wrongful Acts (2001), General Assembly resolution 56/83.

³⁵ Tan 2021, 1–2.

international humanitarian law. Even when that and other customary law is not binding, it is still used in courts and tribunals. Throughout the years customary rules have gained importance especially in international humanitarian law as the customary include more specific regulation. The customary norms also help with the interpretation of the conventions when the treaty text is written in ambiguous way.³⁶ In a rapidly developing world, however, there is a benefit for more flexible regulation that can be interpreted to new situations easier compared to the slow process that treaty-making is.

The United Nations Guiding Principles on Business and Human Rights (UNGPs)³⁷ are customary norms for states and corporations. These principles include both state responsibility and corporate responsibility norms for business as well as norms regarding monetary remedies. The principles are general in their nature including, for example, the respect for human rights in the business processes and including an effective due diligence process.

2.2 Human rights

This thesis examines what human rights implications and violations the trade of lethal autonomous weapon systems is causing. War crimes are considered as human right violations. This is tied to the doctrines of sources and responsibility as those are closely tied to human rights. Human rights are both a political, moral and legal concept that is relatively newly regulated in international law. This thesis considers international humanitarian law and international criminal law to be extensions and parts of international human rights law (IHRL). This is because principles of international humanitarian law are largely there to reduce human suffering by regulating conflicts and violence. International criminal law focuses largely on human rights issues, like crimes against humanity and genocide. Therefore, these terms are used in similar contexts. There is evidence that a link between the availability of arms and human rights violations exists. Therefore, the arms trade impacts human rights directly.³⁸ With the arms that use AI this may not be as straightforward, therefore, the thesis is trying to find answers for this question as well.

³⁶ French 2006, 282.

³⁷ The United Nations Guiding Principles on Business and Human Rights – Implementing the United Nations "Protect, Respect and Remedy" Framework 2011,

³⁸ Summers 2012, 100–101.

Throughout the years it has been debated that there are problems with implementation of the rules of international human rights law and international humanitarian law.³⁹ Human rights go beyond regulation and theories. Human rights law has an impact for the political will and can help directly and indirectly to protect human rights. The realization of human rights may be different from reality, for example, Douglass describes IHRL as inconsistent.⁴⁰ The general critique of IHRL is mainly directed more at ICL and IHL.

There are different principles of International Humanitarian Law which the treaties and customary law are created to protect. In the context of this thesis the most relevant principles are principles of distinction, proportionality and military necessity. Those are important as LAWS are said to most likely violate these principles and breaking these will result in grave human rights violations, more specifically war crimes. The principles are used to determine whether use of weapons or a military action is lawful.

Principle of distinction is codified in the Additional Protocol I of the 1949 Geneva Conventions where article 48 states that the parties to the conflict should always distinguish civilian population and combatants as well as civilian objects and military objects.⁴¹ This rule is in place to ensure respect and protection for the civilians. Civilians are defined as all people other than combatants and members of armed forces. Combatant is defined in the third Geneva convention article 4 as people who are part of armed forces of the parties to the conflict, members of other militias belonging to a party of a conflict or inhabitants who on the approach of the enemy take up arms to resist invasion. If there is doubt of the status of someone, they should be considered a civilian.

Attacking civilians or civilian objects is in most cases unlawful under international humanitarian law. Under this fall indiscriminate attacks. Those are attacks that are not directed at specific military objectives, those which use methods which cannot be directed at specific military objectives or those attacks that may be expected to cause incidental loss of civilian life, injuries to civilians or damage to civilian objects.⁴² There are also weapons that

³⁹ D'Amato 1982, 1111.

⁴⁰ Douglass 2001, 134–135.

⁴¹ Quéguiner 2008, 161.

⁴² Ibid.

are considered inherently indiscriminate. There are efforts for banning these kinds of weapons in different conventions.⁴³

The principle of distinction also extends to people hors de combat and to objects that are protected by emblems. Hors de combat translates to people outside combats and is defined as a person who is in the power of an adverse party, has clearly expressed the intention to surrender or is unconscious, wounded or otherwise incapable of defending themselves.⁴⁴

Emblems are symbols that are meant to support vital resources and objectives such as food and medicine storages or hospitals. These are the red cross, the red crescent and the newest addition, the red crystal. Emblems in international law are established and heavily regulated in the 1949 Geneva conventions and the VII additional protocol. Intentionally attacking an object or a person that uses an emblem is a war crime.⁴⁵ In this thesis civilians, emblems and people hors de combat are brought up in the context of whether the AI in LAWS is capable of differentiating these from combatants and therefore acting in line with the principles of distinction.

Proportionality and military necessity are principles of international law that arise from the law of armed conflicts and that are relevant for the discussion regarding LAWS committing war crimes. In the customary international humanitarian law rules the concepts are defined as follows:

Rule 14. Launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated, is prohibited. ...

Rule 18. Each party to the conflict must do everything feasible to assess whether the attack may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.

Rule 19. Each party to the conflict must do everything feasible to cancel or suspend an attack if it becomes apparent that the target is not a military objective or that the attack may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.⁴⁶

⁴³ For example, the anti-personnel land mines are banned in the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel mines and on their Destruction.

⁴⁴ Rogers 2008, 219–22.

⁴⁵ Nwotite 2022, 2.

⁴⁶ Rogers 2008, 189–190.

The principle of proportionality is, therefore, defined quite strictly in the rule 14, but the rules 18 and 19 are written in a more flexible way. There are different levels of proportionality. It tries to prevent human rights violations and crimes from being committed. Within proportionality and military necessity, the line between lawful and unlawful is harder to draw, as the interpretations of military necessity can be quite different. In combat situations the commanders estimate the military necessity of the attacks and in many cases, it takes priority over human rights.⁴⁷ Therefore, there will be instances where the necessity and proportionality of the collateral damage need to be examined. Where the principle of distinction is strict and deliberate attacks on civilians are unlawful in most cases, the proportionality is not as definitive.⁴⁸

2.3 Responsibility and jurisdiction

The responsibility doctrine examines who is responsible in international law and how the responsibility or accountability can be achieved. The accountability of international law can be served for individuals, states or corporations. The types of responsibility that are examined are aiding and abetting, direct responsibility and corporate responsibility. The jurisdiction doctrine examines different types of jurisdiction and situations in which different parties have jurisdiction. Mostly the thesis focuses on the jurisdictions of international tribunals and universal jurisdiction of human rights violations.

The International Criminal Court prosecutes individuals for the four most serious crimes in international criminal law. These crimes are genocide, crimes against humanity, war crimes and crime of aggression.⁴⁹ This thesis will be focusing on war crimes. There have also been special tribunals that have prosecuted individuals before the establishment of the ICC. Example of this is the International Tribunal for the former Yugoslavia (ICTY).⁵⁰ The International Court of Justice deals with disputes between states and the mentioned crimes can be brought before the Court through disputes regarding treaties, for example.⁵¹

⁴⁷ Rogers 2008, 208.

⁴⁸ Ibid, 208–210.

⁴⁹ Rome Statute of the International Criminal Court, article 5.

⁵⁰ Benedetti et al. 2013, 19.

⁵¹ Llamazon 2008, 815–816.

For municipal courts, universal jurisdiction is a path to prosecute for grave human rights violations. This means that any state can try a perpetrator regardless of their nationality or the territory the crime had been committed. This has precedent cases in international law, and it is considered to be customary international law, though debatably. This can be a way to prosecute and try people even without the perpetrator or the crime having a national link. This means that the crime was not committed by a national or in the territory of the state prosecuting.⁵² However, universal jurisdiction is not enforced as it should be on paper. The states would have possibilities to prosecute perpetrators, but they are very rarely acting on it.⁵³ Universal jurisdiction in this thesis is examined alongside the states' political will to enforce international humanitarian law and international criminal law.

With Artificial Intelligence one of the most heated questions is who is responsible for the consequences when AI decision making goes wrong. There are moral and ethical problems in AI decision making that the programmers have tried to solve. These can lead to serious negative consequences. It becomes an especially hard question when the results of AI's actions are grave human rights violations or war crimes, for example. With weapons this is a real possibility, and it is evident that states, companies or other groups are not eager to admit that they are responsible for the violations.⁵⁴

Artificial intelligence also brings a new layer to an already complicated web of different parties in arms trade. The states must licence the arms regardless of whether the arms are manufactured by a private corporation or a state-owned corporation. This is usually restricted heavily, thus tying the process to the state. After that another state or party uses the arms against a third party, possibly causing damage to civilians and committing international crimes.⁵⁵ When AI is brought into this equation to make decisions or assist in the armed operations the responsibility is harder to point out. The thesis takes this into consideration as the party that coded the AI may have an impact on how it is used.

Civil and criminal responsibility can be distinguished from one another. Only individual humans can be held criminally responsible. There are always individuals who make the decisions for states, and they can be held responsible for the war crimes. There are different

⁵² Rabkin and Lerner 2022, 378.

⁵³ Ibid, 376–379.

⁵⁴ Acquaviva 2022, 92.

⁵⁵ Aksenova 2022, 380.

ways of punishing the parties responsible for war crimes. Most of these ways are forms of monetary punishments or settlements, as incarceration can only be used for criminal responsibility. Remedies for victims of human rights violations are forms of accountability that are used in civil and criminal instances.⁵⁶ In theory this works, however, in the case of grave human rights violations there may be too high a number of victims or nobody left to receive the possible remedies. Remedies are used as a form of responsibility especially in corporate responsibility.⁵⁷

In conclusion, the doctrines of sources, human rights, jurisdiction and responsibility are complimentary to each other in this thesis. The most important sources are the sources of IHL and ICL, especially the Geneva conventions, customary norms of IHL, and the Rome statute, as well as the arms trade treaty. These sources provide the basis of jurisdiction and responsibility in international law. War crimes are considered human rights violations as the criminalization of acts considered war crimes is meant to reduce human suffering. The principles of IHL are guiding the parties of a conflict to achieve the same goal. Responsibility and jurisdiction are doctrines that guide the practical enforcement of the rules and regulations. Both national and international courts play an important part in it.

⁵⁶ Cameron and Chetail 2013, 546–547.

⁵⁷ The United Nations Guiding Principles on Business and Human Rights – Implementing the United Nations “Protect, Respect and Remedy” Framework (2011), United Nations Office of the High Commissioner for Human Rights.

