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DO KILLER ROBOTS HAVE TO DREAM OF DEAD SHEEP?
DISCARDING AD HOMINEM FROM PER SE LEGALITY ASSESSMENT

-Altamash Kadir¹

ABSTRACT

Lethal Autonomous Weapons Systems are a nascent technology. Thus, the per se legality of these weapons is uncertain under international law. Legal literature has been steadily contributing to the understanding of such weaponry. The interdisciplinary nature of this topic enables diversity in perspectives. However, the sheer quantity of the arguments against these weapons dilutes the discourse surrounding them. This is especially troublesome when some of these arguments are irrelevant to making the per se legality assessment for these weapons. Some of the criteria for compliance are incompatible with even human beings. For the purposes of this article, such a standard would be considered to be made as an ad hominem attack. These attacks can be defined by their lack of evidence and false equivalence. This article would clarify the fairness of the legal standards proposed for LAWS. Subsequently, assessing LAWS for their consistency with a fairer characterisation. This article juxtaposes these standards in three key respects. First, their approximation to human beings. Second, transcending human beings. Third, their emulation of human life. The purpose of this article is to visualise what ideal regulation for LAWS can look like.

INTRODUCTION

An *ad hominem* or a “to the man” argument is often irrelevant.² The reason for this is that such arguments are conditional on human behaviour.³ This is especially problematic for assessing *per se* legality. *Per se* or “by itself” is the inherent lawfulness of an object.⁴ Weaponry that is

¹ Student at Government Law College, Mumbai (India).

² See United States—Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities, Panel Report of July 31, 2000, WTO Doc. WT/DS166/R at 6.

³ An *ad hominem* argument is an argument that is directed towards a person individually. Since this is an attack that exclusively attacks the individual, instead of engaging with the realities of their arguments. See, AARON X. FELLMETH & MAURICE HORWITZ, GUIDE TO LATIN IN INTERNATIONAL LAW 43 (2009) (‘Guide to Latin’).

⁴ See, [Guide to Latin 220.

unlawful *per se* does not become lawful by being used for lawful purposes.⁵ *Per se* legality is conditional upon the inherent nature of the weapon, not upon the use.⁶ The issue with *ad hominem* arguments is that they do not relate to the nature of the weapon with the designed purpose or expected normal use.⁷ They relate to the human beings controlling the weapons and their intentions. This complicates the process of assessing *per se* legality. This becomes even more relevant to autonomous weaponry. This is where human control becomes significantly more irrelevant and the line separating the combatant and the weapon blurs.⁸

If automation can affect so many parts of human society, armed conflicts are and would be no different.⁹ It is now possible to program the ability to independently search for, and engage targets based on specified variables like constraints and descriptions into military systems.¹⁰ These weapons are defined by their autonomy. The most commonly used terminology to define these weapons is “Lethal Autonomous Weapons Systems” (“LAWS”). Contemporary discourse facilitates an asymmetrical realization of whether these weapons are consistent with present legal standards. Often, criticism relies upon a false equivalence between a standard for human beings and one for artificial intelligence. This is counter institutive and unfair.

I. LETHAL AUTONOMOUS WEAPONS SYSTEMS

A. *What Are These Killer Robots?*

There is a variety of terminology used, to label these machines, extending from the most commonly used LAWS¹¹ to the similar “Lethal Autonomous Robots”¹² or even the self-

⁵See Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep.226 (July 8), ¶39. (‘Nuclear Weapons’)

⁶See YORAM DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT 31 (2016).

⁷See ANDREW CLAPHAM & PAOLA GAETA, THE OXFORD HANDBOOK OF INTERNATIONAL LAW IN ARMED CONFLICT 288 (2014).

⁸ The line between combatant and weapons blurs, as LAWS are both the weapons and the combatant through their autonomous nature and destructive capabilities. The regulation applicable to both the combatant and weaponry is applicable to LAWS.

⁹Industries are facing significant automation in the *status quo*. E.g., Rajesh Kumar Singh, *Coronavirus pandemic advances the march of 'cobots'*, REUTERS, July 20, 2020, <https://www.reuters.com/article/us-health-coronavirus-automation-idUSKCN24L18T> (last visited Jan 15, 2021).

¹⁰ See Rebecca Crootof, *The Killer Robots Are Here: Legal and Policy Implications*, 36 CARDOZO L. REV. 1837 (2015).

¹¹E.g. Nicholas W. Mull, *It Is Time to Move Beyond the ‘AI Race’ Narrative: Why Investment and International Cooperation Must Win the Day*, NORTHWESTERN JOURNAL OF TECHNOLOGY AND INTELLECTUAL PROPERTY 2021 (2017).

explanatory “Killer Robots”.¹³ This article extends its ambit towards any weaponry with the capability of dispersing force autonomously.

