

The background of the cover features a close-up, artistic photograph of several books and stacks of papers. The books have various colored spines, including blue and black, and their pages are visible, showing a range of colors from off-white to aged yellow. The lighting is dramatic, with strong highlights and deep shadows, creating a sense of depth and texture. The books are arranged in a way that suggests a library or a study.

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## LEGAL REGIME OF THE KILLER ROBOTS IN WARFARE

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*“And in the future AI could develop a will of its own, a will that is in conflict with ours.”*

*- Stephen Hawking*

*Humans fighting against rebelling robots and machines have been quite a common plot for sci-fi books and movies over the years. But the notion of robots fighting in wars is not just a possibility any more but rather a grim looming reality. Use of Autonomous Weapon Systems or Killer Robots is being considered as the next frontier in the global weapons race. The military advantage estimated from the development and deployment of robots on the battlefield is largely outnumbered by the humanitarian concerns. The idea of delegating the authority to kill a human being from a robot that lacks any human traits is haunting enough to discard the assurances that no harm will befall us as the robots will be fighting on our side. But the ethical and humanitarian concerns must be backed by legal and regulatory regimes. This article looks into the current state of laws and regulations regarding the use of killer robots and how it evaluates their deployment in warfare. The possibilities and efficacy of any future treaty regulating or outright banning killer robots are also worthy of being explored.*

### INTRODUCTION

The progress in Science over the years can be easily illustrated through the enormous advancement made in the field of weapons. Every time there is an inclusion of new technology in the Weapon Industry; the world as we know changes to a certain degree. From Babur establishing the Mughal Empire by introducing massed artillery tactics in India<sup>1</sup> to the huge death toll in World War I & II, the invention in weapons' industry has re-written history. On the same lines, the gradual and ongoing progress, the states & weapons industry has now shifted its focus to a new breed of weapon, which may change the use of weapons as we know it – Lethal Autonomous Weapon Systems (LAWS) or more popularly referred to as “Killer Robots.” Although the concept of killer robots might seem to

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<sup>1</sup> Jeff Kinard, *Artillery: An Illustrated History of Its Impact* (ABC-CLIO 2007) 95–96.

be fictional to most, many countries are making good progress in turning it into a reality. The introduction of 'LAWS' in warfare could be more game-changing than the introduction of nuclear weapons.<sup>2</sup> The implications of using killer robots in warfare bring into mind the catastrophes of science fiction and witnessing it can turn into reality, it is imperative that the world order thinks its stance on the deployment of killer robots in warfare and equips legal mechanisms to deal with this upcoming phenomenon.

### **CURRENT LEGAL STATUS OF KILLER ROBOTS**

An Autonomous Weapon System is defined as-

*“Any weapon system with autonomy in its critical functions—that is, a weapon system that can select (search for, detect, identify, track or select) and attack (use force against, neutralize, damage or destroy) targets without human intervention.”*<sup>3</sup>

This definition of LAWS by the ICRC is considered as a broad one.<sup>4</sup> The most prominent feature of an autonomous weapon is its decision making is dependent on pre-programmed algorithms instead of human intelligence and human judgment.<sup>5</sup> It can learn or adapt its functioning in response to changing circumstances.<sup>6</sup> At present countries like the USA, UK, China, Russia, Israel, South Korea, Turkey have invested a considerable amount of resources to develop Autonomous Weapon Systems. Although the official policy of the USA regarding autonomous weapon is the engagement of the appropriate level of human judgment in the use of such weapon,<sup>7</sup> there are possibilities that they may reconsider it.<sup>8</sup> Though some contend that the development of autonomous weapons is outright illegal,

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<sup>2</sup> P. W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century* (Penguin, New York 2009) 203.

<sup>3</sup> International Committee of the Red Cross, 'Views of the ICRC on Autonomous Weapon Systems' (Convention on Certain Conventional Weapons Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS), Geneva, 11-15 April 2016), <<https://www.icrc.org/en/download/file/21606/ccw-autonomous-weapons-icrc-april-2016.pdf>> accessed 13 September 2020.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> Dr. U C Jha, *Killer Robots: Lethal Autonomous Weapon Systems Legal, Ethical and Moral Challenges*, (Vij Books India Pvt. Ltd., Delhi 2016).