3 Jurisdiction for war crimes

This chapter goes over the paths to responsibility in different fields of international law as well as the different jurisdictions. First, the International Criminal Court is examined as it is an important court in the cases that deal with responsibility for international criminal law for individuals. Alongside this, the International Court of Justice, other international tribunals and national jurisdictions by universal jurisdiction are examined. International courts and municipal courts are complementary to each other in ICL. The Rome statute articles 1 and 17 establish this complementary nature and that national courts have the primary responsibility for ICL, this includes war crimes.

3.1 International Criminal Court

When talking about grave human rights violations like war crimes the individual criminal responsibility is mainly the responsibility of municipal courts. On an international level the International Criminal Court is the main source of responsibility on this. The ICC was established in 2002. The history and negotiations shed light to the way the ICC works in the present moment and how the responsibility of trading LAWS could be handled in the ICC. It is the first permanent international criminal court following several temporary international criminal courts that were established for specific events. These kinds of previous tribunals were the International Military Tribunal (IMT) and the International Military Tribunal for the Far East (IMTFE) known as the Nürnberg and Tokyo tribunals that followed the second world war. These tribunals were set up by the victors of the war, thus, the neutrality and independence of the tribunals was questionable. However, these tribunals were significant as the first places to prosecute and convict individual state representatives freely without the defence of immunity. Furthermore, those tribunals were the first time the responsibility of arms manufacturers and sellers was dealt with in international criminal law.⁵⁸

Later the international criminal tribunals of the former Yugoslavia (ICTY) and Rwanda (ICTR) following the Yugoslavia war and the Rwandan genocide in the 1990s were more established and neutral compared to the post-world-war tribunals. In the international community there was discussion on establishing a permanent criminal court under the United Nations very early on in the history of the organisation. The recent memory of the Holocaust

⁵⁸ Benedetti et al. 2013, 15–16.

gave the push to establish genocide among the grave human rights violations which lead to the establishment of the Convention on the Prevention and Punishment of the Crime of Genocide in 1948.⁵⁹ Throughout the years human rights organisations had pushed for the discussions for a permanent criminal court. However, only after the end of the cold war did the discussion gain back the momentum amongst states and the UN. The negotiations began in 1990 when the UN General Assembly turned to the International Law Commission to revive the considerations for a permanent international criminal court.⁶⁰ The history and establishment of ICC and the functions of previous international criminal tribunals can provide explanation on why the system works like it does.

All the previous temporary tribunals got the mandate from the UN Charter article 41. Those responded to specific conflicts that threatened international peace and security, therefore, those could be established by the UN Security Council resolutions. The permanent court had to realistically be established by a treaty which takes significantly more negotiations and resources than a security council resolution. The negotiations were led by a United Nations Ad Hoc committee. The process involved the states, the UN and NGOs that formed the global NGO Coalition for the International Criminal Court (CICC).⁶¹ The challenge in the negotiations was that the statute needed to establish a whole court without a basis of a constitution, therefore, the statute is like a piece of constitution, charter, body of law, jurisdiction and administrative law all at the same time.⁶² From the start of the negotiations and the committee meetings it was clear that there were profound differences as states all over the world had their own points of view and priorities considering the establishment of the court. Therefore, it is clear that the establishment of the court needed compromises.⁶³

The jurisdiction of the court and the Rome statute became a core issue within the negotiations as the balance between the universality and the broad jurisdiction of the court needed to be balanced.⁶⁴ Even in the present day this is still a core issue the court faces. This is relevant for the effectiveness of the court and to be able to prosecute those responsible for the grave human right violations. Therefore, this is also relevant for the thesis. During the negotiations

⁵⁹ Convention on the Prevention and Punishment of the Crime of Genocide (1948), 78 UNTS 277.

⁶⁰ Benedetti et al. 2013, 8–9.

⁶¹ Ibid, 17–21.

⁶² Ibid, 23–24.

⁶³ Schabas 2001, 13–14.

⁶⁴ Benedetti et al. 2013, 167–168.

on the jurisdiction of the court, the states that were in favour of less jurisdiction were the states that seemed to be unwilling to prosecute for the crimes in question and additionally these states expressed fear that the statute and the court infringed too much upon state sovereignty.⁶⁵

Some states were not taking any part in the negotiations while some were very active, and others were taking part with seemingly little to no intention to join the treaty once it would be established. The Netherlands was a state that took a huge role within the process as the head of the Ad Hoc committee was Dutch and early on the court was decided to be established in the Hague. The superpowers were good examples of the opposite approach as the United States, Russia and China did not end up ratifying the charter despite being part of the negotiations. The United States were active in negotiating for the jurisdiction of the court to have a slimmer jurisdiction in the name of universality. Because the negotiators wanted the United States to ratify the statute, there were compromises made to please the US.⁶⁶

According to part 2 of the Rome statute the jurisdiction of the court is only for the four crimes that have happened after the Statute entered into force or after a state has become a party to the statute. The preconditions for the court's jurisdictions are that the alleged crimes were committed on a territory, or the alleged crime has been committed by a national of a state party or a state that has accepted the jurisdiction. The court can exercise jurisdiction in situations where a member state or the United Nations Security Council refers crimes to the Prosecutor or when the Prosecutor independently starts an investigation.

In its short history the court has handled 34 cases, 24 of which dealt with war crimes.⁶⁷ None of these cases have dealt with arms trade or autonomous weapons. The cases on war crimes that have led to convictions have dealt, for example, with attacking civilians, destruction of property and the use of child soldiers.⁶⁸ However, LAWS and arms trade have not been handled in the court, separately or together, yet. As LAWS become more frequently used, it is possible that the ICC, or another international court, will handle a case regarding the responsibility of autonomous weapons committing crimes. This would be an important

⁶⁵ Benedetti et al. 2013, 167–168.

⁶⁶ Ibid.

⁶⁷ Cases, International Criminal Court.

⁶⁸ Ibid.

precedent for future cases as international tribunals often refer to previous cases in their judgements.⁶⁹

The ICC has faced critique both from the supporters and the opposers of the court. It is said that states alone are not sufficiently prosecuting the people who commit the most heinous crimes, like war crimes. Therefore, this was another reason the court was seen as a necessity. The court has been accused of being insufficient in its work. It took several years for the court to take its first case and there have been many crimes that have not been investigated or prosecuted in the ICC.⁷⁰ As much as the states have been deemed incapable of prosecuting war crimes, the state co-operation, or lack thereof, is a challenge for the court as well. Additionally, the court is criticised for focusing on human rights violations that happen in Africa. Majority of the cases of the court and all convictions for war crimes have been for crimes in Africa.⁷¹

3.2 International Court of Justice

The United Nations principal judicial organ is the International Court of Justice (ICJ). It is a court that can have jurisdiction over all the UN states, even though the jurisdiction is not automatic. The primary purpose of the court has been said to be securing peace and resolving disputes between states if these aims can be achieved through law. The ICJ, therefore, is the court for state responsibility cases. The court was established by the Charter of the United Nations and the Statute of the International Court of Justice.⁷² The preliminary difference between ICC and ICJ is that ICJ deals mostly with state responsibility, not individual responsibility. War crimes can have both state and individual responsibility. The difference is that state responsibility deals with disputes between states. Disputes between states can generally be for various different reasons, for example, violations of treaty provisions or other agreements between two or more countries.⁷³

The cases in ICJ are considered to have both political and scholarly importance. The rulings have solved disputes and have had actual impact. However, there has also been criticism of

⁶⁹ De Brabandere 2016, 21–22. In international law case law is not automatically binding, however, they are referred to often and the international courts align their judgements based on previous case law, unless there is a good reason to do otherwise.

⁷⁰ Khan et al. 2016, 244–246.

⁷¹ Ibid, 246–247.

⁷² Posner and Figueiredo 2005, 599–600.

⁷³ Llamazon 2008, 815–816.

the court. Mainly this has concentrated on the court being too politically motivated.⁷⁴ Some of the criticism is from the parties that have lost their cases, however, scholars have also raised criticism towards the court for this. After all, there is some research on the voting patterns of the judges, and the results show that the judges reflected their national interests in the votes.⁷⁵

As stated previously, the jurisdiction of the court is not automatic. There are three types of cases where the ICJ may have jurisdiction. The parties of a dispute may agree to submit the case to ICJ. There can also be a treaty that provides that the disputes regarding the treaty may be submitted to the ICJ. Depending on the treaty, this can be one-sided submission or require the consent of the parties of the dispute. There are also commonly clauses that dictate there must be negotiations before submitting the case to the ICJ. Last types of cases are disputes between states that have declared themselves to be subject to the compulsory jurisdiction of ICJ. Around 60 states have accepted the compulsory jurisdiction, but out of these states many have put in reservations regarding the jurisdiction.⁷⁶ The Geneva conventions do not have specific provisions regarding the ICJ jurisdiction. War crimes and other violations can still be referred to the court through other treaties and instruments, like the ARSIWA.⁷⁷ However, the ARSIWA also has its problems with implementation, as established.

It has been increasingly rare to refer cases to the International Court of Justice. There are many reasons for this. The process of the ICJ is long and expensive for the states that must go through it.⁷⁸ Cases regarding serious human rights violations, such as war crimes, are extremely politically charged and therefore, the process could be even harder than in so-called regular cases. Within treaty based jurisdiction, most treaties have clauses about negotiations before the case can be referred to the ICJ and oftentimes there is an option for arbitration before or instead of ICJ referral. This is both faster and more inexpensive for the states compared to the ICJ procedure. Another reason for this is the binding nature of the jurisdiction of ICJ. In traditional arbitration, the parties of the dispute have impact on who is

⁷⁴ Posner and Figueiredo 2005, 600.

⁷⁵ Ibid, 600–601.

⁷⁶ Ibid, 603.

⁷⁷ Cameron and Chetail 2013, 543.