1. Where Did They Come From?

The issue faced while assessing presently operational LAWS is the fact that their deployment and use is majorly confidential. Therefore, the understanding of their functionality is part superficial and part theoretical or academic. Currently, there are two prominent systems for LAWS. Human-in-the-loop (“HITL”) is a system that requires human interaction for a LAWS to retaliate.¹⁴ Human-on-the-loop (“HOTL”) is a system that just allows the LAWS to engage targets while allowing human intervention to stop it.¹⁵

Even though a debate pertaining to what system is preferable is ongoing, this article does not pick a side; both of the systems may have their own merits and demerits. Instead, what is more important is how these systems co-relate to the aforementioned standards for compliance under international law. For example, the SGR-A1 is a sentry gun and is considered as the first unit to have an integrated system that includes surveillance, tracking, firing, and voice recognition.¹⁶ Therefore, it may be the first LAWS that is actually functional. However, the application of HITL and HOTL on the SGR-A1 is what creates most of its controversy.¹⁷

Since HITL relies upon human judgment to deploy lethal force, the LAWS acts simply as a weapon. Generally, the use of HITL should be consistent with international law in a *per se* manner. HOTL ends up being trickier to assess, as it relies completely upon the autonomy of the LAWS, unless the human intervenes. This standard for LAWS has one commonality, some human intervention. Therefore, the question that arises here is whether these systems are autonomous *per se* or not. The answer consistent with that is, a LAWS is supposed to be negative. Human control deals with the concerns pertaining to humanity and accountability of

¹²E.g., UNHRC, Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, Christof Heyns, p.20, U.N. Doc. A/HRC/20/22 (Apr. 10, 2012).

¹³E.g., BONNIE DOCHERTY, JULIA FITZPATRICK & TREVOR KECK, LOSING HUMANITY: THE CASE AGAINST KILLER ROBOTS (2012).

¹⁴See John Nay and Katherine J. Strandburg, *Generalizability: Machine Learning and Humans-in-the-Loop*, RESEARCH HANDBOOK ON BIG DATA LAW (2019).

¹⁵See Markus Wagner, *Taking Humans Out of the Loop: Implications for International Humanitarian Law* JOURNAL OF LAW INFORMATION AND SCIENCE, 21 (2011).

¹⁶See Jean Kumagai, *A Robotic Sentry For Korea's Demilitarized Zone*, IEE SPECTRUM, 44 (2007).

¹⁷See Trisha Ray, *Beyond the 'Lethal' in lethal autonomous weapons: Applications of LAWS in theatres of conflict for middle powers* ORF OCCASIONAL PAPERS (2018).

LAWS. However, neither HITL nor HOTL allow for real autonomy. This article deals with hypothetical weaponry that is more autonomous than HITL and HOTL.

2. Where Will They Go?

The development of artificial intelligence is only increasing. The development of LAWS is already gaining momentum. Although nations like the United States of America (“USA”) promise of meaningful human control over their LAWS,¹⁸ there can never be any surety pertaining to it. Allegations regarding Russia developing an autonomous undersea torpedo already exist.¹⁹ However, rumours aside, Russia,²⁰ China,²¹ Israel,²² South Korea,²³ and the USA are at some stage of development at the least. Therefore, it is reasonable to anticipate an increase in the development, deployment and use of LAWS.

B. Pre-Emptory Ban

There are campaigns that exist to ban the development, deployment and use of LAWS. The codification of a pre-emptive ban on blinding lasers through CCW Protocol IV is cited as an instance of this working out.²⁴ However, most of the applicability or inapplicability of that Customary International Law provisions on the *per se* legality of LAWS are dealt with in the latter part of this article. International law is a creature of consent, without the consent of the nations that are engaging in the development of LAWS, this ban would not in any way stop the development. It may be effective in stopping the nations that consent to the ban. The previously

¹⁸See Robert Hunter Ward, *RPA Ethics: A Focused Assessment*, SWJ, April 17, 2019, <https://smallwarsjournal.com/jrnl/art/rpa-ethics-focused-assessment> (last visited Jan 15, 2021).

¹⁹ See Barbara Starr & Zachary Cohen, *US says Russia 'developing' undersea nuclear-armed torpedo*, CNN, February 3, 2018, <https://edition.cnn.com/2018/02/02/politics/pentagon-nuclear-posture-review-russian-drone/index.html> (last visited Jan 23, 2021).

²⁰See Tom O'Connor, *Russia's Military Challenges US and China By Building a Missile That Makes Its Own Decisions*, NEWSWEEK, July 20, 2017, <https://www.newsweek.com/russia-military-challenge-us-china-missile-own-decisions-639926> (last visited Jan 23, 2021).

²¹ See Udi Shaham, *Development in Israel of terrorist-killing robots is no state secret*, THE JERUSALEM POST, February 26, 2017, <https://www.jpost.com/Israel-News/Politics-And-Diplomacy/Kara-I-wasnt-revealing-state-secrets-about-the-robots-482616> (last visited Jan 23, 2021).

²²See Dave Makichuk, *Is China exporting killer robots to Mideast?*, ASIA TIMES, November 8, 2019, <https://asiatimes.com/2019/11/is-china-exporting-killer-robots-to-mideast/> (last visited Jan 23, 2021).

²³See David B. Larter, *The US Navy says it's doing its best to avoid a 'Terminator' scenario in quest for autonomous weapons*, DSEI, September 12, 2019, <https://www.defensenews.com/digital-show-dailies/dsei/2019/09/12/the-us-navy-says-its-doing-its-best-to-avoid-a-terminator-scenario-in-its-quest-for-autonomous-weapons> (last visited Jan 23, 2021).

