A COMPARATIVE STUDY OF LEGAL FRAMEWORK FOR ARTIFICIAL INTELLIGENCE-POWERED LETHAL AUTONOMOUS WEAPON SYSTEMS

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Abstract

Artificial Intelligence (AI) is the new electricity. It will transform every industry and create huge economic value. AI is set to transform all aspects of our lives. AI performs many tasks that, until now, have been done by humans. These new technologies have benefited many industries, but there is also a concern that they can be utilized improperly or in unexpected and potentially dangerous ways like Lethal Autonomous Weapon Systems (LAWS) which precludes their widespread application and cross-contextual use. LAWS are powered by AI technology and they make autonomous decisions for the life and death of any human being without any human intervention. These Lethal autonomous weapons have many benefits as they reduce human casualties. However, they can not be kept unregulated as they are lethal and autonomous. There are many legal and ethical issues involved in the use of these systems. An attempt is made in this study to make a comparative analysis of the policies related to LAWS in various countries to suggest better regulations for the future.

Key words: Lethal Autonomous Weapon Systems, Artificial Intelligence, Policies, Regulation

1. Introduction

Countries all over the world are becoming more aware of the potential economic and social benefits of developing and implementing Artificial Intelligence (AI). For example, China and the United Kingdom estimate that AI-related activities and firms will account for 26% and 10% of their GDPs in 2030, respectively.[1] Over the last decade, there have been tremendous activities in various countries regarding developing AI policy framework and an AI ecosystem: the United States published its first AI report in December 2016, France published its AI strategy in January 2017, followed by a detailed policy document in March 2018, Japan released a document in March 2017, China published its AI strategy in July 2017, and the United Kingdom published its industrial strategy in November 2017. Then various countries including above mentioned countries are in the process of developing a codified law governing AI. The EU is the pioneer in doing so globally.

2. Regulating Artificial Intelligence

The regulation of Artificial Intelligence (AI) refers to the development of public sector policies and the establishment of a legal framework for promoting, regulating, and controlling AI. Regulating AI serves two purposes: first, it promotes innovation and second, it manages associated risk. AI governance is a set of principles, regulations, and frameworks that guide the development, deployment, and maintenance of AI technologies. It considers various aspects such as ethics, bias & fairness, transparency, accountability, and risk management. Its primary intent is to ensure the ethical and responsible use of AI.[2] The governance, rules and legal framework will mitigate risks associated with AI applications, including bias, privacy breaches, and unexplainable outcomes. A proper AI legal framework will build trust among the stakeholders. At the same time, it will make sure that AI technologies are used as per legal, social and ethical expectations for beneficial purposes.

However, the task of regulating AI is very difficult on many frontiers. Mainly because the issues associated with AI are yet to be explored. The policymakers are not sure for which aspects the policies are to be made and how it is to be implemented. Another challenge is that every day some new developments are happening in AI technology and to make such dynamic laws that can keep pace with the changing technology is difficult. Another challenge is that there is still no clarity on the definition of AI. At the most, AI is compared with human intelligence but the next generation AI will be even more intelligent than humans. Here, the question is what is intelligence? It can be defined as " Intelligence is the capacity for abstraction, logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem-solving. It can be described as the ability to perceive or infer information; and to retain it as knowledge to be applied to adaptive behaviors within an environment or context"[3] The definition of intelligence is in the context of humans. Every artificially intelligent system may not have all these characteristics or may have them in varying degrees.

Given AI's experimental nature, governance was a relatively overlooked domain in its early stages. However, as AI's possible consequences and influences became more apparent, the need for planned governance became critical. Some recent unfortunate incidents involving AI have made it evident that a proper legal framework and regulations are needed at the current time.

AI regulations are highly needed in the area of Lethal Autonomous Weapon Systems (LAWS) as these systems make the decisions of life and death of a human. An attempt is made here to study the regulatory and policy framework of various countries with respect to LAWS.