<sup>7</sup> U.S. Department of Defense, 'DoD Directive 3000.09: Autonomy in Weapon Systems' (U.S. Department of Defense, 21 November 2012).

<sup>8</sup> Dan Lamothe, 'Pentagon examining the 'killer robot' threat' *The Boston Globe* (Boston, 30 March 2016) <<https://www.bostonglobe.com/news/nation/2016/03/30/the-killer-robot-threat-pentagon-examining-how-enemies-could-empower-machines/sFri6ZDifwIcQR2UgyXIQI/story.html>> accessed 13 September 2020.

such is not the case. States are free to threaten or use any weapons unless it can be shown that they are bound not to do so by reference to a prohibition in either treaty law or customary international law.<sup>9</sup> There is no treaty or other instruments till now that prohibits the use of autonomous weapons. Although, there are discussions within the forum of the Certain Conventional Weapons Convention<sup>10</sup> regarding ban on autonomous weapons systems since 2013,<sup>11</sup> but it has not resulted in either a ban or restriction on autonomous weapons. But there is a general agreement among Convention on Certain Conventional Weapons (CCW) states parties that “meaningful or effective” human control or “appropriate levels of human judgment” must be retained over weapon systems and the use of force.<sup>12</sup> The existing autonomous weapon systems, such as missile and rocket defense systems require some level of human control.<sup>13</sup> Even there is an argument that persists on the implicit requirement which can be found in International Humanitarian Law (IHL) for a human decision to use lethal force, which cannot be delegated to an automated process.<sup>14</sup> In cases not covered by existing treaties, civilians and combatants remain protected by the principles of humanity, and the dictates of the public conscience,<sup>15</sup> as stipulated in Article 1(2) of Additional Protocol I, in the preamble to the 1907 Hague Convention (IV), and in the preamble to the 1899 Hague Convention (II), which is referred as the "Martens Clause," a longstanding and binding rule of IHL. The International Court of Justice has affirmed the importance of the Martens Clause by stating that it had proved to be an effective means of addressing rapid evolution of military technology.<sup>16</sup> The requirement of human involvement is justified under this

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<sup>9</sup> *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) I.C.J. Reports 1996, 226 [20].

<sup>10</sup> Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which may be Deemed to be Excessively Injurious or to have Indiscriminate Effects (with Protocols) (adopted 10 October 1980, entered into force December 2 1983) 1342 UNTS 137

<sup>11</sup> Paul Scharre and Michael C. Horowitz, ‘An Introduction to Autonomy in Weapon Systems’ (CNAS Working Paper, February 2015) 23; Geneva Academy of International Humanitarian Law and Human Rights, ‘Autonomous Weapon Systems under International Law’ (Academy Briefing No. 8, November 2014) 27; Markus Wagner, ‘The Dehumanization of International Humanitarian Law: Legal, Ethical, and Political Implications of Autonomous Weapon Systems’ (2014) 47 *Vanderbilt Journal Of Transnational Law*, 1371; Michael N. Schmitt/Jeffrey S. Thurnher, ‘Out of the Loop’: Autonomous Weapon Systems and the Law of Armed Conflict, *Harvard National Security Journal* 4 (2013), 231

<sup>12</sup> United Nations, ‘Recommendations to the 2016 Review Conference submitted by the Chairperson of the Informal Meeting of Experts’, [2 (b)]

<sup>13</sup> International Committee of the Red Cross, ‘Autonomous Weapon Systems: Implications of Increasing Autonomy in the Critical Functions of Weapons’ (ICRC, Geneva, September 2016) 10-14.

<sup>14</sup> Peter Asaro, ‘On Banning Autonomous Weapon Systems: Human Rights, Automation, and the Dehumanization of Lethal-Decision Making’ (2012) 94 *IRRC*, 696-703.

<sup>15</sup> Additional Protocol I, Article 1(2).

<sup>16</sup> *Legality of the Threat or Use of Nuclear Weapons*, (n 10) [78].

