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Lethal autonomous robots and the accountability gap in international criminal law

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“Crimes against international law are committed by men, not by abstract entities [...]”

Nürnberg International Military Tribunal

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Acknowledgements	1
List of Abbreviations	4
1. Introduction	5
1.1 Problem, purpose and research questions	5
1.1.1 Problem	5
1.1.2 Purpose	6
1.1.3 Research questions	8
1.2 Limitations	8
1.3 Material and method	9
1.3.1 Introduction	9
1.3.2 Material	10
1.3.3 Method	12
1.4 Theory	13
1.4.1 What is an accountability gap?	13
1.4.2 Deterrence and retribution in ICL's goal of ending impunity	15
1.5 Outline	18
2. Background	20
2.1 What is LAR?	20
2.1.1 Introduction	20
2.1.2 Definition	21
2.1.3 Controversy and attraction	22
2.3 Criminal accountability under ICL	22
2.4 Forms of accountability in the ICC-statute	24
2.4.1 Direct acts	24
2.4.1.1 Perpetration and co-perpetration	24
2.4.2 Indirect acts	24
2.4.2.1 Aiding, abetting, planning and preparation	25
2.4.2.2 Command responsibility	25
3. Where is the accountability gap and what does it look like?	26
3.1 Possible forms of accountability for each party	27
3.1.1 Criminal accountability for the LAR as its own entity	27
3.1.2 Criminal accountability for the operator	28
3.1.3 Criminal accountability for the producer, manufacturer and developers	28
3.1.4 Criminal accountability for the Commander	30
4. Overcoming the accountability gap	33
4.1 Overcoming the accountability gap through holding the LAR themselves accountable	34

4.1.1	Would it be technically possible to extend mens rea and natural persons to include LAR?	34
4.1.2	The possibilities and risks of downgrading mens rea	36
4.1.3	Is it possible to extend mens rea and natural persons and keep the goal of ending impunity intact?	38
4.2	Overcoming the accountability gap through meaningful human control	40
4.3	Overcoming the accountability gap through a ban of LAR	44
4.4	Overcoming the accountability gap through an analogy to the regulation of child soldiers	46
4.5	Overcoming the accountability gap through strict liability	47
5.	Conclusion	48
5.1	What are the grounds of accountability in international criminal law and how does LAR corresponds with these forms of accountability?	48
5.2	In the light of ICL's goals of ending impunity through accountability, how can the accountability gap between ICL and LAR be overcome, if at all?	50
6.	Bibliography	52
6.1	Books	52
6.1.1	Monographs	52
6.1.2	Book chapters	52
6.2	Articles	54
6.3	Blog posts	55
6.4	Online sources	56
6.4.1	With author	56
6.4.2	Without author	57
6.5	Case Law	59

List of Abbreviations

AI – Artificial Intelligence

Article 36 API – Article 36 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

AWS – Autonomous Weapons System

HRW – Human Rights Watch

CCW – Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects.

ICC – International Criminal Court

ICC-statute – The Rome Statute of the International Criminal Court

ICL – International Criminal Law

ICRC – International Committee of the Red Cross

ICTY – International Criminal Tribunal for Yugoslavia

IHL – International Humanitarian Law

IHRL – International Human Rights Law

LAR – Lethal Autonomous Robots

LAWS – Lethal Autonomous Weapons systems

NGO – Non Governmental Organisation

UNODA – United Nations Office of Disarmament Affairs

1. Introduction

1.1 Problem, purpose and research questions

1.1.1 Problem

The introduction of artificial intelligence (AI) has revolutionized technology in many ways. Products, such as Apple's Siri, Amazon's Alexa and Tesla's self driving cars are only a few of the more known examples of where AI meets human everyday life. These products are however late examples of AI-technology. For the military, AI-technology has been around for a long time. Depending on which definition of AI is used, a landmine can be argued to include AI, and they were first introduced during the American civil war and used on a wide scale during the second world war.¹ Up until the introduction of Autonomous Weapons Systems (AWS) which incorporates AI-technology, weapons had always been seen as controlled by humans. As technology has advanced, so have AI, and it has been said that it most likely will be possible to construct weapon systems that are *fully autonomous* within years, not decades.²

Fully autonomous weapons systems are systems that operates without human control, an example of such systems are lethal autonomous robots (LAR). It is important to state that no fully autonomous systems like LAR are yet available.³ However, it is believed that once they are, LAR will be able to select and kill its target without human involvement or permission.⁴ As fully autonomous systems per definition operate on its own without human control, LAR will challenge many aspects of international law, both in international humanitarian law (IHL) and international criminal law (ICL).

¹ "A history of landmines" *International campaign to stop landmines*, 2009. <http://www.icbl.org/en-gb/problem/a-history-of-landmines.aspx>

² "Autonomous weapons: An Open Letter from AI & Robotics researchers", *Future of Life Institute*. 2015. <https://futureoflife.org/open-letter-autonomous-weapons/>

³ "Mind the Gap: The Lack of Accountability for Killer Robots." *Human Rights Watch, International Human Rights Clinic*, 2015, 6. https://www.hrw.org/sites/default/files/reports/arms0415_ForUpload_0.pdf

⁴ Christof Heyns, "Autonomous weapons systems: living a dignified life and dying a dignified death." in *Autonomous Weapons Systems Law, Ethics and Policy*, edited by Nehal Bhuta, Susanne Beck, Robin Greß, Hin-Yan Liu and Claus Kreß. (Cambridge: Cambridge University Press, 2016), 14.

The IHL principles of distinction, proportionality and precaution are what create obligations for combatants in war. Combatants have to make sure that LAR or Lethal Autonomous Weapons Systems (LAWS) fulfill these IHL requirements before they are used. Those who decide or plan an attack involving these weapons need to make sure that the requirements can be fulfilled by the combatants. If any of these rules are breached, they can all *individually* be held accountable for that under ICL.⁵

It has been argued that in between the deployment and use of LAR and criminal accountability there opens a gap, aptly named by scholars *the accountability gap*.⁶ Scholars, states and non governmental organisations (NGOs) mean that the level of control humans need to have over weapons have to be defined.⁷ This to make sure that autonomous weapons stay under human control⁸, both for the sake of avoiding an accountability gap in ICL and for main principles of IHL to be upheld.

1.1.2 Purpose

The purpose of this thesis is to explore what and where the accountability gap between LAR and ICL is. By accountability gap, the gap between LAR's ability conduct criminal acts without human control and the requirement of humans for individual accountability in the ICC-statute (The Rome Statute of the International Criminal Court), is intended. As will be described in detail later, the unforeseeability and non-human nature of LAR cause the ICC-statute's forms of accountability to not apply, which results in that individual accountability for international crimes caused by LAR cannot be attributed to anyone.

The purpose of this thesis is further to assess and discuss how to overcome this accountability gap between LAR and ICL, in the light of ICL's goal of ending impunity by accountability from a deterrent and retributive perspective.

⁵ Neil Davidson, "A Legal perspective: Autonomous Weapon Systems Under International Humanitarian law" in *Perspective on Lethal Autonomous Weapons Systems*. (New York, United Nations Publications, 2017), 7-8. <https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/11/op30.pdf>

⁶ Michael Kurt Riepl, "War crimes without criminal accountability? The case of Active Protection Systems." *Humanitarian Law & Policy (blog)*, June 1, 2016, <http://blogs.icrc.org/law-and-policy/2016/06/01/war-crimes-without-criminal-accountability-case-active-protecti-on-systems/>

⁷ Merel Ekelhof, "Autonomous weapons: Operationalizing meaningful human control" *Humanitarian Law & Policy (blog)*. August 15, 2018. <http://blogs.icrc.org/law-and-policy/2018/08/15/autonomous-weapons-operationalizing-meaningful-human-cont rol/>

⁸ *ibid.*

The thesis will assume that there will be an accountability gap between LAR and ICL. This because the only subjects the ICC-stature can create accountability for are humans, while LAR is non-human. The accountability gap between LAR and ICL therefore concerns what subjects the ICC can create accountability for, and how accountability under the ICC-stature is affected by the unforeseeable nature in a LAR system.

There are only a few adequate and wide reaching descriptions available of what and where the accountability gap between LAR and ICL is. Many descriptions of it lack diversity in perspectives and mostly explores the accountability gap from a point of its existence or not. Therefore, yet another description of the accountability gap to use as a basis for a discussion of how to overcome will be given. Even though the thesis assumes that there is an accountability gap, it is important to show whether or not that is true.

The reason for choosing to assess and discuss the possibilities of overcoming the accountability gap from an ICL perspective is that this perspective is largely overlooked. Close to all of the discussions and debates of how to overcome the accountability gap is taken from an IHL perspective. This is not strange since LAR “activates” IHL before ICL. It is a great discussion in the field of how the previously mentioned IHL-principles stand against autonomous systems,⁹ both if decisions over life and death can be delegated to an autonomous weapon system and if an autonomous system can meet requirements of e.g. proportionality and distinction.¹⁰ The weapon review under IHL is something that each state undertakes before introducing a new weapon. It is constructed to make sure that weapons that breach international law are not used.¹¹ It is argued that the weapon review poses standards so high for e.g. foreseeability in the use of weapons¹² that no LAR will pass the weapon review under article 36 of Additional Protocol I (AP1) and will thus never cause an accountability gap for ICL. Hence, most might find it unnecessary to discuss how a weapon that might never be used or even exist affects ICL. While we don’t know what the future holds for the development of LAR both in relation to article 36 AP1 and its existence at all, we do know

⁹ Eric Talbot Jensen, “The human nature of international humanitarian law”, *Humanitarian Law & Policy (blog)*, August 23, 2018.

<http://blogs.icrc.org/law-and-policy/2018/08/23/human-nature-international-humanitarian-law/>

¹⁰ Davidson, “A Legal perspective”, 7-10.

¹¹ Christopher M. Ford, “CCW remarks”. Third CCW meeting of experts on lethal autonomous weapons systems (LAWS) Geneva. 2016, 1.

[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/D4FCD1D20DB21431C1257F9B0050B318/\\$file/2016_LAWS+MX_presentations_challengestoIHL_fordnotes.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/D4FCD1D20DB21431C1257F9B0050B318/$file/2016_LAWS+MX_presentations_challengestoIHL_fordnotes.pdf)

¹² Davidson, “A Legal perspective”, 10.

that systems with high levels of autonomy (but not fully autonomous) are in use today.¹³ As long as the development of all types autonomous systems continues without a regulation of meaningful human control (whose definition is hotly debated and will be discussed later), there is a possibility that one of the existing systems that have passed the weapon review reach new levels of autonomy that approaches levels of full autonomy. As the weapon review is also conducted by the contracting states on their own, there is a possibility that different states reach different conclusions on how to interpret LAR and other AWS in relation to the objectives in the weapon review.¹⁴ This will result in a fragmented, confusing and conflicting approach to LAR. LAR is not yet a forbidden weapon,¹⁵ and as long as LAR or any other type of autonomous weapon systems is predicted to be able to kill without human control, it is relevant to think about, assess and discuss what implications an accountability gap will have on ICL and what can be done to overcome it. This is what the thesis seeks to contribute with.

1.1.3 Research questions

To help the purpose, the following two questions will be answered:

What are the grounds of accountability in international criminal law and how does LAR correspond with these forms of accountability?

In the light of ICL's goals of ending impunity through accountability, how can the accountability gap between ICL and LAR be overcome, if at all?

1.2 Limitations

This thesis will focus on individual criminal accountability for international crimes through the ICC-statute. This because the ICC is the only international court with (close to) universal jurisdiction for international crimes. Other courts or other forms of accountability available for breaches of international law, such as state responsibility, will thus not be covered.

Neither will questions of accountability in relation to e.g IHL and military law be covered.

The theoretical basis for the thesis will be the theory of deterrence and retribution, and the role that they play in ICL's theory of ending impunity through accountability. The two

¹³ Riepl, "War crimes without criminal accountability?,".

¹⁴ Ford, "CCW remarks.", 1.

¹⁵ "Autonomous weapon systems, technical, military, legal and humanitarian aspects", *International Committee of the Red Cross*, 2014, 47.

<https://www.icrc.org/en/document/report-icrc-meeting-autonomous-weapon-systems-26-28-march-2014>

theories were chosen as they are well known and widespread theories for justification of criminal accountability and has been used by the ICC in e.g. the ICTY (International Criminal Tribunal for Yugoslavia).¹⁶

Since the thesis has an ICL perspective, the problems LAR cause IHL and International Human Rights Law (IHRL) will not be covered, as those are outside the scope of the thesis. It is however not possible to completely overlook IHL in relation to ICL, as it is breaches of IHL that is the base to ICL-accountability.¹⁷ Hence will IHL be mentioned when necessary to understand how IHL and ICL work together.

The technology used as references for the accountability gap will be LAR. This because LAR was the first type of autonomous weapon encountered in the research process and because countries such as the United States of America, China, Israel, South Korea, Russia and the United Kingdom already have autonomous weapons in use and are continuing to develop them into what in future could be LAR.¹⁸ LAR is therefore the most interesting technology to look at in relation to the accountability gap and ICL, as it is developing rapidly. Within the field of LAR you will also encounter the acronyms LAWS and AWS.¹⁹ The main focus in the thesis is not to distinguish between LAR, LAWS and AWS in relation to the accountability gap, but rather focus on what they have in common which is the ability to conduct criminal acts without human control.