²⁴See Precedent for Preemption: The Ban on Blinding Lasers as a Model for a Killer Robots Prohibition, HUMAN RIGHTS WATCH (2020), <https://www.hrw.org/news/2015/11/08/precedent-preemption-ban-blinding-lasers-model-killer-robots-prohibition> (last visited Jan 23, 2021).

mentioned CCW Protocol IV is only agreed to by 109 countries and it has been over two decades. Another example of a ban on LAWS working is cluster munitions. Similarly, the Convention on Cluster Munitions has also been signed by 108 countries. Interestingly, countries like the USA that initially spoke of the military utility of cluster munitions still stand by it and have not signed the Convention.²⁵ Similarly, in addition to the USA, Russia and other nations have also opposed a ban on LAWS.²⁶ Therefore, even if a majority of countries are to support and codify a ban on LAWS, these minority countries are not forced into upholding the ban and are not likely to either.

C. The Applicable Law

There are three sources foundational for arguments against the *per se* legality of LAWS. The principles from these sources are divided with preference to their overlap with each other in the latter parts of this article. On 8 July 1996, the International Court of Justice (“ICJ”) rendered an advisory opinion on The Legality of the Threat or Use of Nuclear Weapons. Even though the opinion was not binding, it was instrumental in the development of the primary legal standard for the usage of weaponry. This opinion was the first time that the ICJ recognized the cardinal obligation against the deployment of weapons that are illegal *per se* as per Customary International Law (“CIL”).²⁷ According to the ICJ, these are weapons that are of a nature to cause unnecessary sufferings, indiscriminate by nature or inconsistent with Martens Clause, which are principles of humanity and the dictates of public conscience.²⁸ These principles also overlap with obligations under international agreements. The fact that LAWS operate as both the combatant as well as the weapon ensures that they come under the ambit of Conventions like the Geneva Conventions and its Protocols that create the bedrock of International Humanitarian Law (“IHL”), when the nations enlisting the services of a LAW are parties to these instruments. Furthermore, under the obligation inherent to Article 1 common, a LAW must be capable of

²⁵See Stuart Hughes, *Global cluster bomb ban comes into force*, BBC News, August 1, 2010, <https://www.bbc.com/news/world-10829976>(last visited Jan 23, 2021).

²⁶See Damien Gayle *UK, US and Russia among those opposing killer robot ban*, THE GUARDIAN, March 29, 2019, <https://www.theguardian.com/science/2019/mar/29/uk-us-russia-opposing-killer-robot-ban-un-ai>(last visited Jan 23, 2021).

²⁷See Nuclear Weapons, ¶79.

²⁸See Nuclear Weapons, ¶78.

respecting the Geneva Conventions,²⁹ to comply with the requirements of the Conventions, at all times.³⁰ This is considered *pre facto* in nature.³¹ With the right to life being an exception,³² International Human Rights Law (“IHRL”) does not apply to armed conflicts.³³ However, much like other weaponry, LAWS cannot only be used during armed conflicts but also for the purposes of enforcement. Therefore, the guarantees provided under the International Covenant on Civil and Political Rights (“ICCPR”) are majorly applicable to LAWS being used for the purpose of enforcement along with the right to life. Furthermore, Article 2 (1) of the ICCPR obligates nations to respect and ensure the rights in the ICCPR within their territories.³⁴ It is a duty to implement the ICCPR guarantees³⁵ and to take steps to ensure that all persons are afforded the enjoyment of the rights under the ICCPR.³⁶ This duty extends to a weapon review obligation in terms of their compatibility with the right to life under ICCPR.³⁷

II. HUMAN APPROXIMATION

Artificial intelligence is not human intelligence. That does not mean that it is incompatible with human standards. Hypothetically, if it were possible to programme certain requisite conditions on the behaviour of LAWS, it would be *per se* legal. There are three human-approximate standards. First, human dignity under the ICCPR. Second, humane treatment under the Geneva Conventions. Third, principles of humanity under the Martens Clause. These standards are ridden with their own *ad hominem* fallacies. These standards also fail at the false equivalence they attempt to provide. This is true because most of the material on such criticisms grossly

²⁹ Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field Art. 1, Aug. 12, 1949, 75 U.N.T.S. 31 (‘Geneva Convention I’); Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea Art. 1, Aug. 12, 1949, 75 U.N.T.S. 85 (‘Geneva Convention II’); Geneva Convention Relative to the Protection of Civilian Persons in Time of War Art. 1, Aug. 12, 1949, 75 U.N.T.S. 287 (‘Geneva Convention III’); Geneva Convention Relative to the Treatment of Prisoners of War Art. 1, Aug. 12, 1949, 75 U.N.T.S. 135 (‘Geneva Convention IV’).

³⁰ See Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004, I.C.J. Rep. 136 (July 9), ¶158.

³¹ See G.A. Res. 60/147, ¶3 (a) (Mar. 21, 2006). (‘2005 Principles’)

³² See HRC General Comment No.36 (2018), U.N.Doc.CCPR/C/GC/36, ¶65. (‘HRC GC 36’).

³³ See HRC GC 36, ¶63.

³⁴ International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171, Art. 2(1), Art. 2(1). (‘ICCPR’)

³⁵ HRC General Comment No.31 (2004), U.N.Doc.CCPR/C/21/Rev.1/Add.13, ¶13. (‘HRC GC 31’).

³⁶ See Sergio Euben Lopez Burgos v. Uruguay, Communication No. R.12/52, U.N. Doc. Supp. No. 40 (A/36/40) at 176 (1981), ¶12.3.

