AN ANALYTICAL STUDY OF LEGAL AND OPERATIONAL GAPS IN REGULATING LETHAL AUTONOMOUS WEAPON SYSTEMS (LAWS) UNDER INTERNATIONAL HUMANITARIAN LAW

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ABSTRACT

Lethal Autonomous Weapon in short it is known as "LAWS" the weapon platforms endeavoured and aims to using artificial intelligence to select and engage targets without human interference in most precise way this have emerged as contentious topic in arms control and international law. This study endeavours to conduct critical examination on whether the existing International Humanitarian law IHL provides sufficient regulation on "LAWS" and endeavours to identifies any legal or operational gaps are existing. Drawing on doctrinal analysis of IHL i.e. Geneva Conventions, Additional Protocols, CCW and recent policy debates, it highlights core IHL obligations such as distinction, proportionality, precaution that traditionally depend on human judgment. The paper supplement this with empirical data from an google form online survey of 45 participants mostly Indian professionals and students querying their view on "LAWS" its definition, support, oversight, accountability and regulatory preference. The survey shows mixed support for "LAWS" 47% supportive v/s 11% opposed and widespread concern that autonomous targeting could raise civilian risk. Only 49% felt current IHL is somewhat fully adequate for "LAWS", while 38 % said its inadequacy. Notably 51% instead on meaningful human control in attacks. Many respondents assigned primary responsibility for Automated Weapon System AWS misuse to deploying state 29% programmers 24 percentage or shared responsibility 31 %, this reflecting uncertainty over the "responsibilities gap." In literature review, ICRC and other experts emphasize that IHL obligations cannot be transferred to machines and that AWS pose new compliance challenges. From the in-depth analysis it finds that although IHL formally applies to AWS, key question is that how to ensure compliance and enforcement. Based on the analysis suggest that the need for clear rules – possibly new protocols or a declaration to define permissible autonomy levels, human oversight requirement as in the meaningful human control concept and accountability mechanisms. The manuscript concludes that without such clarifications or additional binding

measures, future AWS deployment could undermine IHL's protective mandates.

Keywords: Lethal Autonomous Weapon, International Humanitarian law, Automated Weapon System AWS.

INTRODUCTION

The very recent i.e. Nagomo-karabak, Russia-Ukraine, Israel-Hamas have intensified global attention on the role of artificial intelligence and automation in warfare. Specifically, the Lethal Autonomous weapon system "LAWS" is usually defined as weapon that once activated can independently select and attack the targets. This have become a focal point of international debate.[1] These AWS system sometimes termed as killer robots which raised profound legal and ethical question because they endeavour to delegate life or death decisions from humans to algorithms. The IHL body of law governing in armed conflict requires parties to distinguish combatants from civilians and to ensure any incidental harm is proportional to the military advantage. As per the ICRC, IHL'S core rule on distinction, proportionality and precautions are expressly aimed at those who plan to decide upon and carry out an attack" i.e. human commanders and operators. This implies that weapons must be used in compliance with IHL obligations that endeavour to presume human judgement. For i.e. commanders must verify that a target is indeed a military objective in other case if unexpected civilians harm is arisen then cancel the attack for this human intervention is necessary because the machines lack the emotions and it only have coded algorithmic data which is inputted previously while in its training periods. Crucially the ICRC scholars emphasize that accountability under IHL cannot be transferred to any machine, any computer program or to automatic weapon system.[2] This underscores a potential gap when AI takes over targeting. This manuscript investigates the legal and operational gaps in regulating "LAWS" under the IHL. The major question is that: What challenges do LAWS pose to existing IHL norms and where do gaps remain? The paper conducts a doctrinal review of IHL and related instruments. Further the paper analyses survey

[1] "Autonomous Weapon Systems and International Humanitarian Law: Selected Issues" (*International Committee of the Red Cross*, October 13, 2025) <https://www.icrc.org/en/article/autonomous-weapon-systems-and-international-humanitarian-law-selected-issues.

[2] Davison N and International Committee of the Red Cross, "Autonomous Weapon Systems under International Humanitarian Law," vol No. 30 (2018) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>.

data to gauge stakeholders view on these issues. The goal is to elucidate the state of the debate and offer recommendations policy for law making.

RESEARCH OBJECTIVES

The paper endeavoured to conduct study on three critical important primary objectives. The first one is legal analysis endeavour and aims to examine how current IHL provisions apply to autonomous weapons and where ambiguities or gaps remain. This includes assessing accountability, target identification, proportionality, and precaution requirements in the context of machine autonomy. The second one is empirical insight to gather data on public perception of "LAWS" through a survey, endeavouring and focusing on perceived adequacy of law, support for deployment, and preferred regulatory approaches. The third one is synthesis and recommendation to integrate doctrinal and empirical findings to identify specific regulatory gaps and propose ways to address them, i.e., through technical standards, declaration, or treaty measures.

RESEARCH QUESTION

1. Whether the existing IHL norms are adequate to cover the unique challenges of "LAWS" if not, what all are the key gaps?

