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AI as Military Commander:

An Analysis of the Legal Implications of LLM

Operations in Modern Warfare

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Summary

While publicly available information regarding the military use of Large Language Models (LLMs) remains limited, reflecting the broader lack of transparency surrounding the integration of Artificial Intelligence (AI), emerging developments suggest that LLMs are increasingly being incorporated into warfare. This essay aims to examine the legal challenges associated with the use of LLMs by determining whether they comply with the fundamental principles under International Humanitarian Law (IHL) and whether the law is sufficient to fulfil the purpose of the regulation.

“Means and methods” should be understood as weapons in the widest sense, including the manner in which they are used. The review set out in Article 36 of Additional Protocol I to the 1977 Geneva Conventions (AP I) is becoming increasingly relevant for managing the development of new weapons, as in the case with LLMs. The focus in Article 36 of AP I is on the weapon’s intended use and its foreseeable operational context, rather than on hypothetical misuse. This reveals a regulatory gap concerning new weapons under IHL.

Through a critical analysis, the essay has argued for both potential compliance with and risks of violations of the principles of IHL. These risks may vary depending on the level of support provided by LLMs, the criticality of the situation, and the possible consequences. The military commander retains control but may accept certain decisions because recommendations generated by LLMs influence the decision-making process, thereby risking the neglect of moral judgement. With emphasis on the principle of humanity, the essay concludes that IHL is rooted in the idea of human good faith, and moral conscience. Machines cannot guarantee this competence nor meet the requirements set out by IHL. However, the nature of warfare is evolving and a strict application of IHL may overlook contemporary challenges. The findings show the need for continuous assessment on AI-enabled weapons, considering the rapid technological advancements in the military domain as systems are updated with new software and retrained on new data.

Sammanfattning

Tillgänglig information om den militära användningen av stora språkmodeller är fortfarande begränsad, vilket speglar den bredare bristen på transparens kring integrationen av artificiell intelligens (AI) inom militären. Även om informationen är begränsad tyder den på att stora språkmodeller i allt högre grad integreras i krigföring. Uppsatsen syftar till att identifiera juridiska utmaningar kring användningen av stora språkmodeller, hur de förhåller sig till de grundläggande principerna i internationell humanitär rätt (IHL) samt om lagen är tillräcklig för att uppfylla syftet med regleringen.

Vapen bör tolkas i vid bemärkelse, inklusive sättet på vilket de används. Granskningen som anges i artikel 36 i tilläggsprotokoll I till Genèvekonventionerna från 1977 (AP I) blir alltmer relevant för att hantera utvecklingen av nya vapen när ett specifikt traktat saknas, såsom i fallet med språkmodeller och annan AI. Fokus i artikel 36 i AP I ligger på vapnets avsedda användning och det förutsebara operativa sammanhanget snarare än hypotetiskt missbruk. Den rättsliga granskningen har en framåtblickande skyddande effekt, men denna förloras när vapnet redan är införlivat i statens arsenal.

Genom en kritisk analys har uppsatsen argumenterat för både efterlevnad och risker för överträdelser av IHL:s grundläggande principer. Det kan variera beroende på vilken nivå av stöd språkmodellerna tillhandahåller, situationens allvar och vilka konsekvenser som kan uppstå. Den militära befälhavaren har fortfarande kontroll, men kan acceptera vissa beslut eftersom rekommendationer från språkmodeller kan påverka beslutsfattandet och därigenom riskera att moral och andra mänskliga aspekter åsidosätts. Med stor vikt på humanitetsprincipen visar uppsatsen att IHL bygger på idén om god tro hos människor och mänskligt samvete. Maskiner kan inte garantera denna kompetens eller uppfylla de krav som anges av principerna i IHL. Samtidigt förändras krigföringens natur, och en strikt tillämpning av IHL kan förbise samtida utmaningar. Resultaten visar på behovet av kontinuerlig utvärdering av AI-vapen med tanke på de snabba framstegen inom militära teknik.

Preface

I would like to thank my supervisor Olena Bokareva for good advice and support. I would also like to thank Alberto Rinaldi who inspired me with the subject of this essay.

I am deeply grateful for my family for their encouragement.

Finally, I would like to thank the friends I have met during these first three years of legal studies. You have made every part of this journey more enjoyable.

Abbreviations

AI	Artificial Intelligence
AP I	Protocol Additional to the Geneva Convention of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, 8 June 1977
ICJ	International Court of Justice
ICRC	The International Committee of the Red Cross
ICTY	International Criminal Tribunal for the former Yugoslavia
IHL	International Humanitarian Law
LLM	Large Language Model

1 Introduction

1.1 Background

If a machine, a terminator, can learn the value of a human life,
maybe we can too.¹

– Sarah Connor, *Terminator 2: Judgment Day*, 1991.