⁷⁸ Posner and Figueiredo 2005, 604.

in the arbitration board. On the contrary, the decisions of the court are binding for the states even if the judgement is not in the interest of the states.⁷⁹

3.3 National and universal jurisdiction

As established, national courts have the priority responsibility for prosecuting war crimes. However, the municipal courts may not be capable of prosecuting for several reasons, for example, due to conflicts or lack of rule of law. In these cases, universal jurisdiction may be an option. The principle of universal jurisdiction means that regardless of the nationality of the alleged criminal or the territory in which the alleged crimes have been committed, any state has a right, or an obligation, to prosecute for the crimes. There is no need to show a connection to the prosecuting state. In national jurisdictions of most states this is required to be able to prosecute someone.⁸⁰ Despite there being some prosecutions using universal jurisdiction, the principle has mostly ended up being theoretical. One of the most known cases on universal jurisdiction is the arrest and prosecution of the former president of Chile, Augusto Pinochet, who was arrested in the United Kingdom.⁸¹ The relationship between universal jurisdiction and the ICC differs from state to state as states must determine whether they claim universal jurisdiction for their domestic courts and what will be prosecuted domestically. In western countries this is a norm.⁸²

There are no written law or treaties on universal jurisdiction as it is customary international law. The centuries old idea that the most heinous crimes could be prosecuted universally has been established as a part of customary rules regardless of it not being applied frequently.⁸³ Universal jurisdiction is not universally accepted and, like any rules in international law, it has its fair share of criticism. The worry with universal jurisdiction after the case of Augusto Pinochet was that different countries would start to try prosecuting the leaders of other countries. The opposers of universal jurisdiction feared it would constitute chaos and crisis in international affairs and diplomacy.⁸⁴

⁷⁹ Posner and Figueiredo 2005, 604.

⁸⁰ Hawkins 2003, 348–349.

⁸¹ Rabkin and Lerner 2022, 378–380.

⁸² Hawkins 2003, 348–349.

⁸³ Rabkin and Lerner 2022, 380.

⁸⁴ Ibid, 380.

There were discussions on using universal jurisdiction to prosecute, for example, president of the United States of America George W. Bush and Israeli Prime Minister Ariel Sharon for the violations of international law and human rights they caused. However, all of the discussions stayed theoretical, and no countries took the initiative. As established, these worries did not materialize, quite the opposite.⁸⁵ Those who are in favour of universal jurisdiction want to extend it to many different crimes and human rights violations. Logically, the opposers of universal jurisdiction usually want to limit the reach if not remove the principle entirely. States have applied universal jurisdiction mainly to serious war crimes, meaning grave breaches of the Geneva Conventions. For other human rights violations universal jurisdiction has not been endorsed so widely.⁸⁶

Depending on the crime in question, international criminal law either authorises states or imposes the obligation on them to prosecute international criminals and punish the people convicted of the most heinous crimes and the gravest human rights violations.⁸⁷ Many states, however, are not states parties of the ICC or a crime does not fall under the jurisdiction. For example, the ICC does not have jurisdiction if a war crime occurs by a person that is not a national of a state that is party to the Rome statute and the crime occurs in a territory of a state that is not a state party to the Rome statute. Therefore, universal jurisdiction might be the only way to prosecute international criminals in some cases, where the national state is also unable or unwilling to prosecute. Many states have incorporated universal jurisdiction into their municipal law to be able to prosecute for grave human rights violations that do not have a national link.⁸⁸ In national jurisdictions the definitions and domestic regulations differ greatly from one another. Arms and military materiel are sometimes distinguished. Military materiel can be something that is used in combat but is not a weapon. In this division it can sometimes be hard to determine whether something is considered lethal or a weapon.⁸⁹ Within LAWS it is clear that the weapon is considered an arm. However, the parts of the arms, for example, the AI technology or cameras, may be harder to determine.

⁸⁵ Rabkin and Lerner 2022, 378–379.

⁸⁶ Hawkins 2003, 348–349.

⁸⁷ Casey-Maslen et al. 2008, 217–218.

⁸⁸ Hawkins 2003, 348.

⁸⁹ Hamilton 2015, 4.

An example of the universal jurisdiction being used more broadly is the Rwandan genocide. There were over 100 000 people being suspected of taking part in the genocide.⁹⁰ The ICTR was established but due to the high number of suspects the court had no possibility to take all cases, therefore, only the highest-level commanders and politicians were taken by the ICTR. In Europe the European Court of Human Rights gave a precedent that refugees from Rwanda may not be exported back to Rwanda to be prosecuted due to the possibility of a capital punishment.⁹¹ Therefore, the only way to prosecute was to use universal jurisdiction. For example, Finland and Sweden prosecuted Rwandan citizens for genocide.⁹² That is not a situation that would realistically be happening with LAWS and war crimes. However, it is an example of a situation where the universal jurisdiction principle was the only thing that helped to prosecute some perpetrators and hold them accountable for their crimes.

To conclude this chapter, the national and international jurisdictions are complimentary to each other, however, the priority responsibility is on the national courts. There are many reasons why the national jurisdictions cannot investigate and prosecute war crimes. The international courts aim to have universality in their jurisdiction, however, it is hard in practice. Municipal courts can exercise universal jurisdiction where the war crime does not need to have a national link to the state that prosecutes.

⁹⁰ Straus 2004, 94–95.

⁹¹ *Ahorugeze v. Sweden*, European Court of Human Rights, 37075/09 (2011).

⁹² *Prosecutor v Bazaramba*, Supreme Court of Finland, KKO 2012:93 (2012).

4 Regulation on responsibility, lethal autonomous weapons and arms trade

This chapter aims to find theoretical answers to the research questions. First, the chapter aims to answer the question of what war crimes LAWS could commit. The first subsection examines whether using LAWS will lead to more war crimes and what arguments there are for and against the use of LAWS. Second, the aim is to answer the question whether the arms manufacturer or seller could be responsible for war crimes. This is divided into examining aiding and abetting, direct responsibility and corporate responsibility. The chapter aims to examine the regulations through the critical standpoint and find the gaps, conflicts, ambiguities and blind spots in it.

4.1 Debate on lethal autonomous weapons committing war crimes

In the scientific community the use and regulation of LAWS is not a straightforward debate. The main consensus within the international sphere seems to be that autonomous weapons are not a solution to the violations of international humanitarian law or international human rights law and should be either prohibited or at least heavily regulated. This is the first impression of many academic articles and reflects the discussions in the UN and negotiating treaties.⁹³ However, there is another school of thought that takes a more positive stance on the development of LAWS and is a lot more positive on the impact autonomous weapons may have.⁹⁴ The different takes on how LAWS affect these violations is an important topic to be addressed as the war crimes are said to either increase, decrease or take a different form. This differs greatly depending on the source and the background of the writer. This thesis uses the theory of technical optimism and pessimism to differentiate the takes on LAWS and war crimes caused by them. Technical optimism and pessimism argue the development and use of technology from different perspectives.⁹⁵ Additionally, in most cases there is a non-black and white middle-ground approach.

The side of technological optimism argues that humans already commit war crimes and that autonomous weapons could reduce the risk of war crimes happening. There are also

⁹³ United Nations Office for Disarmament Affairs, Emerging Challenges, Lethal Autonomous Weapon Systems.

⁹⁴ For example, Forrest 2012.

⁹⁵ Korhonen 2023, 2–4.

arguments that LAWS and humans commit different types of war crimes and the crimes committed by LAWS are part of inevitable collateral damage.⁹⁶ The technical optimism comes to these arguments as LAWS are claimed to prioritise the protection of individuals and require less human sacrifice from the attacker's side compared to more traditional weapons.⁹⁷ International law does not make the comparison between attacking forces losing combatants and the defending forces losing combatants, therefore, the argumentation is based on logical numbers rather than taking law and the whole situation into consideration.

LAWS are deemed to be the better option because AI does not require similar maintenance as people in combat. LAWS are claimed to have better identification accuracy and to make faster and more dispassionate decisions than humans.⁹⁸ From the perspective of international humanitarian law the term dispassionate can be interpreted in two ways. Either this means that AI does not have the mentality of enemies with pent-up emotions of anger or revenge. This may be good regarding proportionality and military necessity.⁹⁹ However, this can be interpreted as LAWS not having the same empathy and humanity as people do. This would mean that AI may not have the skills to interpret the situations, therefore, causing unnecessary suffering.¹⁰⁰ The ICRC has especially been arguing for the preservation of human control with this being one of the reasons for it.¹⁰¹

Another claim for LAWS is that a strength of autonomous weapons is that they require less communication between people. This subsequently means that compared to humans LAWS are more reliable in situations where communications abilities are compromised and the conditions are hard. In many combat situations the conditions are difficult for humans and communication systems are deliberately being sabotaged or listened to by the other side of the conflict, therefore, LAWS could help in eliminating those risks.¹⁰²

Most of the discussion, as established, is more pessimistic towards the development and use of LAWS. An example of the more pessimistic and wary take on the autonomous weapons is the International Committee for Robot Arms Control (ICRAC) which is a Non-Governmental

⁹⁶ Forrest 2021, 120–122.

⁹⁷ Ibid, 120.

⁹⁸ Ibid, 120.

⁹⁹ Ibid, 120.

¹⁰⁰ Casey-Maslen 2018, 224–225.

¹⁰¹ "Preserving human control over the use of force: A call to regulate lethal autonomous weapon systems under international law", International Committee of the Red Cross.

¹⁰² Forrest 2021, 120–122.

Organisation founded in 2009 consisting of experts of robotics in different fields of academia.¹⁰³ They have argued for the prohibition and otherwise heavy regulation of LAWS with their “stop killer robots” campaign. The public perception of LAWS is pessimistic, filled with fear of malfunctions and loss of control. This is especially prominent in the western society. Part of this has been explained with the ways different types of media portray modern weapons, but also with the majority of the academic community being critical towards the rapid development of LAWS.¹⁰⁴

The premise of the thesis is that arms trade plays a part in war crimes being committed. There have been studies and literature on the topic in general. Regarding lethal autonomous weapons there is no previous research. Madelaine Summers wrote an article on the arms trade treaty when it was in the draft process and in it she mentioned the connection between the availability of arms being a factor in violations of international humanitarian law. The sources were studies of Amnesty International and the International Committee of the Red Cross that regarded the availability of small arms. Those studies found that there is a relevant correlation between the availability of arms and violations of IHL.¹⁰⁵ This study was done with small arms which differ greatly from LAWS. LAWS are much less available for states or non-state actors, and as high-tech LAWS are mostly used and developed by well-equipped and wealthy armies with money. Even though the manufacturing of LAWS has gotten easier, cheaper and more accessible, LAWS require more knowledge with more complex systems compared to regular un-autonomous weapons.¹⁰⁶ There are several actors in the arms trade. This is hard for international criminal law as there needs to be provable direct liability. Direct liability is very hard to prove, therefore, it is more likely that the individuals will be examined more as key decision-making individuals.¹⁰⁷

Quickly touching upon the ethical debate on the use of LAWS even when the questions are not deliberated further. The baseline for all ethical and moral debates is that all human life is equal, and the less lives lost the better. The argument in favour of LAWS has been that the use of these weapons means that there are less combatants needed for attacks. Therefore, less combatants are potentially losing their lives. The ethical question is multifaceted as

¹⁰³ About ICRAC, International Committee for Robot Arms Control.