3. Lethal Autonomous Weapons- Killer Ai

"Killer AI" is defined by Nathan Summers and Dr Sergio Coronado as "The use of AI that directly leads to physical harm or death of humans"[4] Lethal Autonomous Weapon Systems (LAWS) are a special class of weapon systems that use sensor suites and computer algorithms to independently identify a target and employ an onboard weapon system to engage and destroy the target without manual human control of the system.[5] Still, these systems have very limited use but it needs to be regulated as the weapons are autonomous and lethal powered by Artificial Intelligence (AI).The United States, China, and a few other countries are rapidly creating and using new technology that can fundamentally alter the nature and strategy of warfare. The decisions for life and death are not taken by high-ranking military personnel but are delegated to autonomous drones and AI-powered weapons equipped with artificial intelligence programs. This is not science fiction but a reality where a bunch of killer robots or drones from the sky come and hunt their targets on their own and go back without any human intervention. Every advanced country is trying to win the race for military supremacy by the use of AI weapons. Only a few of the countries have still developed such technologies and that is a matter of great worry for other nations. Many countries are planning to approach the United Nations to impose legally binding rules on the use of such Lethal Autonomous Weapons where such important decisions of saving or killing a person are taken by AI-powered weapons and not by humans.

The UN is a good platform for deliberation on this issue but it seems far from real that any legally binding international laws will come to control these AI-powered autonomous weapons as superpowers like the USA, Russia, and China are practically not in favor of this idea of making binding international laws to ban or restrict the use of these killer AI weapons.

Even during the recent visit of Chinese President Xi to the USA, the Chinese, and the US presidents did not agree on the idea of banning the use of AI to manage their nuclear armaments.[6] This is a cause of great concern especially for weaker and smaller nations who are lagging technologically. The use of drones has increased to the next level in Russia Ukraine war as well as in Israel Palestine war. These AI weapons may make mistakes sometimes like the case discussed above for self-driven cars in recognizing their targets, they may behave unpredictably. Apart from this, the other concern is that wars will become more lethal and

gruesome as the nation is not putting its soldiers at risk, at the most a machine will be destroyed in the war. The positive side of using these autonomous weapons is their accuracy and it will reduce the casualties of soldiers and civilians

In this paper the researcher has studied the policies of some nations that have done remarkable work in the area of LAWS alongside the UN policies on LAWS.

4. New Zealand

New Zealand's Minister of Disarmament and Arms Control Phil Twyford announced in November 2021 that New Zealand will push for new international law to ban and regulate LAWS[7] and presented 'The Cabinet Paper, '*Autonomous Weapons Systems: New Zealand Policy Position and Approach*.'' That raised various concerns related to LAWS that are worth discussing here.

4.1. Legal Concerns
- The world over the debate is going on about the use of such Lethal Autonomous Weapon Systems (LAWS). How far it is ethical that a machine makes decisions about the life and death of a person? These LAWS raise significant questions about their compliance with international laws and ethical acceptability.
- It is doubtful that these LAWS can comply with basic tenets of International Humanitarian Law (IHL) such as the requirement to distinguish protected persons and objects who cannot be attacked. Civilian casualties should be avoided at all times. The liability in case of violation of such IHL by LAWS is a prime concern. The behaviour of poorly developed LAWS may be unpredictable.
- These LAWS may violate International Human Rights Laws (IHRL). IHRL requires that any lethal weapon should be used in a gradual, escalating manner depending upon the threat, LAWS may behave arbitrarily without following the rules of IHRL. The behaviour of AI depends on training input data. If the input data is biased it is possible that these machines may have a bias in warfare too. Relying on the decision of such machines is highly unacceptable. New Zealand Law enforcement has recognized that algorithms that include insufficient training data have biases towards minorities as they are not well represented in the training data.[8]

4.2. Strategic Concerns
- Unmanned Aerial Vehicles (UAVs) can be used by various states for clandestine, extra-territorial lethal strikes.
- It can be used by the terrorists for mass destruction. It can be used by authoritarian governments against their citizens. The countries having less regard for human rights and international laws can misuse this technology the most if not regulated at the international level.