³⁷ See HRC GC 36, ¶65.

overestimate humanity. It chooses to attack LAWS for not having the abilities that human beings also do not possess. This ends up being unfair.

A. Human Dignity Under Article 10 of the ICCPR

Article 10 of the ICCPR pertains to human dignity. Persons deprived of their liberty are to be treated with humanity and with respect for the inherent dignity of the human person.³⁸ There are two arguments for the incompatibility of LAWS with Article 10 of the ICCPR. First, the International Committee of the Red Cross (“ICRC”) in relation to the delegation of the decision to kill or injure. Second, Christof Heyns in relation to the reduction of human beings as targets. According to ICRC, delegating the execution of a task to a machine may become acceptable. The delegation of the decision to kill or injure is not. This requires applying human intent to each decision. The evidence presented for this is, “*For some, autonomous weapon systems conjure up visions of machines being used to kill humans like vermin, and a reduced respect for human life due to a lack of human agency and intention in the specific acts of using force*”³⁹. This is *ad hominem*, as there is no evidence presented to the connection between human dignity and human agency. There are three distinct problems with this argument. First, the only evidence presented here pertains to conjuring up visions out of fear. If this is true and fear deprives human dignity, human conduct would also be considered depriving of human dignity. This is true, because of how the “for some” can be looked at. If fear for some were sufficient, every army and every weapon would be guilty of depriving human dignity. Second, no correlation is ever presented for the pertinence of human intent here. This is impermissibility to delegate; the ability to kill is never substantiated. Third, a standard for what behaviour deprives human dignity is never presented. There could always be safeguards programmed in the LAWS to ensure certain acts of violence are prohibited. The propensity for compliance is significantly more for the LAWS, as it has no alternative. For example, the ICRC holds that to respect human life, actors must take steps to minimise killing.⁴⁰ The LAWS can fulfil criteria similar to this.

According to Christ of Heyns, “*to allow machines to determine when and where to use force against humans is to reduce those humans to objects; they are treated as mere targets. They*

³⁸See ICCPR, Art. 10.

³⁹See ICRC, “Ethics and Autonomous Weapons Systems: An Ethical Basis for Human Control?” (Apr. 3, 2018), 11.

⁴⁰See ICRC, *The Fundamental Principles of the International Red Cross and Red Crescent Movement*, ICRC, August, 2015, https://www.icrc.org/sites/default/files/topic/file_plus_list/4046the_fundamental_principles_of_the_international_red_cross_and_red_crescent_movement.pdf (last visited Jan 23, 2021).

*become zeros and ones in the digital scopes of weapons which are programmed in advance to release force without the ability to consider whether there is no other way out, without a sufficient level of deliberate human choice about the matter*⁴¹. This is *ad hominem*, as there is no exclusivity of this harm. There are two problems with this argument. First, there is no evidence provided for what deprives human dignity. Second, this human to object reduction is an assumption never substantiated in terms of its exclusivity. No evidence is provided for why human choice here matters. It would be likely to programme LAWS to kill the least amount of people possible and prioritise less lethal weapons. Furthermore, this never clarifies how this is assessed in human beings.

B. Humane Treatment Under Article 3 Common to the Geneva Conventions

Article 3 common to the Geneva Conventions pertains to humane treatment. Persons taking no active part in the hostilities shall be treated humanely in all circumstances without any adverse distinction.⁴² There are two arguments for the incompatibility of LAWS with Article 3 common to the Geneva Conventions. First, Human Rights Watch (“HRW”) in relation to compassion extending to the standard for minimisation of harm. Second, Amanda Sharkey in relation to ethical artificial intelligence. Furthermore, according to Olivia Goldhill, artificial intelligence would also not possess the legal and ethical judgment necessary to minimise harm on a case-by-case basis.⁴³ Both of these arguments come to the same conclusion. HRW’s material deals with why human beings are capable of this minimisation and Amanda Sharkey’s material deals with why artificial intelligence is not. Therefore, both of the arguments are individually assessed prior to their juxtaposition.

According to the HRW, in order to treat other human beings humanely, one must exercise compassion and make legal and ethical judgments.⁴⁴ Here, ‘compassion’ is the “stirring of the soul which makes one responsive to the distress of others”.⁴⁵ To show compassion, an actor must be able to experience empathy. This is the understanding and sharing the feelings of another and

⁴¹See Christof Heyns ¶21.

⁴²Geneva Convention I, Art. 3; Geneva Convention II, Art. 3; Geneva Convention III, Art. 3; Geneva Convention IV, Art. 3

⁴³ Olivia Goldhill, *Can We Trust Robots to Make Moral Decisions?*, Quartz, April 3, 2016, <https://qz.com/653575/canwe-trust-robots-to-make-moral-decisions/> (last visited Jan 23, 2021).

⁴⁴ Human Rights Watch, *Heed the Call: A Moral and Legal Imperative to Ban Killer Robots*, © 2018 Russell Christian/Human Rights Watch (“HRW”).