2. Whether the legal frameworks and attribution models are appropriate for assigning responsibility in cases of unlawful conduct by Lethal Autonomous Weapon Systems "LAWS", given the principle that accountability under IHL cannot be transferred to non-human agents?

3. Whether the public stakeholders believe about "LAWS" Specifically how do they rate current IHL adequacy and what regulatory solutions do they favour?

RESEARCH METHEDOLOGY

This study endeavours to employs a mixed methods approach which including doctrinal and analysis and empirical survey.

1. Doctrinal Analysis: In this doctrinal analysis endeavour to review international legal instruments (Geneva Conventions) Additional Protocols, CCW documents) state

practice (official statements and resolution), and expert literature review on "LAWS." Sources include the CCW/GGE guiding principles, state statements i.e. India's UN Committee statements and specialized reports of ICRC, HRW, academic articles. The analysis endeavours to identifies explicit and implicit gaps in regulation such as lack of definition, unclear accountability norms, and absence of binding constraints on autonomy.

2. The empirical data was collected via structured google form online survey disseminated to a purposive sample of legal professionals, post graduate students, and individuals with a background in law. The sample comprises number of 45 respondents, the data are collected through multiple choice and Likert scale questions. Quantitative data was analysed using descriptive statistics frequency, percentage and qualitative data from open ended questions was analysed deeply.

HYPOTHESIS

The null hypothesis H0 of the study is that the existing framework of IHL is fully adequate and functionally sound to regulate Lethal Autonomous Weapon Systems LAWS without requiring new legal instruments. The alternative hypothesis H1 is that significant legal and operational gaps are embedded in the contemporary modern International Humanitarian Law framework, necessitating the development of new, specific international regulations for Lethal Autonomous Weapon Systems.

LITRATURE REVIEW

1. IHL PRINCIPLES AND LAWS:

There is no doubt that the existing IHL rules are also applicable to the autonomous weapon system even in not explicitly written for them.[3] [4] As India's official stands notes that the law of armed conflict must be respected at all times and emerging technologies in LAWS must be in

[3] India, "Lethal Autonomous Weapon Systems" <https://docs-library.unoda.org/General_Assembly_First_Committee_-Seventy-Ninth_session_(2024)/78-241-India-EN.pdf>
[4] International Committee of the Red Cross, *Autonomous Weapon Systems under International Humanitarian Law* (ICRC, 2024) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>

accordance with IHL.[5] The CCW (Certain Conventional Weapon) guiding principles likewise affirms that IHL "continues to apply fully to "LAW." [6] The major core obligatory of LAWS are distinction, proportionality and precautions in attack therefore govern LAWS use, as with any weapon. However, many scholars and analysts pointing out that fulfilling these rules with autonomous algorithms is challenging because of many reason the most important reason is that it is not build with any human emotions therefore it will cause severe damage when it targets any points and also it lacks human intervention but some parameters and technology could ratify these issues. For instance, targeting a camouflaged civilian require nuanced judgment; an AI's inability to reliably distinguish civilians from combatants could violate IHL.[7] If a "LAWS" adapts over time or operates unsupervised across complex terrain, experts warn its behaviour becomes inherently unpredictable this undermines that precautionary assumption of certainty needed to limit civilian harm.

2. ACCOUNTABILITY AND RESPONSIBILITY

A major gap is in assigning and allocating responsibilities when LAWS cause unlawful harm. Human Rights watch argues that fully autonomous system could create an accountability gap the existing criminal law may fail because of that the crime is conducted by a machine therefore criminal law may fail to hold any individual liable.[8] HRW explains that commanders might not foresee a robot's illegal act, and programmers may lack "mens rea" for unintended consequences. In pursuant to ICRC similarly noting that the risk that lines of responsibility may not always be clear.[9] Nonetheless, international law theory does permit holding states responsible: Those States who using LAWS the state would be responsible and liable under IHL.[10] Moreover, some authors propose adapting strict liability or tort concept to hold

[5] Government of India, *Statement to the First Committee of the 79th Session of the UN General Assembly (2024)* (UNODA, 2024) <https://docs-library.unoda.org/General_Assembly_First_Committee_-Seventy-Ninth_session_(2024)/78-241-India-EN.pdf>

[6] Ibid.

[7] Docherty B, "Mind the Gap" (2023) <https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots>.

[8], "Mind the Gap" (2023) <https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots>.

[9] Davison N and International Committee of the Red Cross, *Autonomous Weapon Systems under International Humanitarian Law* (ICRC 2018) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>.

[10] Davison N and International Committee of the Red Cross, "Autonomous Weapon Systems under International Humanitarian Law," vol No. 30 (2018) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>.

developers or deployers accountable. [11] Nonetheless, international law theory does permit holding states responsible under the law of state responsibility.[12] In sum the scholarships are highlighting that gap: current frameworks assume a human chain of command, where LAWS can blur who "pulled the trigger."