Martens Clause, which specifically demands the application of “the principle of humanity” in armed conflict.<sup>17</sup>

In a joint report by Human Rights Watch and Harvard’s International Human Rights Clinic, it was suggested that the requirement of “meaningful human control” is compulsory, asserting states have objected to weapons that have the potential to operate and kill without human control as evident from the Mine Ban Treaty.<sup>18</sup> Even The USA, who has abstained from joining the Mine Ban Treaty, abides by the treaty’s requirements, except on the Korean Peninsula.<sup>19</sup>

Besides, there is a deep discomfort among the public with the idea of any weapon system that places the use of force beyond human control.<sup>20</sup> Example of drones can be cited here, whose continued presence has terrorized civilian communities, giving rise to anxiety and psychological trauma among them,<sup>21</sup> and killer robots have the potential to do the same. Although the current legal regime that relates to LAWS points towards its disapproval without human intervention, it doesn’t amount to any

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<sup>17</sup> Convention (IV) respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land (adopted 18 October 1907, entered into force 26 January 1910) 539 UNTS, Preamble; Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 31 (First Geneva Convention), Art. 63; Geneva Convention Relative to the Protection of Civilian Persons in Time of War (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 287 (Fourth Geneva Convention) Art. 158; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), (adopted 8 June 1977, entered into force 7 December, 1978) 1125 UNTS 3, Art. 1(2).

<sup>18</sup> 'Killer Robots and the Concept of Meaningful Human Control' (Human Rights Watch, 11 April 2016) <<https://www.hrw.org/news/2016/04/11/killer-robots-and-concept-meaningful-human-control>> accessed 13 September 2020.

<sup>19</sup> David Alexander, 'US says will abide by Mine Ban Treaty except on Korean Peninsula' (Reuters, 23 September 2013) <<http://www.reuters.com/article/us-usa-defense-landmines-idUSKCN0HI1U920140923>> accessed 13 September 2020.

<sup>20</sup> ICRC, 'Autonomous weapon systems: Is it morally acceptable for a machine to make life and death decisions?' Statement to the Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS) (Geneva, 13-17 April 2015) <<https://www.icrc.org/en/document/lethal-autonomous-weapons-systems-LAWS>> accessed 13 September 2020; Future of Life Institute, 'Autonomous Weapons: an Open Letter from AI & Robotics Researchers' (International Joint Conference on Artificial Intelligence, Buenos Aires, 28 July 2015) <<https://futureoflife.org/open-letter-autonomous-weapons>> accessed 13th September, 2020; Future of Life Institute, 'An Open Letter to the United Nations Convention on Certain Conventional Weapons' (Future of Life Institute, 21 August 2017) <<https://futureoflife.org/autonomous-weapons-open-letter-2017>> accessed 13 September 2020.

<sup>21</sup> 'Living Under Drones: Death, Injury, and Trauma to Civilians From US Drone Practices in Pakistan' International Human Rights and Conflict Resolution Clinic (Stanford Law School) and Global Justice Clinic (NYU School of Law), (September 2012), vii, 55, 72, 81 <[https://law.stanford.edu/wpcontent/uploads/sites/default/files/publication/313671/doc/slspublic/Stanford\\_NYU\\_LIVING\\_UNDER\\_DRONES.pdf](https://law.stanford.edu/wpcontent/uploads/sites/default/files/publication/313671/doc/slspublic/Stanford_NYU_LIVING_UNDER_DRONES.pdf)> accessed 13 September 2020.

restriction or prohibition and the international law of warfare cannot be based simply on humanitarian feelings.<sup>22</sup>

### CONCERNS

While the prospect of having a weapon system that is independent of human intervention and particularly more efficient in executing the target has ignited the global arms race, a notable number of people are worried about such developments. Whenever there is any progress in the weapons industry, the death toll in wars and conflicts increases manifold. And the idea of having a weapon system that is completely devoid of human judgment has been frightening, to say the least. Giving autonomous weapons the authority to make determinations of taking away somebody's life is said to conflict with the principle of dignity.<sup>23</sup> The fact that a robot will be devoid of emotions and uniquely human traits such as compassion, guilt, fear of getting killed, or having to kill other people, is a matter of grave concern for people.