¹⁰⁴ Phillips 2025, 2.

¹⁰⁵ Summers 2012, 101.

¹⁰⁶ Longpre 2022.

¹⁰⁷ Hamilton 2015, 1.

international law protects the lives of civilians. The question is whether it is better to lose civilian lives using LAWS if it reduces the number of lives lost or is it better to lose more combatant lives and spare civilians.

4.2 War crimes committed by lethal autonomous weapons

Regarding the violations of human rights and international law, LAWS and war crimes are relatively well researched together. There is debate on the risk of war crimes committed by LAWS as established. This chapter examines the most likely war crimes to be committed by LAWS and the principles of international law that are most likely to be broken by LAWS. The most important principles of international humanitarian law that are most likely going to be violated by LAWS are the principles of distinction, military necessity and proportionality.¹⁰⁸ In international law of armed conflicts people are divided into civilians and combatants, according to the principle of distinction. These are defined in the Geneva Conventions.¹⁰⁹ This is because there are different rules of war based on the object that is the target. In majority of the cases, it is considered a war crime to deliberately attack civilian targets and civilians. Civilians and combatants should be distinguishable from each other and the attacker should have to know if something is a civilian target.¹¹⁰

The principle of proportionality is something that affects both civilians and combatants, unlike most rules of international humanitarian law as there is little that protects the combatants of a conflict. Proportionality in the context of arms means that weapons that cause unnecessary harm or superfluous injury are against international law. An example of this is exploding bullets. Those are seen to cause unnecessary harm as they cause serious injuries without bringing efficiency to the combat when compared to regular bullets. Proportionality also includes forbidding to attack persons hors de combat, meaning people that are outside the combat or not considered combatants anymore. This category includes people who are defenceless due to, for example, a shipwreck, an injury or a wound, unconsciousness or have clearly expressed an intention to surrender.¹¹¹

¹⁰⁸ Casey-Maslen 2018, 217–220.

¹⁰⁹ For example, III Geneva Convention, article 4.

¹¹⁰ I Additional Protocol to the Geneva Conventions, article 44(3).

¹¹¹ Casey-Maslen 2018, 217–220.

The worry with autonomous weapons as it is debated whether artificial intelligence can be trained to distinguish these from one another.¹¹² The distinction is in the very centre of most of the possible war crimes that are examined in this thesis. There are ways in which civilians and combatants are easily recognized. However, as conflicts are increasingly more frequently battled where civilians habituate, this gets trickier. As well as in non-international conflicts the combatants may not have uniforms or other factors that particularly stand out. In itself targeting civilians is classified as a war crime but there are other principles to take into consideration as well.

Inherently indiscriminatory weapons are a central concept in the principle of distinction. These are weapons that cannot be targeted specifically towards combatants or weapons that cause unavoidable collateral damage. In the customary rules of international humanitarian law, the International Committee of the Red Cross has listed specific weapons that are considered indiscriminatory. For example, cluster bombs that are designed to release multiple smaller bombs to a wide region. There is no possibility to control the bombs, therefore, the cluster bombs are banned as indiscriminate weapons.¹¹³ This same principle of indiscriminatory comes into question with LAWS even though those are not explicitly listed there. In the additional protocol I the primary rule is that an indiscriminate attack is unlawful if it affects civilian targets and will cause loss of life, injury to civilians or damage to civilian targets.¹¹⁴

The first Geneva Convention and the third additional protocol to the Geneva Conventions established the protective emblems and regulated them. The emblems are the red cross, red crescent and the newest addition red crystal. The purpose of the emblems is to be used to protect hospitals and medical personnel in conflicts.¹¹⁵ Attacking an object or a person that is marked with an emblem is unlawful and can be considered a war crime. Wrongfully using an emblem is unlawful¹¹⁶ as well, but in the context of LAWS it is not relevant to the thesis. Within the context of LAWS the question, once again, is whether the AI is able to recognise and distinguish the emblems. Emblems seem to be something that would be easy to teach the

¹¹² Casey-Maslen 2018, 217–220.

¹¹³ Ibid, 217.

¹¹⁴ Ibid, 234.

¹¹⁵ I Geneva Convention, article 40.

¹¹⁶ I Geneva Convention, article 53.

AI to recognise. At least compared to many other examples, like distinguishing civilians or people hors de combat from the combatants.

Regarding autonomous weapons the problem again regards the recognition of the state the person is in. This might violate all three of the principles mentioned previously. When put to the battlefield AI may not recognize people hors de combat. Therefore, if the AI would decide to attack those people it would commit war crimes.¹¹⁷ This is part of the principles of proportionality, distinction and military necessity. The autonomous weapon needs to be able to distinguish combatant and a person hors de combat. If the person is hors de combat, it is not militarily necessary or proportional to attack them.¹¹⁸

In academic articles about war crimes autonomous weapons might commit, the majority of the war crimes are tied to the weapons' ability to distinguish different actors and target only those that are allowed to be targeted in international law. These arguments usually come down to the question of how far can autonomous weapons and AI be developed. There are beliefs that AI will learn things that humans teach and that the problems of LAWS will be solved by technical advancements. It has even been said that the accountability gap does not exist.¹¹⁹ Many articles have examined the technical capabilities of LAWS to recognise different types of people and differentiate targets that can be lawfully targeted from those that are unlawful to target. Mainly the consensus is that currently the capabilities are lacking. Even the differentiation of emblems does not seem to be developed enough.¹²⁰ Nevertheless, the autonomous systems are developing rapidly and, therefore, this statement might change.

4.3 Aiding and abetting

The arms trade treaty provides three types of situations where arms trade is prohibited from states. The first two are trade that conflicts with binding UN Security Council resolutions like embargoes and violations of treaty obligations like illicit trafficking of arms. The third category is situations where a state has knowledge that the arms would be used in unlawful activities. For the state responsibility can be seen as the equivalent of aiding and abetting. As mentioned before, for individual responsibility the Rome statute article 25(3)(c) is the clause

¹¹⁷ Casey-Maslen 2018, 217.

¹¹⁸ Ibid, 228.

¹¹⁹ Schwarz 2025, 234–235.

¹²⁰ Jiawei 2025, 34–35.

that establishes the legal basis for aiding and abetting. Individual responsibility for aiding and abetting is examined first and after that the thesis moves to state responsibility.

4.3.1 Individuals being accessories to war crimes

There are not many legal precedents or cases on arms trade being aiding and abetting in international law, but luckily some previous international criminal tribunals have tried cases on the topic. The first examples of criminal liability for arms trade are from the Nürnberg IMT and the British Military Tribunal. The IMT was attempting to expose the collaboration between different sectors of German society during the second world war and not only hold accountable the active commanders, but everyone involved. As is the case with the ICC as well, the IMT only held jurisdiction for the individuals and not corporations as such.¹²¹

Corporate responsibility is examined separately in this thesis, but similar to the IMT the ICC holds jurisdiction for individuals only.

The case of Adam Krupp¹²² regarded Krupp trading arms with the German government. Consequently, he was acquitted as there was no adequate proof that they had knowledge for what the weapons were used for. In the *Zyklon B*¹²³ case the British Military Tribunal convicted three people for being accessories to war crimes because they supplied poisonous gas for the SS, knowing what the gas was used for.¹²⁴ These cases were the foundation of the idea that corporate officers can be criminally liable as accessories, even if all the modern day legal principles like neutrality were not respected in IMT and other trials after the second world war. These earlier cases are important as the number cases is limited and these established the baseline for both national and international courts. The national courts still have the priority responsibility, and *Zyklon B* is a good example of a situation where a municipal court is capable of prosecuting.

In the Criminal Tribunal for the former Yugoslavia there was a trial regarding responsibility of high-ranking officials for aiding and abetting crimes through arms trade. The ICTY charged a chief general of the Yugoslav Army for providing personnel and logistical assistance to the Army of the Republika Srpska (VRS), contributing substantially and

¹²¹ Bryk and Saage-Maass 2019, 1118.

¹²² *United States v Krupp*, 9 Trials of War Criminals Before the Nuremberg Military Tribunals, 1327 (1948).

¹²³ *Trial of Bruno Tesch and Two Others*, British Military Court, 1 LRTWC 93 (1946).

¹²⁴ Bryk and Saage-Maass 2019, 1118–1121.

materially to their capacity to commit crimes.¹²⁵ The trial chamber gave a conviction for aiding and abetting crimes, including war crimes and crimes against humanity, alleging that the general had known that his assistance was used to commit crimes. Later the chamber of appeals overturned the conviction with the emphasis of the interpretation being that the convicted is required to have provided assistance directly towards criminal conduct.¹²⁶

There were other acquittals of ICTY convictions after the judgement. These decisions of the ICTY also affected an appeal in the Special Court for Sierra Leone (SCSL)¹²⁷ when the former president of Liberia was acquitted with the same reasoning, that conviction required that the assistance was targeted towards criminal action.¹²⁸ These decisions were highly criticised. This stricter interpretation of the aiding and abetting does not take into account other possibly relevant circumstances with the requirements for intent and direction of the weapons. The interpretation raised the threshold for convictions, with the intention for the target of the assistant being extremely hard to prove both in individual accountability criminal cases as well as in state responsibility cases. Even with these legal precedents, most of the executives of multinational arms corporations have avoided any accountability even when there are not many corporations who control most of the arms trade in the world.¹²⁹ With the specific direction interpretation there is an idea that there are distinguishable lawful and unlawful uses for weapons and that there is a requirement of a causative link between the arms transfer and the unlawful act.¹³⁰ Depending on the acts, in reality the distinction between lawful and unlawful acts may include grey areas and interpretation. For example, the use of unnecessary force is an unlawful act that may only be determined in case-by-case basis.

4.3.2 States knowing about war crimes

For state responsibility the “aiding and abetting” is more on whether the state has known about the war crimes or otherwise the violations of IHL. The ATT article 6(3) prohibits the states parties to authorize arms transfers if they have knowledge that the arms would be used for grave breaches of the Geneva conventions. The requirement for knowledge of what the

¹²⁵ *Prosecutor v. Tadić*, International Criminal Tribunal for the Former Yugoslavia, IT-94-1-A (1999).