1.3 Material and method

1.3.1 Introduction

Three different methods will be used in this thesis. The first is a literature review to collect the material for the thesis. The material collected will then be used to do a description of

¹⁶ Criminal accountability can be argued to have other and/or more theoretical grounds of justification than these e.g. rehabilitation, vindication, reconciliation, education etc. According to Cryer most criminal systems builds upon a mixture of a teleological and deontological perspective. Robert Cryer et al, *An Introduction to International Criminal Law and Procedure*, 3rd edition, (Cambridge: Cambridge University Press, 2014), 30.

¹⁷ Rebecca Crootof, "War Torts: Accountability for autonomous weapons", *University of Pennsylvania Law Review*, 164:6, 2016, 1361.

¹⁸ "Retaining human control of weapons systems, Briefing Note for the Convention on Conventional Weapons Group of Governmental Experts meeting on lethal autonomous weapons systems", *Campaign to stop killer robots*, 2018, 1.

https://www.stopkillerrobots.org/wp-content/uploads/2018/03/KRC_Briefing_CCWApr2018.pdf

¹⁹ *International Committee of the Red Cross*, "Autonomous weapon systems, technical, military, legal and humanitarian aspects", 5.

the accountability gap. Description is therefore the second method.²⁰ The description will be used to show what and where the accountability gap between LAR and ICL is. The third method is to use ICL's goal of ending impunity through accountability and the theory of deterrence and retribution as a tool for interpretation and assessment of the proposed action to overcome the accountability gap from the ICL-perspective.

1.3.2 Material

In the literature review the material from the the most relevant sources and debates in the field have been collected. A literature review has the benefit of it being possible to including many perspectives and opinions and through that achieve a broad and well-established picture of the problem at hand. Since this thesis aims at describing and assessing, a literature review is the best way of collecting the material as it needs to be diverse. The risk of using a literature review is that the sources chosen shows a biased or unfair picture. Since the choice of what to include in the literature review is done by the author, the author needs to be transparent in how the material has been collected in order for it to be legitimate.

In the literature review, the most central and relevant work about LAR has been gathered. These are mostly found within the IHL-field and its leading journals for international law, as well as blogs and forums, such as e.g ICRC (International Committee of the Red Cross) , HRW (Human Rights Watch) and CCW (Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects). As the material has been collected, the references and recommendation for further reading has been used as the basis for widening the scope of material.

The starting point for the gathering of the material for the description of the accountability gap was taken from the HRW's-articles "Mind the gap: The lack of accountability for killer robots"²¹ and "Losing humanity: The case against killer robots"²². The reason for starting there is that both articles are the most easily accessed articles about the accountability gap and LAR, but thorough enough to give a good first insight into the subject and problem. With the help of the references in those articles and the book

²⁰ Anne Orford, "In praise of description", *Leiden Journal of International Law*. 25, (2012).

²¹ *Human Rights Watch*, "Mind the Gap:".

²² Human Rights Watch, International Human Rights Clinic. "Losing Humanity: The Case Against Killer Robots". *Human Rights Watch*, 2012. https://www.hrw.org/sites/default/files/reports/arms1112_ForUpload.pdf

“Autonomous weapons system: Law, Ethics and Policy” the material will be widened with relevant and appropriate sources to show a variety of different opinions and statements regarding the accountability gap.

The ICRC’s blog will also be used. The posts published on the blog are rather short, but written by well renowned scholars and include sources for more relevant material, which will be also used.

The CCW’s webpage also provide useful material for this thesis. On their webpage at United Nations Office of Geneva, you can find the material which is used as the basis for their discussion about LAWS. Most of the papers provided unfortunately lacks references and can therefore be questioned as academic sources. However, since the statements and presentations provided are used in the work of the CCW expert group and are written by well renowned scholars and publicly distributed by the CCW, they are controlled to an extent which makes it acceptable to use them in academic work. They will therefore be included in the thesis.

The material used for the discussion is collected in the same way as for the description, with a larger focus towards the material from the CCW, an article by Robert Sparrow and the book “Autonomous weapons system: Law, Ethics and Policy” as they include the most interesting aspects and debates for the discussion.

The material used for the background of ICL will be taken from books about international criminal law. A few of those books are old, which can be problematic as the field of LAR is technological and therefore under rapid and constant development. It has to be empathized that these older sources will only be used for the parts of the background that are not part of this fast changing field, such as the presentations of the forms of accountability in the ICC-statute. These facts are the same as when the ICC-statute was created in 1998, and hence is there no need to exclude these older sources solely based on age when they are used as described.

There are three other sources that are older but frequently used. These are a book by Armin Krishnan, an article by Robert Sparrow and an article by Andreas Matthias. Matthias article is used for a historical aspect, and is therefore needed. Krishnan’s book offers interesting points for my discussion which still hold validity for today, and is still used for references in new scholars work. Sparrow’s article is a cornerstone of the debates about LAR and accountability with many scholars still referring to his work. Rather than using a later

scholar's reinterpretation of Krishnans, Sparrows and Matthias words, reference to their original publications will be done.

The material for the theory is found in Robert Cryer's book about International criminal law and HRW's article "Mind the gap: The lack of accountability for killer robots". Their description of the theory of deterrence and retribution and how those relate to ICL and the goals in the ICC-statute's preamble are those that will work best with my choice of perspective.

1.3.3 Method

The aim of the first research question is to do a description of the grounds of accountability in the ICC-statute in relation to LAR. Since the question wants to show where the accountability gap is and what it looks like, a description is the best way to do so. Anne Orford has used description as a method in her writing when conducting researching in an area where there is a gap or two strong sides of arguments that are to be presented. She argues with the help of the philosopher Michel Foucault that description as a legal method can be successfully used when not aiming at unraveling something hidden but rather show something that is already visible.²³ A description also reduces the risk of misinterpretation or misunderstanding as it makes sure that the reader correctly understands the background to later arguments.

Description is a great method if you have trouble establishing or understanding an area or a concept. As for the accountability gap, it is a concept that is in theory rather easy to understand. However, to understand it in more precise terms and in relation to each form of accountability in the ICC is more challenging. It is therefore beneficial for the reader's understanding of the accountability gap to do a description of it, even though it has been done before by other scholars.

The procedure that needs to be undertaken to conduct a descriptive method is to map out as many connections and relations between the relevant elements as possible.²⁴ Critiques mean that only using description as a method is shallow, static and not analysing. Orford together with Foucault argues against this and means that it is only when you understand the relations and connections between the elements that it is later possible to understand the actions needed to be taken for one element to change.²⁵ This is a highly relevant argument for

²³ Orford, "In praise ", 609, 612, 617.

²⁴ *ibid.*, 618.

²⁵ *ibid.*

this thesis as the discussion will focus on potential changes to the ruling doctrine.

This brings us to the second research question of the thesis, which is the basis for the discussion. The aim for the second research question is to connect the the theory of deterrence and retribution found in the ICC goal of ending impunity by accountability with the the proposed actions to overcome the accountability gap.

The starting point of the discussion is taken in a presentation of other scholars relevant arguments and discussions of how to overcome the accountability gap. This to gain a basis of what the proposed actions are and how they seek to overcome the accountability gap. Using the theory of deterrence and retribution as a tool, the proposed actions will be assessed to tell if it is an action that will be beneficial or not to take in regards of the goal to end impunity. The ICL-perspective that most scholars overlook have then been intervened in the assessment. The proposed action assed in the discussion will be the possibility of extending mens rea (the mental element) and natural person to include LAR, meaningful human control, banning of LAR, analogy to the regulation of child soldiers and strict liability. The aim of the discussion is not to find the ultimate and best solution to combat the accountability gap from an holistic perspective, but to discuss the proposed actions in relation to what might work best for ICL.

1.4 Theory

1.4.1 What is an accountability gap?

HRW states that the existing mechanisms for legal accountability are not well suited and inadequate to prosecute the harm LAR could cause, and therefore there is a risk of an accountability gap between LAR and ICL.²⁶ What LAR does, together with all other AWS, is that it challenges the presumption that a criminal act only can be conducted by a human. The lack of a human acting with intention in LAR means that no one can be held accountable.²⁷ This is the accountability gap.

²⁶ *Human Rights Watch*, "Mind the Gap:", 2.

²⁷ Crootof "War torts," 1366.

Amongst the first to write about the challenge between intelligent machines and accountability was a scholar named Perry 6. He says that difficulty will arise in imputing responsibility on intelligent machines, and that machines will never have moral agency.²⁸

Andreas Matthias was one of the first scholars to introduce the term responsibility gap (now referred to as accountability gap). He identified that “agents can only be responsible if he knows the particular facts surrounding his action, and if he is able to freely form a decision to act, and to select one of suitable set of available actions based on these facts”.²⁹ He concluded that control is a necessity for responsibility, and thus the operator of the machine will have *less responsibility over it the less control he or she has*.³⁰

Machine learning and AI are both able to alter the production process of the machine during the operation, without the intervention of a human. For the use of these type of technology neither developer, operator, programmer or manufacturer could be held accountable if no individual fault could be identified.³¹ As machine learning have increased, and AI have developed, the traditional ways of ascribing responsibility are not compatible with this technology. This since no one has enough control over the machine to be found accountable.³² This is what Matthias meant is the accountability gap. An accountability gap could therefore also be described as the space that opens up between two things that are supposed to overlap.

A relevant concept close to the accountability gap is the term ‘impunity gap’. At first sight, the two concepts might seem alike, and it can be questioned if there is a difference between them and what that difference then would be.

One can start with looking at the different meaning of the words. “Impunity” means the exemption of a punishment and lack of punishment for wrongful actions.³³

“Accountability” can be described with the synonym “responsibility” and described as the

²⁸ Perri, 6. “Ethics, regulation and the new artificial intelligence, part II: autonomy and liability” *Information, Communication & Society*, 4:3 2001, 426. (Perri, 6 was known as David Ashwood before 1983).

Thompson, Chengeta. “Accountability Gap: Autonomous Weapon Systems and Modes of Responsibility in International Law”. *Denver Journal of international Law and Policy*, 2016, 9.

²⁹ Andreas Matthias, “The responsibility gap: ascribing responsibility for the actions of learning automata”. *Ethics and Information Technology*, 2004 issue 3, p. 175.

³⁰ *ibid.*, 175-176.

³¹ *ibid.*, 177.

³² *ibid.*, 177.

³³ “Definition of impunity”, *Oxford Living Dictionaries*. Accessed 2018.
<https://en.oxforddictionaries.com/definition/impunity>

factor or condition of being accountable or responsible.³⁴ While this still seems like the same concept there is a difference between “accountability” and “responsibility”, especially within the field of law. Accountable is in law used to describe the one that is responsible. However, one can be responsible without being accountable, if they for example do not fulfill the requirements for accountability (e.g. minors). It is hard to draw a clear distinction between the two, but it is important to take into consideration that there is a difference. The morale is that the difference makes it important to distinguish between them when using either.

When talking about “impunity gap” in the context of international crimes, what is meant is an accountability gap but on a different “level”. The term impunity gap is used to describe a scenario where some sort of atrocity has occurred, but there is either no will or way to punish it domestically and the ICC has no jurisdiction to intervene.³⁵ An accountability gap (as described in this thesis) is a space that opens up between two things that are, in theory, supposed to overlap. The two concepts therefore deals with the same problem, but in different ways and on different “levels”. It is however not possible to draw a precise line where the accountability gap ends and the impunity gap begins. From this point of view, the difference between the two lays in the approach to them, where impunity gap is more related to the will and possibility of states and ICC to prosecute crimes that has occurred, an accountability gap is the issue of technically holding someone accountable for a certain action when it has been established that someone has jurisdiction.

1.4.2 Deterrence and retribution in ICL’s goal of ending impunity

The goal of ending impunity is established in the preamble of the ICC. The preamble reads “Determined to put an end to impunity for the perpetrators of these crimes and thus to contribute to the prevention of such crimes”.³⁶ The goal to end impunity for the most serious crimes to the international community is based in the wish for international crimes to not be left unpunished, as this might encourage future crimes and impede rebuilding of societies post-conflict. By establishing individual accountability though ICL for some of mankind's worst crimes (war crimes, genocide, crimes against humanity and aggression), it is believed

³⁴ “Definition of accountability”, *Oxford Living Dictionaries*. Accessed 2018.

<https://en.oxforddictionaries.com/definition/accountability>

³⁵ Nicolas Michel, Katherine Del Mar, “Transitional justice” in *The Oxford Handbook of International Law in Armed Conflict*, Edited by Andrew Clapham and Paola Gaeta (Oxford: Oxford University Press 2014), 875.