People who support autonomous weapons with human control believe that such systems will not be able to adhere to the principle of distinction and proportionality without human intervention, while those who advocate for their total ban argue that even with human oversight, autonomous weapons will cause excessive harm and suffering. A comparison is made with the drone strikes which even with human oversight have resulted in a notable amount of civilian deaths over the years. LAWS having a greater ability to inflict harm will likely amass a greater death count. Yet, some argue that LAWS may in some respects serve humanitarian purposes, since they will not be susceptible to some of the human shortcomings that may undermine the protection of life.<sup>24</sup> Typically autonomous weapons would not act out of revenge, panic, anger, spite, prejudice, or fear.<sup>25</sup> Moreover, unless specifically programmed to do so, it would not cause intentional suffering on civilian populations, for example through torture.<sup>26</sup> Nonetheless, there remains a sense of deep discomfort with the idea of any weapon system

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<sup>22</sup> *Ryuichi Shimoda, et al v. The State* [1964] 8 JAIL 212.

<sup>23</sup> Christof Heyns, 'Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, Lethal Autonomous Robotics' (A/HRC/23/47, UN Human Rights Council, Geneva, 9 April 2013) 20 <[http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47\\_en.pdf](http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf)> accessed 13 September 2020.

<sup>24</sup> *Ibid.* 10.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

that places the use of force beyond human control.<sup>27</sup> Most of the advocates of LAWS justify the use of killer robots in war, as fewer lives would be lost if they are deployed in the wars, instead of humans.<sup>28</sup> But seeing the gap in advancement in technology among the states, it will require quite some time for all the countries to become equally capable of utilizing LAWS in warfare, which would amount to heavy loss of life in wars for technologically disadvantaged states. The use of LAWS on a side that is ill-equipped can have a more catastrophic impact than regular human warfare. In fact, it has been seen that the use of drones by the USA, in its “WAR against Terrorism,” has garnered more animosity, destabilized regions, and has “created more terrorists than it killed.”<sup>29</sup> Again, subtracting humans from the process creates a complex dilemma regarding liability in case of mishaps. Machines cannot be punished properly in human notions as they can’t be subjected to suffering<sup>30</sup> or any other emotions that are desired as the outcome of inflicting punishment. Although there are views that there won’t be any “accountability gap,” since there always will be a human involved at some level,<sup>31</sup> conferring the liability to humans such as the designers of the robots and the military commanders raises severe moral issues, due to the autonomy of the robots.<sup>32</sup> Needless to mention, due to the unpredictability of an autonomous weapon system, it would be difficult to find individual violators of IHL.<sup>33</sup> Thus, there are possibilities that the concerns related to the use of LAWS go unanswered, due to a gap in accountability.

Speaking of Robotics, from an idealistic and pacifist point of view, we might still want to go with Isaac Asimov’s Three Laws of Robotics, first of which states that “*A robot may not injure a human being or, through inaction, allow a human being to come to harm.*” But the emergence of AI may somehow harm humans

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<sup>27</sup> Convention (IV) respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land (adopted 18 October 1907, entered into force 26 January 1910) 539 UNTS, Preamble; Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 31 (First Geneva Convention), Art. 63; Geneva Convention Relative to the Protection of Civilian Persons in Time of War (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 287 (Fourth Geneva Convention) Art. 158; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), (adopted 8 June 1977, entered into force 7 December 1978) 1125 UNTS 3, Art. 1(2).

<sup>28</sup> J Sullins, ‘Robo Warfare: Can Robots be More Ethical than Humans on the Battlefield?’ (2010) 12/3 EIT 263–75.

<sup>29</sup> Bonnie Kristian, ‘Drone warfare makes more terrorists than it kills’ (Business Insider, 9 August 2016) <<https://www.businessinsider.com/drone-warfare-makes-terrorists-2016-8>> accessed 13 September 2020.

<sup>30</sup> Ibid.

<sup>31</sup> Views of the ICRC on Autonomous Weapon Systems, 4.

<sup>32</sup> Thomas W. Simpson and Vincent C. Müller, ‘Just War and Robots’ Killings’ (April, 2016) 66(263) The Philosophical Quarterly, 304.