¹²⁶ *Prosecutor v. Tadić*, International Criminal Tribunal for the Former Yugoslavia, IT-94-1-A (1999).

¹²⁷ *Prosecutor v Taylor*, Special Court of Sierra Leone, SCSL-03-01-T (2012).

¹²⁸ Jørgensen 2014, 723–724.

¹²⁹ Bryk and Saage-Maass 2019, 1121.

¹³⁰ Jørgensen 2014, 723–724.

arms are going to be used is, in general, a very high demand. The text is vague about what the knowledge entails, therefore, the state responsibility depends on the interpretation.

The commentary of the articles by the International Law Commission (ILC) concluded that the concept of knowing depends on the particular circumstances. The ILC's commentary did not give much guidance to help with the interpretation other than that the interpretation can be either subjective or objective, depending on the circumstance. The subjective interpretation seems to create a gap of ignorance, whether it be wilful or inadvertent. This makes it possible to escape liability by claiming ignorance.¹³¹ With this interpretation the responsibility is almost impossible to determine. The interpretation that is used to, furthermore, broaden the interpretation is formatted as “knows or ought to have known” or “had reasonable cause to believe” approach. This gives the interpreter a possibility to examine the situation more objectively.¹³² This makes it easier to determine whether a state has had the possibility to know what the arms would be used for. It allows examining the history of the party receiving arms and the relation between the seller state and the receiving party.

With LAWS specifically, there is a possibility that the manufacturer of the arms has knowledge of how the weapon is programmed to perform and how it would be used. Not even the programming of the weapon gives enough information to know what the actual target will be in the end. Furthermore, only the buyer of the arms will know what the arms are going to be used for. In many cases the states have distanced themselves from the manufacturing of the arms, especially if the manufacturer is a private corporation. Therefore, in a case where the lack of technical capabilities raises the question of possible war crimes being committed, the state may not have the knowledge of the programming of the LAWS. In general, the provision in practice requires that the states execute very in-depth investigations to gain the knowledge that the arms in question are not going to be used for grave violations of the Geneva conventions or war crimes.¹³³

The ATT in itself does not include any regulation on the penalties or sanctions for its violations. Especially if the question is of negligent violations of the treaty provisions.¹³⁴ What the treaty includes is the requirement to report back to the established secretariat. In

¹³¹ Lustgarten 2015, 588–589.

¹³² Ibid, 589.

¹³³ Jørgensen 2014, 725.

¹³⁴ Lustgarten 2015, 589.

article 13 the reporting included the national measures that were taken for the implementation and enforcement of the treaty. ARSIWA was established for the purpose of state responsibility for internationally wrongful acts.

4.4 Direct responsibility

Compared to aiding and abetting, direct responsibility seems harder to achieve at first glance. However, there are different tools for direct responsibility that make it easier. For individuals the direct responsibility needs to be clearly traced to the arms manufacturer or seller. For states the clearest form of direct responsibility are arms embargoes. When arms embargoes are in place, states are prohibited from transferring arms or authorising arms transfers. Therefore, the states may not be directly responsible for the war crimes, but they can be responsible for the arms transfers of LAWS that are committing war crimes.

4.4.1 Individuals being directly responsible

The starting point to the debate on responsibility is that a machine cannot be held responsible for the human rights violations it causes or war crimes it commits.¹³⁵ There is no positive outcome if that is considered. The intent of the perpetrator is part of the consideration on whether crimes have been committed.¹³⁶ For example, the Rome Statute article 8 states that intentional attacks on civilians may be considered war crimes.¹³⁷ Casey-Maslen expresses directly that there is no way for a machine to possess intent even if there is no human making the decision. Seemingly no one has the intent with that interpretation.¹³⁸ However, as the technology progresses increasingly, there is a possibility that the machines will be capable of making decisions that are not foreseeable. This can make it hard to specify the one person or actor behind the human rights violation that the machine commits. Even with this in mind there is no reason to predict that the machine itself could be held responsible for human rights violations or war crimes.

There have been suggestions that the responsibility could be divided and distributed between the autonomous weapon and the human agents. The reasoning for this is the current international law systems not having adequate instruments for responsibility for war crimes or

¹³⁵ Casey-Maslen 2018, 217.

¹³⁶ Ibid, 234.

¹³⁷ Rome Statute of the International Criminal Court, article 8(2)(b).

¹³⁸ Casey-Maslen 2018, 230.

other violations by LAWS. Prosecuting people for crimes and violations in question can be considered ethically questionable. How can a person be prosecuted if the foreseeability and intention are unidentified.¹³⁹ Therefore, the actors responsible for war crimes must be found from the actors behind the machines. As established, the ones responsible can be individuals, states or non-state actors. For individual responsibility the individual usually acts on a mandate from a state or corporation. Rarely does individual responsibility for war crimes mean that the crime has been committed completely individually. The purpose is to find the party, or most of the time several parties, who are liable for crimes being committed or liable for the actions becoming unlawful.

Within direct responsibility the most straightforward way is to hold the commanders or combatants responsible for the crimes of LAWS. Individual responsibility was established in the 1949 Geneva conventions with the rule that not only the person committing war crimes is responsible, but also the persons who ordered the commission of the crimes.¹⁴⁰ This allows the high commanders to be held responsible for crimes in international law if they order an act that is considered a crime or if they fail to prevent it from happening, if it would have been reasonably possible to do so. Critically examined, the topic is not as straightforward. For example, the Human rights watch has written reports that have deemed that it is unlikely that the commanders would be held responsible for the crimes of lethal autonomous weapons.¹⁴¹

According to previous research the experts agree that the designers of the weapons cannot be stripped from the accountability for fully autonomous weapon systems committing war crimes. This is despite the replacement of some or all human decision-making. There is no certainty of who should be the one to face responsibility out of the engineers, designers, users or leadership teams.¹⁴² This thesis handles the responsibility of arms manufacturers which include the engineers and designers. The technology and coding of the AI in LAWS, highly determines the outcome of the attacks and there is little to be done after the weapon has been programmed. This gives the weapon more power and makes both the outcome, the consequences and the intent less foreseeable. The coding is important in determining responsibility in international law. The challenge with this is that the intentions are easier to conceal by blaming technical difficulties. It is also very difficult to distinguish a human

¹³⁹ Schwarz 2025, 234.

¹⁴⁰ For example, I Geneva Convention, article 49.

¹⁴¹ Schwarz 2025, 234.

¹⁴² Longpre et al. 2022, 50.

operated weapon from an autonomous one.¹⁴³ The direct responsibility of the manufacturer may be reduced if it is not proved that a weapon was an autonomous one. There would need to be access to the data and systems of the weapons to be able to trace them. This creates a dilemma as revealing too much could give the opponent of the combat a tactical advantage and make the weapons less effective but in cases of war crimes it would be harder to determine the responsible parties.

4.4.2 Arms embargoes as a form of state responsibility

Arms embargoes are a tool for responsibility for human rights violations. Embargo is a non-permanent agreement between states to stop the trade with a target state. This can be specifically for arms or with other goods. Article 6(1) of the ATT specifically prohibits arms transfers if the transfer would violate the international obligations of a state. Arms embargoes are particularly mentioned as international obligations. Most of the time Embargoes are set up by a UN Security Council resolution with the mandate from the UN Charter article 42. The European Union also sets up embargoes. Embargoes do not directly result in responsibility for any parties of the arms trade, but they can be used as a tool to stop the arms trade. There have been arms embargoes. for example, during the Rwandan genocide the UN security Council set up an arms embargo that prohibited all arms transfers into Rwanda.¹⁴⁴

In the end, there is little concrete evidence that embargoes have worked previously because there is an implementation gap and the process is ineffective. There are seldom any sanctions for states that act against the obligation of an embargo. There is also no specific body that would oversee these embargoes being enforced.¹⁴⁵ Therefore, all the enforcement should be done by states domestically. There seems to be a lack of political will with this, as there may be political and economic implications for enforcing the embargo. An example of embargos failing to be enforced is the 1991 Iran and Iraq war. Many western countries continued the arms transfers to Iraq which led to those arms to be used in the illegal invasion of Kuwait. After the war there were investigations that found that those said transfers were authorised and inquired by the states in direct violation of the embargos.¹⁴⁶ The problems with enforcing the embargo seemed to be tied to political will and political complexities in the Middle East.

¹⁴³ Longpre et al. 2022, 50.

¹⁴⁴ UN Security Council Resolution 918.

¹⁴⁵ Erickson 2013, 159–160.

¹⁴⁶ Ibid, 159–160.

The process of setting up embargoes is also very slow. For example, the Rwandan genocide had been going on for over a month before the embargo had been set into place.¹⁴⁷ With the ineffectiveness and the lack of sanctions there may be no concrete consequences for the embargo. Taking all this into consideration, embargoes are being used as symbolic ways to show disapproval of the international community and other ways of responsibility are considered to be more effective and more worth exploring.¹⁴⁸ Regardless of the criticism of embargoes, they are frequently used in international law.¹⁴⁹ Even though embargoes are handled here as part of state responsibility there is a possibility for individual responsibility as well. For example, there has been a trial where executives of a corporation were prosecuted for violating an arms embargo.¹⁵⁰ Embargoes can, therefore, be both symbolic tools and have judicial powers for responsibility.

LAWS are in the same position as any other arms when arms embargoes are considered. The responsibility in these cases is not necessarily for the war crimes but the arms transfers. As established in previous chapters, it may be rare to have even the commanders that fired the LAWS in the first-place face consequences for the war crimes of the LAWS. Therefore, the state being responsible for the embargo violation may be the only form of responsibility for said war crimes.

4.5 Corporate responsibility

There is a correlation between the availability of arms and human rights violations. No matter how small this correlation is specifically with lethal autonomous weapon systems, the manufacturing and trading is tied to the violations.¹⁵¹ Therefore, the question is whether there is a possibility for the manufacturer corporation to be responsible for these human rights violations. This chapter examines specifically the corporate responsibility for corporations, not responsibility for individuals making decisions in corporations. Currently there is no possibility for any international tribunal to prosecute corporations specifically.¹⁵²

Corporations can still face responsibility in different ways. Making profit is the main purpose

¹⁴⁷ McNulty 2000, 107.

¹⁴⁸ Hamilton 2015, 10–12.