³⁶ ICC statute preamble, subsection 5.

that future crimes will be deterred and that the victims are given some retribution for their suffering.³⁷

Criminal accountability can in general be said to have two main goals. These are to deter and punish harmful and unlawful acts and achieve some recognition for the victims. Criminal law wants to, by criminalizing and punishing certain acts, create hurdles that makes it morally harder for people to violate them.³⁸ Two of the main theories for doing this is deterrence and retribution.³⁹

It is generally believed within criminal law that if criminal acts are punished and criminals held accountable, the perpetrators or other people are less likely to repeat them. This is the theory of deterrence. In the ICC-statute, the theory of deterrence is used as a theoretical basis for the ICC's goal of ending impunity.⁴⁰

Deterrence can be explained as a theory for justification of punishments. Jeremy Bentham is the most known philosopher behind the theory of deterrence. The prevention of future crimes for both the perpetrator and the population as a whole is one of the cornerstones in this theory.⁴¹ The basis of deterrence is found in utilitarianism, where the benefits for society as a whole trump the benefits of the individual. This means that there is nothing that prevents extremely heavy punishments and punishments of innocent if it benefits society as a whole. Cryer exemplifies the possibility of punishing a family member of the perpetrator might be the best deterrence of them all, even though this is not considered morally defensible in a civil society.⁴² For deterrence to reach its full potential, the perpetrators need to know in advance what is prohibited so that an assessment of the consequences can be done before he or she acts.⁴³ Deterrence focuses a future oriented perspective, and therefore takes into consideration how an act could affect in the long run.⁴⁴

Critiques against the theory of deterrence mean that the lack of convictions in ICL (very few people have been convicted for international crimes) undermine the whole meaning of deterrence in ICL. Some argues however that as long as a culture of accountability is

³⁷ Jens David Ohlin, "Justice after war" in *Oxford Handbooks on Ethics of War*, edited by Seth Lazar and Helen Frowe (Oxford: Oxford University press, 2015), 519-520.

³⁸ Crootof, "War Torts," 1362.

³⁹ Cryer et al., "An introduction", 30. There are plenty of other theoretical grounds for justification criminal accountability found in ICL, e.g. rehabilitation, vindication, reconciliation, education etc.

⁴⁰ *ibid.*, 33.

⁴¹ *ibid.*, 32.

⁴² *ibid.*, 32.

⁴³ Human Rights Watch, "Mind the Gap:",14.

⁴⁴ Cryer et al, *An Introduction*, 30.

created around the international crimes, it will eventually lead to deterrence.⁴⁵ Considering the special nature of international crimes, there is a risk that deterrence won't work properly. This because the wider public where the theory is to apply needs to be part of the same moral community for it to gain full effect. This sort of community may, and most likely do, exist on domestic and maybe regional level. It can however be questioned if it exists in the international sphere.⁴⁶

The second goal of criminal accountability is to provide retribution for victims.⁴⁷ This is done through *individual* accountability.⁴⁸ Individual accountability is one component in restoring victims dignity, since it establishes victims rights after they have been violated.⁴⁹ The aim is that victims should, through individual accountability in e.g. ICL, feel that someone is being condemned and punished for the harm that has been caused them. It is also believed that by holding perpetrators individually accountable, collective blame can be avoided. To avoid collective blame is a crucial step towards rebuilding a functioning society after a conflict.⁵⁰

The aspect of retribution is not a new theory within criminal law and has its basis in the philosopher Immanuel Kant. Retribution focuses on punishing those who have broken a social norm. It does not take into consideration future benefits of prosecution like deterrence does, it only focuses on the fact that the offender deserves a punishment.⁵¹ Someone who is true to the retributionist theory believes the utility of prosecutions is irrelevant as the goal of the punishment is to give the the perpetrator what they rightly deserve. The retributive theory therefore focuses on a deontological aspect, a backwards perspective.⁵² For a retributionist, the most important thing is what is practical and morally necessary.⁵³

The theory of retribution has been considered a particularly good fit for ICL. ICL does not take into account the same rationales as domestic criminal law does, and therefore holding perpetrators accountable for their actions regardless of other parameters could be an

⁴⁵ Cryer et al, *An Introduction*, 34.

⁴⁶ S. Nouwen, "International criminal law: theory all over the place" in *Oxford Handbook on International Theory*, eds. Anne Orford and Florian Hoffmann (Oxford: Oxford University Press, 2016), 752-753.

⁴⁷ *Human Rights Watch*, "Mind the Gap:", 13.

⁴⁸ *ibid.*, 14.

⁴⁹ Crootof, "War torts," 1363.

⁵⁰ *Human Rights Watch*, "Mind the Gap:", 14-15.

⁵¹ Ohlin, "Justice after war", 520.

⁵² Cryer et al, *An Introduction*, 30.

⁵³ *ibid.*, 2.

attractive method.⁵⁴ However, the line between retribution and vengeance is thin, and therefore the modern day approaches to retribution are very careful to distinguish between the two.⁵⁵

One important aspect of retribution is the role it plays as a reflection of the demand for accountability that victims have. Retribution holds a requirement of proportionality between the action and the punishment, something that is used in most domestic criminal systems throughout the world.⁵⁶ The question of proportionality is however an issue for ICL as the atrocities that are considered international crimes may not have a proportional punishment.

The theory about retribution is not without its problems. Critiques say for example that retribution demands punishments without regard to the cost, that it sets a high standard for disadvantaged groups and societies and that it requires a punishment even where there is no point of it.⁵⁷

To summarise, the ICL goal of ending impunity uses the theory of deterrence and retribution as justification for criminal accountability. The goal of ending impunity thus entails a wish to deter future crimes through criminal accountability, but the accountability needs to benefit the future society. It also entails a wish for victims to find retribution through the individual accountability ICL offers, and this doesn't take into consideration future benefits of the punishment but rather focuses on the victims right to recognition for their suffering. This is the theoretical standpoint of the thesis.

1.5 Outline

The thesis will start with a background. The background consists of a closer look and presentation of what LAR is by describing its abilities, definition and controversy and attraction. After this, it is touched upon how criminal accountability is created in the ICC-statute. This is done through establishing which the most important provisions and what the active and mental element means for accountability. This is followed up with a presentation of what each of the ground of accountability in the ICC-statute entails.

⁵⁴ Cryer et al, *An Introduction*, 30.

⁵⁵ *ibid.*, 31.

⁵⁶ *ibid.*, 31.

⁵⁷ *ibid.*, 32.

The next part is the description where Orford's method of description is applied. This section seeks to map out what the accountability gap looks like between LAR and ICL and where it is. This section will describe how accountability in ICL will look like for LAR as its own entity, for operators of LAR, for commanders over LAR and for manufacturers, developers and producers of LAR.

The discussion is next and will focus on how the accountability gap can be overcome. The discussion will firstly present the proposed action to overcome the accountability gap and then assess the action from the theoretical perspective of deterrence and retribution, trying to see if the action is compatible with these two perspectives found in the goal of ending impunity.

The first proposed action discussed will be the possibility of extending mens rea and natural persons to include LAR as its own entity. This action means that the accountability gap would be overcome as the LAR themselves could be held accountable.

The next proposed action discussed is meaningful human control. A definition would make sure that no weapons that are beyond human control are used and/or developed and this would help to overcome the accountability gap.

After that, the possibility of overcoming the accountability gap through a ban of LAR is discussed. This action would result in that the future use of LAR is prohibited, and the accountability gap would be overcome.

The possibility of overcoming the accountability gap through an analogy to the regulation of child soldiers is then discussed. This action proposes that the accountability gap could be overcome if LAR uses the same sort of accountability scheme as is used in for the recruitment and use of child soldiers. This would mean that accountability could be established for the LAR, and the accountability gap would be overcome.

Lastly, the possibility of applying strict liability on the use of LAR is covered. This action proposes that the accountability gap could be overcome if strict liability is used for all types of use of LAR.

In the conclusion, it is concluded that the accountability gap between LAR and ICL exists in all forms of accountability available in the ICC-statute, as no accountability can be guaranteed for any party. It is also concluded that the both natural persons and mens rea need human subjects to work as intended from a retributive and deterrent perspective. This means that the actions to overcome the accountability gap need to focus on finding this human

subject. Exactly how this is done is of lesser importance to ICL, but from a deterrent and retributive perspective, banning of LAR would be the best option.

2. Background

2.1 What is LAR?

2.1.1 Introduction

AWS technology exists in a variety of forms, from systems with very little autonomy to systems with full autonomy. The systems that operates under close observation and control of humans are usually only called “autonomous systems” while the systems that have no or close to no human control are called “fully autonomous systems”.⁵⁸ A low level of autonomy can for example consist of the ability to return to base by its own account, while fully autonomous systems means that the robots can both identify and kill its victim on its own.⁵⁹ Christof Heyns says that “full autonomy exists where human no longer exercise meaningful human control”.⁶⁰ A LAR would be a system that is fully autonomous.⁶¹

A system where the human doesn't have meaningful control is also expressed as a system where the human is “out of the loop”. The term refers to the human which is not involved in the line of decision making in a fully autonomous system. In contrast to “out of the loop”, a system that is “in the loop” can only select and engage targets with human command. The term “on the loop” is also sometimes used and refers to systems that can select and engage targets under human supervision and where the human can override the robots decisions.⁶² Previous remote controlled drones that have been used have had the human “in the loop” or “on the loop”.⁶³

As a LAR is autonomous rather than automatic, they can alter their pre-programmed schedule by learning from their own mistakes⁶⁴ It is not coherent in the literature if the

⁵⁸ Heyns, “Autonomous weapons systems: living a dignified life and dying a dignified death.”, 6.

⁵⁹ *Human Rights Watch*, “Losing Humanity: The Case Against Killer Robots” 6.

⁶⁰ Heyns, “Autonomous weapons systems: living a dignified life and dying a dignified death.”, 14.

⁶¹ *Human Rights Watch*, “Mind the Gap:”, 6.

⁶² *ibid.*, 6.

⁶³ *ibid.*, 6.

⁶⁴ Robert Sparrow “Killer Robots.” *Journal of Applied Philosophy*, 24 (2007), 65.

launch of LAR is decided by humans or not. Some argue that each operation has to be activated by an operator, while other argues that once it is activated all operations are undertaken by the LAR on its own.⁶⁵

2.1.2 Definition

One of the leading definitions of autonomous systems was set by the The United States of America's Department of Defense in 2013 and states an autonomous system as "once activated, can select and engage targets without further intervention by a human operator. This includes human-supervised AWS that are designed to allow human operators to override operation of the weapon system, but can select and engage targets without further human input after activation."⁶⁶ The ICRC has defined autonomous systems in a very similar way.⁶⁷

The UK's Ministry of Defense defines autonomous systems as "capable of understanding higher level intent and direction [...] such a system is able to take appropriate action to bring about a desired state. It is capable of deciding a course of action, from a number of alternatives, without depending on human oversight and control, although these may still be present. Although the overall activity of an autonomous unmanned aircraft will be predictable, individual actions may not be."⁶⁸

These two definitions, while not universally recognised, give insight into what a system that is autonomous can do. A LAR, which is a *fully* autonomous system, can therefore be included in this, even though the definition is not directly aimed at it.⁶⁹

⁶⁵ Hin-Yan Liu, "Refining responsibility: differentiating two types of responsibility issues raised by autonomous weapons systems" in *Autonomous Weapons Systems Law, Ethics and Policy*, eds. Nehal Bhuta et. al. (Cambridge: Cambridge University Press, 2016), 328.

⁶⁶ Rebecca Crootof, "The Killer Robots are Here: Legal and Policy Implications." *Cardozo Law Review*, 36 (2015), 1850.

⁶⁷ "Any weapon system with autonomy in its critical functions. That is, a weapon system that can select (i.e. search for or detect, identify, track, select) and attack (i.e. use force against, neutralize, damage or destroy) targets without human intervention."

"Views of the International Committee of the Red Cross (ICRC) on autonomous weapon system.", *Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)*, 2016.

[https://www.unog.ch/80256EDD006B8954/%28httpAssets%29/86748714E19ABC52C1257F930057E50B/\\$file/2016_LAWS+MX_Towardaworkingdefinition_Statements_ICRC.pdf](https://www.unog.ch/80256EDD006B8954/%28httpAssets%29/86748714E19ABC52C1257F930057E50B/$file/2016_LAWS+MX_Towardaworkingdefinition_Statements_ICRC.pdf)

⁶⁸ Crootof, "The Killer Robots," 1853.

⁶⁹ Pablo Kalmanovitz, "Judgement liability and the risks of reckless warfare" in *Autonomous Weapons Systems Law, Ethics and Policy*, eds. Nehal Bhuta et. al. (Cambridge: Cambridge University Press, 2016), 155.