⁴⁵See JEAN PICTET, *THE FUNDAMENTAL PRINCIPLES OF THE RED CROSS: COMMENTARY* (1979).

be compelled to act in response.⁴⁶ It contends that this leads to the minimisation of physical and psychological harm.⁴⁷ The evidence here is “judgement” being defined as “the ability to make considered decisions or come to sensible conclusions” in the English Oxford Living Dictionaries.⁴⁸ According to Amanda Sharkey, artificial intelligence should not be used in circumstances that demand moral competence and an understanding of the surrounding social situation. They described robots as “ethical” or “minimally ethical”.⁴⁹

Their claims are *ad hominem*, as the binary here is unfair. The comparative cannot be benevolent human beings and bloodthirsty artificial intelligence. There are three co-related problems with these arguments. First, compassion is treated as a mechanism for change. This could imply two things. One, compassion is always going to minimise harm. Two, compassion is always more likely to minimise harm. Neither have ever been proven to work. However, the latter does not even prove the propensity for it to be working to be more than artificial intelligence. The word “judgement” in the English Oxford Living Dictionaries does not factor in compassion.⁵⁰ This is only about the outcome. That is the minimisation of harm. Second, it could be possible to program LAWS to minimise harm. If the result is all that matters out of this argument, it can be accessed on both sides. Third, LAWS may not possess all the legal and ethical judgment necessary to minimise harm on a case-by-case basis, but it possesses more than what human beings do. If experience shapes this calculus for judgement, simulations are more efficient than human lives. Therefore, these simulations could enable artificial intelligence to surpass human experience. Programmed restrictions are a better deterrent for violence than empathy. Furthermore, deployment of LAWS could be conditional on the ethical questions a situation may possess.

C. Principles of Humanity Under the Martens Clause

The principles of humanity are mentioned in the Martens Clause. In cases not covered by the law in force, the person remains under the protection of the principles of humanity.⁵¹ The ICJ

⁴⁶ HRW.

⁴⁷ JEAN PICTET, DEVELOPMENT AND PRINCIPLES OF INTERNATIONAL HUMANITARIAN LAW (1985), 62.

⁴⁸ HRW.

⁴⁹ Amanda Sharkey, Can we program or train robots to be good?. *Ethics Inf Technol* 22, 283–295 (2020).

⁵⁰ See HRW.

⁵¹ See Protocol Additions to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (adopted 8 July 1977, entered into force 7 December 1978) 1125 U.N.T.S. 3 Art. 1(2) (‘Protocol I’).

referred to these principles as an effective means of addressing the rapid evolution of military technology.⁵² It failed to define what these principles mean.⁵³ Human dignity under the ICCPR and humane treatment under the Geneva Conventions are both commonly referred to as the principles of humanity. This is the part where there is more academic contribution. However, these principles may also be those that are recognized as the conduct acceptable by humanity. This conduct is a prohibition on attacking civilians, sparing civilians as much as possible, limitations of means and methods of warfare, abiding by the notion of chivalry, prohibition on torture and prohibition on collective punishment.⁵⁴ These principles may include operating in good faith.⁵⁵ None of these criteria, however, relates to *per se* legality. It relates to legality by use. This functionality can be programmed.

III. HUMAN TRANSCENDENCE

The *ad hominem* fallacy is explicitly apparent when accompanied by unintuitive evidence. This is especially true about the conditionality of possessing human judgment to be efficacious at warfare and compatible with the law. The assumption that human judgment somehow evolves soldiers is preposterous. The capabilities that human judgement holds are gross overestimation. This part differs for compliance standards in the last part. LAWS are not as compatible as human beings are, but are significantly more so. Two human-transcendent standards deal with human judgement. First, the principle of proportionality. Second, the principle of distinction. Proportionality and distinction form the bedrock of IHL. These principles are present in different forms in different international instruments.

A. Proportionality and Human Judgement

Proportionality is determined on a case-to-case basis. The use of force is unlawful when it is disproportionate to its military necessity.⁵⁶ It is present in various forms. Under CIL, a weapon that inflicts harm greater than that unavoidable to achieve legitimate military objectives are of a

⁵²See Nuclear Weapon, ¶78.

⁵³The ICJ in Nuclear Weapons never defined what ‘principles of humanity’ were.

⁵⁴See Theodor Mero, *The Martens Clause, Principles of Humanity, and Dictates of Public Conscience*, (2000) 94 American Journal of International Law 78, 82-83 (‘Mero’); See also A. Cassese, *The Martens Clause: half a loaf or simply pie in the sky?* (2000) 11 EJIL 187, 202–207 (‘Cassese’).

⁵⁵See GARY D. SOLIS, *THE LAW OF ARMED CONFLICT: INTERNATIONAL HUMANITARIAN LAW IN WAR* 5-6 (2016).

⁵⁶See MALCOLM N. SHAW, *INTERNATIONAL LAW* 1031 (6 ED. 2008).

nature to cause unnecessary sufferings.⁵⁷ Similarly, proportionality is present in Article 51(5)(b) and 57 of Additional Protocol I to the Geneva Conventions.⁵⁸ Under the ICCPR, the right to life is the supreme right.⁵⁹ It acknowledges that every human has this right and imposes the duty to ensure that nobody is deprived of it arbitrarily.⁶⁰ Even the UDHR upholds this right.⁶¹ The word ‘Arbitrary’ here refers to a failure in applying the force used in a proportionate manner.⁶² However, this standard is to be fulfilled by the combatant and not the weapon. However, this is not the case with a LAW, as it is self-governing. Compatibility with proportionality is determined by the test of ‘reasonable person’. The test assesses whether a person could have expected excessive civilian casualties to result from the attack after making reasonable use of the information available to them.⁶³ There are two arguments for the necessity of human judgement to proportionality. First, to balance the force used in the response to the threat. Second, to be restrained by emotion while using force.

