

GOVERNING LETHAL AUTONOMOUS WEAPONS SYSTEMS: INTERNATIONAL HUMANITARIAN LAW, GLOBAL GOVERNANCE, AND CIVILIAN PROTECTION

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Abstract

The rapid development of Artificial Intelligence (AI) has accelerated the emergence of Lethal Autonomous Weapons Systems (LAWS) which change the character of contemporary armed conflict and pose new challenges in terms of global law, humanitarian and governance. Although International Humanitarian Law (HHI) remains the main legal framework governing the conduct of armed conflict, the increasing autonomy of armed systems raises issues regarding accountability, meaningful human control, and the protection of civilians. This study aims to analyze the extent to which HHI equipped with a Global Governance approach can answer the challenge of using LAWS in ensuring the protection of civilians in contemporary armed conflicts. The research uses a qualitative method with a literature review approach through analysis of international legal instruments, United Nations documents, reports of the International Committee of the Red Cross (ICRC), and scientific literature on autonomous weapons and AI governance. The results of the study show that HHI is still relevant as a normative foundation, but its implementation faces governance gaps due to the absence of binding international regulations specifically regarding LAWS. In addition, the principle of distinction faces significant challenges because autonomous systems have the potential to misidentify civilians. From the perspective of Constructivism, the development of LAWS regulations is influenced by the process of forming international norms involving states, international organizations, and civil society. Therefore, strengthening multilateral cooperation and building human-centered governance mechanisms is an important step to strengthen the protection of civilians in the era of autonomous warfare.

Keywords: Lethal Autonomous Weapons Systems; International Humanitarian Law; Global Governance; Protection Of Civilians; Artificial Intelligence

1. Introduction

The development of Artificial Intelligence (AI) in recent decades has brought significant changes to the dynamics of international security and the transformation of military technology. The integration of AI into modern weapons systems has given birth to Lethal Autonomous Weapons Systems (LAWS), which is a weapon system capable of selecting and attacking targets with an increasingly limited level of human intervention. The presence of such technology has not only changed the character of contemporary warfare, but has also given rise to debates about the limits of the use of lethal force in armed conflict.

From the perspective of International Relations, the development of LAWS reflects the growing relationship between technological innovation, national security interests, and global governance. Countries with high technological capacity seek to develop AI-based weapons systems to improve the effectiveness of military operations and maintain their strategic position in the international system. However, the increased autonomy of the weapons system also raises concerns about the protection of civilians, accountability for the use of force, and potential violations of international humanitarian norms.

International Humanitarian Law (HHI) remains the main legal framework that governs the conduct of armed conflict through the principles of distinction, proportionality, precaution, military necessity, and humanity. Among these principles, distinction has a central position because it requires the parties to the

conflict to clearly distinguish between combatants and civilians, as well as between military targets and civilian objects. The question is whether autonomous systems can accurately identify targets that are up for debate, especially when they have to operate in complex and dynamic conflict environments.

The debate over LAWS has intensified after reports emerged regarding the use of AI-based systems in the Israeli-Gaza conflict and the use of Kargu-2 semi-autonomous drones in the Libyan conflict. Both cases show that technologies with a high degree of autonomy have begun to be used in real military operations, so that the question of meaningful human control, accountability, and protection of civilians is no longer hypothetical, but has become a concrete issue in the practice of contemporary armed conflict.

Previous studies have generally focused on the legality of the use of LAWS or the ethical implications of autonomous decision-making. Meanwhile, studies that integrate HHI with the perspective of Global Governance and Constructivism are still relatively limited. In fact, the regulation of LAWS does not only depend on the existence of legal norms, but also on the process of forming international norms, interaction between global actors, and the ability of the international community to build effective governance mechanisms.

From a Global Governance perspective, the development and use of LAWS involves countries, international organizations, technology companies, humanitarian agencies, and civil society. Meanwhile, Constructivism helps explain how international humanitarian norms, advocacy of civil society organizations, and global discourse on AI in warfare influence state attitudes toward the establishment of autonomous weapons regulations. Thus, the analysis of LAWS cannot be done solely through a legal approach, but it is necessary to consider global political dynamics and the process of constructing international norms.