<sup>33</sup> Views of the ICRC on Autonomous Weapon Systems, 5.

either by taking our jobs or making us lazy. But the use of LAWS in War and conflicts, unlike other peaceful use of AI, may outweigh any benefits gained through such use.<sup>34</sup> Though countries are showing the excuse of national security for developing LAWS, the emergence of LAWS might jeopardize global security further. There is a credible fear that LAWS will inevitably fall into the hands of terrorist groups,<sup>35</sup> which is quite justified after seeing how some terrorist groups have been working to adapt technology.

### **THE REQUIREMENT OF A WEAPONS REVIEW**

Under customary international law, there is an obligation to conduct a legal review of weapons as a means to ensure compliance with any applicable rule of weapons law.<sup>36</sup> Article 36 of the First Protocol Additional to the Geneva Convention obligates the states to determine whether the employment of a new weapon is prohibited by the Protocol or by any other rule of international law.<sup>37</sup> The requirement of a weapons review to assess the legality of new weapons applies to all states, regardless of whether they are party to the Protocol.<sup>38</sup>

Thus, even if LAWS are not preemptively banned, they have to undergo a weapons review, to be declared as legal. Such assessment of the legality of new weapons is to be carried out at the stages of their "study, development, acquisition or adoption".<sup>39</sup>

To be successfully declared as a legal weapon in a weapons review, an autonomous weapons system must satisfy that it adheres to the following principles:

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<sup>34</sup> Human Rights Watch and IHRC, 'Advancing the Debate on Killer Robots: 12 Key Arguments for a Pre-emptive Ban on Fully Autonomous Weapons,' (May 2014) 20-21, <<http://www.hrw.org/news/2014/05/13/advancing-debate-killer-robots>> accessed 13 September 2020.

<sup>35</sup> Brian Wheeler, 'Terrorists 'certain' to get killer robots says defense giant' (BBC News, 30 November 2017) <<https://www.bbc.com/news/uk-politics-42153140#:~:text=Rogue%20states%20and%20terrorists%20will,Lords%20committee%20has%20been%20told.>> accessed 13 September 2020.

<sup>36</sup> Damian P Copeland, 'Legal Review of New Technology Weapons' in Hitoshi Nasu and Robert McLaughlin (eds), *New Technologies and the Law of Armed Conflict* (T.M.C. Asser Press, The Hague, 2014) 43, 47-52; Natalia Jevlevskaja, 'Weapons Review Obligation under Customary International Law' (2018) 94 ILS 186.

<sup>37</sup> Geneva Convention Additional Protocol I, 1977.

<sup>38</sup> ICRC, 'A Guide to the Legal Review of New Weapons, Means and Methods of Warfare' (Geneva, January 2006) 4 <[http://www.icrc.org/eng/assets/files/other/icrc\\_002\\_0902.pdf](http://www.icrc.org/eng/assets/files/other/icrc_002_0902.pdf)> accessed 13 September, 2020.

<sup>39</sup> Ibid. 23.



***The Principal of Distinction:*** There are huge debates as to whether a robot may be able to distinguish between a fearful civilian and a threatening enemy combatant.<sup>40</sup> ‘Principle of Distinction’ as a norm of customary international law puts an obligation on parties to distinguish between civilians and combatants.<sup>41</sup> The International Court of Justice in the *Nuclear Weapons case* has identified the principle of distinction as one of the ‘cardinal principles’ of IHL and one of the ‘intransgressible principles of international customary law.’<sup>42</sup> In unconventional warfare, as combatants are often only identifiable through the interpretation of their conduct, the inability of autonomous weapons to interpret intentions and emotions will be a significant obstacle in complying with the rule of distinction.<sup>43</sup>

***The Principle of Proportionality:*** The rule of proportionality requires that the expected harm to civilians be measured, prior to the attack, against the anticipated military advantage to be gained from the operation.<sup>44</sup> This rule has been described as “one of the most complex rules of international humanitarian law”.<sup>45</sup> There are concerns that the open-endedness of the rule of proportionality combined with the complexity of circumstances may result in undesired and unexpected behavior by autonomous weapons, with deadly consequences.<sup>46</sup> Additionally, proportionality assessments often involve qualitative rather than quantitative judgments,<sup>47</sup> which might require distinctively human judgment.<sup>48</sup>

***The Capability of Causing Unnecessary Harm and Suffering:*** There is a prohibition on weapons that have indiscriminate effects and thus cause unnecessary harm to civilians<sup>49</sup> and some weapons have been banned because they “cause superfluous injury or unnecessary suffering”<sup>50</sup> to soldiers as

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<sup>40</sup> Stuart Russell, ‘Take a stand on AI weapons’ (2015) IWJS 521.