2.1.3 Controversy and attraction

LAR and the potential and future use of it has sparked controversy around the world. *The Future of life Institute*, whose purpose is research that safeguards life and develop optimistic visions of the future for humanity and technology⁷⁰, promoted in an open letter that while the use of AI has potential to greatly benefit humanity, the use of autonomous weapons that are “beyond human control” should be banned. The letter was signed by thousands of scholars and influential company leaders working with AI and robotics. They described it as possible within years, not decades to build robots like LAR and that they would pose a great threat to humanity.⁷¹

Despite the controversy surrounding LAR, it is easy to see why they are attractive for military purposes. Autonomous weapons have the ability to protect personnel and equipment in war from harm.⁷² Autonomous system can also process much more information in a shorter period of time than a human could. It has also been argued that autonomous systems could be used to make sure that no one is e.g wrongfully hit, killed or harmed, and thus enforce the principles and rules of IHL and IHRL better than humans could and through that lower the risk of e.g. war crimes.⁷³ On the contrary it has also been argued that autonomous weapons “depersonalize” the acts in war by taking the fear away from the battlefield. On the other hand, by taking the fear away it has been argued that a robot would not respond to the feeling of being afraid or threatened and therefore abstain from acting until it is allowed by law.⁷⁴

2.3 Criminal accountability under ICL

The introduction of ICL developed a whole new take on accountability within the field of international law. Before ICL, international law could only imply accountability upon states when they violated an international treaty or customary rule. This way of implying accountability is the overall and general approach in international law. With the introduction of ICL came the possibility of *individual* accountability for specific *international* crimes.⁷⁵

⁷⁰ *Future of Life institute*, “Autonomous weapons: An Open Letter,”.

⁷¹ *ibid.*

⁷² Heyns, “Autonomous weapons systems: living a dignified life and dying a dignified death”, 6-7.

⁷³ *ibid.*, 6-7. Crootof “War Torts:”, 1351.

⁷⁴ Heyns, “Autonomous weapons systems: living a dignified life and dying a dignified death”, 6-7.

⁷⁵ Crootof “War torts,”, 1351.

While individual accountability for international crimes has an important historical basis in e.g the Nürmeberg and Tokyo Trials in the aftermath of the second world war⁷⁶, ICL evolved significantly in the 1990's with the establishment of the ICC-statute and can be argued to have become its own body of law at that time.⁷⁷

Article 25 and 30 in the ICC-statute is the most important provisions for this thesis. Article 25 in the ICC-statute establishes the ground of criminal accountability and provides in its sub-paragraphs what acts ICC has jurisdiction over.⁷⁸ It is important to note that article 25.1 establishes that the ICC only has jurisdiction over *natural persons*. This means that legal persons, corporation, states etc. don't fall within the jurisdiction of the Court as subjects.⁷⁹

Article 30 establishes that both an objective/active element (*actus reus*) and a subjective/mental element (*mens rea*) needs to be established for there to be individual criminal accountability.

Article 25.3 provides the modes of participation, the active elements, that are within the jurisdiction of the Court. The requirement of an active element means that the offender must have conducted something that is criminally punishable according to the statute. The mental element means that the offender must have intent and knowledge. It is not only intent that is considered *mens rea*, also omission, recklessness, culpable negligence, and inadvertent negligence.⁸⁰

All the crimes prosecuted within ICC are war crimes, genocide, crimes against humanity and aggression.⁸¹ War crimes originate from IHL and aims at protecting victims of armed conflicts.⁸² Genocide and crimes against humanity derives from IHRL, and has its basis in the wish for the atrocities of the second world war to never be repeated again.⁸³ Aggression has its basis in a wish to protect state sovereignty.⁸⁴ Since ICL is influenced by

⁷⁶ Cryer et al, *An Introduction*, 115.

⁷⁷ *ibid.*, 3.

⁷⁸ Kriangsak Kittichaisaree, *International Criminal Law*. (Oxford: Oxford University Press, 2001), 233.

⁷⁹ Heyns, "Autonomous weapons systems: living a dignified life and dying a dignified death", 13.

Roberta Arnold, "Criminal responsibility for IHL breaches by (the use) of LAWS", Informal meeting of experts on LAWS. February 13, 2016.

[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/1BBDA5971E56E3CBC1257F9500279D9C/\\$file/2016_LAWS+MX+Presentations_ChallengestoIHL_Roberta+Arnold.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/1BBDA5971E56E3CBC1257F9500279D9C/$file/2016_LAWS+MX+Presentations_ChallengestoIHL_Roberta+Arnold.pdf)

⁸⁰ Antonio Cassese, *International Criminal Law*. (Oxford: Oxford University Press, 2003), 161

⁸¹ The ICC-statute article 5. Arnold, "Criminal responsibility for IHL breaches,".

⁸² Cryer et al, *An Introduction*, 15.

⁸³ *ibid.*, 13.

⁸⁴ *ibid.*, 307.

other areas of law, their point of view and standards have to be carefully interpreted before taken into ICL as ICL has its own distinct principles of interpretation.⁸⁵

2.4 Forms of accountability in the ICC-statute

2.4.1 Direct acts

2.4.1.1 Perpetration and co-perpetration

The perhaps most well established principles of accountability in international law are those for direct acts.⁸⁶ The direct acts are specified in the ICC-statute article 25.3 (a) and (b) and is thus the acts of perpetration, co-perpetration, ordering, soliciting and inducing.⁸⁷

Perpetration is the form of accountability used for the person that has physically conducted a crime and carried out all elements of the offence.⁸⁸ Like all forms of accountability, perpetration needs both actus reus and mens rea. The actus reus for perpetration is the unlawful act, such as killing someone with a gun, and the mens rea is the intent to do so.⁸⁹

Co-perpetration was defined in the *Lubanga* case in the ICC as to when all the coordinated individual contributions by a plurality of persons leads to the realisation of all the objective elements of a crime. Any person that has contributed can therefore be held accountable for the contribution of all the others.⁹⁰ The actus reus is thus that it exists a common plan and all perpetrators must have the same criminal intent as the one conducting the crime to fulfill the mens rea.⁹¹

2.4.2 Indirect acts

Indirect act are specified in the ICC-statute article 25.3 (c) and (d) and is thus the acts of aiding, abetting or otherwise contributing in any way to a crime or the attempt of a crime.⁹² Indirect acts also include the doctrine of command responsibility.

⁸⁵ Cryer et al, *An Introduction*, 16.

⁸⁶ Kittichaisaree, *International Criminal Law*, 234.

⁸⁷ *ibid.*, 234.

⁸⁸ *ibid.*, 355.

⁸⁹ *ibid.*, 364.

⁹⁰ Kittichaisaree, *International Criminal Law*, 364.

⁹¹ Chengeta, "Accountability Gap," 20.

⁹² Kittichaisaree, *International Criminal Law*, 234.

2.4.2.1 Aiding, abetting, planning and preparation

Aiding means to help by assisting, while abetting means to be involved by facilitating the commission of a criminal act by being e.g. sympathetic or encouraging.⁹³ This form of accountability is a powerful tool for the ICC since it can create accountability for people that are not directly involved in the crime but nevertheless important.⁹⁴

The actus reus of aiding and abetting requires that someone practically assists, encourages or gives moral support to someone that has *substantial effect* on the perpetration of the crime.⁹⁵ It is therefore two requirements to fulfill the actus reus of aiding and abetting, act of participation and that this act has substantial effect on the crime.⁹⁶ What the person aiding or abetting does might be lawful, but paired together with the perpetrators unlawful conduct it becomes a criminal act. It is not necessary that the one aiding or abetting has helped in the form of providing material or physical help. It is enough to “silently agree” to what is being done, as long as there is intent of the effect.⁹⁷

The person aiding or abetting also needs to have knowledge that their act will assist the crime in order to fulfill mens rea.⁹⁸ It is not necessary to share the intent with the criminal offender.⁹⁹ Aiding and abetting has been described as a form of liability that can fill gaps in the liability scheme.¹⁰⁰

2.4.2.2 Command responsibility

Command responsibility is a mix between both direct and indirect accountability. A commander can be held directly accountable for not intervening and therefore indirectly accountable for the crime their subordinate has committed.¹⁰¹

It was in the *Delalić* case of the ICTY that the premises of commander accountability was established. It was concluded that a commander can be responsible for their subordinates

⁹³ Kittichaisaree, *International Criminal Law*, 241.

⁹⁴ Cassese, Antonio. *International Criminal Law: Cases and Commentary*. (Oxford: Oxford University Press, 2013), 381.

⁹⁵ Kittichaisaree, *International Criminal Law*, 241.

⁹⁶ *ibid.*, 243.

⁹⁷ *ibid.*, 243.

⁹⁸ Cassese, *International Criminal Law: Cases and Commentary*, 381.

⁹⁹ *ibid.*, 381.

¹⁰⁰ *ibid.*, 381.

¹⁰¹ Jain, Neha, “Autonomous weapons systems: new frameworks for individual responsibility.” in *Autonomous Weapons Systems Law, Ethics and Policy*, eds. Nehal Bhuta et. al. (Cambridge: Cambridge University Press, 2016), 310.

crimes if he or she has failed to prevent or punish subordinate for their crimes.¹⁰²

Accountability occurs if a commander-subordinate relationship can be established and the commander has effective control over his/her subordinate, the superior knew, had reason to know or should have known of the subordinate's crimes (this fulfills the mental element) and the commander has failed to prevent, control or punish the conduct.¹⁰³ Article 28.1 in the ICC-statute, it is stated that there also needs to be a causal connection between crime and commander. The commander therefore needs to have caused the crime by his action (or lack of).¹⁰⁴

3. Where is the accountability gap and what does it look like?

Criminal law has previously faced the difficulty of having subjects causing harm that cannot be held accountable for their actions, e.g. minors and people deemed insane.¹⁰⁵ However, the challenges minors and insane posed are different to the challenges LAR pose. The LAR has “no soul to be damned and no body to be kicked”¹⁰⁶ and therefore, it will be difficult if not impossible create criminal accountability for it in ICL. However, behind the deployment, development and use of LAR there are human operators, commanders, developers, manufacturers, programmers and producers and the question is if any of these can be held accountable.¹⁰⁷

The following sections describes if and map out how each of these persons could be held accountable under the forms of accountability available in the ICC-statute. The goal of the description is to try to show *where* the accountability gap between LAR and ICL is and *what* it looks like.

¹⁰² *Human Rights Watch*, “Mind the Gap:”, 20-21.

¹⁰³ Jain, “Autonomous weapons systems: new frameworks,” 310.

¹⁰⁴ *ibid.*, 310-311.

¹⁰⁵ *ibid.*, 303.

¹⁰⁶ *ibid.*, 303.

¹⁰⁷ Jain, “Autonomous weapons systems: new frameworks,” 303-304. *Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)*, “Views of the International Committee of the Red Cross (ICRC),”, 5.

3.1 Possible forms of accountability for each party

3.1.1 Criminal accountability for the LAR as its own entity

Soldiers are customarily accountable for breaches of law on the principle of moral equality of soldiers. This means that the responsibility of war is not attributed to the soldiers, but the soldiers actions in war are. This because soldiers, as moral agents, are free enough to be held accountable for their actions.¹⁰⁸ You are “free enough” to be considered a moral agent when you exercise your will “free of any determining force”. Autonomy can be described as this freedom to act.¹⁰⁹ Soldiers that are considered moral agents are thus free to make decisions based on their own autonomy as can thus be held accountable for their actions.

LAR, on the other hand, don't have this freedom to act and is thus not a moral agent.¹¹⁰ After launching, LAR will have the ability to act without human control since it is a fully autonomous system. LAR will thus be able to kill without human command and cause harm that is punishable under the ICC-statute.¹¹¹ LAR can therefore fulfill the actus reus requirement.

When it comes to mens rea, HRW argues that an autonomous weapon of any kind, such as LAR could not possess mens rea. To have mens rea you need to have moral agency and independent intentionality, which a robot cannot have.¹¹² There are scholars that argues differently and means that LAR could have moral agency, e.g. based on their ability to learn from their own mistakes and from being punished and could thus technically be held accountable on their own.¹¹³ Some argue however that the ability of mimicking human intelligence and to act in the same way as moral agent does do not make you a moral agent.¹¹⁴ It is therefore not possible for LAR to fulfill the requirement of mens rea.

As stated in the ICC-Statute, only natural persons can be held criminally accountable.

¹⁰⁸ Heather Roff, “Killing in War: Responsibility, Liability and Lethal Autonomous Robots”, 6. https://www.academia.edu/2606840/Killing_in_War_Responsibility_Liability_and_Lethal_Autonomous_Robots

¹⁰⁹ *ibid.*, 3.

¹¹⁰ *ibid.*, 6.

¹¹¹ *Human Rights Watch*, “Mind the Gap:”, 19-20.

¹¹² Arnold, “Criminal responsibility for IHL breaches,”. *Human Rights Watch*, “Mind the Gap:”, 17-18.

¹¹³ Thomas Hellström, “On the moral responsibility of military robots” *Ethics and Information Technology*, 15:99 (2013): 105.

¹¹⁴ Roff, “Killing in War”, 7.

¹¹⁵ A robot is not a natural person, therefore it cannot bear criminal accountability under the ICC-statute. The provision of natural persons in the ICC-statute has through case law been widened to include organisations, but LAR as a robotic entity couldn't be considered an organisation.¹¹⁶

Therefore, LAR on its own could not be held accountable under the ICC-statute. It can fulfill the active element of the crime, but lacks the ability to have mens rea and is neither a natural person.