Based on this background, this study seeks to answer the question of the extent to which International Humanitarian Law, complemented by a Global Governance approach, can effectively address the challenge of using Lethal Autonomous Weapons Systems in ensuring the protection of civilians in contemporary armed conflict. This research also aims to show that strengthening regulations on LAWS requires a combination of the enforcement of international legal norms and the development of global governance that is adaptive to the development of modern military technology.

2. Literature Review

2.1 The Principle of Distinction in International Humanitarian Law

The principle of distinction is one of the fundamental principles in International Humanitarian Law that requires parties to conflict to make a clear distinction between combatants and civilians, as well as between military targets and civilian objects. This principle is the main basis for the protection of civilians in armed conflict and is enshrined in Article 48 of Additional Protocol I to the 1977 Geneva Convention.

In the context of the use of Lethal Autonomous Weapons Systems (LAWS), the application of the principle of distinction faces new challenges as the target identification process is carried out through algorithmic processing and data analysis by AI-based systems. In contrast to humans who can take into account social contexts, individual behavior, and changes in situations on the ground, autonomous systems rely on available parameters and data. When the data is incomplete or inaccurate, the risk of misidentification of civilians becomes greater.

Therefore, the principle of distinction is not only relevant as a legal norm, but also as a key indicator to assess whether the use of LAWS is still in line with the humanitarian objectives of HHI, especially in ensuring the protection of civilians in contemporary armed conflicts.

2.2 Lethal Autonomous Weapons Systems

LAWS refers to a weapon system capable of selecting and attacking targets independently once activated. The development of this system is driven by advances in machine learning, sensors, pattern recognition, and automated decision-making technology that allows the system to process information in a very fast time.

In the international debate, LAWS is seen as a form of military technological transformation that has the potential to change the way war is conducted. Proponents of the development of LAWS argue that autonomous systems can improve the accuracy of attacks and reduce risks to military personnel. However, critics highlight the potential loss of meaningful human control, the difficulty of determining accountability, and the increased risk of violations of IP principles.

These differences of view show that LAWS is not only a technological issue, but also a legal, ethical, and international governance issue that requires a more comprehensive arrangement.

2.3 Global Governance Perspective

Global Governance refers to the management of transnational issues through interaction and cooperation between states, international organizations, and non-state actors. Rosenau and Weiss emphasize that global governance no longer relies solely on state authority, but also on the network of institutions and stakeholders that play a role in shaping international rules and norms.

In the issue of LAWS, the Global Governance approach is important because the development and use of AI-based military technology involves a wide range of actors, including governments, the United Nations, the International Committee of the Red Cross (ICRC), technology companies, the academic community, and civil society organizations. The absence of a specifically binding international agreement on LAWS indicates that there is a global governance gap that cannot be resolved through a national legal approach alone.

Thus, the Global Governance perspective helps explain how multilateral cooperation, the establishment of international standards, and global oversight mechanisms can contribute to strengthening the protection of civilians and accountability for the use of autonomous weapons.

2.4 Constructivism Perspective

Constructivism in International Relations views that norms, identities, and ideas have an important role in shaping state behavior. According to Alexander Wendt, the interests of the state are not fixed, but are formed through social interaction and the process of constructing international norms.

In the debate over LAWS, constructivism helps explain why the issue of autonomous weapons has evolved into a global normative issue. Civil society campaigns such as the Campaign to Stop Killer Robots, ICRC advocacy, and discussions at United Nations forums show that there are efforts to establish international norms that the use of lethal force must remain under meaningful human control.

The constructivist approach also explains that the formation of LAWS regulations is not only determined by the security interests of the state, but also by the development of international humanitarian norms that continue to be shaped through interactions between states, international organizations, and civil society.

2.5 Previous Research

Previous research has generally addressed two main issues, namely the compatibility of LAWS with HHI and the ethical implications of autonomous decision-making. A number of studies have assessed that the principles of HHI are normatively applicable to the use of LAWS, while other studies emphasize the gap in aspects of human accountability and control.

However, most studies still separate legal analysis from the dynamics of global governance and the process of international norm formation. Research that integrates the principles of distinction, Global Governance, and Constructivism to explain the regulatory challenges of LAWS is still relatively limited.