3. MEANINGFUL HUMAN CONTROL

Masoud Zamani's analysis of "Meaningful Human Control" (MHC) in the regulation of LAWS reveals that MHC has become one of the most central concepts in international legal and ethical debates, its core vision is still fragmented and operationally it lacks directions and the way forward remain muddled.[13] In response to accountability fear. Many experts emphasize retaining human control. The ICRC endeavours to calls for retaining some human control or human involvement" in weapon operations.[14] In pursuant to CCE GGE discussions, and the GGE's latest "understandings," explicitly require control mechanisms to ensure LAWS can follow and abide by distinction and proportionality[15] and proposed measures include strict activation limits, operational constraints and operator override capabilities.[16] The online survey similarly measures confidence in AI decision-making and the perceived importance of human oversight; these endeavours and highlights that doctrinal priority of maintain human agency in autonomous operations.

4. REGULATARY APPROACHES

The literature debates banning v/s regulating LAWS. NGO's like HRW[17] and Stop Killer

[11] Paul R Williams and Ryan Jane Westlake, 'A Taste of Armageddon: Legal Considerations for Lethal Autonomous Weapons Systems' (2025) 57 *Case Western Reserve Journal of International Law* 187 <https://scholarlycommons.law.case.edu/jil/vol57/iss1/9>.

[12] Suleiman AM, "Legal Accountability for Autonomous Weapon Systems in Counterterrorism under International Law" (2024) 13 International Journal of Science and Research Archive 1604 <https://doi.org/10.30574/ijsra.2024.13.2.2585>

[13] Masoud Zamani, 'How Meaningful is "Meaningful Human Control" in LAWS Regulation?' (Lieber Institute West Point, 26 March 2025) <https://lieber.westpoint.edu/how-meaningful-is-meaningful-human-control-laws-regulation/>

[14] International Committee of the Red Cross, *Autonomous Weapon Systems under International Humanitarian Law* (ICRC, November 2021) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>

[15] Government of India, *Statement on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems* (UNODA, UN General Assembly First Committee, 79th Session, 2024) <https://docs-library.unoda.org/General_Assembly_First_Committee_-Seventy-Ninth_session_(2024)/78-241-India-EN.pdf>.

[16] Ibid.

[17] Human Rights Watch, *About Us* (Human Rights Watch, 2025) <https://www.hrw.org/about-us>

Robots[18] argue for comprehensive ban on fully autonomous weapon to avoid the accountability gap.[19] They contend that no amount of legal adaptation can substitute for direct human decision making in life and death targeting.[20] Others notes that practical and political obstacles to a ban, given the military advantages and proliferation potential of AI system.[21] [22] Benjamin Perrin ASIL Insights observes that most states prefer a treaty that distinguishes between acceptable and prohibited systems- hence the two-tier approach endorsed in UN discussions.[23] That approach would endeavour to entail banning LAWS that cannot meet IHL criteria (i.e. lacking oversight) while regulating those that could. Indeed, a 2024 UNGA resolution explicitly mentions a two-tier system, reflecting "heightened concern" over current and future LAWS use.[24]

In sum, the literature endeavours to recognise IHL's applicability but it flags and highlights significant potential gaps: 1) lack of agreed definition and scope for LAWS, 2) uncertainty in accountability for autonomous operations and 3) no binding protocol specifically addressing AI in weaponry. Many commentators therefore call for new international instruments/domestic laws to fill these gaps. Indias official stance for example highlights the need for weapon review and broad stakeholders' collaboration under the CCW to bridge ambiguities. This review sets the stage for our empirical analysis of how stakeholders perceive these issues in practice

EMPIRICAL DATA ANALYSIS

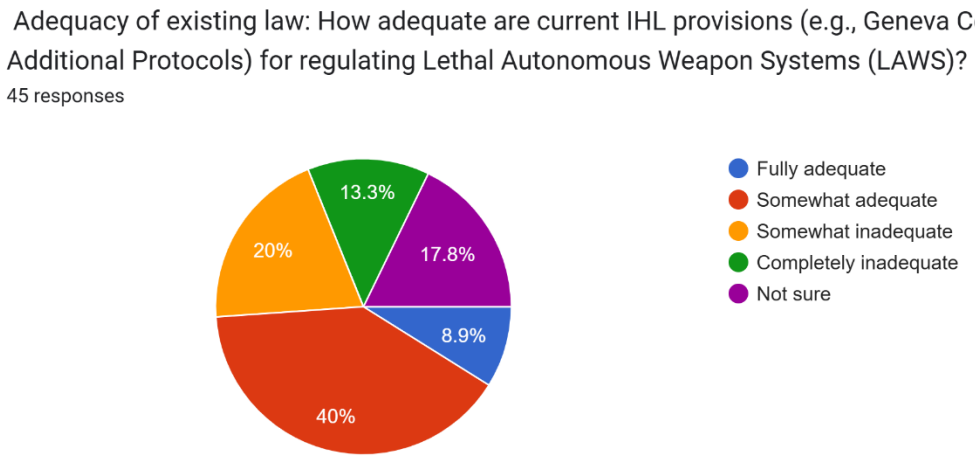
Totally 45 participants are participated in the survey mostly from 18-35 years old, with varied educational background and familiarity with IHL the data provides insight into perception of "LAWS" REGULATIONS key findings are summarised below:

[18] Campaign to Stop Killer Robots, *About Us* (Stop Killer Robots, 2025) <https://www.stopkillerrobots.org/about-us/>
[19] Human Rights Watch and Harvard Law School's International Human Rights Clinic, "The Need for New Law to Ban Fully Autonomous Weapons: Memorandum to Convention on Conventional Weapons Delegates" (2013) <https://humanrightsclinic.law.harvard.edu/wp-content/uploads/2013/11/2013-Docherty-need-for-new-law.pdf>
[20] Human Rights Watch and International Human Rights Clinic, *Mind the Gap: The Lack of Accountability for Killer Robots* (9 April 2015) <https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots>
[21] Paul R Williams and Ryan Jane Westlake, 'A Taste of Armageddon: Legal Considerations for Lethal Autonomous Weapons Systems' (2025) 57 *Case Western Reserve Journal of International Law* 187 <https://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=2701&context=jil>
[22] "Lethal Autonomous Weapons Systems & International Law: Growing Momentum towards a New International Treaty | ASIL" <https://www.asil.org/insights/volume/29/issue/1>
[23] Lethal Autonomous Weapons Systems and International Law: Growing Momentum Towards a New International Treaty (ASIL Insights, 29(1), 2 December 2024) <https://www.asil.org/insights/volume/29/issue/1>
[24] Ibid.

A. EXISTING IHL ADEQUASY

Only 4 of 45 respondents 8.9% felt that current IHL provisions are fully adequate to regulate LAWS. The plurality, 40%, said IHL is "somewhat adequate," while 15 respondents, 33%, found it inadequate (somewhat or completely), and 8, 17.8%, were unsure. In other words, two-thirds believed at least some inadequacy or uncertainty. This aligns with literature observations that IHL was not designed with autonomous decision-makers in mind. The growing concerns about the effectiveness of existing IHL in endeavours and addresses the complexities of "LAWS" highlight the urgent need for a reassessment of legal frameworks. As AWS technology continues to advance, it becomes increasingly critical to ensure that international laws evolve in tandem to adequately endeavour to address emerging challenges in warfare.

CHART 1

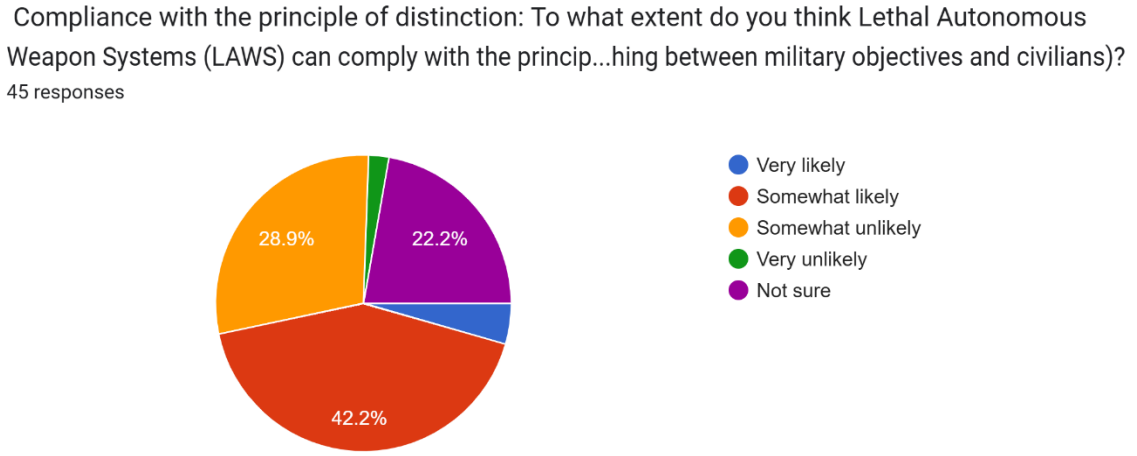


B. PRINCIPLE OF DISTINCTION

When solicited and asked how likely LAWS can distinguish combatants (those who bear arms/military personnel) from civilians, the responses were mixed. Out of 45 respondents, only 2 (4.4%) indicated that LAWS are very likely to comply with the distinction; most of the remaining 19 respondents (42.2%) said they are "somewhat likely," while 14 respondents (31%) expressed that they are "somewhat unlikely" or worse, and 10 respondents (22.2%) were unsure. This ambivalence suggests that respondents doubt "LAWS" precise targeting ability, echoing expert concerns about algorithmic unpredictability. This uncertainty and indeterminacy raise important ethical and operational questions about the deployment of such

systems/operationalization of these systems in conflict zones. As military technology continues to evolve and endeavours to address these concerns and that will be necessary for compliance with international humanitarian law and to protect civilian lives. Nevertheless, as some professionals claim, the development of technologies would be able to make the targeting systems more accurate and efficient and, consequently, minimize the number of civilians victims/protect the civilian population and minimize the negative effects on non-combatants in the combat zones. Moreover, the advocates consider that under the supervision and ethical standards, the use of LAWS may bring humanity in the results rather than the conventional methods of the military strategies.[25] [26]