In *Terminator 2: Judgment Day*, a machine learns humanity. In contemporary warfare, battlefields are becoming increasingly autonomous. Decisions once grounded in human judgement and moral responsibility are at a rising rate influenced, and potentially replaced, by machine-driven assessments of efficiency, probability, and strategic advantage. These decisions have become a matter of data rather than a question of morality. The question is not whether a machine can value human life, but whether humans themselves become increasingly detached from the value when delegating decisions of life and death to algorithms. At what point does mankind cease to master technology, and instead allow technology to redefine the moral boundaries of war?

International law changes dynamically to reflect contemporary times. However, the instruments of international law do not explicitly regulate the use of Artificial Intelligence (AI) in armed conflicts. Despite uncertainty and it being subject to debate, the use of it continues to increase. As in numerous other areas of law, the vast technical development has outrun the legislation. AI facilitates development of new means and methods of warfare, raising questions regarding the extent to which human judgement remains central to decisions involving the use of force. Although not explicitly regulated within International Humanitarian Law (IHL), it is interesting to research how it relates to the most fundamental parts of IHL and its regulation of new weapons. Particular attention will be given to Large Language Models (LLMs), namely AI systems capable of generating and processing human-like language, originally developed for commercial purposes, such as ChatGPT and Claude.

¹ *Terminator 2: Judgment Day* (directed by James Cameron, Carolco Pictures, 1991).

While publicly available information regarding the military use of LLMs remains limited, emerging developments suggest that AI-assisted systems are increasingly being integrated into contemporary warfare. Reports indicate that the United States has employed an LLM to support decision-making in their recent strikes against Iran.²

IHL constitutes a legal framework developed in a historical context that differs from the one which it operates today. Therefore, it is interesting to explore what the stakes are for international law as the nature of warfare is changing, and whether IHL can guarantee humanity in armed conflicts when decisions rely on LLMs.

1.2 Purpose and Research Questions

This essay aims to examine the legal gap of LLM usage in modern warfare, and what the stakes are for IHL when decisions in armed conflicts are being made with reduced human influence. This will be examined by identifying challenges IHL may face due to recent integration of commercially developed LLMs in warfare that are turned into weapons to assist decision making.

The research questions are as follows:

- How does LLM usage in warfare comply with the fundamental principles under IHL?
- Is existing regulation sufficient to satisfy the purpose of international humanitarian law in times of modern warfare?

1.3 Delimitations

This essay analyses the fundamental principles of IHL and Article 36 of Additional Protocol I to the 1977 Geneva Conventions (AP I), to examine the legality of LLM operations. To ensure coherence with the purpose of essay and within the constraints of time and scope, certain limitations have been made. The principles of IHL examined appear in several international

² The Wall Street Journal, “U.S. Strikes in Middle East Use Anthropic, Hours after Trump Ban” (28 February 2026) accessed 17 May 2026.

conventions. This essay will primarily focus on its codifications in AP I, supplemented by other treaties when necessary.

Although human rights law is closely related to IHL, human rights are omitted. The use of LLM may create an accountability gap, questions of responsibility fall outside the scope of this study.

Concepts like “meaningful human control” will not be examined, as the essay focuses on principles with recognized legal status.

The essay does not evaluate whether IHL is applicable on new technology, such applicability is taken as a premise. This is supported by the universal consensus and the existence of Article 36 of AP I.³ While AP I is not universally ratified, unlike the Geneva Conventions, its regulations remain relevant as many of them reflect customary law which binds all states. The implications of AP I’s treaty status will therefore not be explored further.⁴

A short background of LLMs will be provided, focusing on their relevance in the military domain rather than technical depth.

1.4 Methodology and Material

The method applied in this essay is a doctrinal research method. The method aims to identify and analyse legal sources to establish the current legal framework, *de lege lata*, to answer the research questions.⁵ The doctrinal research method will be applied in accordance with Article 38(1) of the Statute of the International Court of Justice. The article recognizes international conventions, international customs, and the general principles of law as sources of

³ International Committee of the Red Cross, ‘International Humanitarian Law and New Weapon Technologies, 34th Round Table on current issues of international humanitarian law’ (2011) *International Review of the Red Cross*, 810.

⁴ Marco Sassòli, *International Humanitarian Law: Rules, Controversies, and solutions to Problems Arising in Warfare* (2nd edn, Edward Elgar Publishing 2025) 40.