¹⁴⁹ Erickson 2013, 160–161.

¹⁵⁰ Birkinshaw 1996. The trial concerned British men who were executives of a company that continued to transfer arms for Iraq despite an arms embargo being in place in the Iran and Iraq war.

¹⁵¹ Alwishewa 2021, 528.

¹⁵² Cameron and Chetail 2013, 583–584.

of a corporation and a prerequisite for the operation to be successful. The arms industry works with these same principles. Some arms manufacturing corporations are private corporations and others are partly or fully state-owned. The principle for profit is still the same. As established previously, the arms industry is very profitable and a huge part of the economy of many states.

Arms corporations have been very active in the political discussions on arms and given input for the regulation of arms. For example, the industry was active in negotiating the arms trade treaty which is one of the most important treaties regarding arms trade.¹⁵³ This is an example of the economic and political power that these corporations have and the impact these corporations can have for the states. Corporations that are arms manufacturers and sellers are closely tied to states, as arms trade is often a political and diplomatic process and many states regulate arms trade strictly in their national law. The companies are still not just extensions of the states for which all international law on state responsibility would be applicable.¹⁵⁴ The regulations of ICL do not apply to private corporations in the same way they apply to individuals or states. The relationship between corporations and international law has evolved throughout the years. Historically the corporations providing the arms have been able to escape the consequences for their contributions to war crimes. Therefore, it has become evident that there should be better mechanisms for corporate responsibility in international law.¹⁵⁵ Moreover, corporate responsibility can be an extension of state responsibility.

Despite the state control of the arms transfers and the industry as a whole, corporations do have significant power in the decisions regarding where and who to trade arms with. This is because states do not have the resources to verify all the details of the arms transfers and the licensing is often done with very general information. This is especially the case with the states that have high volumes of arms transfers.¹⁵⁶ This leads to a situation where the state might not be in control of the arms trade as much as it seems to be. In these kinds of situations corporate responsibility would be especially useful. The basis for responsibility of arms trade in international law, both international criminal law and civil law, is that selling arms to a

¹⁵³ Cameron and Chetail 2013, 532–533.

¹⁵⁴ Alwishedwa 2021, 532–533.

¹⁵⁵ Misol 2004, 1–2.

¹⁵⁶ Kanetake and Ryngaert 2023, 7.

party that is violating human rights or committing grave crimes is prohibited.¹⁵⁷ This requires that the seller has the knowledge of the human rights violations.

United Nations Guiding Principles on Business and Human Rights has three pillars that can be interpreted in arms trade. These are that states have the duty under international law to protect human rights in the context of business activities, that all business enterprises must respect human rights through demonstrable means and that the victims of corporate human rights violations have the right to access effective remedy. There are significant issues with the implementation of this especially if the industry is inherently detrimental to human rights. For which the arms industry is a good example.¹⁵⁸ According to the UNGPs, businesses should take into consideration the possible human rights implications of their products being used.¹⁵⁹

Due diligence is an important concept for corporate responsibility and reducing the risk of unforeseen human rights violations being associated with a corporation. There are three conceptual variations of due diligence. Firstly, in business practises it is defined as a mechanism for analysing the risks associated with business transactions. These risks can be financial, reputational, technical or legal. Secondly, business and human rights define it as a process of identifying impacts of the business transaction and steps to try to mitigate them. The last definition is used in the law of torts and is defined there as a standard procedure that is required from the corporations to discharge an obligation. The difference of the definitions is the object whose risks are at stake.¹⁶⁰

For the purpose of this thesis the most suitable out of the three is the second definition of the concept of due diligence. The main author of the UNGPs has stated that due diligence should be understood in the following way:

a comprehensive, proactive attempt to uncover human rights risks, actual and potential, over the entire life cycle of a project or business activity, with the aim of avoiding and mitigating those risks.¹⁶¹

The concept of due diligence is highly relevant for the companies. Exercising due diligence helps the corporations to act accordingly with the UNGPs. In the context of arms trade and

¹⁵⁷ For example, Arms Trade Treaty, article 6(3).

¹⁵⁸ Rivera 2025, 296–297.

¹⁵⁹ Ibid, 306–307.

¹⁶⁰ Kanetake and Ryngaert 2023, 9–11.

¹⁶¹ Ibid, 9–11.

LAWs, due diligence is the responsibility to be informed on the consequences a trade may hold. This is done to be knowledgeable and, in the event, something comes up, this gets rid of the liability. In arms trade this includes, for example, researching where the arms are going and what kind conditions the arms will be used in.

Even with due diligence being a standard in the corporate world and it being used in the arms industry, there is no universal and international guidance for due diligence. For example, the Organisation for Economic Co-operation and Development (OECD) has not established guidelines for due diligence.¹⁶² Only regional and national guidelines have been established.¹⁶³ The guidance of due diligence, however, may not have a large-scale impact as large corporations have established due diligence standards of their own. The supervision of the enforcement could in practice have more impact.

In international law due diligence is not seen as an independent basis for generating international rights and obligations. This means that even if the sold arms are used for war crimes it does not automatically mean that the seller has responsibility for the violations. Moreover, the responsibility may be in question if the due diligence obligations have not been comprehensive in the specific case.¹⁶⁴ The case-by-case examination can both bring flexibility as well as create a gap for the responsibility. The UNGPs focus mostly on the prevention of human rights violations as was examined through the concept of due diligence. The responsibility for human rights violations and war crimes that have already happened is dealt with through the access to remedies. The third part of the UNGPs gives standards for the remedies and access to them. The responsibility to put these systems in place are on the corporations and states.¹⁶⁵ Internationally the accountability gap exists as the corporations are rarely held responsible rather than the individuals.

The concept of traceability is relevant within arms trade and knowing how the arms will be used. Rivera looks at it from the perspective of manufacturing the arms, for example, the mining of the minerals used in the arms.¹⁶⁶ However, traceability is central in responsibility on the other end as well. Even when most of the regulations and customary norms are focused on the prevention of human right violations, it is important to be able to trace the weapons

¹⁶² Kanetake and Ryngaert 2023, 7.

¹⁶³ Ibid, 7.

¹⁶⁴ Ibid, 13.

¹⁶⁵ UNGPs, 27–35.

¹⁶⁶ Rivera 2025, 308.

after they are sold. In case of autonomous weapons this not only means tracing the physical place the weapons are fired from and by whom but also tracing the coding of the artificial intelligence and the seller. This can be crucial in determining whether the manufacturer or seller can be held responsible for the autonomous decisions of the weapons as the proper due diligence processes can be evaluated and the intentions or possible negligence of the coders and sellers can be investigated.

As mentioned, no international criminal tribunals have jurisdiction over legal persons.

However, there are states whose national jurisdiction have established corporate criminal responsibility. These states are, for example, Australia, France, UK, United States and India.¹⁶⁷ The IHL violations can be committed by corporates similar to individuals and states and. In these cases, universal jurisdiction may be applicable for corporations whose LAWS have committed war crimes.

4.6 The concept of intent in international criminal law

In the previous chapters the concept of intentionality or intent is something that comes up frequently. Intent is an old legal principle that is based on the thought that a wrongful act should not be punished if the person does not have criminal intention.¹⁶⁸ For an action to be considered a crime there should also be a wilful violation of the provisions in addition to causing serious damage.¹⁶⁹ Within the context of LAWS this creates a gap as there are no possibilities for machines to possess intent, as established before.

Casey-Maslen directly that there is no way for a machine to possess intent even if it makes autonomous decisions to attack in autonomous weapons.¹⁷⁰ There must be a human intent to convict someone and a machine cannot be held responsible for the war crimes it commits.¹⁷¹ Within the international humanitarian law, the intent of the perpetrator is part of the consideration on whether crimes have been committed. A machine itself cannot be put to prison or pay sanctions without a human being the one bearing the responsibility. However, as the technology progresses increasingly there is a possibility that the machines will be capable of making decisions that are not foreseeable. This can make it hard to specify the one person

¹⁶⁷ Cameron and Chetail 2013, 595–597.

¹⁶⁸ Van der Vyver 2004, 57.

¹⁶⁹ Casey-Maslen 2018, 234.

¹⁷⁰ Ibid, 230–231.

¹⁷¹ Ibid, 217.

or actor behind the human rights violation that the machine commits. Even with this in mind there is no reason to predict that the machine itself could be held responsible for violations.¹⁷²

There have been suggestions that the responsibility could be divided and distributed between the autonomous weapon and the human agents. The reasoning for this is the current international law systems not having adequate instruments for responsibility for the war crimes or other violations by LAWS. Prosecuting people for crimes and violations in question can be considered ethically questionable. How can a person be prosecuted if the foreseeability and intention are unidentified.¹⁷³

The actors responsible for war crimes must be found from the actors behind the machines. As established, the ones responsible can be individuals, states or non-state actors. The part that states that the attacks must be intentionally targeted at civilian objects, makes the seemingly clear regulation have a blind spot in accountability. The technical difficulties of an autonomous weapon are easier to blame for the war crimes. It is hard to prove that there have not been any technical difficulties, especially since the tracing of LAWS is already relatively difficult. There are situations where the negligence or “should have known” principles come into play and the technical difficulties cannot be used as an excuse for escaping liability.

Intent brings a factor of doubt into the judicial proceedings. Especially, as the technical abilities of LAWS are a major part of the war crimes LAWS could commit. It is hard to see a scenario where the lack of technical abilities of LAWS is not used as an argument to show that there was no intent of attacking civilian objects. The problem here is that it is the AI in the weapon that makes the decision.¹⁷⁴ The intent can be proved or disproved by the technical abilities. If it was possible to trace what the AI has been taught, it could be possible to see if, for example, emblems were taught to be illegal to attack. This could prove that the intent of the arms manufacturer was not to make the weapon attack civilians. This can explain the intention especially when the technical abilities of the AI are not developed enough and civilians end up being attacked. The hardships of traceability have been examined previously.

In conclusion, the chapter 4 examines war crimes of LAWS from different perspectives. The whole debate on whether LAWS commit war crimes of more war crimes than traditional

¹⁷² Casey-Maslen 2018, 231.

¹⁷³ Schwarz 2025, 234.

¹⁷⁴ Longpre et al. 2022, 50.

weapons is multifaceted, but more is written about the negative consequences and war crimes, by LAWS. Most likely the war crimes are caused by the LAWS not being able to distinguish targets, making them indiscriminatory and unproportionate, for example. The responsibility of the manufacturers and sellers of LAWS is divided to aiding and abetting, direct responsibility and corporate responsibility. The concept of intent is a common denominator in all forms of responsibility, therefore, it is examined separately.