According to Peter Asaro, the test requires human judgement,⁶⁴ as human beings rely on their judgement to balance the force used in the response to the threat.⁶⁵ This false equivalence assumes that human beings are inherently and exclusively capable of proportionate warfare. However, the point that differentiates human soldiers and LAWS is the ability to pre-empt reactions. The algorithm foundational to LAWS is built upon simulations. These simulations are going to be more than what human experience can let soldiers individually carry within their judgement.

According to Armin Krishnan, a LAWS does not possess natural inhibition to not kill or hurt human beings⁶⁶ Human soldiers have resistance to killing, due to restraint created by emotion.⁶⁷ Inversely, A LAWS does not possess the basic human notion of prejudices and racial superiority

⁵⁷See Nuclear Weapons, ¶79.

⁵⁸ Protocol I Arts. 51(5)(b) and 57.

⁵⁹See HRC GC 36, ¶2.

⁶⁰ ICCPR Art. 6 (1).

⁶¹See Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A (III) Art. 3.

⁶²See Camargo (on behalf of Suarez de Guerrero) v Colombia, Merits, Communication No 45/1979, U.N. Doc. CCPR/C/15/D/45/1979. ¶¶13.2-13.3.

⁶³See Prosecutor v Galić, Case No. ICTY-98-29, Judgment, ¶58 (Dec. 5, 2003).

⁶⁴ Peter Asaro, *On Banning Autonomous Weapon Systems: Human Rights, Automation, and The Dehumanization Of Lethal Decision-Making*, 94 IRRC, 687-709 (2012).

⁶⁵ See INTERNATIONAL COMMITTEE OF THE RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, 679 (1987).

⁶⁶ARMIN KRISHNAN, KILLER ROBOTS: LEGALITY AND ETHICALITY OF AUTONOMOUS WEAPONS 130 (2016).

⁶⁷See DAVE GROSSMAN, ON KILLING: THE PSYCHOLOGICAL COST OF LEARNING TO KILL IN WAR AND SOCIETY 4 (2009).

that often leads to violations of the conduct of warfare to begin with. Therefore, at best this becomes value-neutral. However, human beings can never match the limitations programming can set within LAWS.

B. Distinction and Human Judgment

Weapons incompatible with distinction are inherently reprehensible due to their uncontrollable and unpredictable effects⁶⁸ and therefore are incapable of being targeted at a military objective.⁶⁹ Under CIL, these weapons are indiscriminate by nature. They are classified by their effect on combatants and civilians,⁷⁰ as they affect civilians and military personnel without distinction.⁷¹ The distinction is present in Articles 48, 51(2) and 52(2) of Additional Protocol I to the Geneva Conventions.⁷² According to the International Criminal Tribunal for the former Yugoslavia in *Prosecutor v. Kupreškić et al.*, this rule exists to protect civilians.⁷³ This is a restriction on the conduct allowed in engaging with combatants to ensure that civilians are not needlessly injured.⁷⁴ According to Theodor Mero, distinction is among the principles of humanity.⁷⁵ There is one argument for the necessity of human judgement to distinguish. That human judgement is instrumental in distinguishing between civilians and combatants.

According to Marcello Guarini and Paul Bello, LAWS lack the qualities that human enforcement uses to assess the seriousness of a threat and the need for a response, as a system without emotion, it cannot predict the emotions or action of others based on that of its own.⁷⁶ Furthermore, according to Noel Sharkey, human qualities facilitate determinations on battlefields, where combatants often conceal their identities.⁷⁷ The sensory and vision systems

⁶⁸See UNGA Res. 2603 A (XXIV) (16 December 1969).

⁶⁹See Legality of the Threat or Use of Nuclear Weapons, Judgment, 1996 I.C.J. Rep.226, ¶24 (July 8) (dissenting opinion of Higgins J.).

⁷⁰See Nuclear Weapons, ¶79.

⁷¹Prosecutor v. Martić, Case No. IT-95-11-T, Judgement ¶29 (Int'l Crim. Trib. for the Former Yugoslavia June 12 2007) ('Martić').

⁷²Protocol I Arts. 48, 51(2) and 52(2).

⁷³See Prosecutor v. Tadić, Case No. IT-94-1, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, ¶106 (Int'l Crim. Trib. for the Former Yugoslavia Oct. 2, 1995); See Martić, ¶56; Prosecutor v. Blaškić Case No. IT-95-14-T, Judgement, ¶162 (Int'l Crim. Trib. for the Former Yugoslavia Mar. 3 2000).

⁷⁴Prosecutor v. Kupreškić et al., Case No. IT-95-16-T, Judgement ¶702 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 14 2000).

⁷⁵Mero, 78 82-83; Cassese, 202–207.

⁷⁶Marcello Guarini and Paul Bello, *Robotic Warfare: Some Challenges in Moving from Noncivilian to Civilian Theaters*, Robot Ethics: The Ethical and Social Implications of Robotics, 129, 138, (2012) ('Guarini and Bello').