⁵ P. Ishwara Bhat, *Idea and Methods of Legal Research* (Oxford University Press 2020) 143-145.

international law. Judicial decisions and doctrine are considered subsidiary and complement primary law by clarifying legal ambiguities.⁶

A doctrinal research method enables a normative discussion, *de lege ferenda*. To evaluate how the law should be, in order to answer the second research question concerning the sufficiency of the current legislation, a recommendatory research objective is adopted.⁷ To answer the second research question, the essay adopts an explanatory research objective to evaluate the purpose of IHL and why it exists. This objective is relevant for the normative discussions.⁸

For a better understanding of the research objectives, the essay presents a background of LLM usage in the military domain where technical insights will be presented. As the field remains unexamined, the background will rely on an article provided by a multi-discipline organization.

The primary material used in this study include *The Geneva Conventions* and one of its *Additional Protocols*, which constitutes the foundation of the law of armed conflicts. These are complemented with guidelines and commentary from the International Committee of the Red Cross (ICRC).

To contextualize the primary material and meet the requirement of cumulativeness, academic literature is analysed. These sources are selected based on relevance and aims to contribute with the interpretation of the legal framework and critical insight. Furthermore, the essay uses the Advisory Opinion on Nuclear Weapons by the International Court of Justice (ICJ) to illustrate the Court's view of new weapons. Though subsidiary, ICJ shape international law and has an important role in relation to new developments in the international community and legal environment.⁹

⁶ 'Statute of the International Court of Justice' 1945 [33 UNTS 993] art 38(1).

⁷ Lina Kestemont, *Handbook on Legal Methodology: From Objective to Method* (Intersentia 2018) 63.

⁸ Ibid. 16.

⁹ Teresa F Mayr, Jelka Mayr-Singer, 'Keep the Wheels Spinning: The Contributions of Advisory Opinions of the International Court of Justice to the Development of International Law' (2016) HJIL. 448.

Co-pilot has been used as an AI-tool for language enhancement for certain sections of the text.

1.5 State of Research

AI in the military domain have previously been examined by scholars. However, there is limited research on LLMs specifically in a legal context. Similar studies have examined cyber warfare and other AI advantages, predominantly Lethal Autonomous Weapon Systems and drones. Studies on LLM-usage have primarily been of a practical character with military aspects or technical reports. When discussed in relation to IHL, the issue has remained superficial without any legal assessments. One contribution is provided by Klaudia Klonowska and Jonathan Kwik, which identifies legal challenges with LLM usage within the military but are not investigated further.¹⁰ The fundamentals of IHL and its regulation on new weapons have been thoroughly researched. This essay will contribute to the debate by connecting these disciplines.

Majority of the available legal assessments of AI usage within the military focuses on responsibility. This would be an interesting research question, for LLM usage, as well for future studies.

1.6 Outline

The essay is divided into four chapters. After this introduction, chapter two provides an overview of the technical background of LLM usage within military operations, for a better understanding of the research problem and to contextualize it.

Chapter three establishes the legal framework within IHL relevant for the research question. The chapter begins with a historical background of the purpose of IHL, followed by its regulation of means and methods and its fundamental principles.

¹⁰ Klaudia Klonowska and Jonathan Kwik, *Artificial Intelligence in Contemporary Conflicts and the Future of Military Law* (Edward Elgar Publishing 2026).

Legal implications of LLM usage and whether there is a need for additional regulations to fulfil the purpose of IHL is discussed in chapter four, by answering respective research question. The findings and conclusion will be presented in the final chapter.

2 LLM Usage in Warfare: Technical and Legal Issues in Perspective

In 2024 the Joint Air Power Competence Centre published an article on LLMs and their potential application in military operations. Since the usage of LLMs in the military domain remains unclear, the essay will rely on available reports, to hereinafter evaluate the legality. In other words, the referenced article provides more of a notion of LLM usage within the military.

Concerns can be raised regarding whether AI systems are capable of interpreting combatant behaviours and, when generating material, whether they can comply with IHL. To assess how the usage of LLMs align with the legal aspects, it is necessary to understand the ways in which LLMs may be employed in armed conflicts.

LLMs are commercially developed AI systems made to generate human-like language. They analyse patterns to generate material to whatever is most probable based on available data. Therefore, answers may vary depending on the input and how precise the prompt applied is. LLMs do not require the same preprogrammed rules as other AI-systems do, it has the competence to generate its own outputs that are contextually relevant.¹¹

The article suggests that LLM can provide a decisive advantage at a higher speed when assisting military commanders with the decision-making processes. Assistance may include issues such as course of action, aid intelligence, target acquisition, and reconnaissance processes. As opposed to fully automated systems, there is always a human making the final decision. It is uncertain to what extent human control is guaranteed and how reliable LLMs are in a legal context. Control of bias and accountability gaps are some of the technical challenges.¹² However this essay will focus on the problem when

¹¹ Antonios Chochtoulas, “How Large Language Models are Transforming Modern Warfare”, (*The Joint Air Power Competence Centre*, May 2024) accessed 18 May 2026, 69.