3.1.2 Criminal accountability for the operator

Technically, a operator who deployed LAR with the direct intention to wilfully kill civilians and precise knowledge of what LAR would do, could be held responsible for that as an act of perpetration.¹¹⁷ However, as LAR is unpredictable, it can be questioned if an operator could have enough precise knowledge of an artificially intelligent robot to fulfill the requirement of actus reus and mens rea. The level of unforeseeability and unpredictability in systems like LAR will make it difficult, if not impossible, for the operator to know what the LAR will do once activated.¹¹⁸ Because of the unforeseeability in LAR, and that the operator has not ordered or has control over the action taken by LAR it would be impossible and unreasonable for the operator to be held accountable for its actions.¹¹⁹

A practical aspect of direct accountability is that the launch of a LAR involves more than one person. The process of proving which party is responsible for the order that caused the death or injury is very difficult even if the question of intent is fulfilled.¹²⁰ In a situation like this, it would be easy and not unlikely for the operator to escape accountability based on this.¹²¹ Accountability for the operator of LAR can therefore not be guaranteed.

¹¹⁵ ICC-statute, article 25.1.

¹¹⁶ Jain, "Autonomous weapons systems: new frameworks," 309-310.

¹¹⁷ Davidson, "A Legal perspective", 17. *Human Rights Watch*, "Mind the Gap:" 20.

¹¹⁸ *Human Rights Watch*, "Mind the Gap:", 19-20.

¹¹⁹ Crootof, "War torts", 1376.

¹²⁰ *Human Rights Watch*, "Mind the Gap:", 19-20.

¹²¹ *International Committee of the Red Cross*, "Autonomous weapon systems, technical, military, legal and humanitarian aspects", 46.

3.1.3 Criminal accountability for the producer, manufacturer and developers

Crootof and UNODA (United Nations Office of Disarmament Affairs) argues that if a programmer *willfully* programmed an autonomous weapon to commit criminal acts, he or she could be charged for that as an act of perpetration.¹²²

If producers, manufacturers and developers of LAR shall be accountable for perpetration, they must be aware of that the particular LAR they've constructed was going to be used to commit a specific crime to fulfill the actus reus requirement. A programmer, manufacturers or developer must then also have made the choice of providing this system with this prior knowledge and share the same intent as the operator of the system to fulfill the requirement of mens rea.¹²³ The ICRC recognizes that it might be hard for the programmer to know in which scenarios their programs or products later will be used, but argues in the same way as Crootof and UNODA and means that a programmer that has willfully programmed to commit crimes could technically be held criminally accountable.¹²⁴

It is argued that since responsibility for a crime does not arise from sole individual involvement in it, producers and developers should be excluded from accountability based on that.¹²⁵ It is said that the role manufacturers, programmers and developers plays is so remote from the actual crime, both in time and space, and together with the unforeseeability of LAR makes it difficult to hold them accountable for co-perpetration¹²⁶ as it can be questioned if the causal link-requirement is fulfilled. Direct accountability would therefore likely not apply for the manufacturer, producers or developers of LAR.¹²⁷ Accountability for perpetration for programmer, manufacturers or developer is therefore not something that can be guaranteed.

Aiding and abetting are the forms of accountability that are perhaps the most relevant for manufacturers, developers and producers of LAR. Thompson Chengeta argues that it is technically possible for manufacturers, producers and developers to be charged for aiding and

¹²² Crootof, "War torts," 1367-1377. Davidson "A Legal perspective", 17.

¹²³ Chengeta, "Accountability Gap", 20.

¹²⁴ *Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)*, "Views of the International Committee of the Red Cross (ICRC)," 5.

¹²⁵ Chengeta, "Accountability Gap", 21.

¹²⁶ Jain, "Autonomous weapons systems: new frameworks", 313.

¹²⁷ *International Committee of the Red Cross*, "Autonomous weapon systems, technical, military, legal and humanitarian aspects", 47.

"Autonomous weapons systems: five key human rights issues for consideration", *Amnesty international*, 2015, 25-26 <https://www.amnesty.org/download/Documents/ACT3014012015ENGLISH.pdf>

abetting under the ICC-statute.¹²⁸ In his opinion, all that is needed for criminal accountability is the "knowledge that the acts performed by the aider and abettor assist the commission of a specific crime by the principal", which would be much easier to prove since they should know how their systems works.¹²⁹ Neha Jain compares the role of the manufacturer, developers and producers of LAR with the *I.G Farben*-case during the Nüremberg-trials which established that a company which provided gas for the concentration camps in the second world war could be held accountable.¹³⁰ The representatives of I.G Farben were charged with planning, preparing, initiation and waging wars of aggression and invasions on other countries and found guilty for almost all indictments.¹³¹ This proves that a manufacturer of products used in war is not excluded from the possibility of accountability.

What will be troublesome is that these forms of accountability demand a higher level of mens rea than other acts. Therefore, to find someone accountable for aiding and abetting with recklessness or negligence as mens rea seems rather unlikely.¹³² What is special for manufacturers, producers and developers is that they are the ones most likely aware of (close to) all things the LAR could do. They would therefore be much more aware of the risk of deploying them than an operator and therefore fulfill mens rea more easily. However, they are as previously stated, far from the field it operates on and it is likely that years have passed between the construction and the deployment of the LAR.¹³³ As of right now, there are no answers to how criminal accountability should be judged based on these premises.

It seems as aiding and abetting would be a possible form of accountability for manufacturers, producers and developers. Since this has been done before (I.G Farben trial) there is a possibility that this could be done again as long as mens rea can be proven. Proving mens rea for manufacturers, producers and developers faces the same challenges as for the operator, but it could be argue that they at least should have the knowledge of how their systems works.

3.1.4 Criminal accountability for the Commander

Commander responsibility is build upon the prevention of a crime through the possibility of

¹²⁸ Crootof, "War torts," 1376. Chengeta, "Accountability Gap," 22.

¹²⁹Chengeta, "Accountability Gap," 22.

¹³⁰ Jain, "Autonomous weapons systems: new frameworks," 21.

¹³¹ The United States of America vs. Carl Krauch, et al, 1.

¹³² Jain, "Autonomous weapons systems: new frameworks," 321.

¹³³ *ibid.*, 322.

the superiors having effective control over their subordinates.¹³⁴ Commander responsibility is the most interesting form of accountability for the use of LAR and the one that has been most debated. There are multiple different ways of looking at and interpreting the doctrine about commander responsibility in relation to LAR. The two leading interpretations are that accountability cannot be awarded since it is impossible for the commander to foresee the action of LAR, and the possibility of creating accountability for the commander through negligence or recklessness as mens rea.

The Commander-soldier relationship could, according to HRW, be used as an analogy for the relationship between LAR and the commander,¹³⁵ or the operator and commander. The commander would then be accountable for what the LAR would do in the same way as he or she is accountable for other subordinates.¹³⁶ The commander could thus technically be held indirectly accountable for deploying the LAR if it could be proven that he or she by the deployment intended to commit a crime and that it could be foreseen.¹³⁷ This would be a direct act.¹³⁸ To, with knowledge, deploy an autonomous system like LAR into an area of anti-personnel would be an example of this.¹³⁹ However, because of the unforeseeability in LAR, both HRW, Amnesty International and Heather Roff argue that it would be unreasonable to hold a commander accountable for anything the LAR does outside of what the commander has ordered or could foresee.¹⁴⁰ In reality, this would be almost all its actions. It would be impossible for a commander to ever have enough knowledge and control of the LAR to be able to foresee if the LAR was to do something unlawful. A commander would potentially have enough knowledge for accountability if it was communicated what the LAR was about to do, but a system that is “out of the loop” doesn’t do that and hence prevents this

¹³⁴ Roff, “Killing in War”, 11.

¹³⁵ *Human Rights Watch*, “Mind the Gap:”20-24.

¹³⁶ *ibid.*, 20-24.

¹³⁷ *Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)*, “Views of the International Committee of the Red Cross (ICRC),”. International Committee of the Red Cross (ICRC) “Ethics and autonomous weapon systems: An ethical basis for human control?” *International Committee of the Red Cross (ICRC)*, 2016, 5. [https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/42010361723DC854C1258264005C3A7D/\\$file/CCW_GGE.1_2018_WP.5+ICRC+final.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/42010361723DC854C1258264005C3A7D/$file/CCW_GGE.1_2018_WP.5+ICRC+final.pdf). *Human Rights Watch*, “Mind the Gap:”20-24.

¹³⁸ Crotoof, “War torts,”, 1377.

¹³⁹ *Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)*, “Views of the International Committee of the Red Cross (ICRC),”, 5.

¹⁴⁰ *Amnesty International*, “Autonomous weapons systems: five key human rights issues for consideration”, 25-26. *International Committee of the Red Cross*, “Autonomous weapon systems, technical, military, legal and humanitarian aspects”, 46. *Human Rights Watch*, “Mind the Gap:”, 20-24. Roff, “Killing in War”, 11.

kind of control for the commander.¹⁴¹

It is interesting to take into consideration what *actual constructive knowledge* and *effective control* for the commander entails, and if it would differ depending on if the knowledge and control should be over a human subordinate or a LAR. It is undoubtedly so that the commander cannot possibly have full control over his' or her's human subordinate, and is neither required to have that. In relation to cyber crime, it was argued that a commander could be held responsible if he or she willfully neglected to understand the operations that were undertaken, and the same argumentation could potentially be used for AWS systems as well.¹⁴² The requirement states that a commander must have had the material ability to prevent or punish the offence in the time of its happening in order to be said to have effective control and be held accountable.¹⁴³ The possibility of effectively punishing LAR is another tricky part. According to Neha it would be impossible to punish any AWS or LAR in an effective way. LAR is neither operated in the same place as the commander, or even under direct control of the commander or operator.¹⁴⁴ Roff also argues that the act of punishing has to involve guilt in the agent being punished, and that this would be impossible for LAR without moral agency.¹⁴⁵ One also has to take into consideration the speed of which LAR system works, which on its own can make it almost impossible for human to keep control over the system.¹⁴⁶ Hence, it will be impossible for the commander to have actual effective control over LAR on its own. It would also probably not be possible for the operator to predict what action the LAR takes, and this too would cause trouble in finding the commander accountable for actions of LAR.¹⁴⁷

It has been suggested that testing of AWS should be done to provide commanders with a basic knowledge and an expectation of the impact on civilians a deployment of AWS

¹⁴¹ *Human Rights Watch*, "Mind the Gap:" 20-24.

¹⁴² Dunlap, Charles J. Jr, "*Accountability and autonomous weapons: much ado about nothing.*" *Temple International & Comparative Law Journal*, issue 30. 2016, 70.

¹⁴³ Neha Jain, "Challenges to International Humanitarian Law: Human-machine interaction in terms of various degrees of autonomy as well as political and legal responsibility for actions of autonomous systems" Third CCW meeting of experts on lethal autonomous weapons systems (LAWS) Geneva. 2016.
[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/82C5CE75F5021C3FC1257F9A004A5E05/\\$file/2016_LAWS+MX+Presentations_ChallengestoIHL_Neha+Jain+oral+note.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/82C5CE75F5021C3FC1257F9A004A5E05/$file/2016_LAWS+MX+Presentations_ChallengestoIHL_Neha+Jain+oral+note.pdf)

¹⁴⁴ Jain, "Challenges to International Humanitarian Law".

¹⁴⁵ Roff, "Killing in War", 12.

¹⁴⁶ Elke Schwarz, "The (im) possibility of meaningful human control for lethal autonomous weapon systems" *Humanitarian Law & Policy (blog)* August 29, 2018.

<http://blogs.icrc.org/law-and-policy/2018/08/29/im-possibility-meaningful-human-control-lethal-autonomous-weapon-systems/>. *Human Rights Watch*, "Mind the Gap:", 24.

¹⁴⁷ Jain, "Challenges to International Humanitarian Law",

would cause. If the commander takes the decision to deploy an AWS while he or she knows the deployment will cause harm, he or she could be held accountable as an act of recklessness or negligence under indirect act of perpetration.¹⁴⁸ In other words “[...] commanders must (legally) have well-grounded epistemic confidence regarding the range of actions of AWS”.¹⁴⁹ However, for there to be accountability, the mens rea for negligence and recklessness would need to be lowered.¹⁵⁰ It can be questioned if the presented line of reasoning can be used for LAR and not just AWS in general. HRW argue that it could. They mean that the doctrine says that a commander can be held accountable if the acts of the robots were *reasonably* foreseeable, and UNODA agrees.¹⁵¹ This does not require an intent for the exact cause of action and would therefore be easier to prove.¹⁵²

Critics mean that this could be dangerous. Kalmanovitz points out a scenario where command responsibility is used to create accountability for LAR despite this impossibility of constructive control and reasonable foreseeability by the commander. He argue that this could undermine and erode the whole doctrine.¹⁵³ An “should have known”-approach, which would be needed for accountability to be established, is therefore undesirable.¹⁵⁴

A command responsibility relationship can be established between the LAR and the commander, or the operator and commander, but the unforeseeability in LAR’s action and impossibility of punishing it makes it impossible for the commander to exercise effective control over LAR. Negligence and recklessness could be used to achieve accountability for the commander, but could be dangerous as it can undermine the doctrine. Command responsibility for the use of LAR can therefore not be guaranteed.

