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A.I. and Lethal Weapons: A blameless army of killer robots?

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Lethal Autonomous Weapons

LETHAL AUTONOMOUS WEAPONS (LAWS) ARE POISED TO BECOME the primary method of warfare in the future. They are machines equipped with artificial intelligence systems, enabling them to operate independently, without human intervention. Artificial intelligence has already infiltrated the military and, right now, there are numerous nonmilitary and military apps and devices utilizing A.I. systems, such as the GPS installed on our phones.

The use of A.I. in the military significantly enhances operational efficiency, intelligence processing, and autonomous decision-making. The state-of-the-art level of A.I. in warfare as of 2025 includes both robotic forms, like drones or sentry guns and non-robotic software systems integrated into broader weapons or command infrastructure. Systems like the U.S. Project Maven[1] and NATO's Palantir-based AI[2] integrate battlefield data to support rapid target identification. Israel's "Gospel" and "Lavender" automate kill lists, while drones like Türkiye's Kargu-2 and Israel's Harpy can engage targets with minimal human input. South Korea's SGR-

[1] Patrick Tucker, "NGA Will Take Over Pentagon's Flagship AI Program," Defense One, April 25, 2022, https://www.defenseone.com/technology/2022/04/nga-will-take-over-pentagons-flagship-ai-program/366098/.

[2] AIN.Capital, "NATO Acquires Palantir Military AI System to Aid Commanders in Battlefield Decision-Making," AIN.Capital, April 15, 2025, https://en.ain.ua/2025/04/15/nato-acquires-palantir-military-ai-system/.

A1 sentry gun[3] and U.S. systems like Shield AI show how lethal autonomy is being physically deployed. These developments have already seen combat use, raising global ethical and regulatory concerns.

Focusing on the military apps and machines, there are non-lethal military robots used for tasks that can be dangerous for humans, such as mine clearing, explosive ordnance disposal and rescue missions, just to name a few[4]. Beyond robotic implementations, there are also non-embodied A.I. systems to assist in a positive outcome for a military mission. Such examples are the fast and efficient processing of data from all the surveillance sources or the ability to protect the military network from hackers, the latter being a fundamental issue, to prevent attacks and at the same time have the right equipment to fight off unauthorized users from confidential content[5].

Machine learning A.I. systems function exactly like that: they "learn" from any situation, they upgrade their system to eliminate faults and mistakes and then give back what has been processed and developed. Therefore, A.I. does not only avert and counter attacks but also ensures flexibility[6].

The use of A.I. for lethal weapons has broadened the application of such technology, making it possible to have battles from afar. According to the U.S. Department of Defense Directive, Lethal Autonomous Weapons or Killer Robots are a "weapon system[s] that, once activated, can select, and engage targets without further intervention by a human operator."[7].

There are three levels of autonomy noted[8], regarding L.A.W.: human-in-the-loop (human operator), human-on-the-loop or supervised and hu-

[3] Brittany Roston, "Everything We Know About Samsung's Machine Gun Robots," SlashGear, March 24, 2022, https://www.slashgear.com/825074/everything-we-know-about-samsungs-machine-gun-robots/.

[4] Bartneck, Christoph and Lütge, Christoph & Wagner, Alan and Welsh, Sean. (2021). Military Uses of AI. 10.1007/978-3-030-51110-4_11.

[5] Marcus Roth "Artificial Intelligence in the Military – An Overview of Capabilities", last accessed 5/1/2023. https://emerj.com/ai-sector-overviews/artificial-intelligence-in-the-military-an-overview-of-capabilities/.

[6] Marcus Roth, "Artificial Intelligence in the Military – An Overview of Capabilities," Emerj, February 20, 2019, https://emerj.com/artificial-intelligence-in-the-military-an-overview-of-capabilities/.

[7] Department of Defense Directive 3000.09, "Autonomy in Weapon Systems," Updated May 8, 2017, https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodd/ 300009p.pdf.

[8] Congressional Research Service, Defense Primer: US Policy on Lethal Autonomous Weapons (2020).

man-off-the-loop (fully autonomous). Human-in-the-loop[9] is the most basic form of using A.I. systems in war because it allows for a human operator to control the situation remotely (teleoperation) and engage or disengage a weapon's target[10]. This clearly is the "safest" way to use unmanned drones in war. Human-on-the-loop[11] is a semi-autonomous situation where the L.A.W. has been programmed to "engage individual targets or specific target groups that have been selected by a human operator"[12]. It requires pre-programming by a human operator and then it functions on its own, obeying the specific commands, but it does not deviate from what has been programmed or decided on its own. Of course, humans retain the supervisory role and the task of the ultimate assessor of A.I.'s operations, along with the capacity to interfere during these operations, should such a need arise.