Based on these gaps, this study seeks to contribute by analyzing LAWS not only as a matter of legality, but also as an issue of global governance and the formation of international norms that affect the protection of civilians in contemporary armed conflict.

3. Research Methods

3.1 Approaches and Types of Research

The object of this research is the governance of LAWS in armed conflict. The research will be conducted in 2026 with a literature study approach at Darussalam Gontor University, Indonesia. This research uses a qualitative approach with the type of library research. The qualitative approach was chosen because the research focuses on the analysis of international legal norms, global governance practices, and the development of international discourse on Lethal Autonomous Weapons Systems (LAWS). Through this approach, researchers can deeply understand the relationship between the development of AI-based military technology and the challenges of protecting civilians in contemporary armed conflicts.

This type of literature study research is used because the main data of research is sourced from international legal documents, international organization reports, as well as academic literature relevant to International Humanitarian Law, Global Governance, and Constructivism. This approach allows researchers to conduct conceptual and normative analyses of the use of LAWS without conducting direct field data collection.

3.2 Research Object and Focus

The object of this research is the governance of the use of Lethal Autonomous Weapons Systems in armed conflict. The focus of the research is directed at three main aspects, namely:

- a) The adequacy of International Humanitarian Law in regulating the use of LAWS.
- b) The challenge of protecting civilians arises due to the increasing autonomy of the weapon system.
- c) The role of Global Governance and the process of establishing international norms in strengthening regulations on LAWS.

The study also uses a case study of the Israel–Gaza conflict and the use of Kargu-2 drones in Libya as an empirical illustration to explain how these challenges arise in contemporary armed conflict practice.

3.3. Data Sources

The research uses secondary data obtained from various sources, including:

- a) International legal instruments, including the Geneva Convention and Additional Protocol I of 1977.
- b) United Nations documents, in particular the reports of the Convention on Certain Conventional Weapons (CCW) and the Group of Governmental Experts on LAWS.
- c) Report of the International Committee of the Red Cross (ICRC) on autonomous weapons and the protection of humanity.
- d) Books and scholarly articles that discuss LAWS, International Humanitarian Law, Global Governance, and Constructivism.
- e) Academic reports and studies related to the use of AI in the Israel–Gaza conflict and the use of Kargu-2 drones in Libya.

3.4. Data Collection Techniques

Data were collected through documentation studies and literature studies. The researcher searches official documents of international organizations, international legal instruments, as well as academic publications relevant to the research topic. The data collection process is carried out by identifying sources that are directly related to the issue of LAWS, the protection of civilians, and the global governance of AI-based military technology.

3.5. Data Analysis Techniques

This study uses qualitative content analysis. The analysis is carried out through several stages:

- a) Data reduction, i.e. selecting documents and literature that are relevant to the focus of the research.
- b) Data categorization, which is grouping findings based on the themes of meaningful human control, accountability, principles of distinction, regulatory fragmentation, and global governance.
- c) Data interpretation, namely analyzing the relationship between HHI norms, the practice of using LAWS, and the process of forming international norms through the perspective of Global Governance and Constructivism.

Through this analysis technique, the research seeks to explain how the development of autonomous weapons technology affects the effectiveness of protecting civilians and how global governance mechanisms can be used to address existing regulatory gaps.

3.6. Data Validity

To maintain the validity of the data, the study used source triangulation by comparing information from international legal documents, international organization reports, and academic literature. The use of these various sources aims to ensure that the analysis produced does not depend only on one type of document or one particular perspective. In addition, researchers prioritize sources that have academic and institutional authority, such as ICRC publications, United Nations documents, as well as articles published in reputable scientific journals.

4. Result And Discussion

4.1 Research Results

An analysis of international legal instruments, United Nations documents, reports of the International Committee of the Red Cross (ICRC), and academic literature on Lethal Autonomous Weapons Systems (LAWS) shows that the development of AI-based weapons technology poses a number of challenges that have a direct impact on the effectiveness of protecting civilians in contemporary armed conflict.

The study's findings identified four key challenges. First, there is a reduction in meaningful human control in attacking decision-making. The higher level of autonomy of the weapon system causes the process of target identification and attack recommendations to be increasingly dependent on AI algorithms, so that the space for human intervention in complex situations becomes more limited.