CHART 2

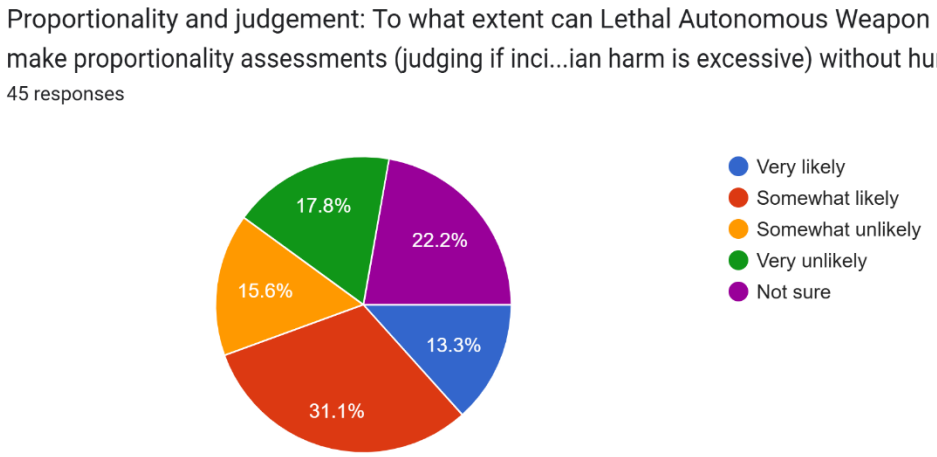


[25] United States Department of Defence, *Humanitarian Benefits of Emerging Technologies in the Area of Lethal Autonomous Weapons Systems: Working Paper* (CCW GGE.1/2018/WP.4, April 2018) <https://ogc.osd.mil/Portals/99/Law%20of%20War/Practice%20Documents/US%20Working%20Paper%20-%20Humanitarian%20benefits%20of%20emerging%20technologies%20in%20the%20area%20of%20LAWS%20-%20CCW_GGE.1_2018_WP.4_E.pdf>

[26] Amitai Etzioni and Oren Etzioni, 'Pros and Cons of Autonomous Weapons Systems' (2017) *Military Review* (May–June) <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/>

C. PROPORTIONALITY AND JUDGMENT

CHART 3



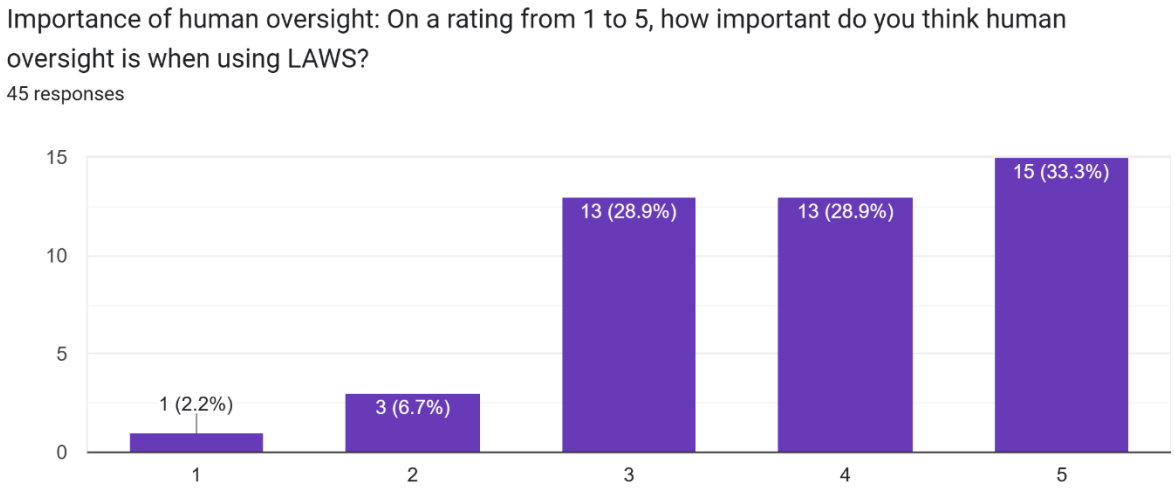
On the ability of LAWS to judge proportionality of collateral damage, confidence was even lower. Only 6 respondent which constitute 13.3% said "very likely" capable, 14 respondent which constitutes 31.1% "somewhat likely," while 7+8=15 respondents constitute 33% said unlikely or very unlikely, and 10 respondent which constitute 22.2% were unsure. This again reflects scepticism that machines can reliably apply human-like judgment to balance military advantage against civilian harm.[27] Nonetheless, there are those supporters who inference that the LAWS have the potential of making more objective judgments than humans, without the same emotional biases that may obscure judgments in pressurized circumstances. They are of the opinion that through sophisticated algorithms and data analysis, such systems might enhance the precision in the evaluation of risks and benefits which will result in more strategic military actions.[28]

[27] Michael A Newton, 'Autonomous Weapons Systems and Proportionality: The Need for Regulation' (2025) 57 *Case Western Reserve Journal of International Law* 197 <https://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=2713&context=jil>

[28] Col Nachiket Kodilkar, *Human Biases and Errors: Impacting Military Decision Making and Implications for AI Based Decision Support Systems* (Centre for Land Warfare Studies, 23 April 2025) <https://claws.co.in/human-biases-and-errors-impacting-military-decision-making-and-implications-for-ai-based-decision-support-systems/>