Human-off-the-loop,[13] namely a state of complete autonomy for AI systems, is the destination of L.A.W.S. technology and the reason campaigns like "Stop Killer Robots"[14] were created, or why so many terms, legislations, and re-approaches of ethical theories of the past have surfaced in the academic world. We are not there yet as there are not completely autonomous machines that can make decisions on their own since they still require a human agent to operate them. Still, various weapons exist already

[9] Nils Melzer, "Human rights implications of the usage of drones and unmanned robots in warfare", Directorate-General for External Policies of the Union (European Union 2013): 6. Doi:10.2861/213. https://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/410220/EXPO-DROI_ET(2013)410220_EN.pdf.

[10] Annemarie Shea, "The Legal and Ethical Challenges Posed by Lethal Autonomous Weapons," Trinity College Law Review 24 (2021): 119.

[11] Nils Melzer, "Human rights implications of the usage of drones and unmanned robots in warfare", Directorate-General for External Policies of the Union (European Union 2013): 6. Doi:10.2861/213. https://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/410220/EXPO-DROI_ET(2013)410220_EN.pdf.

[12] DODD 3000.09: 14.

[13] Nils Melzer, "Human rights implications of the usage of drones and unmanned robots in warfare", Directorate-General for External Policies of the Union (European Union 2013): 6.

[14] "Stop Killer Robots" is a campaign that launched on 2013 with the moto "Technology should be used to empower all people, not to reduce us – to stereotypes, labels, objects, or just a pattern of 1's and 0's." https://www.stopkillerrobots.org/ . There are also a few sites that target educating people on the importance of containing such technology before it's too late: https://futureoflife.org/project/lethal-autonomous-weapons-systems/ and https://autonomousweapons.org/.

in use that can either target or fire autonomously but not both[15].

"Killer robots"

The most autonomous machine that is already in use is the unmanned drone. The origin of the very first unmanned drone dates back as far as 1907[16], although there was an even earlier appearance in 1849[17]. With the discreet, modern label, "Killer robots," these drones are the next stage in the technological evolution of warcraft.

Their reputation and more importantly, their horridness, has preceded them. Works of fiction have created a terrifying scenario around "robot machines" in general and, although many of these books and movies are excellent adventures worth reading and watching, they tend to simplify the complexity of a machine to it merely being "good" or "evil." These human characteristics on machines set up a delightful story of fighting for justice and freedom without the guilt trip of killing another human being, but it keeps the whole concept of war machines in the realm of imagination.

Janelle Shane, in a TedX[18] talk she gave in 2019, made quite a shocking statement about the real danger of artificial intelligence and it is not the fear of a rebellious attack. It is the fact that artificial intelligence systems do exactly what we tell them to do. This does not sound puzzling or dangerous, but it becomes so when you start testing it. She conducted an experiment using A.I. to research the best ice cream flavor in the world. The results were the exact opposites. The A.I. generator created the worst ice-cream flavors, which were not only indigestible but also fatal if humans consumed them. What A.I. programs really lack is critical thinking, a human trait that is hard to translate into code.

The blunt reality of artificial intelligence is that so far it cannot operate

[15] Bartneck, Christoph and Lütge, Christoph & Wagner, Alan and Welsh, Sean, "Military Uses of AI", (2001).

[16] Mario Poljak, "The History of Drones: Timeline From 1907 To 2021", accessed December 2, 2022, https://www.dronetechplanet.com/the-history-of-drones-timeline-from-1907-to-2019/.

[17] Alan McKenna, "The Public Acceptance Challenge and Its Implications for the Developing Civil Drone Industry", in The Future of Drone: Use Opportunities and Threats from Ethical and Legal Perspectives, ed. Bart Custers (Springer: Asser Press, 2016), 355.

[18] Janelle Shane, "The danger of A.I. is weirder than you think", 14 Nov. 2019. Educational video, 10:29. https://www.youtube.com/watch?v=OhCzX0iLnOc&ab_channel=TED.

with such complexity as described in fiction works. These drones and robots are human creations and for this reason, there will always be a limit to their autonomy, meaning that their actions and consequences can only be attributed to a human agent.

Accountability and problems

Although still in the sphere of imagination, the reality of such autonomy in war is not 'in a galaxy far far away,' but a bit closer. Autonomous decision-making machines present humanity with new difficulties concerning the attribution of responsibility, moral or legal, during a potential wrongful attack on civilians during warfare.

Before a nation decides to launch an attack on another, military operations involve a series of steps[19]. These steps, represented as an iceberg diagram, reveal a particularly complex hierarchical decision-making system, which in turn entails various levels of transparency and responsibility. As it becomes apparent, between the decision to initiate the process and the actual attack, there is a significant distribution of responsibility. This, frankly, makes it harder to assign blame if things go wrong.