4.3. Ethical Concerns
- From an ethical and 5,4,1,value-based point of view, delegating decision-making power to machines or algorithms for human lives is unacceptable. To get the answer to this moral question a public survey was conducted in 2021 by Aotearoa New Zealand. 72% of the New Zealanders opposed the use of LAWS in warfare on ethical grounds.
- In this paper, it was quoted that experts like the International Committee of the Red Cross (ICRC) which is considered the guardian of IHL globally also condemned the use of LAWS saying that ceding life-and-death decisions to machines dehumanizes warfare, reduces moral responsibilities, shared senses of humanity, and human dignity.

All the nations should confirm their support for new, legally binding prohibitions, rules, and limits on LAWS, by establishing a well-informed position on autonomous weapons.

5. The United Nations

UN Special Rapporteur on extrajudicial, summary, or arbitrary executions, Christof Heyns, was the first to raise the alarm about Lethal Autonomous Weapons Systems, in a report to the Human Rights Council in 2013[9]. Based on that the Convention on Conventional Weapons (CCW) convened an informal meeting of High Contracting Parties (HCP) to discuss the issue in 2014,2015 and 2016. In the 2016 review meeting the

HCPs decided to establish an open-ended Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems. Since 2018, United Nations Secretary-General António Guterres has opined that Lethal Autonomous Weapons Systems are politically unacceptable and morally repugnant and has appealed to all the nations for their prohibition under international law[10]. In 2019 this Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems finalized 11 guiding principles and HCPs adopted the same These 11 principles include[11]:

- IHL applies to all weapons including LAWs
- A machine cannot be accountable so ultimately decision-making responsibility should be retained by a human all the time.
- In determining the quality and extent of human-machine interaction, various factors should be considered including the operational context and the characteristics and capabilities of the weapons system as a whole
- Accountability for developing, deploying, and using any emerging weapons system in the framework of the CCW must be ensured in accordance with applicable international law, there should be a responsible chain of human command and control
- In accordance with States' obligations under international law, in the study, development, acquisition, or adoption of a new weapon, means, or method of warfare, the determination must be made whether its employment would, in some or all circumstances, be prohibited by international law. It should be done as per the state's obligations under international law
- Physical security, appropriate non-physical safeguards (including cyber-security against hacking or data spoofing), the risk of acquisition by terrorist groups, and the risk of proliferation should be considered
- Risk assessments and mitigation measures should be part of the design, development, testing, and deployment cycle of any weapon system
- Consideration should be given to the use of LAWs in upholding compliance with IHL and other applicable international legal obligations
- In crafting potential policy measures, emerging technologies in the area of lethal autonomous weapons systems should not be anthropomorphized
- Discussions and any potential policy measures taken within the context of the CCW should not hamper progress in or access to peaceful uses of intelligent autonomous technologies
- CCW seeks to strike a balance between military necessity and humanitarian considerations.

In 2021, At the Sixth Review Conference, CCW HCPs decided that IHL will be applicable to all weapons including LAWS. and that if a Lethal Autonomous Weapon is of a nature to cause unnecessary injury or suffering, or if it is inherently indiscriminative, or if it can violate IHL then it must not be used.[12].In 2023, the Secretary-General reiterated for 'New Agenda for Peace' and recommended that States conclude, by 2026, a legally binding instrument to prohibit Lethal Autonomous Weapon Systems that function without human control or oversight, and which cannot be used in compliance with international humanitarian law, and to regulate all other types of autonomous weapons systems. He noted that, in the absence of specific multilateral regulations, the design, development, and use of these systems raise humanitarian, legal, security, and ethical concerns and pose a direct threat to human rights and fundamental freedoms. UN Special Rapporteur on counter-terrorism and human rights, Fionnuala Ní Aoláin, joined the Secretary-General's call for a global prohibition on lethal autonomous weapons systems in a report to the Human Rights Council in 2023[13].

5.1. The UN Resolution on Lethal Autonomous Weapons Systems[14]

On 22 December 2023, the UN General Assembly (UNGA) adopted Resolution 78/241 on lethal autonomous weapons systems, expressing concern about the possible negative consequences and impact of autonomous weapons systems (AWS) on global security and regional and international stability, and affirming that international law, in particular the UN Charter, international humanitarian law, and international human rights law, applies to AWS.