Second, the emergence of accountability gaps. The use of LAWS involves a wide range of actors, ranging from software developers, system manufacturers, military operators, to user countries. This

complexity makes it difficult to determine who should be held accountable when there is a mistargeting or violation of IP.

Third, increased risks to the protection of civilians due to possible misidentification of targets. Autonomous systems that rely on data processing and algorithmic parameters have the potential to experience limitations in understanding the social context and dynamics of the battlefield, especially in dense urban environments.

Fourth, there is fragmentation of international regulations because there is no binding international agreement specifically regarding the development and use of LAWS. Differing views between countries on limiting or banning autonomous weapons show that global governance of the technology is still at a stage that has not been optimally coordinated.

Table 1: Key Research Findings on LAWS Challenges

Aspects	Research Findings
Meaningful Human Control	Reduced human involvement in attack decision-making
Accountability	It is difficult to determine who is responsible for the losses caused by autonomous systems
Protection of Civilians	Increased risk of target misidentification
International Regulations	There is no specific binding international agreement on LAWS

Source: Author's prepared based on UN, ICRC, and academic literature related to LAWS.

The four findings show that the main problem in the use of LAWS lies not only in its technological aspects, but also in the limitations of international legal and governance mechanisms in anticipating changes in the character of modern warfare. Thus, the challenges that arise are multidimensional because they include legal, political, security, and humanitarian aspects at the same time.

The results of this study form the basis for discussion in the next subchapter which will analyze in more depth how the Israel–Gaza case and the use of Kargu-2 drones in Libya show the concrete implications of diminishing meaningful human control, the emergence of accountability gaps, challenges to the principle of distinction, and the fragmentation of global governance towards autonomous weapons.

4.2 Discussion

4.2.1 Meaningful Human Control and the Israel-Gaza Case Study

The concept of meaningful human control is one of the most central issues in the debate over the use of Lethal Autonomous Weapons Systems (LAWS). This concept emphasizes that humans must maintain substantial control over the use of lethal force, including the ability to assess situational context, verify targets, and refrain from attacks if there is an unacceptable risk to civilians.

The research findings suggest that the development of AI-based weaponry systems has the potential to reduce the quality of human decision-making, not simply because humans are no longer involved, but because such engagement is becoming increasingly dependent on algorithmic recommendations. This condition can be seen in the Israel–Gaza conflict, where various international reports mention the use of AI systems such as Lavender and The Gospel (Habsora) to help the process of identifying targets and compiling military target lists.

While the final decision remains formally in the hands of human operators, the high reliance on the output of AI systems raises questions about the extent to which operators still conduct independent assessments before an attack is carried out. In fast-paced and intensive conflict situations, operational pressures can prompt operators to follow system recommendations without adequately verifying conditions on the ground. Thus, the main issue is not only the existence of humans in the chain of command, but the quality of human control over the decisions generated by autonomous systems.

From the perspective of International Humanitarian Law, the reduction of meaningful human control has direct implications for the application of the principles of distinction and proportionality. The principle of distinction requires the ability to accurately distinguish between combatants and civilians, while proportionality requires the parties to the conflict to assess whether the harm to civilians is proportionate to the expected military gain. As the assessment process becomes increasingly dependent on AI algorithms, the ability to consider social contexts, changing situations, and humanitarian factors becomes more limited.

The Israel–Gaza case shows that the use of AI in the targeting process can improve the operational efficiency of the military, but at the same time it also raises concerns about the protection of civilians. Densely

populated environments, dynamic population movements, and the presence of civilian objects around military targets demand contextual judgments that are often difficult to replicate by algorithmic systems. Therefore, the effectiveness of the principle of distinction depends heavily on the extent to which humans retain the ability to correct, verify, and control the decisions generated by AI systems.

Within the framework of Global Governance, the debate on meaningful human control also points to the need to establish clearer international standards regarding acceptable levels of human involvement in the use of autonomous weapons. Until now, there has been no binding universal definition of what is meant by meaningful human control. As a result, countries have different interpretations of the limits of the use of AI in military operations, which ultimately reinforces the fragmentation of international regulations against LAWS.