¹⁴⁸ Crootof, “War torts,” 1377

¹⁴⁹ Kalmanovitz, “Judgement liability and the risks,” 156.

¹⁵⁰ Jain, “Autonomous weapons systems: new frameworks,” 315-321.

¹⁵¹ Davidson, “A Legal perspective”, 17.

¹⁵² *Human Rights Watch*, “Mind the Gap:”, 3.

¹⁵³ Kalmanovitz, “Judgement liability and the risks,” 154.

¹⁵⁴ Liu, “Refining responsibility,” 334.

4. Overcoming the accountability gap

It can be concluded through the description that there will be an accountability gap between LAR and ICL. It can also be concluded that it is not something that is desired in ICL, as the wish to end impunity for international crimes is the opposite of an accountability gap.

This section will discuss the suggested actions for overcoming the accountability gap from an ICL perspective with the goal of ending impunity through deterrence and retribution as its point of view. All the suggested actions are therefore assessed with these theories in mind.

The discussion will start with a section about the possibility of overcoming the accountability gap through holding LAR themselves accountable as their own entity. The discussion will then move on to discussing meaningful human control, which is one of the most central debates in regards of accountability for autonomous weapons. Banning of LAR, the possibility of using the regulatory framework for accountability for child soldiers and strict liability will also be discussed.

4.1 Overcoming the accountability gap through holding the LAR themselves accountable

In the description, it is shown that one of the issues of the accountability gap is the non-human nature of LAR. Through that, it is impossible for entities such as LAR to bear criminal accountability under the ICC-statute even though they can conduct criminal acts. Therefore, in order to fight the accountability gap, the possibility of extending mens rea and the provisions of natural persons in ICC to *include* LAR needs to be explored as a possible way of overcoming it.

4.1.1 Would it be technically possible to extend mens rea and natural persons to include LAR?

If it is possible or not to include LAR in the mental element and natural persons-provision does not have a coherent answer in the literature. Some argue that it is possible for robots to possess the mental element, while most argue that it is not. Hellström means that the mental

element needed for accountability can be fulfilled through the possibility of the robot's algorithms to learn and adapt by being punished.¹⁵⁵ Sparrow argues that for anything to have mens rea it "must be possible for us to imagine punishing and rewarding it".¹⁵⁶ If we see the robot as suffering when being punished, then they could be held accountable for their actions.

157

However, most scholars disagree with above arguments and means that freedom of intention to act is something that is associated with being a person and not with the possibility of being rational.¹⁵⁸ To be able to rationally have the same moral deliberations as humans does not make you a subject that can be held accountable.¹⁵⁹ To have a consciousness is argued to be a basis of moral responsibility, and it is because of that it is considered a bedrock principle of law and morality that a human being who has training and and who may be held accountable should always make the decision to kill.¹⁶⁰

The provision of natural persons and mens rea establishes firmly that only humans can be accountable under the ICC-statute. Through this provision, it is easy to see that the ICC has taken the view that humans are the center of criminal accountability. The reason why ICL takes this view is not something that is indicated in the statute, nor much in literature. Jain argues that the human is the center of criminal law because it is impossible for the human to extend criminal liability beyond herself.¹⁶¹ The human as the subject of criminal accountability is premised on her ability to act as a moral agent and it is when we act as moral agents that we can possess intent. She argues that every human is a "wild card" and thereby free to choose and complete her own ends, and that this is the reason that accountability is based on humans as the final conductor of crimes with no possibility of extending it to other entities.¹⁶²

Some believe the natural person provision could effectively be extended to include robotic entities, while other argues the only way of doing this would be to extend what humans could be accountable for to *include* robots.

¹⁵⁵ Hellström, "On the moral responsibility of military robots", 105.

¹⁵⁶ Sparrow, "Killer Robots," 71.

¹⁵⁷ *ibid.*, 72-73.

¹⁵⁸ "Report on the comest on robotics ethics", *UNESCO, COMEST*, 2017, 46.

<http://unesdoc.unesco.org/images/0025/002539/253952E.pdf>

¹⁵⁹ *UNESCO, COMEST*, "Report on the comest on robotics ethics", 46.

¹⁶⁰ Kalmanovitz, "Judgement liability and the risks," 147

¹⁶¹ Neha, "Autonomous weapons systems: new frameworks," 306.

¹⁶² *ibid.*, 306.

Sparrow discusses the possibility that ‘artificial agents’ could be a subject under criminal accountability.¹⁶³ The Committee on Legal Affairs of the European Parliament discussed in relation to Civil law-rules the possibility of an ‘electronic personality’ that could bear both rights and obligations. This could be used to create accountability for damage they may cause, in relation to civil law rules.¹⁶⁴ While civil law and criminal law is not the same, the possibility of a softening approach to what can be held accountable through civil liability might affect criminal accountability as well.

Heyns proclaims that a form of accountability which decides *in advance* who is to be accountable for a robots violations of law could be used.¹⁶⁵ Krishnana means that a form of ‘robot responsibility’, that would look a lot like corporate responsibility, would be a possible way of making sure that a robots actions are included under some sort of accountability.¹⁶⁶ These two possibilities share the approach that the provision of natural persons could be extended to include responsibility over the robot, but does not hold the robot accountable as its own entity. Jain together with Krishnan have argued that the interpretation of it being possible to include organisations in the provisions of ‘natural persons’ could open up for accountability for other forms of non-human entities, which supports their actions as a possibility to overcome the accountability gap for LAR.¹⁶⁷

4.1.2 The possibilities and risks of downgrading mens rea

In relation to a discussion about widening a scope of an already existing provision or element of criminal law, the risk of erosion of accountability needs to be taken into consideration. ICRC mentioned in its 2016 report the risk of erosion of accountability if we were to take the

¹⁶³ Sparrow also states that it could be possible to hold LAR accountable as “artificial agents” since they causally can be responsible for crimes. Sparrow, “*Killer Robots*”, 71.

¹⁶⁴ “Motion for a european parliament resolution with recommendations to the Commission on the Civil Law Rules on Robotics.” European Parliament, 2017. <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2017-0005+0+DOC+XML+V0//EN>, section 59. UNESCO, COMEST “Report on the comest on robotics ethics”, 46.

¹⁶⁵ Heyns, Christof., “Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions” Human Rights Council twenty third session, 2013, 15.

https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf

¹⁶⁶ Armin Krishnan, *Killer Robots: Legality and ethicality of autonomous weapons*. (Surrey: Ashgate Publishing Limited), 105. Krishnan argues that since personhood as been created for corporations, it would be possible to do the same thing with responsibility over LAR. This since the relationship between the two is of similar nature. “Robot responsibility”, as he calls it, would include to destroy the robots that has breached the law or in any other way suitability punish it.

¹⁶⁷ Jain, “Autonomous weapons systems: new frameworks,”, 309-310. Krishnan, *Killer Robots*, 105.

human away from the decision making process and moral agency.¹⁶⁸ It was also stressed by Kalmanovitz that the possibility of using commander responsibility to award accountability for the use of LAR despite the inability to foresee it might risk the whole doctrine, as it hollows out the premisses it is built upon.¹⁶⁹ What is meant by undermining the doctrine is the potential lowering of mens rea for negligence and recklessness in commander responsibility to levels that are not compatible with principles of criminal law.¹⁷⁰

Because of the unforeseeability in LAR, there seems to be a disagreement on how much of the risk and what elements of it a commander must be aware of to be considered negligent. If it is considered enough that the commander is aware of the risk, creating accountability for the use of LAR would be relatively easy. However, if he or she needs to be aware of that the risk is both substantial and unjustifiable, it is harder to create accountability.¹⁷¹ Some also argues that since there doesn't seem to be a consensus of what level of negligence or recklessness a commander must be in relation to unforeseeability, a system built upon it would be too hypothetical and incoherent to work.¹⁷²

The risk of downgrading mens rea in command responsibility might also lead to a risk of downgrading or erosion of mens rea in other forms of accountability too, such as perpetration.¹⁷³ What effects this downgrading have for other types of criminal accountability are what the critics means has to be taken into consideration.¹⁷⁴ Through an inclusion of LAR in natural persons and the possibility of changing, lowering or downgrading mens rea in all forms of accountability, it would be easier to be held accountable for the use of LAR. The problems this might cause wouldn't be taken into consideration from a retributive perspective, as it doesn't focus on future consequences of punishments, but what is morally necessary (which is to find accountability). However, from a deterrent perspective, if the inclusion of LAR as its own entity would mean that it is possible to hold e.g the commander and operator accountable for something that is *truly* unforeseeable, this would risk the mere foundations of criminal law. This in turn would risk undermining the deterrent effect criminal accountability is supposed to have, as it might conflict with the states views of how

¹⁶⁸ *International Committee of the Red Cross*, "Ethics and autonomous weapon systems: An ethical basis for human control?", 11.

¹⁶⁹ Kalmanovitz, "Judgement liability and the risks," 154.

¹⁷⁰ Riepl, "War crimes without criminal accountability?,"

¹⁷¹ Jain, "Autonomous weapons systems: new frameworks," 316-317.

¹⁷² *ibid.*, 318-319.

¹⁷³ *ibid.*, 316.

¹⁷⁴ Jain, "Challenges to International Humanitarian Law".

criminal accountability should be created and the future benefits of it.¹⁷⁵ To try and find “scapegoats” by overextending individual accountability just for the sake of holding someone accountable and through that overcome the accountability gap¹⁷⁶ is not beneficial from a deterrent perspective. The goal of ending impunity focuses on the future benefits for society by holding the perpetrators accountable. If the victims or other people questions if the person found accountable really is the *right* person to hold accountable, this goal has not been achieved.

4.1.3 Is it possible to extend mens rea and natural persons and keep the goal of ending impunity intact?

As been stated previously, the goal of ending impunity by accountability for international crimes includes both the aspect of deterring future crime and an aspect of providing retribution for victims through individual accountability. These two aspects cannot be undermined for the goal to stay intact and possible to achieve.

Let’s suppose that it is possible to hold a LAR, morally and legally, accountable under the ICC-statute as some argues it could be. What is then a relevant question to consider is how the victims would feel. Do the victims feel the same retributive effect when a LAR is held accountable as when a human is held accountable? Probably not. The reason for that is the non-human nature of LAR. An important part in feeling a retributive effect is that the victims shall feel is that the person that has caused them suffering is being punished for their deeds.¹⁷⁷ LAR, as a system build upon algorithms, machine learning or artificial intelligence, has no feelings, no morale and no life and is therefore both incapable of feeling any form of regret for the deedes and suffering they have caused but also impossible to punish in a way that would actually affect them or give any effect for the victims.¹⁷⁸ As a LAR has no life, and therefore cannot die, a LAR could technically spend an entirety in prison without anything changing to its mental or emotional state, as it in reality has neither.

¹⁷⁵ Dunlap, “Accountability and autonomous weapons: much ado about nothing.”, 69.

¹⁷⁶ Liu, “Refining responsibility:”, 341, 342.

¹⁷⁷ *Human Rights Watch*, “Mind the Gap:”, 1-2.

¹⁷⁸ *International Committee of the Red Cross*, “Autonomous weapon systems, technical, military, legal and humanitarian aspects”, 47.

Sparrow argues that “To hold that someone is morally responsible is to hold that they are appropriate locus of blame or praise and punishment and reward.”¹⁷⁹ According to him, a robot could never be an appropriate locus of blame due to their inability to suffer and our inability to feel suffering or empathy for them as objects.¹⁸⁰ If focusing on the word *appropriate* locus of blame, it is easy to agree with Sparrow and say that anything that is not human is not an *appropriate* locus of blame since victims cannot identify with it. Sparrow means that punishments must evoke the right reaction in the object for us to satisfy our need for revenge, and means that the appropriate reaction for a punishment is suffering.¹⁸¹ For there to be a retributive effect on the use of LAR, there also needs to be relatability and empathy by the victims of LAR’s atrocities and the object being punished. This means that as long as the robot being punished is not human, does not suffer or is relatable to humans, it is not possible for us to feel retribution, regardless of what punishments are given to the robot.

“Robot responsibility”, as described by Krishnan, and the pre-decided person to hold accountable that Henyngs suggest means that a human is accountable for the use of a robotic entity.¹⁸² It would not mean that the robot itself would be held accountable. As this type of responsibility defines the “appropriate locus of blame” it will give the retributive effect desired. This because a human individual who can suffer is being held accountable, and not an entity that is not appropriate or relatable for the victims.

It can also be questioned what happens to the deterrent effect accountability is supposed to have if the LAR themselves were accountable. As said above, most argue that the LAR themselves does not possess any consciousness outside of their programming, making them incapable to possess mens rea. The deterrent effect criminal accountability is supposed to have builds upon, as mentioned in the theory, that future crimes is deterred by the possibility of accountability for them. The theory believes that punishment for crimes will benefit the future society. In relation to LAR this means that the LAR would need to be *unwilling* of the effect of criminal accountability for there to be a deterrent effect on. As previously mentioned, a LAR has no life, purposes or wishes outside of their programming, and therefore it is not likely that they would choose to abstain from acting based on the

¹⁷⁹ Sparrow, “*Killer Robots*”, 71.