The UNGA highlights the need for the international community to address the challenges and concerns raised by AWS, in particular through the Group of Governmental Experts in the Area of Lethal Autonomous Weapons Systems. It further **requests the UN Secretary-General to seek the views of member states and observer states on LAWS and on ways to address challenges and concerns** they raise from humanitarian,

legal, security, technological, and ethical perspectives, and on the role of humans in the use of force. It also requests the Secretary-General to invite the views of international and regional organizations, the International Committee of the Red Cross, civil society, and the scientific community and industry.

The resolution was adopted with a recorded vote of 152 in favour to 4 against (Belarus, India, Mali, and Russian Federation). At the same time, China, North Korea, Israel, and eight other nations abstained.

6. The United States Of America

Contrary to a number of news reports, the U.S. policy does not prohibit the development or employment of lethal autonomous weapons. Although the United States is not known to currently have LAWS in its inventory, some senior military and defense leaders have stated that the United States may be compelled to develop LAWS in the future if U.S. competitors choose to do so. At the same time, a growing number of states and nongovernmental organizations are appealing to the international community for regulation of or a ban on LAWS due to ethical concerns. to strongly encourage the sale
In November 2012, the then-Deputy Secretary of Defense Ashton Carter issued a policy on autonomy in weapons systems, Department of Defense Directive (DODD) 3000.09 (the directive), DOD has since updated the directive—most recently in January 2023

6.1. DODD 3000.09 Autonomy in Weapon System

DODD 3000.09 is effective from 25th January 2023 and defines LAWS as "weapon system[s] that, once activated, can select and engage targets without further intervention by a human operator." This concept of autonomy is also known as "human out of the loop" or "full autonomy." The directive contrasts LAWS with human-supervised, or "human on the loop," autonomous weapon systems, in which operators have the ability to monitor and halt a weapon's target engagement. Another category is semi-autonomous, or "human in the loop," weapon systems that "only engage individual targets or specific target groups that have been selected by a human operator." Semiautonomous weapons include so-called "fire and forget" weapons, such as certain types of guided missiles, that deliver effects to human-identified targets using autonomous functions.

LAWS and Humans: DODD 3000.09 requires that all systems, including LAWS, be designed to "allow commanders and operators to exercise appropriate levels of human judgment over the use of force." The word "appropriate" is very subjective here.
Furthermore, "human judgment over the use of force" does not require manual human "control" of the weapon system, but broader human involvement in decisions about how, when, where, and why the weapon will be employed. This includes a human determination that the weapon will be used "with appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement."[15] This policy emphasizes on training of operators and commanders to understand the 'human-machine' interactions
DODD 3000.09 requires that the software and hardware of semi-autonomous and autonomous weapon systems, be tested and evaluated to ensure they function as anticipated in realistic operational environments against adaptive adversaries taking realistic and practicable countermeasures, and complete engagements within a timeframe and geographic area, as well as other relevant environmental and operational constraints, consistent with commander and operator intentions. If unable to do so, the systems will terminate the engagement or obtain additional operator input before continuing the engagement. Systems must also be "sufficiently robust to minimize the probability and consequences of failures." Any changes to the system's operating state—for example, due to machine learning—would require the system to go through testing and evaluation again to ensure that it has retained its safety features and ability to operate as intended. The directive also notes that "the use of AI capabilities in autonomous or semi-autonomous systems will be consistent with the DOD AI Ethical Principles."[16]
Apart from the above mentioned process, a secondary senior-level review is required for autonomous and semi-autonomous systems. This review requires the Under Secretary of Defense for Policy (USD[P]), the Vice Chairman of the Joint Chiefs of Staff (VCJCS), and the Under Secretary of Defense for Research and Engineering (USD[R&E]) to approve the system before formal development. USD(P), VCJCS, and the Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]) must then approve the system before fielding. In the event of "urgent military need," this senior-level review may be waived by the Deputy Secretary of Defense.