D. HUMAN OVERSIGHT IMPORTANCE

CHART 4

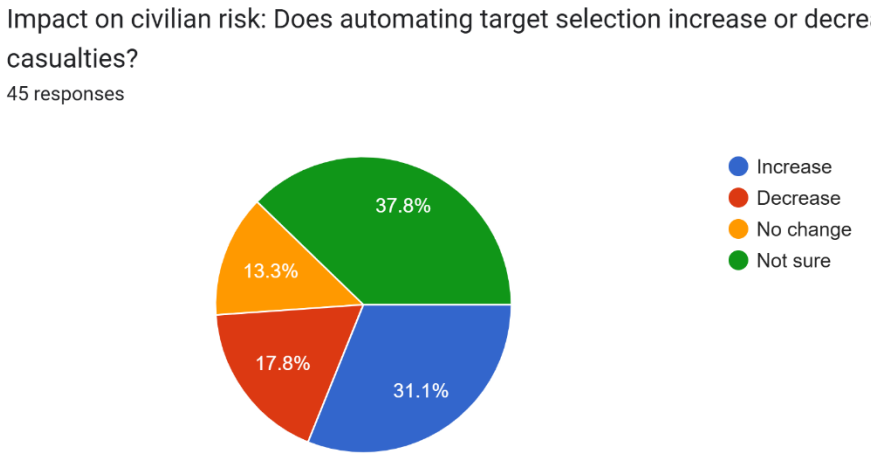


The respondents endeavoured to view that human judgements are so essential further noting that it is very essential that human judgement is core of critical decision making process and rated the importance of focus on human oversight on a 1–5 scale (1 = not important, 5 = very important). The average rating they given is 3.84, with a median of 4. Over half the respondents, 54%, rated oversight as 4 or 5, indicating strong support for meaningful human control. Only 7% rated it low (1 or 2). This quantitative result validates the consensus in the literature: meaningful human control is deemed "exceptionally valuable" for LAWS. This very much emphasising and focusing on human oversight which underscores the necessity and shows how essentially important it is to think about ethical considerations in the development and deployment of lethal autonomous weapon systems. As technology advances, ensuring that human judgment remains central to critical decision-making processes will be crucial in addressing potential risks and ethical dilemmas.[29]

[29] Jonathan J Batt, *Lethal Autonomous Weapons and the Professional Military Ethic* (Master's thesis, US Army Command and General Staff College 15 June 2018) <https://apps.dtic.mil/sti/trecms/pdf/AD1084117.pdf>

E. CIVILIAN RISK

CHART 5



When the respondent endeavoured to answer the question of whether the automating target selection increases, decreases, or has no change on civilian casualty risk, opinions were divided. Fourteen (31%) said risk would increase, 8 (17.8%) said decrease, 6 (13.3%) said no change, and 17 (37.8%) were not sure. The plurality was uncertain, but most of the respondents expected more increased risk than reduction. This figure reflects the challenge noted in literature: Autonomy could speed engagements but also cause errors that harm civilians. But some experts endeavouring to striving to convey and argue that automating target selection could help determine threats with greater precision, which could mean fewer civilian deaths. They furthermore argue that advanced algorithms might help people be more aware of their surroundings and make decisions faster, which would mean fewer mistakes than systems run by people.[30]

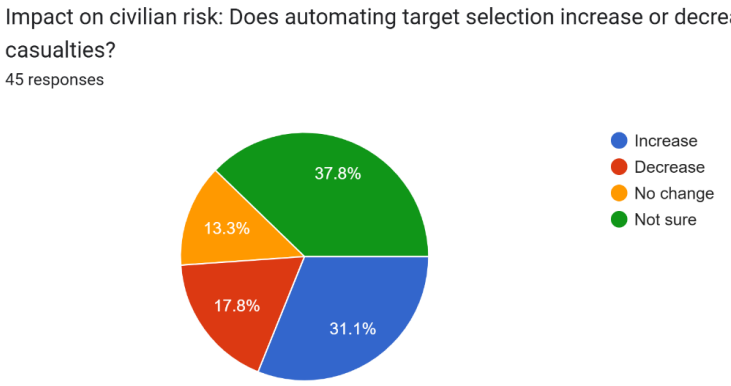
F. AI CONFIDENCE

Only 9 respondents which constitutes 20%, felt very or somewhat confident in AI making life-or-death decisions, while 11 (24%) felt not confident or not very confident. The majority (25, 56%) were neutral. This data indicates and engenders a lack of trust in AI's decision-making—unsurprising given the stakes. The demurral reluctance endeavouring scruple to rely on AI in

[30] Ronald C Arkin, *The Case for Ethical Autonomy in Unmanned Systems* (Georgia Institute of Technology 2009) <https://repository.gatech.edu/server/api/core/bitstreams/62b98c87-e7af-4b1c-80a3-6b5157be079e/content>