¹² Ibid. 70-72.

LLMs play a critical role in the decision-making process in armed conflicts, challenging the human aspects.

3 Legal Framework

3.1 IHL

IHL is part of public international law that applies under an armed conflict, the *jus in bello*. Also known as “the law of armed conflict” or “the law of war”. IHL is divided into the means and methods of warfare and the protection of persons and projects.¹³ The rules seek to set limits on armed conflict to protect those who do not, or no longer, participate in hostilities from the consequences of war. Scholars, such as Jean Pictet explains the principle of the law as follows:

Persons placed hors de combat and those not directly participating in hostilities shall be respected, protected and treated humanely.¹⁴

Pictet finds three duties within IHL: respect, protection, and humane treatment. Compliance with the duties requires common sense and good faith.¹⁵

Even though there is a growing tendency to determine the lawfulness of certain weapons through other international instruments, IHL does not aim to prohibit or regulate certain weapons, more so regulate *all* weapons.¹⁶

The rules of IHL can be found primarily in the four Geneva Conventions of 1949 and their Additional Protocols of 1977. Reaching consensus on the legality of a weapon can be challenging, due to the broad formulations of the principles under IHL, which leaves considerate discretion to the person applying them. Therefore, certain weapons have been declared prohibited through specific treaties.¹⁷ For instance the use of nuclear weapons is

¹³ Cecilia Rose and others, *An introduction to International Public Law* (Cambridge University Press 2022) 230.

¹⁴ Jean Pictet, *Development and Principles of International Humanitarian Law: Course given in July 1982 at the University of Strasbourg as part of the Courses organized International Institute of Human Rights* (Martinus Nijhoff 1985) 63.

¹⁵ International Committee of the Red Cross, ‘The principles of International Humanitarian law’ (1966) *International Review of the Red Cross*, 519.

¹⁶ Sassòli (n 4) 41.

¹⁷ Rose and others (n 15) 244.

prohibited through the Treaty on the Prohibition of Nuclear Weapons.¹⁸ However, the use of AI in warfare remains unregulated.

“Means and methods” should be understood as weapons in the widest sense, including the way in which they are used. If a weapon is not unlawful in itself, it can still be considered unlawful by the way, the method, in which it is used.¹⁹ Article 22 in the 1907 Hague regulation states that means and methods adopted to harm the other party in the conflict is not unlimited. The same rule is codified in Article 35(1) of AP I. The rule is deeply rooted in IHL, first being mentioned in Hugo Grotius work, *De iure belli ac pacis*, published in 1625.²⁰ The application of Article 35(1) relies on the wise general or combatant interpreting it.²¹ ICRC emphasize that the interpretation should be made in good faith at every level when applying the rules of AP I.²² Even if some degree of freedom of judgement remains, it is ultimately exercised by the military commanders.²³

While IHL does not formally regulate the use of AI in warfare and no treaty prohibits the use of it explicitly, Article 35(2) of AP I set some requirements. The article establishes that weapons may only be used if they can correctly distinguish and not cause superfluous injury or unnecessary suffering. On the contrary, if the mean does not meet these requirements, it is prohibited by the article.

3.2 Article 36 of Additional Protocol I to the Geneva Conventions of 1977

Development of new weapons is addressed through Article 36 of AP I. Some scholars argue that the article reflects customary law.²⁴ This is further

¹⁸ ‘Treaty on the Prohibition of Nuclear Weapons’ 2017 [3370 UNTS].

¹⁹ Pilloud and others, ‘Protocol 1’ in Yves Sandoz, Cristophe Swinarski, Bruno Zimmerman (eds), *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (ICRC 1987) 398 para 1402.

²⁰ Pilloud and others (n 21) 390 para 1383.

²¹ Ibid. 395 para 1393.

²² Ibid. 399 para 1409.

²³ Ibid. para 1405.

²⁴ Rose and others (n 15) 245.

supported by the Saint Petersburg Declaration from 1868, where similar principles were settled.²⁵

The Contracting or Acceding Parties reserve to themselves to come hereafter to an understanding whenever a precise proposition shall be drawn up in view of future improvements which science may effect in the armament of troops, in order to maintain the principles which they have established, and to conciliate the necessities of war with the laws of humanity.²⁶

The declaration shows the deeply ingrained idea of how new weapons relate to the fundamentals of IHL that later became Article 36 of AP I. The idea ties the basic rules under Article 35 of AP I and prohibitions of the Additional Protocols, and the introduction of a new weapon. The relevance of the article has been strengthened in the context of the vast development of technology in modern warfare.²⁷

In the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.²⁸

A legal review is to be made to prevent weapons that do not comply with the rules of international law before they are developed, acquired, or otherwise incorporated into a state arsenal. “Any other rule” refers to any agreement concluded by the party concerned, as well as rules under international customary law.²⁹ If the weapon violates IHL, it must be restricted or prohibited.³⁰ The article establishes an obligation to all states, regardless of whether the

²⁵ International Committee of the Red Cross, ‘A Guide to the Legal Review of New Weapons, Means and Methods of Warfare’ (2006) 4.