5 Responsibility beyond regulations

This chapter examines the responsibility of LAWS committing war crimes in practice, beyond the theories and the regulations. First the political will of states to prosecute is examined. In many cases the responsibility in practice is tied to political will of states. This applies to the municipal jurisdictions and co-operation with international courts. The remedies for war crimes are examined briefly in the second subchapter. After that the realities of the arms industry and the biggest arms manufacturer and seller states are examined. The biggest manufacturers and sellers form a big majority of all the arms trade in the world. These states are influential and the attitude and approach towards IHL and ICL is different.

5.1 The political will to prosecute in international law

The systems of international humanitarian law and international criminal law were built on the states co-operating in international forums. The system of international law is dependent on the political will of the states. The basis of this was always state sovereignty and the political will of states to want to be part of an international rules-based system. States are given huge amounts of power to decide their approach regarding international law. This chapter analyses the political and economic aspects that affect the responsibility of arms manufacturers. Ratifying important treaties and recognizing, for example, the jurisdiction of the international criminal court, are a matter of political will. Other than universal jurisdiction, international law does not have many possibilities for jurisdiction if the specific state does not recognize it. This mostly pluralistic system creates tensions and makes it possible for states to undermine IHL and ICL.¹⁷⁵ This creates an obvious accountability gap where even the theoretical possibility for responsibility seems unlikely. However, situations are rarely entirely black-and-white.

Furthermore, the jurisdiction and the possibility for responsibility on paper is not enough to implement the treaties. If it were, there would not exist so many problems with enforcement as there is now, or there would not be violations of ICL left unpunished. There needs to be political will to act in accordance with international law. This political will would ideally be as universal as possible. The accountability gap has been elaborated, for example, in a Human Rights Watch report. The report states that neither criminal nor civil law guarantees

¹⁷⁵ Greenawalt 2011, 1068–1069.

accountability for LAWS' war crimes adequately.¹⁷⁶ The concept of adequate accountability is not straightforward. There are, however, many examples for both situations where no accountability was served and situations where the perpetrators were held responsible for their actions.

The Rome statute article 63 requires that the defendants must be physically present in the trials of the ICC. The court, however, does not have resources or mandate to arrest the suspects to get them to be present at the trial. The ICC issues an arrest warrant after the office of the prosecutor has concluded the investigation and is ready to move to the trial phase of the case.¹⁷⁷ The warrants are for the domestic police forces to complete if the suspect comes to the territory of a state party. Many cases are left to wait in this phase, and it takes a long time and major effort to get into this phase. In the situation of LAWS committing war crimes, even this could be a symbolic win. There needs to be the political will to enforce the arrest warrants of the International Criminal Court. States may also have political will to specifically not enforce the arrest warrants. There have been several instances where the states parties would have had a theoretical possibility to comply with an arrest warrant, but that has not been enforced accordingly. The execution of universal jurisdiction is also part of political will. However, the practical side of universal jurisdiction is a challenge in many cases. Choosing the state where to prosecute is a challenge as many states require that the accused people are physically present at the court. Additionally, the investigation is expensive and difficult if the alleged crimes have been committed in another state.

Nowadays, there are many law firms and NGOs that are focused on human rights violations and there are cases where they are trying to get those crimes to be tried when the state where the crime happened is unwilling or unable to prosecute the crimes.¹⁷⁸ These law firms and NGOs have the political will to investigate crimes. For example, using resources of a state to investigate and prosecute universal jurisdiction cases requires political discussions. If a private party brings up evidence of crimes, it is easier to justify the use of the state's resources.

The international relations between states affect the political will to adhere to international rules and to get states to co-operate with international regulations, tribunals or set up

¹⁷⁶ Longpre et al. 2022, 50.

¹⁷⁷ The Rome Statute, article 58.

¹⁷⁸ Langer and Eason 2019, 780–781.

sanctions or embargoes. Politically like-minded states, states in an alliance or historically connected states are likely to defend each other. Very longstanding examples of this are the German and Israeli relations and Germany's stances on the Israeli Palestinian conflict. This is affected by the German history of persecuting the Jews and the holocaust. Even though Germany has been one of the biggest supporters of the ICC, the arrest warrant for Israel's prime minister Netanyahu has shown that there is a conflict of interest. The Chancellor of Germany expressed that the state would not arrest Netanyahu if he would visit Germany.¹⁷⁹ Conflicts of political judicial interest are hard to solve as there are multifaceted and deep-rooted reasons for the actions of states.

One aspect of the discussion on LAWS is the fact that states do not have the political will to stop the development of LAWS. The hardware and software that are needed for the development of autonomous weapon systems are becoming increasingly affordable and accessible as AI in general is becoming more widespread. Restricting the manufacturing and development is made harder because of the dual-use dilemma. This means that the same type of technology is used in both military and civil technology. For example, self-driving cars use visual perception, human indication and tracking technology that can be applied to autonomous weapons finding targets. Even in military settings the same technology is beneficial for other than lethal autonomous weapons. For example, exposing and clearing land mines is extremely risky for people and autonomous technology can be developed to limit the possible collateral damages.¹⁸⁰

The arms industry as a whole forms a major piece of the world economy. The market for autonomous weapons is similarly worth billions, and it is expected to grow significantly. In 2022 the market was estimated to be around 13,3 billion dollars and by 2027 it would grow to 21,8 billion.¹⁸¹ These numbers help with explaining why many states are against the prohibition or stricter regulation of LAWS. Economic gain is a strong political weapon in the world, as it affects the everyday lives of regular people and, for example, avoiding recessions is an easy argument for continuing to produce arms. This regards more the prevention of the war crimes in the first place and less the responsibility after the war crimes have been committed.

¹⁷⁹ Rubin 2025.

¹⁸⁰ Longpre et al. 2022, 48–49.

¹⁸¹ Schwarz 2025.

There is previous research on the economic implications of LAWS in a broader sphere. One aspect of this has been the investments to autonomous weapons are hugely beneficial for the higher income states as opposed to the lower income countries where investments are not as beneficial. This could deepen the economic gap these states already have, making richer states even richer and poorer ones even poorer.¹⁸² The states that manufacture and sell LAWS the most are amongst the higher income states, therefore, those states get the most economic gain and the threshold for giving that up is higher.

Alongside the economic implications there is a rise of the rhetoric of the politicians in many countries bringing domestic interests to higher priority than international law, especially if talking about ICL or IHL. Even outside the economic sphere this applies. One quite extreme example of this is the USA with the America first rhetoric and the sanctions put against the ICC and NGOs for investigating possible grave human rights violations by Israel in Palestine. These together strengthen the idea that states are taking their national interests into account more than international law. Furthermore, the national interests include economic gain as the main reason or indirectly with enhancing labour markets. The economic interests of states are oftentimes too high for the states to give up arms transfers without extremely heavy reasoning or threat of sanctions.

Arms transfers can be noted as multipliers of violence and human rights when the arms are transferred to countries where human rights are violated. It is a baseline consensus that arms should not be transferred to countries where human rights are not respected, as it has devastating consequences for ordinary civilians across the globe. However, in practice this is not considered or respected in accordance with the regulation, which creates a gap in enforcement. The arms trade treaty is written in a purposefully ambiguous way as treaties usually are. In addition to this, there are little to no standards for the implementation of the treaty in the domestic jurisdictions.¹⁸³ The customary rules are there to guide with the interpretation as well as give more specific regulation.

5.2 Remedies for the victims of war crimes under IHL

In practice the sanctions for war crimes and other IHL violations affect mainly the perpetrators. These can be, for example, fines, incarceration or economic sanctions depending

¹⁸² Shaw et al. 2020, 122–123.

¹⁸³ Hamilton 2015, 8–9.

on who the responsible party is. Remedies are something that are both sanctions for the perpetrators and help for the victims. Not all victims of war crimes lose their lives. Victims include, for example, civilians whose food or water supplies were destroyed unlawfully. Remedies can also be paid to the families of the victims who lost their lives or states that were the target of war crimes. For the remedies to be paid, there usually needs to be some kind of guilt proven. This is something that was examined in previous chapters and this chapter focuses on the concept of remedies and the international debate on remedies.

Paying remedies for the victims of war crimes seems to be a relatively unproblematic and straightforward thing. However, there is debate both on whether remedies are something that benefits the bigger picture of the conflicts and whether individuals could make claims for remedies against states.¹⁸⁴ The claims for the remedies are rooted on the moral and ethical demand for justice, reparations for the suffering of states or people. This is something that is very common in municipal law, but the scale of the crimes is different and there are different risks for reparations of war crimes, and international human rights violations in general. The arguments on remedies are frequently tied to the Hague Convention IV article 3¹⁸⁵ which establishes that the party which violates the provisions shall be liable to pay compensation. However, the article does not define many aspects of implementing remedies and in practice the individual right to reparations is not defined. The implement and enforcement are unclear and, therefore, the states have had different interpretations.

The ultimate goal in international relations and international law is to settle conflicts and create long-lasting peace. These processes are incredibly delicate, and even small things may disable the negotiations for peace. Demanding remedies may impede a peace resolution. Cameron and Chetail describe this as a balancing between everlasting peace and universal request for justice.¹⁸⁶ The worst-case scenario they describe is that the hostilities would resume after the demands for remedies. This can involve an individual seeking remedies or a state.¹⁸⁷ This is especially the case with war crimes as the crimes oftentimes affect a large number of people. Therefore, the economic impact on the payer is large. Specifically with LAWS the same problems with responsibility arise with remedies.

¹⁸⁴ Cameron and Chetail 2013, 546–547.

¹⁸⁵ Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land (1907), 36 Stat. 2227.

¹⁸⁶ Cameron and Chetail 2013, 546–547.

¹⁸⁷ Ibid.