Thus, the Israel–Gaza case study shows that the main challenge of using LAWS has to do not only with the ability of technology to identify targets, but also with the ability of global legal systems and governance to ensure that humans remain in substantive control over the use of lethal force. These findings reinforce the argument that strengthening international regulations should be directed at the protection of civilians through the affirmation of meaningful human control standards in any use of autonomous weapons technology.

4.2.2 Accountability Gap in the Use of LAWS

One of the most fundamental challenges in the use of Lethal Autonomous Weapons Systems (LAWS) is the emergence of accountability gaps. In contrast to conventional weapons systems whose operation is under the direct control of humans, LAWS involves a decision-making process influenced by complex algorithms, software, sensors, and data processing systems. This makes determining who is responsible for a military action much more complicated.

Within the framework of International Humanitarian Law, responsibility for violations of the laws of war can generally be traced to the individual or country that committed the act. However, when autonomous systems play a role in the identification of targets and the execution of attacks, responsibility can be spread across a variety of actors, including software developers, system manufacturers, military operators, commanders, and user countries. This complexity creates ambiguity about who should be held accountable in the event of mistargeting or harm to civilians.

The Israel–Gaza case study provides an illustration of this problem. When AI systems are used to aid in the process of target identification, the question arises as to whether the errors that occur should be blamed on the operators executing the attacks, the algorithm developers who generate the target recommendations, or the military institutions that integrate the system into combat operations. The absence of a clear accountability mechanism has the potential to undermine the effectiveness of HHI enforcement and reduce legal protections for civilian victims.

Similar problems are also seen in the use of the Kargu-2 semi-autonomous drone in Libya. Although international reports have not confirmed that the system operates entirely without human intervention, the case shows that the higher the degree of autonomy of a weapon system, the more difficult it is to determine the chain of responsibility when the system is used in armed conflict.

From the perspective of International Relations, the accountability gap is not only a legal issue, but also a global political and governance issue. Countries developing military AI technology have a strategic interest in maintaining their technological superiority, so there is no international consensus on binding accountability standards. As a result, the accountability mechanism for the use of LAWS is still highly dependent on the national policies of each country.

The Global Governance approach shows that resolving accountability issues requires coordination between countries, international organizations, humanitarian agencies, and the technology sector. International regulations that focus only on user countries are not enough to address the complexity of modern autonomous systems. Therefore, a governance framework is needed that is able to regulate the responsibilities of all actors involved in the development and use cycle of LAWS.

In addition, from the perspective of Constructivism, the debate on accountability is also influenced by the development of international norms regarding the use of AI in warfare. Civil society organizations and humanitarian agencies continue to push for the establishment of norms that responsibility for the use of lethal force should not be shifted to machines. These efforts show that the formation of LAWS regulations is not only the result of negotiation of state interests, but also the result of the process of constructing international humanitarian norms.

Thus, the accountability gap is one of the main reasons why the use of LAWS requires clearer international arrangements. Without effective accountability mechanisms, the implementation of HHI principles, particularly the protection of civilians, will face increasing challenges as the autonomy of AI-based weapons systems increases.

4.2.3 Principles of Distinction and Protection of Civilians

The principle of distinction is at the heart of the protection of civilians in International Humanitarian Law because it requires parties to the conflict to make a clear distinction between combatants and civilians, as well as between military targets and civilian objects. The effectiveness of this principle is highly dependent on the ability of decision-makers to accurately identify targets based on the situational context on the ground.

The development of Lethal Autonomous Weapons Systems (LAWS) poses new challenges to the application of these principles. AI-based systems perform target identification through data processing, pattern recognition, and algorithmic analysis. Although these technologies are capable of processing large amounts of information quickly, autonomous systems do not necessarily have the same capabilities as humans in understanding social contexts, individual behaviors, or dynamic changes in situations on the battlefield.

The Israel–Gaza case shows how the use of AI in the targeting process raises concerns about the protection of civilians. Densely populated urban environments cause military targets to often be near civilian areas, public facilities, or humanitarian infrastructure. In these conditions, misidentification can result in civilians becoming victims of attacks that should be aimed at military targets.