²⁶ ‘Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight’ (adopted 11 December 1868).

²⁷ International Committee of the Red Cross and the Red Crescent, ‘28th International Conference of the Red Cross and Red Crescent Geneva, 2-6 December 2003’ final goal 2.5. 20.

²⁸ ‘Protocol additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflicts’ 1977 [11255 UNTS 3] art 36.

²⁹ Pilloud and others (n 21) 425 para 1472.

³⁰ Rose and others (n 15) 245.

state is a party to the treaty or not, to ensure new means and methods are consistent with IHL. The legal review is a matter that naturally falls under an expectation of a responsible and faithful application of the state.³¹ This is supported by the complementing Article 82 of AP I. The article states that legal advisors should be available to advise military commanders on IHL to ensure a strict application of IHL and its fundamental principles.³²

The review of a new weapon should be conducted based on its normal use “as anticipated at the time of the evaluation”.³³ This means that the evaluation does not need to account for every negative effect a weapon may have, since “most weapons can be misused in ways that would be prohibited”.³⁴ The ICRC states that the legality of a weapon does not solely depend on its design or intended purpose, but also on the manner on which it is used on the battlefield.³⁵ If a weapon is found to be illegal through the review, it is not a binding decision vis-à-vis third parties.³⁶

3.3 Principles under IHL

To address the conformity of military application of LLMs with IHL, a description of the fundamental principles of which all rules of IHL derive will be evaluated. Since the principles constitutes the foundation of IHL, they serve as an instrument for its interpretation.³⁷ The principles of military necessity and the principle of humanity are the primary principles that have resulted in the development of others.³⁸ They are considered to reflect customary law, which implies obligations to *all* states.³⁹ The principles discussed in this chapter are the principle of distinction, the principle of precaution, the principle of proportionality, military necessity, and the principle of humanity.

³¹ ICRC (n 27) 4.

³² Ibid. 5.

³³ Pilloud and others (n 21) 423 para 1466.

³⁴ Ibid. 424 para 1469.

³⁵ ICRC (n 27) 10.

³⁶ Pilloud and others (n 27) 428 para 1979-1481.

³⁷ Pictet (n 16) 59.

³⁸ Emily Crawford and Alison Pert, *International Humanitarian Law* (3rd edn, Cambridge University Press 2020) 42.

³⁹ Rose and others (n 15) 42; *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep. 226, para. 78, 84 and 226.

3.3.1 The Principle of Distinction

The principle of distinction imposes an obligation to distinguish between combatants and civilians, and between civilian objects and military objectives onto the parties in a conflict. The principle further implies a distinction between active combatants and combatant outside of hostilities, the *hors de combat*. Attacks are solely allowed to target military objects and combatants.⁴⁰ The principle is codified in Articles 48 and 51 of AP I.

Two presumptions are presented within the article. The first being that military objects and persons are targetable because of their status, and the second being that it is not military necessary to target civilians and civilian objects.⁴¹ In Article 57.2(a)(i) of AP I, commanders are required to do everything feasible to fulfil this obligation. Feasible is a high standard but not absolute. The commander needs to use available technical means to properly identify targets during operations and evaluate information.⁴²

In their final report on the NATO bombing campaign, the International Criminal Tribunal of the former Yugoslavia (ICTY) states that “if a precautionary measure have worked adequately in a very high percentage of cases then the fact they have not worked well in a small number of cases does not necessarily mean they are generally inadequate”.⁴³

Civilians being killed by accident is not unlawful. However, it is always unlawful if they are directly targeted. Even if it occurs under the conditions of an indiscriminate attack in accordance with Article 51 of AP I.⁴⁴ In situations when distinguishing may be difficult, there is a presumption for certain objects that usually accommodate civilians, as for instance cities. This is supported by Article 52(3) of AP I. This presumption can be rebutted if used as

⁴⁰ Rose and others (n 15) 239.

⁴¹ Geoffrey S. Corn and others, *The Law of Armed Conflict: An Operational Approach* (Wolters Kluwer Law & Business 2012) 164.

⁴² Ibid. 165-166.

⁴³ International Criminal Tribunal for the Former Yugoslavia, ‘Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia’ (1999) para 29.