The U.S. government does not currently support a ban on LAWS as automated target identification, tracking, selection, and engagement functions can allow weapons to strike military objectives more accurately and

with less risk of collateral damage or civilian casualties but the US has shown its concern over ethical issues about the systems[17]

7. The EUROPEAN UNION

7.1. Global Tech Panel

In 2018, the Global Tech Panel was created as a forum for open discussion and practical development of innovative solutions in the EU. It focuses specifically on the nexus between tech and common foreign and security policy. Since the inception of the Global Tech Panel, international security and the regulatory framework for Lethal Autonomous Weapons Systems have been its priority. With the EU strategy on AI adopted in December 2018, the Panel members provide substantive expert input to help ensure the development of AI which can be used in weapons systems fully complies with international law and respects human dignity. This theme was the center of discussion when the Global Tech Panel Members met informally with EU Defence Ministers for the first time, as well as in Seattle and Helsinki meetings. EU High Representative Mogherini, the Chair of the Global Tech Panel, outlined this position on 11 September 2018 in an address to the European Parliament[18], which thereafter adopted a

Resolution to this effect. The EU position is clear, and can be summed up in four points:

- International law, including International Humanitarian Law and Human Rights Law, applies to all weapons systems;
- Humans must make decisions with regard to the use of lethal force, exert control over the lethal weapons systems they use, and remain accountable for decisions over life and death;
- The UN Convention on Certain Conventional Weapons is the appropriate framework to discuss and regulate these kinds of weapons; and
- Given the dual use of emerging technologies, policy measures should not hamper civilian research, including artificial intelligence (AI).

7.2. European Parliament resolution on autonomous weapon systems[19]

EU Parliament resolution on autonomous weapon system was passed on 12th September 2018 and emphasized policies and actions guided by the principles of human rights and respect for human dignity, the principles of the UN Charter, and international law; whereas EU believes that these principles should be applied in order to preserve peace, prevent conflicts and strengthen international security;

This resolution clarifies the meaning of 'Lethal Autonomous Weapons'(LAWs). It refers to weapon systems without meaningful human control over the critical functions of selecting and attacking individual targets; non-autonomous systems such as automated, remotely operated, and teleoperated systems should not be considered Lethal Autonomous Weapons Systems;

The resolution focuses on the use of lethal autonomous weapon systems which raises fundamental ethical and legal questions of human control, in particular with regard to critical functions such as target selection and engagement; the EU believes that machines and robots cannot make human-like decisions involving the legal principles of distinction, proportionality, and precaution. Human involvement and oversight are central to the lethal decision-making process since it is humans who remain accountable for decisions concerning life and death;

The resolution further provides that international law, including humanitarian law and human rights law, fully applies to all weapon systems and their operators, and compliance with international law is a key requirement that states must fulfil, particularly when it comes to upholding principles such as protecting the civilian population or taking precautions in attack; Any given Lethal Autonomous Weapon System could malfunction on account of badly written code or a cyber-attack perpetrated by an enemy state or a non-state actor;

It Urges the Member States and the Council to work towards the start of international negotiations on a legally binding instrument prohibiting lethal autonomous weapon systems. Stresses, in this light, the fundamental importance of preventing the development and production of any Lethal Autonomous Weapon System lacking human control in critical functions such as target selection and engagement.

7.3. European Parliament Resolution on Artificial Intelligence in A Digital Age

This resolution was passed on 3rd May, 2022 This resolution affirms that machines cannot make human-like decisions involving the legal principles of distinction, proportionality and precaution; affirms that humans should be kept in control of the decision to deploy and use weapons and remain accountable for the use of lethal force and for decisions over life and death; is of the opinion that AI-based weapons systems should be subject to global standards and an international ethical code of conduct to underpin the deployment of AI technologies in military operations, with full respect for international humanitarian law and human rights law and in compliance with Union law and values; (clause 52) The resolution is concerned about the military research and technological developments being pursued in some countries with regard to Lethal Autonomous Weapons Systems without meaningful human control; Lethal Autonomous Weapons Systems are already used in military conflicts; reiterates that Parliament has repeatedly called for an international ban on the development, production and use of Lethal Autonomous Weapons Systems and for effective negotiations to begin on their prohibition; this resolution stresses that AI-enabled systems can under no circumstances be allowed to replace human decision-making involving the legal principles of distinction, proportionality and precaution. (Clause 53)