From an HHI perspective, the issue is not only related to the technical accuracy of AI systems, but also to the ability to conduct contextual assessments before an attack is carried out. Humans can consider factors such as population movements, the whereabouts of children, changes in civic activity, or the latest intelligence information that may not yet be fully reflected in the data processed by algorithmic systems. As targeting decisions increasingly rely on AI recommendations, the space for such contextual assessments has the potential to narrow.

In addition, the application of the principle of proportionality has also become more complex. An assessment of whether the harm to civilians is proportionate to the expected military gain requires qualitative and situational considerations. AI systems may be able to calculate the probability of an attack being successful, but it may not be able to adequately evaluate the humanitarian value and social consequences of the civilian losses caused.

In the framework of Global Governance, the challenge to the principle of distinction demonstrates the need for international standards regarding the use of AI in the targeting process. To date, there has been no global agreement on the level of accuracy, verification procedures, and forms of human surveillance that should be applied when AI systems are used to identify military targets. The absence of such standards makes the protection of civilians highly dependent on the policies and interpretations of each country.

From the perspective of Constructivism, the increasing international attention to the risk of mistargeting indicates the existence of a process of forming new humanitarian norms. Civil society organizations, the ICRC, and various international forums continue to push for the recognition that decisions on the use of lethal force must take into account a humanitarian dimension that cannot be completely reduced to algorithmic calculations. Thus, the protection of civilians is understood not only as a legal obligation, but also as an international norm that continues to be constructed through interaction between global actors.

Based on the analysis, it can be concluded that the use of AI in the targeting process has the potential to increase the operational efficiency of the military, but also poses a risk to the effectiveness of the principle of distinction and the protection of civilians. Therefore, strengthening international regulations and affirming meaningful human control are important elements to ensure that the development of military technology does not reduce the standards of humanitarian protection that have been built in International Humanitarian Law.

4.2.4 Regulatory Fragmentation and the Case Study of Libya's Kargu-2

One of the main challenges in the governance of Lethal Autonomous Weapons Systems (LAWS) is the lack of a binding international regulatory framework specifically regarding their development and use. In contrast to several other categories of weapons that have been regulated through international treaties, LAWS is still in the stage of normative and diplomatic debate in various international forums, especially in the Convention on Certain Conventional Weapons (CCW) under the auspices of the United Nations.

This condition creates fragmentation of international regulations, which is a situation when countries have different interpretations and policies regarding the limits of the use of autonomous weapon systems. Some countries support the development of LAWS on the grounds of military efficiency and technological

innovation, while others are pushing for strict restrictions or even bans on systems that can use lethal force without adequate human control.

The case study of the use of the Kargu-2 drone in the Libyan conflict in 2020 is an important illustration of this problem. The United Nations Panel of Experts report said the drone has the ability to carry out attacks semi-autonomously against identified targets. While there is no confirmation that the system is fully operational without human intervention, this case shows that technology with a high degree of autonomy has begun to be used in real military operations.

The Kargu-2 case shows the gap between technological developments and the speed of international regulation. When autonomous systems began to be used on the battlefield, the international community still did not have a mutually agreed definition of acceptable autonomy, the form of human oversight that must be applied, and the accountability mechanisms that must be enforced.

From the perspective of Global Governance, this fragmentation of regulations shows that the management of AI-based military technology cannot be left entirely to the national policies of each country. The transnational nature of AI development, the technology supply chain, and the humanitarian impact of the use of LAWS demand stronger multilateral coordination. Without clear international standards, countries can develop and use autonomous systems based on their own legal interpretations, thus creating uncertainty in the implementation of HHI.

In addition, from the perspective of Constructivism, the lack of international consensus on LAWS shows that global norms related to the use of AI in warfare are still in the process of being formed. Debates at CCW forums, ICRC advocacy, and civil society campaigns such as the Campaign to Stop Killer Robots reflect a normative contest between national security interests and international humanitarian principles.

Regulatory fragmentation also has an impact on the protection of civilians. While international standards on meaningful human control have not been universally agreed, the level of protection afforded to civilians may vary depending on the policies of the user country. This has the potential to create inconsistencies in the application of the principles of distinction and proportionality in military operations involving autonomous systems.