⁴⁴ Corn and others (n 43) 167-168.

a military base.⁴⁵ From these presumptions follows an obligation for states to never use weapons that are incapable of distinguishing between civilian and military targets.⁴⁶

3.3.2 The Principle of Precaution

The principle of precaution imposes an obligation for states to take every feasible precautionary measure in relation to an attack, and it follows from the principle of distinction.⁴⁷ The question of what is considered feasible is a question of interpretation, like for any other part of IHL, and a matter of common sense and good faith.⁴⁸ The principle is codified in Articles 57(1) and 57(2)(a)(i) of AP I. Since civilian damage does not lead to any military benefit, humanitarian and military interests often align.⁴⁹

The determination of an attack's lawfulness is based on the presence of the enemy. The military commander ordering an attack should make decisions based on information supplied by his own troops.⁵⁰

3.3.3 The Principle of Proportionality

The principle of proportionality imposes an obligation to consider the attack and its obtained military advantage in relation to its possible civilian damage. Some civilian damage is inevitable in armed conflicts,⁵¹ but if the damage is excessive, the attack is considered indiscriminate which is prohibited. This prohibition is codified in Article 51 of AP I and the principle of proportionality is addressed in Article 51(5)(b) of AP I.

Some "incidental loss" is allowed; collateral damage in itself will not make an attack disproportionate. The principle is only applicable when an attack

⁴⁵ Rose and others (n 15) 240-241.

⁴⁶ *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 226, para 78.

⁴⁷ Pilloud and others (n 21) 680 para 2191.

⁴⁸ Ibid. 681-682 para 2198.

⁴⁹ Ibid. 680-681 para 2195.

⁵⁰ Ibid. 681 para 2196.

⁵¹ Corn and others (n 43) 187.

has the possibility of affecting civilians, and the requirement is for the commander to consider the principle when making decisions.⁵²

There are no formal or objective criteria for what is considered excessive; it is an evaluation that needs to be done in the context of the situation in question. This evaluation puts a responsibility on the reasonable commander as the application of the principle is somewhat unclear.⁵³ The application of the principle should be made in balance with the prohibition on causing unnecessary suffering and superfluous injury.⁵⁴ However, IHL does provide some guidelines, the advantage must be concrete and direct, and not hypothetical.⁵⁵

ICTY has addressed the problem with discretion in its final report:

It is unlikely that a human rights lawyer and an experienced combat commander would assign the same relative values to military advantage and to injury to noncombatants. Further, it is unlikely that military commanders with different doctrinal backgrounds and differing degrees of combat experience or national military histories would always agree in close cases. It is suggested that the determination of relative values must be that of the "reasonable military commander."⁵⁶

3.3.4 The Principle of Military Necessity

The principle of military necessity allows state parties in a conflict to adopt those measures necessary to defeat the enemy and achieve its surrender.⁵⁷ The principle was first defined in the Lieber code governing soldiers in wartime:

Military necessity, as understood by modern civilized nations, consists in the necessity of those measures which are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war.⁵⁸

⁵² Corn and others (n 43) 187.

⁵³ Rose and others (n 15) 242.

⁵⁴ Crawford and Pert (n 41) 45.

⁵⁵ Rose and others (n 15) 242.

⁵⁶ ICTY (n 45) para 50.

⁵⁷ Crawford and Pert (n 41) 45.

⁵⁸ 'Instructions for the Government of Armies of the United States in the Field' (adopted 24 April 1863) art 14.

Although not explicitly codified in the Geneva Conventions or AP I, the principle finds expression in the principle of proportionality.⁵⁹

Military necessity is weighed against the principle of humanity. IHL cannot be derogated by the principle of military necessity if it is not specifically stated in the rule in question. Conversely, it is “free within the constraints of customary law and general principles”⁶⁰ when no prohibition is stated. This is supported by the Martens Clause in Article 1(2) of AP I. The principle acts as a limitation, not an excuse.⁶¹

3.3.5 Martens Clause

The Martens Clause establishes the principle of humanity in IHL and acts as a counterbalance to the principle of military necessity.⁶² ICJ highlights the principle's special legal status in IHL, “whose continuing existence and applicability is not to be doubted”.⁶³ ICJ further states that the principle has proved to be an effective instrument for addressing new technical advantages in the military domain.⁶⁴ A weapon is considered contrary to the Martens Clause, if it violates the principle of humanity or dictates of public conscience.⁶⁵

The principle advocates that it is not possible for a complete codification to counteract against an unlimited application of military necessity. Thus, there should be a principle to prevent the assumption that anything which is not explicitly prohibited is permitted and is especially relevant in cases when law is ambiguous, or a field remains unregulated.⁶⁶

Pictet explains the principle as a way of thinking: “wounding an enemy is better than killing, and that wounds inflicted be as light as possible”. He

⁵⁹ Crawford and Pert (n 41) 45.

⁶⁰ Pilloud and others (n 21) 392-393 para 1389.