<sup>41</sup> Additional Protocol I, art 48, 51(2) & 52(2).

<sup>42</sup> *Legality of the Threat or Use of Nuclear Weapons*, (n 10) [434].

<sup>43</sup> Human Rights Watch, ‘Losing Humanity: The Case against Killer Robots’ (HRW, 2012) 31 <<http://www.hrw.org/reports/2012/11/19/losing-humanity-0>> accessed 2 January 2020.

<sup>44</sup> Geneva Convention Additional Protocol I, Article 51 (5) (b).

<sup>45</sup> Human Right Watch, (n 44) 32.

<sup>46</sup> Noel Sharkey, ‘Automated Killers and the Computing Profession’ (2007) 40(11) IEEE Computer 122.

<sup>47</sup> Markus Wagner, ‘The Dehumanization of International Humanitarian Law: Legal, Ethical, and Political Implications of Autonomous Weapon Systems’ (2014) 47 Vanderbilt Journal of Transnational Law 1397- 1398.

<sup>48</sup> A/HRC/23/47, (n 23) 14.

<sup>49</sup> Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and Their Destruction (adopted in 18 September 1997, entered into force 1 March 1999) 2056 UNTS 211.

<sup>50</sup> Geneva Convention Additional Protocol I, Article 35 (2); The Protocol on Prohibitions or Restrictions on the use of incendiary weapons, Protocol III to the Convention on Certain Conventional Weapons, (adopted 10 October 1980, Geneva, entered into force 2 December 1983) UNTS vol. 1342, No. 22495, 171.

well as civilians.<sup>51</sup> The regulations relating to the laws and customs of war on land, annexed to The Hague Convention IV of 1907, also prohibits the use of arms, projectiles, or material calculated to cause unnecessary suffering.<sup>52</sup> The statute of the International Criminal Court lists the use of “methods of warfare which are of nature to cause superfluous injury or unnecessary suffering” as a war crime.<sup>53</sup> Even if not pre-emptively banned, it will be quite hard for LAWS to satisfy these rules of IHL. The ICRC has already stated that developing a truly autonomous weapon system that can implement IHL may prove impossible.<sup>54</sup>

### TOWARDS A TREATY

Presently, 30 countries have called for a prohibition on autonomous weapons.<sup>55</sup> Most states support either a total ban or strict legal regulation regarding their development and deployment.<sup>56</sup> And there have been growing calls for a treaty to ban killer robots.<sup>57</sup> France and Russia in the *Nuclear Weapons case*, have stated that a weapon that causes superfluous injury or unnecessary suffering, can only be prohibited, if states choose to prohibit the weapon by treaty.<sup>58</sup> The Non-Aligned Movement (NAM) has called for a “legally binding international instrument stipulating prohibitions and regulations on lethal autonomous weapons systems.”<sup>59</sup>

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<sup>51</sup> Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, And of Bacteriological Methods of Warfare, Geneva, (adopted 17 June 1925, Geneva, entered into force 8 February 1928) 94 L.N.T.S. 65.

<sup>52</sup> Hague Convention (IV) respecting the Laws and Customs of War on Land and Its Annex: Regulations Concerning the Laws and Customs of War on Land (adopted 18 October 1907, entered into force 26 January 1910) 539 USTS; Art. 23.

<sup>53</sup> Rome Statute of the International Criminal Court (adopted 17 July 1998, last amended 2010) 2187 UNTS 90; Art 8(2)(b)(xx).