This resolution further Calls on the Council to adopt a joint position on autonomous weapons systems that ensures meaningful human control over their critical function; insists on the launch of international negotiations on a legally binding instrument that would prohibit fully autonomous weapons systems; further states that such an international agreement should determine that all lethal AI weapons must be subject to meaningful human oversight and control, meaning that human beings remain in the loop, and are therefore ultimately responsible for the decision to select a target and take lethal action (Clause 291)

7.4. EU in Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons System[20]

- The EU emphasizes that human beings must make decisions with regard to the use of force, exert control over weapons systems that they use, and remain accountable for decisions over the use of force in order to ensure compliance with International Law, in particular International Humanitarian Law.
- It is the duty of the state to make sure that the development, production, deployment, and use of emerging technologies in the area of LAWS are in compliance with international law, in particular IHL.
- Appropriate levels of human control, accountability, and judgment should be retained during the whole life-cycle of the weapons system, to ensure compliance with international law.
- EU supports the 'Two Tier Distinction System' a distinction should be made between those weapon systems that cannot be used in accordance with international law in particular IHL, which States should commit not to develop, produce, or use, and systems that include autonomous features, requiring regulation to ensure compliance with IHL and other applicable international law.
- It states clearly that human accountability must be preserved at all times and across the entire life cycle of the weapons system
- The EU encourages voluntary sharing of best practices, which might be regarded as a basis to enhance transparency as a first step to confidence building. A normative and operational framework in this regard should promote the sharing of information, where the modus operandi and underlying principles of the national legal weapon system are reviewed.

8. China

At the Human Rights Council in May 2013, China supported the beginning of multilateral talks on Lethal Autonomous Weapons Systems, which it described as "highly complex."[21] In December 2016, China said that such weapons "present considerable uncertainties" for compliance with international humanitarian law and expressed its desire for precautionary measures, highlighting the precedent provided by the ban on blinding lasers.[22] In April 2018, China called for a ban on fully autonomous weapons but later clarified its call was limited to use only and not development and production.[23]

8.1. Position Paper by China in Group of Governmental Experts of the High Contracting Parties (2018) [24]

China clarified its position on LAWs in 2018 in the GGE of the High Contracting Parties to the Convention on Prohibition of Restrictions on the Use of Certain Conventional Weapons. It appealed that the international community should pay attention and attach importance to this type of weapons, and actively explore effective measures to properly tackle various aspects of the issue of LAWS. China took the following stand:

- China supported reaching an agreement on the specific definition of LAWS, to create conditions for studying and tackling various issues of this type of weapon. It opined LAWS should include but not be limited to the following 5 basic characteristics.

(i) **Lethality,** which means sufficient payload (charge) for means to be lethal.

(ii) **Autonomy**, which means the absence of human intervention and control during the entire process of executing a task.

(iii) **Impossibility for termination**, meaning that once started there is no way to terminate the device.

(iv) I**ndiscriminate effect**, meaning that the device will execute the task of killing and maiming regardless of conditions, scenarios, and targets.

(v) E**volution**, meaning that through interaction with the environment, the device can learn autonomously, and expand its functions and capabilities in a way exceeding human expectations.

- Necessary measures of Human-Machine Interaction are advantageous to the prevention of indiscriminate killing and maiming by LAWS caused by lack of human control. Discussions on Human-Machine Interaction should define the mode and degree of human involvement and intervention. Concepts such as meaningful human control and human judgment are rather general and should be further elaborated and clarified.
- LAWS are the most suitable for dangerous operations in an environment where threats of nuclear, biological, and chemical weapons are involved. The use of LAWS would reduce the cost of warfare for the user countries. This would make it easier and more frequent for wars to break out.
- LAWS are not capable of effectively distinguishing between soldiers and civilians, hence more prone to indiscriminate killing or maiming innocent people. Therefore, until an appropriate solution is found, China urges all countries to exercise precaution and to refrain, in particular, from any indiscriminate use against civilians
- China believes that the impact of emerging technologies deserves objective, impartial, and full discussion. Until such discussions have been done, there should not be any pre-set premises or prejudged outcomes that may impede the development of AI technology. As AI is contributing to the progress of every nation so, unnecessary impediments should not be created
- It is doubtful that this type of weapon possesses any capability of distinction and lacks the capability of making decisions about proportionality. It is also difficult to establish accountability when this type of weapon system is used. In principle, LAWS should be subject to the international humanitarian rules of 1949, the Geneva Convention, and the two Additional Protocols of 1977, including the principles of precautions, distinction, and proportionality. However, LAWs have different issues compared to conventional weapon systems so these rules should be applied with caution.
- Since then, China has not explicitly repeated its call for a new international treaty to ban fully autonomous weapons. China has remained ambiguous, stating the importance of "full consideration of the applicability of general legal norms" while insisting on a narrow definition of LAWS.