⁷⁷Noel Sharkey, *Killing Made Easy: From Joysticks to Politics*, Robot Ethics: The Ethical and Social Implications of Robotics, 111, 118 (2012).

may be able to detect humans, but not reliably tell combatants from immune actors, as there is no programmable definition of what constitutes a ‘civilian’.⁷⁸ This false equivalence assumes that human beings are inherently and exclusively capable of distinguishing between actors. A distinction is equally difficult to translate for a human being and a LAW because neither a machine nor a human being can determine whether an unknown person is a member of an organisation since it is not necessary to interpret intentions and emotions in making that determination.⁷⁹ However, LAWS can be connected to large data pools to assess identities along with having cameras to make the assessment. This is not possible with human beings. The scope of LAWS could be restricted exclusively to individuals on lists developed by national defence organisations.

IV. HUMAN EMULATION

Since LAWS is a combatant, its decisions have consequences. This is where the question of accountability rises. There are three accountability standards for combatants that become important to LAWS. First, to be prosecuted under the Geneva Conventions and the ICCPR. Second, to be rehabilitated under the ICCPR. Third, to be reviewed under Additional Protocol I to the Geneva Conventions.

A. Prosecution

All four of the Geneva Convention have the obligation to prosecute for grave breaches of their Articles.⁸⁰ The grave breaches are defined in each of their subsequent Articles. The first and second Geneva Conventions provides for four breaches “*willful killing, torture or inhuman treatment, including biological experiments, willfully causing great suffering or serious injury to body or health, and extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly*”.⁸¹ The Third Geneva Convention substitutes the fourth breach with “*compelling a prisoner of war to serve in the forces of the hostile Power, or willfully depriving a prisoner of war of the rights of fair and regular trial prescribed in this*

⁷⁸See Noel Sharkey, *The evitability of autonomous robot warfare*, 94 IRRC, 787–799 (2012).

⁷⁹See Guarini and Bello 129, 138.

⁸⁰ Geneva Convention I, Art. 49; Geneva Convention II, Art. 50; Geneva Convention III, Art. 129; Geneva Convention IV, Art. 146.

⁸¹Geneva Convention I, Art. 50; Geneva Convention II, Art. 51.

Convention”.⁸² The Fourth Geneva Convention substitutes the fourth breach with “*unlawful deportation or transfer or unlawful confinement of a protected person, compelling a protected person to serve in the forces of a hostile Power, or willfully depriving a protected person of the rights of fair and regular trial prescribed in the present Convention, taking of hostages and extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly*”.⁸³ Under the right to remedy, the ICCPR obligates to provide remedy for breaches of the ICCPR guarantees.⁸⁴ A failure to investigate and where appropriate prosecute gives rise to a separate breach of the ICCPR.⁸⁵ There are two arguments for the incompatibility of LAWS with these Articles. First, relating to *mens rea*. Second, relating to superior or command responsibility.

According to Jens David Ohlin, LAWS are incapable of acting with a guilty intent.⁸⁶ The *mens rea* constituting ‘willful’ in relation to the breaches includes guilty intent.⁸⁷ However, the problem with this argument is that this does not invalidate LAWS. It only claims non-possession of the intent to kill. Therefore, this argument inadvertently concedes to the violence committed to be out of mistake or malfunction. The argument is premised on the accountability gap inherent to LAWS.⁸⁸ This is *ad hominem* because it attacks LAWS on non-criteria for compatibility with the Geneva Conventions.

According to HRW, LAWS are incompatible with the doctrine of command responsibility.⁸⁹ Under the doctrine of “superior or command” responsibility superiors and commanders are indirectly criminally liable for a subordinate’s crime⁹⁰ when they have the information of the crime or have failed to acquire such knowledge.⁹¹ The argument here becomes that since this is limited to measures within their power. A person cannot be punished for not doing the

⁸² Geneva Convention III, Art. 130.

⁸³ Geneva Convention IV, Art. 147.

⁸⁴ ICCPR Art. 2 (3).

⁸⁵ See HRC GC 31, ¶¶15-18.

⁸⁶ Jens David Ohlin, *The Combatant’s Stance: Autonomous Weapons on the Battlefield*, 92 INT’L L. STUD. 1, 24-27 (2016).

⁸⁷ See Blaškić, ¶152.

⁸⁸ E.g., Thompson Chengeta, *Accountability Gap: Autonomous Weapon Systems and Modes of Responsibility in International Law* 45(1) Denv J Int’l L & Pol’y 1 (2020).

⁸⁹ HRW.

⁹⁰ See Prosecutor v. Hadžihasanović and ors., Case No. IT-01-47-AR72, Decision on Interlocutory Appeal Challenging Jurisdiction in Relation to Command Responsibility, ¶57 (Int’l Crim. Trib. for the Former Yugoslavia, Jul. 16, 2003).

⁹¹ See Prosecutor v. Kayishema and Ruzindana, Case No. ICTR-95-1-T, Judgement, ¶703 (May 21 1999).

impossible, that is understanding how a LAW would think.⁹² However, the problem with this argument is that this does not invalidate LAWS. It only claims non-possession of the information. This too is *ad hominem* because it attacks LAWS on non-criteria for compatibility with the Geneva Conventions.