<sup>54</sup> ICRC, 'International Humanitarian Law and the Challenges of Contemporary Armed Conflicts - ICRC Report' (31 October 2011) 40, <<https://www.icrc.org/en/doc/resources/documents/report/31-international-conference-ihl-challenges-report-2011-10-31.htm>> accessed 13 September 2020.

<sup>55</sup> Human Rights Watch, 'Killer Robots: Growing Support for a Ban' (10 August 2020) <<https://www.hrw.org/news/2020/08/10/killer-robots-growing-support-ban>> accessed 13 September 2020.

<sup>56</sup> Damien Gayle, 'The UK, The US and Russia among those opposing killer robot ban' (Science, 29 March 2019) <<https://www.theguardian.com/science/2019/mar/29/uk-us-russia-opposing-killer-robot-ban-un-ai>> accessed 13 September 2020.

<sup>57</sup> Ian Sale, 'Action needed to stop the use of killer robots, report says' (World, 10 August 2020) <<https://news.sky.com/story/action-needed-to-stop-the-use-of-killer-robots-report-says-12046509>> accessed 13 September 2020.

<sup>58</sup> *Legality of the Threat or Use of Nuclear Weapons*, the oral pleadings and written statements in the Nuclear Weapons case of France, 136 and Russian Federation 171–172.

<sup>59</sup> Government of Venezuela, 'General Principles on Lethal Autonomous Weapons Systems' (Working Paper submitted on behalf of the Non-Aligned Movement (NAM) and other states parties to the Convention on Conventional Weapons Group of Governmental Experts on lethal autonomous weapons systems, Geneva, March 28 2018) <[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/E9BBB3F7ACBE8790C125825F004AA329/\\$file/CCW\\_GGE\\_1\\_2018\\_WP.1.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/E9BBB3F7ACBE8790C125825F004AA329/$file/CCW_GGE_1_2018_WP.1.pdf)> accessed 13 September 2020.

In 2015, more than 1,000 experts in artificial intelligence and some other prominent experts like Stephen Hawking, Elon Musk, Steve Wozniak, Noam Chomsky signed and presented a letter at the 24th International Joint Conference on Artificial Intelligence asking for a ban on autonomous weapons.<sup>60</sup> China, one of the leading actors in the LAWS arms race, was the first permanent member of the UN Security Council to question the adequacy of existing international law in handling the LAWS.<sup>61</sup> They have even called for a ban on the use of fully autonomous weapons but not over the development and production of such.<sup>62</sup> Many experts have also called for a blanket ban on the autonomous weapons system.<sup>63</sup> On the other hand, The UK, Australia, Israel, Russia, and The US have opposed their legal regulation.<sup>64</sup> Bangladesh has expressed interest in multilateral talks on lethal autonomous weapons systems at the UN General Assembly.<sup>65</sup> But it has not expressed their stance regarding the LAWS.

Civil society has an important role to play if we ever want to see any treaty regarding LAWS come to life. They have played a significant role in the establishment of the treaty that banned landmines.<sup>66</sup> As stated before, for the time being, only a few countries will be able to reap the benefit of the killer robots, their deployment in conflicts could lead to an increase in losses on one side. This factor might encourage countries with limited resources to pursue a ban for LAWS. Many countries might see it as a tool to limit the political and military hegemony of some dominant countries.<sup>67</sup> Proliferation or the

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<sup>60</sup> Samuel Gibbs, 'Musk, Wozniak and Hawking urge ban on warfare AI and autonomous weapons' (Technology, 27 July 2015) <<https://www.theguardian.com/technology/2015/jul/27/musk-wozniak-hawking-ban-ai-autonomous-weapons>> accessed 13 September 2020.

<sup>61</sup> Chinese Delegation to CCW, 'The Position Paper Submitted by the Chinese Delegation to CCW 5th Review Conference' (Fifth CCW Review Conference, Geneva, 2016) <[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/DD1551E60648CEBBC125808A005954FA/\\$file/China's+Position+Paper.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/DD1551E60648CEBBC125808A005954FA/$file/China's+Position+Paper.pdf)> accessed 13 September 2020.

<sup>62</sup> Government of China, 'Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects' (Working Paper submitted to the Convention on Conventional Weapons Group of Governmental Experts on lethal autonomous weapons systems, Geneva, 11 April 2018) <<https://reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2018/gge/documents/GGE.1-WP7.pdf>> accessed 13 September 2020.