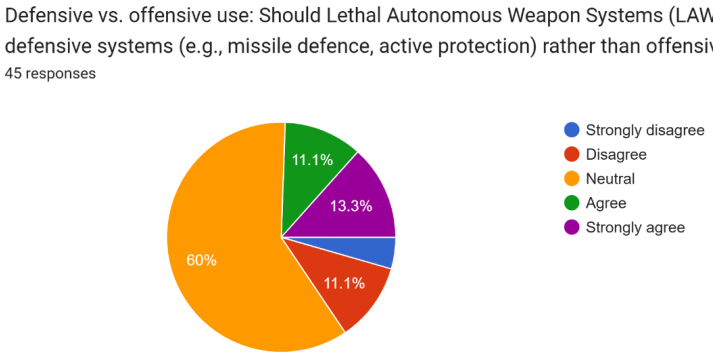
high-stakes situations mirrors wider society's fears about the technology's trustworthiness and moral responsibilities. With decision-making in life and death situations being of great import skepticism highlights the desire for open and responsible AI systems on the other hand think that AI can help people make better decisions by quickly and accurately analysing a lot of data and trying to reduce human error. Supporters think that with sufficient management and ongoing enhanced AI can be an asset in high-risk situation ultimately leading to saved lives instead of risking them.[31]

CHART 6



G. DEFENSIVE V/S OFFENSIVE USE

CHART 7

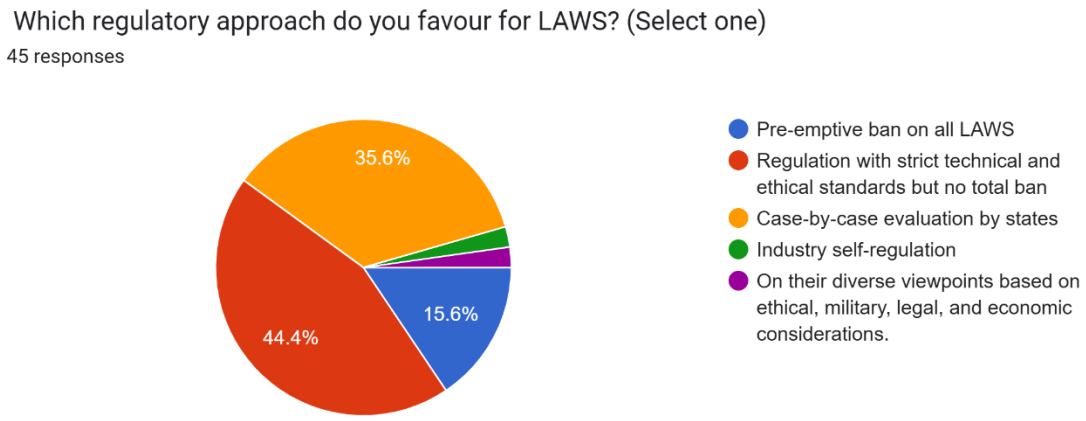


[31] Megan Hughes, Richard Carter, Amy Harland and Alexander Babuta, *AI and Strategic Decision-Making: Communicating Trust and Uncertainty in AI-Enriched Intelligence* (CETaS Research Report, Alan Turing Institute, April 2024) <https://cetas.turing.ac.uk/sites/default/files/2024-04/cetas_research_report_ai_and_strategic_decision_making_final.pdf>

The majority (27, 60%) were neutral regarding LAWS being restricted to defensive purposes (self-defence, protection). Of the remainder, 11 (24%) agreed or strongly agreed with defence only in limitations; 7 (16%), disagreed. This more cautious approach may serve as a reminder of the importance to continue debating the ethical questions and possible liabilities for using lethal autonomous weapon technology. As technology continues to develop, the importance of setting out clear rules and safeguards regarding these issues will be paramount.[32]

H. REGULATORY APPROACH

Most majority respondents says that, perhaps, was that answers to the question of how LAWS should be regulated overwhelmingly supported regulation as opposed to prohibition. Twenty (44%) favoured "Regulation with strict technical and ethical standards (but no total ban)". Sixteen (36%) favoured "Case-by-case evaluation by states". A mere 7 (15.6%) preferred a "Pre-emptive ban on all LAWS", and 1 (2%) preferred "Industry self-regulation". (There was one open answer regarding varied considerations.) Overall, 80% chose regulated methods instead of flat prohibition. This is in line with recent global trend: the 2024 UN resolution on LAWS officially explicitly mentioned of a two-tier regulatory framework. It implies that stakeholders assume LAWS should be stringently contained, not prohibited.



In summary to the empirical findings: Participants feel ambivalence towards existing

[32] Research Society of International Law, *The Ethics of Using Killer Robots in Armed Conflicts* (RSIL 2020) <https://rsilpak.org/2020/the-ethics-of-using-killer-robots-in-armed-conflicts/>

regulations and towards "LAWS" natural safety. Fewer than expected think IHL is completely sufficient, and most question whether machines can completely satisfy IHL obligations (distinction, proportionality). But most are not in favour of an absolute prohibition; rather they prefer technical norms, regulation, and rule by case. There is wide support for strict control measures (human monitoring, legal checks). Such patterns underscore and reaffirm the literature's focus on filling gaps by treaty or by regulation – as opposed to discarding IHL.