¹⁸⁰ *ibid.*, 72.

¹⁸¹ *ibid.*, 72.

¹⁸² Heyns, “Report of the Special Rapporteur”, 15. Krishnan, *Killer Robots*, 105.

possibility of accountability. Therefore, when LAR themselves are held accountable, there is no deterrent effect of accountability.

Here it is relevant to take into consideration that a deployment of LAR does involve humans in one way or another. The description of the accountability gap has shown that it is not the lack of people behind the use of LAR that is the reason for the accountability gap, but the unforeseeability of the LAR's actions and the impossibility of establishing control in the use of them that is. For there to be a deterrent effect on e.g. the operation and decision to deploy LAR, the *humans* behind the deployment, operation and development needs to be unwilling of the possibility of being held accountable. As Sparrow argued, our incapability to reach out to and feel suffering for a robotic entity causes us to not have empathy for them¹⁸³ and therefore not refraining from deploying a LAR for the possibility of accountability for them. For us to refrain from using LAR based on *their* possibility of accountability, we would need to feel like it would be unfair and seriously wrong to punish them if they were innocent.¹⁸⁴ Therefore, as long as LAR does not makes us feel this way, there need to be humans that are held accountable for there to be a deterrent effect on the use of LAR. A form of accountability for the use of LAR that do not define a human as accountable is not interesting from neither a retributive, deterrent or 'fight to end impunity'-perspective. It is the process of identification or recognition between the victims and the perpetrator, and the possibility of accountability for the *human* that we can feel empathy for that cause this retributive and deterrent effect needed for the goal of ending impunity to be fulfilled. If we want to uphold the goal of ending impunity through criminal accountability in the way that it was intended, there needs to be a human to blame for the crimes LAR cause. As criminal accountability under the ICC-statute also needs humans to create accountability, an option where one is not identified is undesired. The ICRC argues the same way and says that "a human is a requirement in accountability, as accountability is a human responsibility".¹⁸⁵

This conclusion means that the only option to overcome the accountability is through actions that establish a human as accountable.

¹⁸³ Sparrow, "Killer robots", 72.

¹⁸⁴ *ibid.*, 72.

¹⁸⁵ "Ethics and autonomous weapon systems: An ethical basis for human control?", *International Committee of the Red Cross (ICRC)*, 2016, 11.
[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/42010361723DC854C1258264005C3A7D/\\$file/CCW_GGE.1_2018_WP.5+ICRC+final.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/42010361723DC854C1258264005C3A7D/$file/CCW_GGE.1_2018_WP.5+ICRC+final.pdf)

4.2 Overcoming the accountability gap through meaningful human control

One of the hottest debates in the field of LAR and accountability is the definition of meaningful human control. A definition of meaningful human control aims at ensuring that LAR and likewise technology stay under human control. It has been argued that the word “meaningful” emphasizes the importance of there being a human that bears the moral responsibility for a crime.¹⁸⁶

As of right now, there is no agreed definition about what meaningful human control is.¹⁸⁷ Even though there is no agreed definition, most seems to agree on that some degree of control over critical functions in autonomous systems is needed,¹⁸⁸ and that all systems should be subject to some form of human involvement.¹⁸⁹ The fast changing technology surrounding LAR is challenging the work towards definition, as it forces the discussion to forgo what the future AWS technology will look like.¹⁹⁰ Mireille Hildebrandt argues that by allowing artificial intelligence in law we have to reinvent law to fit it, which is highly visible in this context.¹⁹¹ Finding a consensus of what the actual issue to be fought by the definition of meaningful human control is might be as hard as finding the definition itself.

The debate about meaningful human control mainly concerns what should be included in the definition.¹⁹² There are different proposals to what a definition about meaningful human control should entail or look like. ICRC and the organisation Article 36 propose that meaningful human control should include factors such as predictability, reliability and transparency. The proposal also includes that the users shall be able to intervene in the process and understand the information so that accountability for the action of the system can be established.¹⁹³ They mean that it is not meaningful human control when a user of an

¹⁸⁶ Horowitz, Scharre, “A primer”, 8.

¹⁸⁷ “Time to get serious about banning killer robots”, Amnesty International.

<https://www.amnesty.org/en/latest/news/2015/11/time-to-get-serious-about-banning-killer-robots/>

¹⁸⁸ Schwarz, “The (im)possibility of meaningful human control for lethal autonomous weapon systems”.

¹⁸⁹ Ekelhof, “Autonomous weapons: Operationalizing meaningful human control”.

¹⁹⁰ *ibid.*

¹⁹¹ Mireille Hildebrandt “Law as computation in the era of artificial legal intelligence Speaking law to the power of statistics”, *University of Toronto Law Journal*, 68:1, 2018, 16.

¹⁹² Schwarz, “The (im)possibility of meaningful human control for lethal autonomous weapon systems”.

¹⁹³ *ibid.*

autonomous system press a button to fire when a computer has indicated it appropriate.¹⁹⁴ UNODA has established in an report that the control needed over AWS is “(a) verified technical performance of the weapon system for its intended use, as determined at the development stage; (b) manipulation of operational parameters at the development and activation stages; and (c) human supervision and potential for intervention and deactivation during the operation stage.”¹⁹⁵

Meaningful human control is generally viewed in two different ways. The first is that the requirement of meaningful human control already exist in IHL. Center for a New American Security states that “meaningful human control should be viewed as a principle for the design and use of weapons systems in order to ensure that their use can comply with the laws of war.”¹⁹⁶ This argument has its basis in that the rules applicable are the same for a human pulling the trigger as a human that launches an unmanned or autonomous system.¹⁹⁷ The second view is that meaningful human control would be a separate and additional concept to the law. In this view, meaningful human control is a new principles to the laws of war and should be treated with as much consideration as proportionality, distinction, military necessity, etc. This view also argues that meaningful human control has been a “hidden” principles in law, and needs to be recognised and defined as a new principle to be activated.

¹⁹⁸

It is important for the definition of meaningful human control to find a universal definition of autonomy, and especially what is considered full anatomy. Each level of autonomy cannot be set too low or too high, as it would either infringe on technology that is already in use and important to states today, or not broad enough to cover the technology that needs regulation.¹⁹⁹

The possibility of programming and building LAR so that they don't breach any IHL or ICL rules and therefore don't cause an accountability gap is another proposed solution.²⁰⁰ This action relates to the discussion of meaningful human control and can essentially be seen as a technological way of making sure that we have meaningful human control over LAR.

¹⁹⁴ Ekelhof, “Autonomous weapons: Operationalizing meaningful human control”.

¹⁹⁵ Davidson “A Legal perspective”, 15.

¹⁹⁶ Horowitz, Scharre, “A primer”, 7.

¹⁹⁷ *ibid.*, 7.

¹⁹⁸ *ibid.*, 7.

¹⁹⁹ Crotoof, “The Killer Robots,” 1847.

²⁰⁰ Deborah G. Johnson, “Technology with No Human Responsibility?”, *Journal of Business Ethics*, 127:4 (2015), 3.

Proclaimer of this solutions means that it will be possible to overcome the accountability gap through software programming, and that this might even enforce IHL and ICL rules more efficiently than humans could.²⁰¹ Hildebrandt has also argued that protection by design in data driven architecture (which a LAR would be as an autonomous system) is a possibility. However, the only way of securing this development is through mandatory provisions in law.²⁰² This means that the possibility of building LAR that satisfy ICL and IHL rules rests upon there being a law that obliges states and developers to do so.

The deterrent effect a definition about meaningful human control would have is not something that is discussed within the CCW. The CCW is mostly concerned with how LAR breaches IHL rules. Despite this, if one look at meaningful human control from an ICL perspective, one can see that a definition would most likely have a deterrent effect on the use of LAR. As the point of a definition of meaningful human control is to ensure that the LAR is always in control by humans, the most likely effect the definition will have is that it would not be possible for various actor to claim that the conduct of a LAR was unforeseeable. Through that, mens rea could be established for those that deploy or decide to deploy LAR. This means that it would be possible to award accountability for operators and commanders of LAR in a way that would be acceptable in criminal law.

Meaningful human control would also affect the programmers, manufacturers and developers of LAR since creating or developing technology that is not within the control of humans would be prohibited. If this was done despite this, it could lead to accountability for them. Meaningful human control therefore causes technological effects to the developments of LAR, as it forces technology to stay within control of humans. It also establishes a moral requirement as it forces accountability upon the users of the systems. A definition would then also lead to that all persons which face a possibility of accountability could assess their action before undertaking them, which is an important factor to achieve long standing deterrent effect.

However, what might happen to ICC's forms of accountability, is that it might be easier or harder to *practically* award accountability. Let's suppose that a definition about meaningful human control is found. Despite a definition in place, it might be hard to award

²⁰¹ Heather M. Roff, "The Strategic Robot Problem: Lethal Autonomous Weapons in War", *Journal of Military Ethics*, 13:3 (2014), 213.

²⁰² Mireille Hildebrandt "Saved by Design? The Case of Legal Protection by Design", *Nanoethics* (2017) 11: 307. 1, 2, 4.

accountability for the use of weapons that pass this definition, as it would involve both establishing the criminal act conducted (all the acts a LAR conducts doesn't have to be of criminal nature), establishing the person or persons who are accountable for the act and then prove mens rea for this person or persons. Meaningful human control would therefore always include a grey area of accountability between the technologies that fall within the definition of meaningful human control and those that fall outside of it. Especially challenging to this grey area is the type of technology that fall within the scope of meaningful human control to begin with and then continues to develop towards higher levels of autonomy.²⁰³ This grey area is still an accountability gap, but much smaller than it would have been without a definition. If we want to enforce the goal of ending impunity through deterrence and retribution to its fullest potential, meaningful human control is not the best option to overcome it.

4.3 Overcoming the accountability gap through a ban of LAR

A total ban of LAR, and technology alike, has a wide recognition and support. For example HRW²⁰⁴, Amnesty International²⁰⁵, the campaign to stop killer robots²⁰⁶, thousands of scholars and influential company leaders through The Future of Life Institute open letter²⁰⁷ and the UN Secretary-General António Guterres²⁰⁸ have all called for a ban of LAR and/or AWS. The well known scholar Sparrow argued as early as 2007 for what most agree on, that it is unethical to use an autonomous system if no one could be accountable for them.²⁰⁹

Weapons that has been deemed too dangerous or beyond what human can control has previously been banned, e.g. land mines, bio-weapons and chemical weapons.²¹⁰ This shows that a common way of handling situations where the control of a weapon is slipping between

²⁰³ *International Committee of the Red Cross*, “Autonomous weapon systems, technical, military, legal and humanitarian aspects”, 47.

²⁰⁴ *Human Rights Watch*, “Mind the gap”, 5.

²⁰⁵ “UN: Ban killer robots before their use in policing puts lives at risk”, *Amnesty International*, 2015. <https://www.amnesty.org/en/latest/news/2015/04/ban-killer-robots-before-their-use-in-policing-puts-lives-at-risk/>

²⁰⁶ *Campaign to stop killer robots*, “Retaining human control of weapons systems: Briefing Note,”.

²⁰⁷ *Future of Life institute*, “Autonomous weapons: An Open Letter,”.

²⁰⁸ “UN head calls for ban”, *Amnesty international*, 2018. <https://www.stopkillerrobots.org/2018/11/unban/>

²⁰⁹ Sparrow, “*Killer Robots*”, 66.

²¹⁰ “A Guide to the Legal Review of New Weapons, Means and Methods of Warfare: Measures to Implement”, *International Committee of the Red Cross*, 2006, 941-942. https://www.icrc.org/eng/assets/files/other/irrc_864_icrc_geneva.pdf

the fingers of the humans is to ban it, not to try and decide how we can still regain control of it.

However, not everyone is in favour of a prohibition of LAR. Some scholars mean that it would be better to regulate the use of it and that individual accountability is not a relevant element for the legality of weapons.²¹¹ If accountability for the use of weapon is considered a part of art. 36 AP1 or not depends on how you view the existing provision. In the section above about meaningful human control, it is shown that some have argued that individual accountability is a part of art. 36 AP1, while some have argued that it is not. Heyns recognises however that accountability is important for the weapon review²¹², and from an ICL perspective, individual human accountability is the key element for a deterrent and retributive use of LAR and the fight to end impunity.

It is undoubtedly so that no accountability gap would arise if the technology that caused it was not used or developed. A ban would mean that the one deciding to deploy and actually deploy LAR would breach international law. There is no denying in the fact that a ban would have the deterrent effect desired, as LAR could not be used without facing accountability and the accountability gap would thus be overcome. It would be clear for all actors that the deployment, use or development of these weapons are prohibited, and it would be possible to attribute accountability for both commanders, operators, developers, producers and manufacturers.²¹³ From a deterrent perspective, foreseeability of action in relation to accountability is crucial to achieve a deterrent effect in the long run. However, as was stated in the section of meaningful human control, the attraction to technology like LAR might be too big and too beneficial for states to agree on a total ban of it. The process of developing LAR might have gone too far for states to be okay with discontinuing them.²¹⁴ Some also argues that it is the impunity of using AWS that is attractive to states.²¹⁵ This argument is essentially the opposite of what ICL tries to achieve through their fight to end impunity for international crimes and only show how important accountability is for there to be a deterrent effect to the use of LAR.