9. India

In February 2018, the government of India established a multi-stakeholder task force comprising the Government, Services, Academia, Industry, Professionals, and Startups to study the strategic and national security implications of AI for India. The task force submitted its report to the Minister of Defense on June 30, 2018. The report recommended making India a significant power of AI in defence, specifically in the area of aviation, naval, land systems, cyber, nuclear, and biological warfare including both defensive and offensive needs including counter-AI needs; also recommended policy and institutional interventions required to regulate and encourage robust AI based technologies for defence sector; working with start-ups and commercial industry

9.1. India's position in the Group of Government Experts (GGE) on LAWs[25]

Ambassador Amandeep Singh Gill of India was chair of both the 2017 and 2018 meetings of the GGE on LAWS. India's position on LAWS is that the Convention on Certain Conventional Weapons is the "relevant forum to address the issue of the possible expansion of the autonomous dimension of lethal weapons systems," and it "advised for balancing the lethality of these weapons with military necessity, adopting a wait-and-watch approach to how the conversation evolves."

9.2. India's Position in CCW Meeting of 2016[26]

Various countries expressed their positions at the three gatherings of the CCW's Meeting of Experts on LAWS held in Geneva. The meeting took place in April 2016, and the primary issues debated were whether a preemptive ban is justified and what should be the way forward for autonomous weapons in the international arena. India has said that there is a need for a discussion on LAWS and their compatibility with international law including international humanitarian law as well as the impact of their possible dissemination on international security. For this CCW should be strengthened in terms of its objectives and purposes through increased systematic controls on international armed conflict in a manner that does not widen the technology gap amongst states or encourage the increased resort to military force in the expectation of lesser causalities or that use of lethal force can be shielded from the dictates of public conscience.27 India further emphasized getting clarity regarding definitional issues, mapping autonomy - whether distinctions can be drawn between oversight, review, control, or judgment or how they would apply to a new weapon system from the time of its conception, design, and development to production, deployment, and use or for that matter when does a weapon system cross the line to become a new weapon or its use constitute a new method of warfare. India opined that these are complex questions with no easy answers. In these circumstances, it may be prudent not to jump to conclusions but at the same time, not to ignore the unstoppable march of technology, especially in the area of LAWs.[28]

9.3. India's Position on LAWS in the 2019 session of GGE on LAWS held in Geneva [29]

Commodore Nishant Kumar, Director (Military Affairs), Ministry of External Affairs, Government of India on Agenda item 5(a) An exploration of the potential challenges posed by Emerging Technologies in the area of Lethal Autonomous Weapons Systems to International Humanitarian Law at the 2019 session of GGE on LAWS held in Geneva on March 26, 2019, stated that potential policy measures taken within the context of the CCW should not hamper progress in or access to peaceful uses of intelligent autonomous technologies. He also highlighted some of the likely challenges posed by LAWS to IHL:-

Emerging technologies will have an impact on the future of warfare and they have the potential to change the way lethal force is applied and the critical decision is arrived at, on the battlefield. Military applications derived from these technologies must strengthen transparency and cooperation in the area of humanitarian and international security laws.