⁶¹ Ibid.

⁶² Crawford and Pert (n 41) 48.

⁶³ *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 226, para 87.

⁶⁴ Ibid. para 78.

⁶⁵ ICRC (n 27) 17.

⁶⁶ Pilloud and others (n 21) 38-39 para 55.

further explains that “military commanders can understand this language – as experience has often demonstrated – for no one is asking them to renounce their duty as soldiers or patriots. They can achieve the same result while inflicting less suffering.”⁶⁷

⁶⁷ Pictet (n 17) 62.

4 Concluding remarks

4.1 Analysis

Publicly available information remains limited, reflecting the broader lack of transparency surrounding the military integration of AI-assisted systems. Nevertheless, human operators generally remain formally responsible for final operational decisions. This raises a central question: to what extent can military decision-making rely on LLM-systems while remaining consistent with the principles and requirements of IHL? In other words, where should the line be drawn between permissible technological assistance and an unacceptable erosion of meaningful human judgement in warfare?

AI advantages continue to develop and enable military benefits on the battlefield. However, this shows not only problems related to the current use of AI and its capabilities, but also the challenge that innovative ways of using already commercially developed AI systems, such as LLMs, make it even harder to formulate legislation that captures all means and methods of warfare beyond the existing fundamentals of IHL.

The idea of means and methods being limited is deeply rooted within IHL and dates back to the works of Hugo Grotius. The Saint Petersburg Declaration, as well as the existing regulation of new weapons in Article 36 of AP I, highlight the compliance with the fundamentals of IHL and especially the principle of humanity. Due to the discretion when applying the broadly formulated principles under IHL, treaties are often used to prohibit or restrict certain weapons. The legal review set out by Article 36 of AP I becomes increasingly relevant to manage the development of new weapons when no specific treaty exists, as in the case with LLMs. However, one might question the effectiveness of the article since it lacks a binding effect vis-à-vis third parties. The article is complemented by Article 82 of AP I concerning the availability of a legal advisor to secure a strict application of IHL. The problem with the current application of the article is that it applies to means and methods in the way in which they are anticipated to be used. Even though weapons should be

interpreted in the widest sense in accordance with Article 35 of AP I. The focus in Article 36 of AP I is on the weapons intended use and foreseeable operational context rather than hypothetical misuse. LLMs, however, were originally developed for commercial purposes and designed to generate human-like language. Consequently, their future application within military may not initially have been foreseeable, making prior reviews under Article 36 of AP I particularly difficult. While Article 36 of AP I is intended to provide a forward-looking protective function, that function risks being weakened when such systems already have been integrated into a state's military arsenal. The next step is to assess the weapon under general principles and customary law. The state can try to foresee its application and possible effects, but it is still questionable if the same protective function of the article remains.

The principle of distinction implies an obligation to distinguish between military and those who do not participate in hostilities. Together with the principle of precaution, military commanders are required to do everything feasible to fulfil this obligation. This includes the usage of available technical means to properly identify targets during operations and evaluate information. If LLMs can give more precise insight and minimize collateral damage, does the principles imply an obligation for military commanders to use them when choosing means and methods? This is dependent on the liability of LLMs which remains unclear. However, the question of what is feasible is a question of interpretation. As for other parts of IHL, it is a matter of common sense and good faith. This matter is embedded in several principles, and it shows the reliance on the human judgement. Even if LLMs can generate human-like language, can it consider something so human as common sense when assisting with for instance target acquisitions or proportionality assessments? Methods to meet the requirement of doing everything feasible has some room for inadequacy as stated by the ICTY. Even though LLMs might be incapable of interpreting human-like conscience, their performance might still be considered adequate if they function reliably in majority of cases, for instance when used as a tool for target acquisition. In contrast, if civilians are directly targeted, the attack is always unlawful, and the prohibition includes deploying such weapons that are incapable of distinguishing. This shows that LLM

compliance with the principle of distinction and precaution relies on its unreported competence.

Regarding the discretion of interpretation, discussions have addressed the idea of “the reasonable commander”. Statements by the ICTY show that individuals interpret IHL differently depending on experience. If LLMs are not acting outside of the borders of IHL, is their output simply another form of interpretation? Or can good faith no longer be guaranteed when humans have less involvement in the legal assessments under military operations?

Another fundamental principle within IHL is the principle of proportionality. The study shows that the principle relies on its application of the reasonable commander as there are no objective criteria to follow. The application should be made from the situation in question, it must be concrete. This is supported by the ICTY report. If a LLM supports a proportionality assessment, the legality depends not only on the assessment and values it adopts but also on the material input. Another side of the problem is the proportionality assessment of LLM usage in itself. The advantage of decision making at a higher speed should be weighed against the risks. However, this is difficult as the risks remain unclear, and the principle should be applied in concrete situations. If the purpose and advantage of using LLMs is to reduce civilian harm with more precise insight, the military advantage, and the humanitarian interests, align. The balance between military necessity and the principle of humanity is the very core of IHL. According to the Lieber Code, military necessity consists of acts required to secure the ends of war, provided that such acts are lawful under the modern law and customs of war. If LLMs are considered lawful, the principle of military necessity does not constitute an obstacle.