DISCUSSION

The doctrinal review and survey very much result together which indicates significant legal and operational gaps and dilemma in governing "LAWS" under the IHL. The first, although "LEX LATA" IHL applies, its practical adequacy when questioned and is questioned. As one analysis notes and cites that unless LAWS provide "predictably and reliably {as} intended, they may fail the reviewing of weapons standards.[33] The confidence low in IHL adequacy among the participants mirrors expert's concerns. The second thing is that the lack of a clear definition of LAWS which complicates regulation.[34] Without the consensus on what qualifies as autonomous states struggle to draw legal lines. The third accountability remains opaque neither our respondents few nominated commanders alone nor existing law resolve who is answerable if autonomy leads to unlawful harm. [35] This gap argues for explicit legal rules which is whether by treaty or national legislation delineating culpability for each actor (state, commander, manufacture). Operationally the research survey highlights the gaps in oversight mechanism. The most majority participants valued human involvement and they hoping and believing that precautions attack cancellation are very necessary. The fact that knew about existing legal review processes suggests implementation and transparency issues. Experts have long urged better integration of reviews for AI Weapon.[36] The manuscript imply the need for stronger procedures i.e. mandated reviews, disclosure of protocols to ensure accountability. The immediate and necessary call for limiting targets or duration found in {18} also found

[33] Neil Davison and International Committee of the Red Cross, *Autonomous Weapon Systems under International Humanitarian Law* (ICRC 2018) <https://www.icrc.org/sites/default/files/document/file_list/autonomous_weapon_systems_under_international_humanitarian_law.pdf>

[34] Benjamin Perrin, 'Lethal Autonomous Weapons Systems & International Law: Growing Momentum Towards a New International Treaty' (ASIL Insights, 24 January 2025) <https://www.asil.org/insights/volume/29/issue/1>

[35] Human Rights Watch and Harvard Law School's International Human Rights Clinic, *Mind the Gap: The Lack of Accountability for Killer Robots* (HRW 9 April 2015) <https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots>

[36] Government of India, *Statement on Lethal Autonomous Weapon Systems at the 79th Session of the UN General Assembly First Committee* (UNODA 2024) <https://docs-library.unoda.org/General_Assembly_First_Committee_-Seventy-Ninth_session_(2024)/78-241-India-EN.pdf>

support some respondents favoured defensive only use, limiting scope. Finally, there is a strong preference for regulated evolution of LAWS over a moratorium. Eighty percent preferred regulation/standards over prohibition. This realistic approach aligns with the global norm of negotiating norms over prohibition.[37] Indeed, even Human Rights Watch acknowledges that the strict regulation would merely produce compensation but not reflect moral judgment hence its push for a ban.[38] In contrast of the research manuscript paper survey conducted suggests many believe regulation with stringent controls is the viable path. This may be endeavour to influenced by national security considerations or belief in technology's potential benefit. Based on these given insights the principal recommendations are reaffirm through law that IHL fully governs LAWS (no legal vacuum) develop a clear definition of permissible autonomy i.e. based on meaningful control; require a robust weapon review is essential and operational constraints, and craft accountability rules assigning liability to states and actors commensurate with their role.[39]

CONCLUSION

Lethal Autonomous Weapon Systems Challenge the assumptions of IHL by inserting machine judgment into the life-or-death decision. The manuscript analysis concludes that whereas existing principles of IHL address LAWS in theory, there are lacunas when it comes to practice. The literature and our survey emphasize vagueness in the definition of "LAWS", compliance with distinction/proportionality, and holding LAWS to account. Notably, stakeholders do not promote uncontrolled deployment but instead look for tight controls. The overwhelming preference for human management, judicial scrutiny, and technical standards confirms that there is consensus in preserving human agency over the use of force. To address the gaps identified, policy and legal makers should take the following concrete steps: demarcate firmly (potentially through an international instrument), require system-wide reviews of weapons with respect to AI capabilities, enshrine accountability across all stages of lifecycle, and require "meaningful human control" in targeting processes. India and others have observed that new technologies can actually enhance IHL compliance when well managed; the objective,

[37] Benjamin Perrin, 'Lethal Autonomous Weapons Systems & International Law: Growing Momentum Towards a New International Treaty' (ASIL Insights, 24 January 2025) <https://www.asil.org/insights/volume/29/issue/1>
[38] Human Rights Watch and Harvard Law School's International Human Rights Clinic, *Mind the Gap: The Lack of Accountability for Killer Robots* (HRW 9 April 2015) <https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots>
[39] Paul R Williams and Ryan Jane Westlake, 'A Taste of Armageddon: Legal Considerations for Lethal Autonomous Weapons Systems' (2025) 57 *Case Western Reserve Journal of International Law* 187 <https://scholarlycommons.law.case.edu/jil/vol57/iss1/9/>

therefore, should be to maximize autonomy's potential under strict control, rather than disqualifying or banning it outright. Overall, closing the gap between operation and law in LAWS regulation is probably going to be a mix of treaty law-making under international law and national implementation, with pre-defined rules of IHL and newly defined norms led by technological necessity.

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