The lawfulness of weapons and weapon systems themselves and whether it is qualified for use in an armed conflict is determined under the principles of the Laws of Armed Conflict (LOAC). To be lawful, a weapon must satisfy all the requirements i.e. the weapon must be able to discriminate

between military and non-military targets, it must not cause unnecessary suffering and it must not be uncontrollable.

Autonomy in critical functions of weapon systems may be viewed from two perspectives - one that potentially such systems would be precise and accurate in targeting, not prone to human error in judgment, and the corollary that human interface is necessarily compliant on the distinction, proportionality and precautions principles of IHL in carrying out any attack, though such interface may not be quite safe in execution.

Autonomy in critical functions would challenge the maintenance of combatants and commanders' responsibility for decisions to use force, however, such autonomy parameters may be made compliant to IHL during the conceptualization, design, and development of the system for its intended use.

The responsibility for the development, production, and deployment of LAWS, should rest with the concerned State. The associated risks as regards proliferation (including to non-state actors), need to be covered under the dual responsibility of the State and by strengthening international regulations. India is compliant with the principles of IHL and respects the universality of the Martens Clause from the humanitarian perspective.

9.4. India's Stand on the 78[th]Session of theGeneral Assembly in 2023[30]

On 1st November 2023, in UNGA, the first committee (Disarmament and International Security) approved the 'New Resolution on Lethal Autonomous Weapons'. The speaker warned "An algorithm must not be in control of decisions involving killing" [31]Even if an algorithm can determine what is legal under international humanitarian law, it can never determine what is ethical.(document A/C.1/78/L.56).

After 11 separate recorded votes on its provisions, the draft resolution as a whole was approved by a recorded vote of 164 in favour to 5 against (Belarus, India, Mali, Niger, Russian Federation), with 8 abstentions (China, Democratic People's Republic of Korea, Iran, Israel, Saudi Arabia, Syria, Türkiye, United Arab Emirates). India voted against the December 2023 resolution, arguing that this would lead to a duplication of resources and efforts. So far, it has considered the GGE to be the appropriate forum for discussing emerging technologies in LAWS and maintains that the group has succeeded in bringing all relevant stakeholders to the discussion. Relatedly, India emphasizes that the GGE has produced substantial work that must be taken ahead. Further, state parties to the CCW have already affirmed that the responsibility and accountability for using LAWS lie with their human operators, weakening the case for any alternative or new regulatory approach outside IHL.

India also views legally binding instruments that would regulate LAWS as premature, considering that a process to understand the impact of this technology is still underway. At present, member states are still working on a common definition as well as a characterization of LAWS at the GGE. India condemns these technologies as counterproductive since it may stigmatize them. Rather, it stresses the positive effects of these technologies.[32]

10.Conclusion

There are certain areas where the use of AI can be considered risky as AI lacks common sense and morality. There is a special concern for AI in judicial and military fields like the use of "killer robots" or Lethal Autonomous weapon System (LAWS) in warfare. In these situations, the life and death decisions are in the hands of a machine and not in control of humans. There might be some activities that should never be fully automated and AI must be banned. Even in the EU AI Act, there is a category of AI with unacceptable risk that is banned. Against that it is being argued that it will save the lives of numerous soldiers and civilians will respond quicker than humans without involving emotions. Already many such automated weapon systems are protecting lives like Israel's Iron Dome Antimissile System. However, it is strictly defensive in nature.

LAWS have many benefits that it reduces casualties in warfare. However, there are serious concerns with its wide usage. Still, these systems have very limited use but it needs to be regulated as the weapons are autonomous and lethal. It is dangerous and unacceptable that a machine is making decision for the life and death of a person. It is doubtful that these LAWS can comply with basic tenets of International Humanitarian Law (IHL). The liability in case of violation of such IHL by LAWS is a prime concern. Moreover, If the input data is biased it is possible that these machines may have a bias in warfare too. Relying on the decision of such machines is highly unacceptable. Unmanned Aerial Vehicles (UAVs) can be used by various states for clandestine, extra-territorial lethal strikes. It can be used by the terrorists for mass destruction. It can be used by authoritarian governments against their citizens. All the nations should confirm their support for new, legally binding prohibitions, rules, and limits on LAWS, by establishing a well-informed position on autonomous weapons.

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