The issue with both of these arguments is that they treat non-violation as incompatibility. However, the conversation on the accountability gap is an important one. On that note, Rebecca Crootof proposed the notion of “war torts” in their article. They reject the characterization of all wrongs committed by the state during armed conflicts as ‘crimes’. Instead proposing that the change in terminology and the classification of certain wrongs as ‘torts’ could help with regulating LAWS, as the damage caused by any and all machinery during armed conflict can then be used as the cause of action to seek compensation for the purposes of restoration.⁹³

B. Rehabilitation

A punishment apparently conveys to criminals that they wronged the victim and recognizes the victim’s moral claims.⁹⁴ The right to remedy does not stop at prosecution. It also encompasses reparations including rehabilitation and guarantees of non-repetition.⁹⁵ According to Robert Sparrow, it is impossible to punish LAWS as a human, because it cannot fathom physical and physiological pain and by this logic, cannot be deterred.⁹⁶ This is *ad hominem*, because the exclusivity of fear as the means for reformation is never proven. Comparatively, it should be easier to ensure that certain acts are never repeated by a LAWS.⁹⁷ The deterrence of certain acts through reprogramming could ensure non-repetition better than fear.

C. Review

Weapons review is pertinent for compliance with international law. Under Article 36 of Additional Protocol I to the Geneva Conventions, the study, development, acquisition or

⁹² See Prosecutor v. Delalić et al, Case No. IT-96-21-T, Judgement, ¶395 (Int’l Crim. Trib. for the Former Yugoslavia Nov 16, 1998).

⁹³ Rebecca Crootof *War Torts: Accountability for Autonomous Weapons*, 164 U. Pa. L. Rev. 1347 (2016).

⁹⁴ See DINAH SHELTON, REMEDIES IN INTERNATIONAL HUMAN RIGHTS LAW. 3RD REV. ED 13 (2015).

⁹⁵ See 2005 Principles Arts. 18-23.

⁹⁶ See Robert Sparrow, *Killer Robots*, 24 Journal of Applied Philosophy, 62, 72 (2007).

⁹⁷ For the purposes of this part, ‘certain acts’ refers to the acts the LAWS has to be rehabilitated for. The fulfillment of guarantees of non-repetition can be fulfilled well by LAWS, as they can be programmed to never commit the actions that it is programmed to not partake in.

adoption of a new weapon, means or method of warfare should be accompanied by a determination of whether it is compatible with the international legal obligations of the state.⁹⁸ There are two separate discussions around this Article. First, on the CIL nature. Second, on efficacy. Natalia Jevglevskaja argues against its CIL nature quite succinctly, by stating how there is a lack of *opinio juris* and state practice along with pointing out the falsity of the claim that this obligation is a corollary to any other international obligation. It is important to understand that the Article, CIL or not, does not amount to any real compliance. Since there is no method for review provided, States can decide the procedure themselves. There is no guarantee for these procedures to be fair, ethical and unbiased. However, this is still relatively better than the contrary. States like India, Iran, Malaysia, Singapore, and Turkey do not have weapons review mechanisms.⁹⁹ Most of the discussion regarding the CIL nature of this review obligation is superficial. It also acts as a smokescreen for the efficacy of the obligation. Furthermore, the duty to implement the ICCPR guarantees under Article 2 (1) extends to a weapon review obligation too. This duty is to review weaponry for its compatibility with Article 6 (1), during the development and deployment of weaponry.¹⁰⁰ However, the standard for this duty is not provided either. Therefore, review obligations hold little to no utility in ensuring compliance with international law.

CONCLUSION

Artificial intelligence is nascent. All that it can do is grow. With the propensity to cause harm being present, regulation must be fair, equitable and uniform. The scope of conversations regarding LAWS is plagued with *ad hominem* fallacies. These criticisms are often irrelevant to legal assessment of LAWS. The purpose of this article was to shed light on such instances of irrelevance. It attempted to discard the *ad hominem* arguments and propound over what would amount to sufficient regulation. It pointed to aspects of regulation that seemingly hijacked the conversations surrounding LAWS. It studied the futility of these aspects. This article intends to open new dimensions in conversations on LAWS. The regulation we possess right now is

⁹⁸ Protocol I Art .36.

⁹⁹ Natalia Jevglevskaja, *Weapons Review Obligation under Customary International Law* 94 INT'L L. STUD. 186 (2018).

¹⁰⁰ See HRC GC 36, ¶65.

inefficient. It is time to stop pretending. Killer Robots are here and they are here to stay. The best that can be done is regulating it through legal instruments.

In Human Approximation, the article addressed the human-approximate standards put upon LAWS for the purposes of compliance with principles of humanity, human dignity and humane treatment. This was unfair, as the criteria used for compliance is not something that even human beings can fulfil. In Human Transcendence, the article addressed the human judgement standard for compliance with proportionality and distinction. This was conditional on assumptions. This was also the standard where LAWS can provide better compliance than human beings were. In Human emulation, the article addressed concerns pertaining to prosecution, rehabilitation and review of LAWS. The claims pertaining to prosecution and rehabilitation attempt to equate the inability to violate with non-compliance. It is also possible to design regulation to create structures of accountability for LAWS. The assertions on the CIL nature of review obligations are unfounded. However, even if these assertions were not, the vagueness in the obligation ensures the propensity to exploitation. The conversations regarding the *per se* legality of LAWS need to evolve.