²¹¹Charles J. Jr. “Accountability and autonomous weapons: much ado about nothing”, 65- 66.

²¹² *International Committee of the Red Cross*, “Autonomous weapon systems, technical, military, legal and humanitarian aspects”, 47.

²¹³ The actors that can hold accountability will of course depend on the wording in the text.

²¹⁴ Crootof, “The Killer Robots”, 1884.

²¹⁵ G. Sartor, A.Omicini, “The autonomy of technological systems and responsibilities for their use” in *Autonomous Weapon Systems: Law, Ethics and Policy*, eds Nehal Bhuta, Susanne Beck, Robin Geiß, Hin-Yan Liu, Claus Krieb (Cambridge: 2015), 70.

If you compare the outcome of meaningful human control to the possibility that LAR would be banned altogether, you will see that the same problems won't arise. A ban would make it clear that deploying, using or developing LAR is a violation of the law. From a fight against impunity-perspective, a total ban might be the best way to overcome the accountability gap, if you want to achieve the biggest deterrent and retributive effect. The grey area that meaningful human control could cause would not happen if LAR was banned. The risk of a continued development of weapons that would cause a grey area of accountability would not exist, and therefore the risk of someone being held accountable when they were truly not in control of the weapon would also not exist. To ban LAR altogether is therefore the better alternative to overcome the accountability gap.

4.4 Overcoming the accountability gap through an analogy to the regulation of child soldiers

Hin-Yan Liu has argued that the regulatory framework surrounding child soldiers, which both establishes a prohibition of recruiting children under 15 years old as soldiers and accountability for it in the ICC-statute, can be used as inspiration for how to regulate AWS.²¹⁶ While he affirms that the regulation of accountability for child soldiers is for the protection of children, he argues that AWS and child soldiers share similar tendencies as neither can be held individually accountable for their crimes.²¹⁷

The accountability gap between criminal acts performed by child soldiers and their incapability of individual accountability has been solved through the criminalization of those who recruit and employ child soldiers, regardless of the acts the child soldier has performed.²¹⁸ Liu means that the impunity of using AWS could be avoided if the use and introduction of such "irresponsible systems" as AWS and LAR were criminalised. Through this, the possibility of "scapegoating" through excessive extension of individual accountability, is also avoided.²¹⁹ As individual accountability could be established, Liu argues that this could cause a deterrent effect on the technical development of AWS so that systems that violates this are not developed.²²⁰ A regulation would most likely have the same effect on LAR.

²¹⁶ Liu, "Refining responsibility:", 342-343.

²¹⁷ *ibid.*, 342-343.

²¹⁸ Liu "Refining responsibility:", 343.

²¹⁹ *ibid.*, 343.

²²⁰ *ibid.*, 343.

In relation to deterrence and retribution in the goal of ending impunity, it was argued in previous sections that there is a need for a human individual to be held accountable for this to be achieved. As this approach to overcoming the accountability gap would provide the accountability directly upon the individual,²²¹ this would satisfy the need for individual accountability in retribution for the victims, as well as cause the deterrent effect desired for the humans behind the systems.

The main problem with this approach lies in the fact that child soldiers are viewed as victims of international crime and the regulatory framework is created to protect them from the atrocities of war.²²² The same reasoning cannot be extended to AWS,²²³ and neither LAR. The analogy between child soldiers and AWS therefore strongly differs in its fundamental basis.²²⁴ As LAR is not a victim of international crimes and we don't feel any empathy for them as entities, to analogy compare the two would be to "imply the existence of a trait that is not actually there".²²⁵ Crootof means that the difference between AWS, LAWS and LAR should be the basis of the discussion of accountability, not that they are all autonomous.²²⁶

The question is thus if we are willing to create accountability for the commander, operator of manufacture to overcome the accountability gap and enforce the goal of ending impunity based on analogy that is controversial? From a retributive perspective, this would not be an issue as the future effects of the awardment of accountability is not relevant, and the most important aspect is that the one guilty of the crime is found accountable. From a deterrent perspective however, this approach would not be the best as it could affect the authority of ICL as a body of law if states were to question its provisions and reasoning for creating accountability.

4.5 Overcoming the accountability gap through strict liability

Strict liability for the use of autonomous system in general is something that has been greatly discussed. There is no denying in the fact that strict liability has deterrent effect on the use and development of systems and products. However not for LAR. Strict liability is not

²²¹ Liu "Refining responsibility:", 344.

²²² Rebecca Crootof, "Autonomous Weapon Systems and the Limits of Analogy" *Harvard National Security Journal*, vol 9 2018, 57.

²²³ Crootof, "Limits of analogy", 57.

²²⁴ *ibid.*, 57.

²²⁵ *ibid.*, 58.

²²⁶ *ibid.*, 58.

something that is used to create criminal accountability. Some argue that the absence of mens rea, which is a cornerstone for accountability in criminal law, makes a strict liability approach incompatible with ‘nulla poena sine culpa’ (no penalty without fault).²²⁷

Even if strict liability could be used, LAR would not be subject to strict liability rules, as it does not apply to the military and its operations.²²⁸ This means that the major area of deployment of LAR would not be covered by any accountability at all, as long as the IHL rules such as e.g necessity and proportionality are fulfilled.²²⁹ Here it can be questioned if these rules could ever be fulfilled by a LAR as a fully autonomous system, but that discussion is outside the scope of this thesis. So while the thought of allowing the deployment of LAR and base accountability on the possibility of financial reparations for victims sounds practical and in line with the goal of ending impunity from both a deterrent and retributive perspective, is it not possible if the accountability gap is to be overcome between LAR and ICL as it would not apply in situations where LAR is used.²³⁰

5. Conclusion

5.1 What are the grounds of accountability in international criminal law and how does LAR correspond with these forms of accountability?

Through the description process, it can be concluded that scholars do not always agree with each other on where the accountability gap would be and what it would look like. The description shows how the doctrine, despite the disagreements between scholars, views the potential accountability gap between LAR and ICL, something that is an important basis for the thesis.

Most scholars are convinced that LAR is not a moral agent and therefore cannot be held accountable as their own entity as they cannot possess mens rea. Some argue differently, and means that they could learn from mistakes and therefore have moral agency.

²²⁷ Crootof, “War Torts,” 1387.

²²⁸ Sartor, Omicini, “The autonomy of technological systems,” 70.

²²⁹ *ibid.*, 70.

²³⁰ *ibid.*, 70.

Most agree on that this does not give someone moral agency. As a LAR is neither a natural person, it cannot be accountable under the ICC-statute. It is therefore not possible to hold the LAR themselves accountable.

It is technically possible to hold the operator accountable, as long as intent and foreseeability for the action of the LAR could be proven for the operator. However, as the operator neither has ordered nor has control over the LAR after deployment, most argues that it is impossible and unreasonable to hold the operator accountable. It can be concluded that the unforeseeability in LAR's action makes it hard for the operator of the LAR to fulfill both actus reus and mens rea and accountability can therefore not be guaranteed.

It is argued that producers, manufacturers and developers of LAR possibly can be held accountable if it could be proven that they willfully programmed a system that breached international law. Some argues however that the producers, manufacturers and developers impossibility of foreseeing where and when their programs or products will be used and that the act of involvement in a criminal act does not automatically count for criminal accountability will make it unlikely for them to bear accountability. The fact that the producers, manufacturers and developers also are far from the scene of combat, both in time and space makes direct accountability unlikely. The possibility of producers, manufacturers and developers being held accountable for aiding and abetting seems more likely as the I.G Farben case has established it as possible. Mens rea for aiding and abetting is however higher and to use recklessness or negligence as mens rea seems unlikely. The possibility of holding producers, manufacturers and developers of LAR accountable can therefore not be guaranteed either.

Accountability through commander responsibility is a complicated matter. By definition, a commander that willfully allowed the deployment of LAR into an area knowing that it would cause harm punishable by law could be held accountable. However, the unforeseeability, the remoteness from the battlefield and impossibility to properly and effectively punish and control LAR makes it impossible for the commander to have the constructive knowledge and effective control to prevent the crime that he or she needs to be held accountable under command responsibility. Accountability could possibly be created through negligence and recklessness for an indirect act, since they only require that the crime was reasonable foreseeable for the commander. However, this might undermine the whole

doctrine of command responsibility. Accountability for commanders is thus not something that can be guaranteed.

Through the process of describing the accountability gap, it can be concluded that the unforeseeability and lack of control over LAR, as well as the non human nature of LAR is the reason for the accountability gap. This because no form of accountability available can *guarantee* accountability for the deployment of LAR and therefore does the accountability gap exist for all forms of accountability available in the ICC-statute. As no form of accountability can be guaranteed, there is a risk of impunity when using LAR. What the accountability gap looks like depends on how the provisions of ICC-statute are interpreted, e.g how much you can stretch mens rea for a negligent commander, how LAR actually will work (no LAR yet exists) and how IHL will deal with the problem LAR will cause article 36 AP1. No definitive answers can yet be given other than that the autonomous nature of LAR makes both mens rea and actus reus hard to fulfill for all actors, and that this causes the accountability gap.

5.2 In the light of ICL's goals of ending impunity through accountability, how can the accountability gap between ICL and LAR be overcome, if at all?

One part of the accountability gap is based in the non human nature of LAR. In the ICC-statute, it is impossible to hold a perpetrator that is not human accountable for crimes, because it is firstly not a natural person and secondly cannot possess mens rea, both of which is a requirement for accountability. Therefore, one way to overcome the accountability gap would be to extend the possibility of accountability to non-human entities, and through that find the LAR themselves accountable. To do that ICL would need to stretch its provisions of natural persons and mens rea. If this is possible or not is not something that can be decided, as it depends on the argumentation put forward. Most however seems to agree on that it would not be possible.

What can be clearly decided however is that it would not be possible to extend mens rea to LAR in regards of ICL's goal of ending impunity through deterrence and retribution. For victim's retribution there needs to be human subjects held accountable, and if LAR was given status as a natural person or the ability to possess mens rea, this theory would fail. The

deterrent effect over the use of LAR also need humans, and hence will the possibility of awarding accountability to the LAR itself not be an option to overcome the accountability gap.

Therefore, if ICL want to keep their goal of ending impunity through deterrence and retribution intact, the only option to overcome the accountability gap is through establishing human entities for accountability in the deployment and use of LAR.

The proposed actions discussed to overcome the accountability gap are meaningful human control, technological restrictions to LAR so that they would not be in violation of the law, a total ban, analogy to the regulation of child soldiers and strict liability.

From ICL's point of view, these action all serve the same purpose. As argued above, ICL needs human subjects in order to fulfill its requirements of mens rea and natural persons, as well as for the deterrent and retributive effect to work as intended. For ICL's goal of ending impunity, as long as the discussion of overcoming the accountability gap focuses finding a human subject, ICL will work. Therefore, the exact methods of overcoming the accountability gap is of less importance to ICL, as long as it involves a human subject that can be identified and held accountable. All the suggested actions discussed provide this, which means that as long as one of them is chosen, the accountability gap between LAR and ICL will be overcome with the goal of ending impunity through deterrence and retribution intact.

What can however be concluded is that from an ICL perspective, a total ban of LAR would be the best way of overcoming the accountability gap. Meaningful human control still causes a grey area between banned and legal technology, which would still be an accountability gap (but smaller), the analogy to the regulation of child soldiers compares two compounds that is (perhaps too) controversial to compare and strict liability would not apply to LAR in most situations where it would be used. If the goal is to fight impunity for the use of LAR and to deter future crimes in the most effective way and making sure that the victims gets their retribution, a ban of LAR would be the most secure option as is gives the biggest deterrent effect and awards accountability the easiest.

It can be concluded that in the light the goal of ending impunity by deterrence and victim's retribution there needs to be human subjects to hold accountable to overcome the accountability gap. It is of lesser importance how the human subjects are found, as long as they are, but the easiest and best way would be through a ban of LAR.

Therefore, it can at last be concluded that while everyone agrees on that impunity for international crimes is something that needs to be avoided, the introduction of LAR in warfare and the possibility of an accountability gap between LAR and ICL means that we need to take into consideration what this can do to this goal. Until now, everyone seems to have thought that as long as meaningful human control in weapons can be secured, the possible accountability gap between LAR and ICL will be overcome. Though this thesis it can however be concluded that while meaningful human control will help overcome the accountability gap, it is not the best option to choose. Instead, the best possible way to overcome the accountability gap is through a ban of LAR, as a ban establishes both desired deterrent effect and secure retribution for the victims. To find a solution that causes a deterrent effect through criminal accountability for the use of LAR and gives the victims a possibility of retribution through individual *human* accountability is crucial to achieve the goal of ending impunity for international crimes.

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