<sup>63</sup> A/HRC/23/47 (n 23) 31.

<sup>64</sup> Rome Statute of the International Criminal Court (n 54).

<sup>65</sup> Government of Bangladesh, 'Statement to the UN General Assembly First Committee on Disarmament and International Security' (First Committee of the 71st Session of the UN General Assembly, 21 October 2016) <<https://s3.amazonaws.com/unoda-web/wp-content/uploads/2016/10/21-Oct-Bangladesh-CW.pdf>> accessed 13 September 2020.

<sup>66</sup> Kenneth Anderson, 'The Ottawa Convention Banning Landmines, the Role International Non-Governmental Organization and the Idea of International Civil Society' (2000) 11(1) *European Journal of International Law* 91-120.

<sup>67</sup> *Ibid*, 107.

spread of weapons of mass destruction to the terrorist organizations has been a matter of great concern for all nations. Use of drones by the Houthi rebels, ISIS and Boko Haram substantiates the fear.<sup>68</sup> The thought of terrorist organizations getting hold of any LAWS or hacking manipulates the ones used by the states, which is frightening. Terror attacks initiated using LAWS could be more deadly and could be easier for terrorist outfits. This credible fear might induce some nations to favor a ban for LAWS. The Campaign to Stop Killer Robots, a coalition of more than 160 non-governmental organizations has been working to pre-emptively ban fully autonomous weapons.<sup>69</sup> In the past, there has been an example of a treaty banning a weapon before it has been deployed on the battlefield. The Saint Petersburg Declaration of 1868 that banned the use of fragmenting, explosive, or incendiary small arms ammunition<sup>70</sup> and the Protocol on Blinding Laser Weapons<sup>71</sup> have preemptively banned weapons before their impact on warfare could be practically observed.

## CONCLUSION

The ever-growing use of AI technologies may quite well point that the use of these technologies in warfare is the next step and more convenient way for future warfare. In spite of the peaceful use of AI, there have been tragedies and accidents.<sup>72</sup> Such failures in warfare may bring catastrophe of epic proportions. Georges Clemenceau, the prime minister of France during World War I, once quoted that “war is too serious a matter to entrust to military men.” He was right; it should be civil society, who gets a voice in matters regarding warfare, since they are the ones facing the horrors of the war. And at the moment, the civil society, or at least the part that are aware of the implications of using killer robots in warfare, are strictly against their use. But burning scientists in pyres, putting them through various trials and tribulations in the past centuries have not been able to stop the progress of

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<sup>68</sup> B. Olaifa, ‘Boko Haram Now Engages Foreign Fighters, Says Army’ (The Nation, Nigeria, 29 November, 2018) <<http://thenationonlineng.net/boko-haram-now-engages-foreign-fighters-says-army/>> accessed 13 September 2020; D. Nissenbaum and W. Strobel, ‘Mideast Insurgents Enter the Age of Drone Warfare’ (2019) WSJ <<https://www.wsj.com/articles/mideast-insurgents-enter-the-age-of-drone-warfare-11556814441>> accessed 13 September 2020.

<sup>69</sup> Hague Convention (VI) (n 53).

<sup>70</sup> Declaration Renouncing the use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight, Saint Petersburg, adopted at the International Military Commission in Saint Petersburg, 11 December 1868.

<sup>71</sup> Additional Protocol to the Convention on Prohibitions or Restrictions on the use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects (Protocol IV, entitled Protocol on Blinding Laser Weapons) (Adopted 13 October 1995, Venice, Entered into force 30 July 1998) 35 ILM 128.

<sup>72</sup> Paul Scharre, ‘Killer Apps: The Real Dangers of an AI Arms Race’ (2019) 98(3) FA 135–44.

science. But through the introduction of a treaty that prohibits and regulates killer robots, science could be molded in the shape which is beneficial for society. Advancement in LAWS does not necessarily need to be stopped but strictly regulated, but no discussions of deploying “killer robots” should ever exclude human intervention. Robots have the potential to be more useful to society, other than being used in the battlefields.