In addition to the ICC or the ICJ, the implementation of remedies could be done through human rights bodies as long as the war crime also violates IHRL. For example, the Inter-American Court of Human Rights has observed the IHRL to also violate IHL. An example of a war crime that could be handled in a human rights body is torturing prisoners of war as it violates both in the third Geneva Convention and the Convention against torture¹⁸⁸. The European Court of Human Rights has not specifically mentioned the IHL provisions in cases where the IHRL violations are also IHL violations.¹⁸⁹

5.3 The biggest arms manufacturers and sellers

The states that produced the most arms in the world are the superpowers, The United States, Russia and China. These states manufacture arms for themselves, their allies and other states they trade with. All these countries have developed lethal autonomous weapons and have invested into developing arms technology.¹⁹⁰ These countries are active in the international discussions of these arms as well. Considering all this, it is not surprising that these nations are against the regulation of lethal autonomous weapons.¹⁹¹ This chapter examines the role of the biggest arms manufacturers and sellers from the point of view of regulation as well as contribution to conflicts.

Among the superpowers there are other states, for example, Australia, India, Israel, South Korea, The United Kingdom and Turkey, who are against the regulations and bans of LAWS.¹⁹² These countries are mostly part of NATO or otherwise in alliance with it and the USA. There is a significant number of arms developing and trade done in cooperation within NATO and its partners. This connection within some of the major NATO countries is not surprising as the NATO has been developing unmanned and autonomous weapon systems like any other new arms technologies. The goal to remain as the strongest and most developed military alliance is still very much a motivation for the development. Even after the cold war ended, this approach stayed. The focus here has, however, been on unmanned vehicles and weapons rather than fully autonomous weapon systems.¹⁹³

¹⁸⁸ The United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.

¹⁸⁹ Cameron and Chetail 2013, 566–570.

¹⁹⁰ Summers 2012, 106–107.

¹⁹¹ Longpre et al. 2022, 50.

¹⁹² Ibid, 50–52.

¹⁹³ Madej 2024, 65–67.

The national regulation of LAWS differs from state to state. For example, the United States has regulation in place that requires a human-in-the-loop.¹⁹⁴ This means that there needs to be human supervision and control within autonomous weapons, therefore, fully autonomous weapons are not used even if there were technical possibilities for it. This is in place because it has been seen to both reduce the risks of using LAWS and prevent the concerns about the effectiveness being realized.

The human in the loop is seen as the better option compared to allowing the use of fully autonomous weapons. However, there are arguments that the human in the loop does not work as it should, even if it sounds very good on surface level. The speed and information of the LAWS may not be available to the human and the person in the loop may not be able to process all the information. There is also a possibility that they might get the automation bias. This means that the human begins to trust the machine which biases their judgement.¹⁹⁵ Even with these concerns, the human-in-the-loop approach is seen as a compromise. This can also be seen as a phase before the autonomous machines can be fully trusted with their technical capabilities.

There are not many legal instruments to be enforced for these states or their nationals to be held responsible, even hypothetically, for grave human rights violations or aiding and abetting those violations. None of these three states have ratified the Rome Statute, therefore there are limitations on the ICC jurisdiction and the individual responsibility of people that are nationals of these countries. However, the biggest arms manufacturing countries are parties of the Geneva Conventions, and the USA and China are parties of the ATT. Therefore, there are theoretical possibilities for responsibility like any other state.

The technological gap is something that is also part of the discussion on the LAWS. This can be true even when the conflict is between two states with no technological or economic advancements. The unevenness in conflicts is many times caused by the superpowers taking sides and supporting the parties of the conflict. The superpowers have the access to autonomous weapons and other technology the others do not have which creates the imbalance of the armed forces. This unevenness can be evident in non-international conflicts as well. In these conflicts one party is an organized army of a state, and the other party is an unorganized rebel or guerrilla group. In these combats, the guerrilla or rebel groups

¹⁹⁴ Longpre et al. 2022, 50.

¹⁹⁵ Ibid.

oftentimes do not have the same technology or the education to use the technology. This is never a black-and-white thing as other states participate in non-international conflicts in many cases. Therefore, the military capabilities between the parties may be even or opposite. Participating in conflicts usually includes arms trade.

Chapter 5, in conclusion, has examined the responsibility of arms manufacturers and sellers in practice. The political will of states is a crucial part of the responsibility of war crimes happening in practice. States have multifaceted reasoning to prosecute for war crimes or cooperate with international courts, or specifically not do so. Remedies in international law are a common punishment of form of settlement, but at the same time there is debate about them regarding private parties in conflicts. That is why remedies were briefly examined separately. Lastly, the biggest arms manufacturers were examined as those are the states that have political, economic and military power. These states have been against the regulation of LAWS and the enforcement of IHL in many cases.

6 Conclusions

This thesis has examined the responsibility of arms manufacturers and sellers regarding war crimes committed by lethal autonomous weapons. The aim has been to answer the following research questions: “What war crimes can lethal autonomous weapon systems commit and how can arms manufacturers and sellers be responsible if lethal autonomous weapon systems commit war crimes?”. This has been examined through individual, state and corporate responsibility. Individuals and states were looked at from the perspective of aiding and abetting and direct responsibility.

The methods that have been used to examine this are gaps, conflicts, ambiguities and blind spots and the theoretical background is critical theory. The doctrines of international law relevant for the thesis are doctrines of sources, human rights, responsibility and jurisdiction. The most important sources for the thesis are the 1949 Geneva Conventions with the additional protocols, the Rome Statute and the Arms Trade Treaty. These are examined in relation to the topic. The main paths to responsibility in the topic are the ICC, ICJ and universal jurisdiction in municipal courts. The jurisdiction and the mandates of the two courts have been examined generally and regarding the trade of arms and LAWS. Universal jurisdiction as a phenomenon was examined as well as from the point of view of the effectiveness of it when the ICC does not have jurisdiction if it is not effective.

No war crimes committed by LAWS have been documented yet. There have only been reports that at least partly autonomous weapons have been found, for example, in Ukraine. The war crimes that could be committed by LAWS are tied mostly to the principles of distinction, military necessity and proportionality, with the distinction being the most important. The inability to distinguish targets from one another would make LAWS indiscriminatory weapons. At least for now, the AI that is used in LAWS is not developed enough to be able to distinguish its targets well enough. Therefore, attacking civilians or civilian targets, objects protected with emblems or persons hors de combat, are things LAWS could do and therefore commit war crimes. Proportionality and military necessity are also principles that have been examined in the thesis. These are more situational and are tied to the principle of distinction as well. Military necessity and proportionality are being violated, for example, when people hors de combat, like wounded people, are attacked. Attacking these people is not necessary to reach the military goals.

LAWS are a unique object of international law as the machine itself can commit a crime, but the machine cannot possess intent for the same crime. Therefore, people behind the weapons must bear the responsibility of these weapons. The additional layer of decision-making makes it harder to determine the direct responsibility as the intent and traceability become harder the more there are complexities. LAWS are still developing rapidly, and the international regulation is trying to be kept up to date even when the regulation of AI in general has been falling behind. The trade of LAWS and the consequences of it are not an exception to this. LAWS and other autonomous systems are developed. There are groups that are trying to establish a ban on LAWS.

The responsibility of individuals and states have been examined through aiding and abetting and direct responsibility in the thesis. To be aiding and abetting in a war crime it requires that the individual or states have intentionally been providing arms that are going to be used in war crimes. This makes the conviction unlikely as there needs to be a conviction for the actual perpetrator as well. For direct responsibility the individual developers of the arms can be held accountable if the arms are designed in the way that intentionally makes the AI violate international humanitarian law principles. For states the direct responsibility may come from transferring arms despite an arms embargo being in place. Individuals, like the executives of arms manufacturing corporations, can also be held responsible for the violations of embargos. Corporate responsibility is a trickier subject and actualizes in international law mostly by due diligence and remedies.

The enforcement of the regulations in practice created its own entity that was examined in chapter five of the thesis. The political will of states to enforce international law is a challenge as there are political and economic interests that contradict with international law. The biggest arms manufacturers especially have economic interests alongside them not being even states parties of the Rome statute. To prosecute these parties, the customary rules of IHL are important. Remedies for victims of war crimes are a possible way of responsibility. These can be the sanction through any criminal tribunal, was it international or national, as well as the ICJ. Additionally, human rights bodies could be the party to impose remedies. There is a debate on whether remedies are overall a sanction that benefits conflicts as a whole.

To conclude the thesis, there is a theoretical possibility for war crimes being committed by LAWS and the war crimes are most likely related to unlawfully attacking civilian objects or other objects that are prohibited from being attacked. The responsibility of arms

manufacturers is not straightforward. Theoretically, according to the ATT and the Rome statute, the arms manufacturers and sellers could commit war crimes or be accomplices to war crimes. In practice, however, the regulations require intent which is easy enough to cast reasonable doubt on. Corporations can be held accountable in this, mostly by failing their due diligence. The international system requires political will that makes the enforcement of the regulations hard. The biggest states to manufacture and sell arms have almost monopolies for arms trade in their respective alliances. Arms trade is highly political, and the buying and selling are signs of support for whichever conflict is going on.

Illicit arms trade is something that was not focused on this thesis. However, the phenomenon is affecting conflicts around the world, especially in Africa. This is something that has been researched separately in general but also something the topics of the thesis could be expanded to. Especially, the enforcement of the regulations or the traceability of arms are things that have more complexity to them when illicit arms trade is considered separately. The ethical and moral implications and problems were touched upon quickly in the thesis. However, there is not enough space in this kind of thesis to deliberate the questions further. These are questions that have been researched to an extent but there is a need for more points of view and deeper research. As LAWS are getting more commonly used these problems are going to be realized and, therefore, the consequences will be revealed.

The topics within the thesis have been researched but as established the topics of LAWS and the responsibility of the arms manufacturers or sellers for the war crimes have not been researched that widely. These topics could, therefore, be researched even more. The research could be expanded to other grave human rights violations, for example, the other three crimes in the jurisdiction of the ICC: genocide, crimes against humanity and crime of aggression. There are many fields where the implicit biases of AI could have a negative outcome and lead to human rights violations.

International humanitarian law and international criminal law are in a tough situation. It is hard to work to develop the regulation in a world where respect for IHL and ICL requires political will and a single person can dismantle all international law principles for economic and political gain. So many grave human rights violations and war crimes are allegedly being performed in numerous countries from Venezuela to Palestine to Yemen. For the public it easily seems like there is nothing done to get the actors responsible to face consequences. The perpetrators are not being held responsible for their actions for numerous reasons. Critically

examining, the meaning and execution of IHL and ICL would need to be built again from the ground up. This, however, is not a realistic possibility. Instead, the interpretation of the existing regulations, especially customary law, could be developed to match the developing technology and world. For example, the UN efforts to create a treaty on LAWS could bring clarity to the situation.