Based on this analysis, the case study of Kargu-2 Libya shows that the main challenge of LAWS lies not only in its technological capabilities, but also in the limitations of global governance in establishing consistent and binding regulations. Therefore, strengthening multilateral cooperation and establishing international standards on the use of autonomous weapons are important steps to reduce regulatory fragmentation and strengthen the protection of civilians in contemporary armed conflicts.

4.2.5 Global Governance's Perspective on LAWS Regulations

The development of Lethal Autonomous Weapons Systems (LAWS) shows that the challenges that arise are not only legal, but also institutional and global governance in nature. International Humanitarian Law provides basic principles such as distinction, proportionality, and precaution, but the implementation of these principles becomes increasingly complex when the process of target identification and military decision-making involves AI-based systems.

In the perspective of Global Governance, the regulation of LAWS cannot depend solely on the national policies of each country. AI technology has a transnational character because its development involves global technology companies, international research networks, cross-border supply chains, as well as the exchange of data and knowledge that is not limited to a single jurisdiction. Therefore, the use of LAWS in armed conflict has international implications that require multilateral coordination.

The Convention on Certain Conventional Weapons (CCW) Forum is one of the main mechanisms used by the international community to discuss the regulation of LAWS. However, until now there has been no agreement on the definition of LAWS, the limits of acceptable autonomy, and the standards of meaningful human control that must be applied. The difference in interests between countries developing military technology and countries that are pushing for the restriction of autonomous weapons shows that the regulation of LAWS is an issue fraught with international political dynamics.

The Israel–Gaza case and the use of the Kargu-2 drone in Libya show that technology with a high degree of autonomy has been used in real military operations, while the international governance mechanism is still lagging behind the technological developments. This situation shows that there is a governance gap, which is the gap between the rapidly developing technological capabilities and the capacity of international institutions to form effective and binding rules.

From the perspective of International Relations, Global Governance offers a broader framework of analysis than a legal approach alone. The LAWS arrangement involves interaction between states, the United

Nations, the International Committee of the Red Cross (ICRC), technology companies, the academic community, and civil society organizations. Each actor has different interests, resources, and influence in the process of shaping international regulations.

In addition, the perspective of Constructivism helps explain how international norms regarding the use of AI in warfare continue to be shaped through interactions between these actors. Civil society campaigns such as the Campaign to Stop Killer Robots, ICRC advocacy, and discussions at UN forums demonstrate efforts to establish a global norm that the use of lethal force must remain under meaningful human control. Thus, the establishment of LAWS regulations depends not only on the negotiation of state interests, but also on the process of constructing international humanitarian norms.

In the context of protecting civilians, the Global Governance approach is important because it allows for the establishment of more uniform international standards regarding the use of AI in military operations. These standards can include human verification obligations against targets, cross-actor accountability mechanisms, and oversight procedures for the development and use of autonomous weapons systems.

Based on this analysis, it can be concluded that the effectiveness of the LAWS arrangement is highly dependent on the ability of the international community to establish a global governance mechanism that is adaptive to the development of modern military technology. International Humanitarian Law remains the main normative foundation, but strengthening the protection of civilians requires the support of multilateral cooperation, coordination among global actors, and the establishment of international norms that affirm the importance of meaningful human control in the use of autonomous weapons.

4.2.6 Constructivist Analysis of the Formation of LAWS Norms

The Constructivist perspective provides an explanation that the international regulation of Lethal Autonomous Weapons Systems (LAWS) is not only determined by the security interests of the state, but also by the process of forming international norms that develop through the interaction between global actors. In a constructivist view, norms, ideas, and identities have an important role in shaping state behavior and the direction of international governance development.

The debate over LAWS shows that the issue of autonomous weapons has developed into a global normative issue. Various non-state actors, such as the International Committee of the Red Cross (ICRC), civil society organizations, the academic community, and international campaigns such as the Campaign to Stop Killer Robots, are actively pushing for the establishment of norms that the use of lethal force should remain under meaningful human control. These efforts aim to ensure that decisions that impact human life are not completely left to algorithmic systems.

The Israel–Gaza case shows how the use of AI in the targeting process has sparked international criticism of the protection of civilians and the quality of human control over military decisions. The reaction from humanitarian organizations and civil society shows that the use of autonomous technology in warfare is judged not only on military effectiveness, but also on its conformity with international humanitarian norms.