The Martens Clause is the contrary consideration to the principle of military necessity. It is a core principle rooted in the very being and aims of IHL. ICJ has highlighted the importance of the principle for addressing the evolution of military technology. The importance of the principle increases in cases of ambiguity or unregulated fields. This shows the very importance of the principle of humanity in this case. Implementing LLMs in military operations

may lead to a humanitarian approach with less casualties and collateral damage. This depends on the competence and accuracy of the LLMs. On the other side, the reduction of human judgement is inevitable. Pictet has illuminated that the language, the way of understanding humanity, naturally accrues the military commanders because they are humans. However, the question if a machine can learn the value of a human life remains. The concern is not simply that humans may lose control to machines, but that human judgement and accountability may gradually become dependent on systems whose reasoning cannot be fully understood, challenged, or morally evaluated.

4.2 Conclusion

The compliance of LLMs with the fundamentals of IHL relies on their practical outputs and competence, which lacks reporting. It depends on how context-aware the system is, how fast it can adapt to unforeseen events such as unexpected civilian presence, and how adequate the legal assessments of a probability-based machine can be. Through critical analysis, this essay has argued for both potential compliance and risks of misconduct in relation to the principles of IHL. The degree of compliance may vary depending on the level of support LLM provides, how critical the situation is, and the possible consequences.

The cardinal principle of IHL is the principle of humanity, which defines the entire law of armed conflicts. Though not unlawful in per se, LLMs can still be considered unlawful in the way they are used. In some cases, LLMs might give more insightful outputs, resulting in less civilian damage on the battlefield. They can increase precision and process information at a higher speed. They can also minimize the risks posed by human errors of judgement and arbitrary operations. These aspects comply with IHL, and some of the risks with LLMs can still exist in situations of human involvement at every level in decision-making.

Even though IHL tries to keep up with contemporary challenges through treaties, one can always rely on the fundamentals of IHL. However, the problem with discretion of the person applying the law remains. The essay recognizes

challenges posed by the interpretation of the reasonable commander and the requirement of well-founded decisions in good faith. The problem with LLMs' legal implications is not only a question of morality. Even if AI cannot weigh morality in its decision-making, it is not automatically guaranteed through human decisions. Humans are as capable of making morally reprehensible decisions by themselves.

The study shows that IHL stems from the idea of the good faith in humans, on empathy and human emotions. There is some freedom of judgement which accrues to the military commander, but when this freedom is applied to AI instead, can good faith at every level still be reassured? While the meaning of good faith remains unclear, it cannot possibly have meant the good faith of machines. Good faith is something that naturally falls under the human conscience. All things considered, LLM usage in the military domain has a big risk of violating IHL. On the contrary, the nature of warfare is changing, and a strict application of IHL might neglect contemporary challenges. If the principles under IHL developed under a time distinct to the one we live in today, is strict compliance even possible? Therefore, the solution might lie within a new legislation rather than a strict application of the principles under IHL.

IHL seeks to set limits to armed conflict to protect the individuals who do not, or no longer, participate in hostilities. Innovative ways of using AI might fall outside the scope of the current legislation, as they are commercially developed and are not conventional weapons that can easily be interpreted to fit the requirements of AP I. Does an obligation to review a new weapon in accordance with Article 36 of AP I ensure that the fundamentals of IHL are obtained and that the purpose is not undermined? It is difficult to identify the way forward when something that's developed commercially is dependent on developments by the civilian sector. Because of this, there is a need for technical transparency and documentation on how it is used on the battlefield to be able to trace deficiencies in the system.

There is still a risk that human judgement becomes secondary in its use. For law to maintain its protective function and guarantee humanity concerning

decision-making, there is a need to explore new ways of developing IHL without undermining the existing normative framework. A statutory obligation to make continuous assessment can fulfil the purpose of IHL, considering the rapid development of technology and specifically AI advantages. Certain weapons may be approved but with restrictions, for instance a requirement of a certain level of human involvement or maybe approval for strategic use but not target acquisition. A continuous assessment of the weapons compliance is necessary when the system is updated with new software, retrained on new data, or if its error margins in the field exceed a certain limit. To be deemed sufficient to fulfil the purpose of IHL, the legislation needs to ensure that assessments are equivalent to, or more reliable than, those made by humans. This can better be adhered to by the proposed regulation.

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