Similarly, the use of the Kargu-2 drone in Libya reinforces the push to establish clearer international rules regarding acceptable levels of autonomy in weapons systems. Although there is no global consensus on the prohibition or restriction of LAWS, the increasing international attention to such cases indicates an evolving process of norm construction.

From the perspective of Constructivism, the debate in the Convention on Certain Conventional Weapons (CCW) forum reflects not only the negotiation of the country's strategic interests, but also the contestation between security norms and humanitarian norms. Countries that emphasize the importance of military technological innovation are confronted by states and non-state actors who are pushing for strengthening the protection of civilians through restrictions on the use of autonomous weapons.

The process shows that international norms regarding LAWS are still in the formation stage. The more international actors accept the idea that the use of lethal force should still involve meaningful human judgment, the more likely it is that the norm will evolve into more binding international standards in the future.

In the context of this study, the Constructivism perspective complements the analysis of Global Governance by explaining how changes in international governance towards LAWS depend not only on the establishment of formal institutions and regulations, but also on changes in ideas and norms accepted by the international community. Thus, strengthening the protection of civilians in the era of AI-based warfare requires a combination of global governance mechanisms and the process of internalizing international humanitarian norms that place humans as the main decision-makers in the use of lethal force.

4.3 Relevance of Findings to Research Objectives

The findings of the study show that the use of Lethal Autonomous Weapons Systems (LAWS) poses a multidimensional challenge to the application of International Humanitarian Law (HHI) in contemporary armed conflict. These challenges include a reduction in meaningful human control, the emergence of an accountability gap, an increased risk of misidentification of targets against civilians, and fragmentation of international regulations due to the absence of a specifically binding agreement on LAWS.

The Israel–Gaza case study shows that the integration of AI in the targeting process can affect the effectiveness of applying the principles of distinction and proportionality. Meanwhile, the case of the use of the Kargu-2 drone in Libya shows the gap between the development of autonomous weapons technology and the capacity of the international community to establish consistent and binding regulations.

From the perspective of Global Governance, this study found that the regulation of LAWS cannot be resolved through national legal or HHI approaches alone. The development and use of AI-based military technology involves various international actors, so a global governance mechanism is needed that is able to coordinate the formation of international standards regarding meaningful human control, accountability, and protection of civilians.

Furthermore, the perspective of Constructivism shows that the development of LAWS regulations is also influenced by the process of establishing international norms. Advocacy by humanitarian organizations, civil society campaigns, and global discourse on AI in warfare contribute to establishing the norm that decisions on the use of lethal force must remain under meaningful human control.

Thus, all research findings directly answer the formulation of the problem and the purpose of the research, namely that HHI is still relevant as a normative foundation in regulating the use of LAWS, but the effectiveness of protecting civilians requires the support of Global Governance mechanisms and the strengthening of international norms that place humans as the main decision-makers in the use of lethal force.

5. Conclusion

This study concludes that International Humanitarian Law (HHI) is still relevant as the main normative foundation in regulating armed conflict, including the use of Lethal Autonomous Weapons Systems. However, the increasing autonomy of Artificial Intelligence-based weapon systems poses new challenges in the form of reduced meaningful human control, the emergence of accountability gaps, and an increased risk of misidentification of targets that can threaten the protection of civilians.

The principle of distinction remains a central element in the protection of civilians, but its application is increasingly difficult when the targeting process relies on algorithmic systems that are not yet able to fully understand the social context and dynamics of the battlefield. In addition, the absence of specific binding international regulations on LAWS shows a global governance gap. From a Global Governance perspective, the LAWS arrangement requires multilateral cooperation involving states, international organizations, technology companies, and civil society to establish international standards regarding human control, accountability, and the protection of civilians. Meanwhile, the perspective of Constructivism shows that the development of LAWS regulation is influenced by the process of establishing international norms that emphasize that the use of lethal force must remain under meaningful human control.

Thus, the protection of civilians in the era of autonomous warfare is not enough to rely solely on HHI, but also requires the strengthening of adaptive global governance and the establishment of international norms that place humans as the main decision-makers in the use of autonomous weapons.

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