It is harder for both the legality and the morality of the operations, because operations involve many people, a lot of different dispositions and personalities as well as many soldiers working as pawns and simply following orders. The answer to the question of *who is to be blamed* is not easy in this case.

The complexity of such operations makes it hard to place the blame. We begin from the bottom, analyzing the chain of parties involved in the operation and the creation of L.A.W.S. Firstly, there is the person who produced the idea, the innovator. Then, the program designers follow, the ones who make the idea possible and usable. This line of people involved expands through the manufacturers who mass produce machines with artificial intelligence. This chain of events leads to the politicization of such machines as they are mostly used in the military which is part of the government and needs approvals to receive the 'go' signal to use them.

Usually, an obvious target to blame is the country or the state that

[19] UNIDIR: The Human Element In Decisions About The Use Of Force. https://unidir.org/sites/default/files/2020-03/UNIDIR_Iceberg_SinglePages_web.pdf

authorized their use[20] but even though they are indeed responsible for this act, they cannot be held *liable* for it. The so-called iceberg of responsibility in the military divides hierarchy into three main levels of command: strategical, operational, and tactical. In simple terms, the leadership of a country/ nation decides if there should be conflict by military use. Then those commands are translated into military words and actions[21]. In such a grand operational system, who is really to be accused, who would be fair to receive any kind of punishment?

Next in line are the program designers, as the primary creators. They are responsible enough but, at the same time, it is unjust to hold them fully accountable because they work in a lab-like environment, disengaged from real situations and emotions and even though they must predict every possibility, their programs will never be a hundred percent safeguarded[22].

Continuing this L.A.W.S chain of responsibility, the manufacturers of weapons appear, who have always been liable ethically, but can we accredit them the legal part too? An interesting debate[23], between John Forge and Jai Galliot, who analyze the argument regarding the manufacturer's accusations on autonomous machines, among others, display perfectly both sides, for and against this notion. If manufacturers are found to be responsible for any L.A.W. S's derailing, it would mean that any kind of crime ever committed by any weapon ever created leads back to the creator and manufacturer as providers of a means to maim and kill. This is a lot of responsibility for one group of people and a lot of absolution for everyone else. It may sound easy to directly accuse the creators, but that would show narrow and superficial thinking.

Simplifying things to this extent is dangerous and such ideas can cause the banning of research and evolution in technology, regardless of the positive uses it can also offer. A.I. has made it possible, for example, to have a more accurate health care system or to complete for us tasks like collecting data, analyzing it, comparing it, and reaching solutions faster than the

[20] Annemarie Shea, "The Legal and Ethical Challenges Posed by Lethal Autonomous Weapons," Trinity College Law Review 24 (2021): 130.

[21] UNIDIR: The Human Element In Decisions About The Use Of Force. https://unidir.org/sites/default/files/2020-03/UNIDIR_Iceberg_SinglePages_web.pdf

[22] Peter Asaro, "Autonomous Weapons and the ethics of artificial intelligence" in *Ethics of Artificial Intelligence,* edit. S. M. Llao, Oxford University Press (2020): 226.

[23] Jai Galliott and John Forge," Debate on the Ethics of Developing AI for Lethal Autonomous Weapons" *Philosophical Journal of Conflict and Violence* vol. 5, issue 1 (2021). 10.22618/TP.PJCV.20215.1.139009.

human brain would have[24]. Many factors make LAWS irresistible. Autonomous systems exhibit superior performance in both speed and mission effectiveness. They have extended range, sustained operational capability, increased endurance, and higher targeting precision. Additionally, because of their technology, they can enable faster target engagement and exhibit inherent immunity to chemical and biological agents[25].

Furthermore, there are a few ethical arguments in favor of the use of LAWS in war. The most prominent one, of course, is the protection of soldiers' lives[26]. It is not an argument to take lightly[27]. Wars between machines are far better than between humans. Following the same logic, collateral damage will be reduced[28], as well as the possibility of errors and LAWS can make faster decisions in high-stakes environments and critical moments. Due to the excessive effectiveness of the systems there will be no emotional bias, and the machines can be designed to follow to the letter the International Humanitarian Law in war times.

The responsibility issue still exists. There is an intriguing idea, suggested by Jaap Hage, which says that it can be probable, one day, to blame the autonomous machines for their derailments and wrongdoings[29]. Daniel Dennet's article[30] had already explored this idea of placing responsibility in autonomous systems and reflected upon the challenges of attributing moral accountability to artificial agents.

This idea was also critically rejected in the article *Licensed to Kill: Autonomous Weapons as Persons and Moral Agents* by Gounaris and

[24] Luciano Floridi, "Robots, Jobs, Taxes and Responsibilities" in the *Robo-Ethics: Humans, Machines and Health*, ed. By Vincenzo Paglia and Renzo Pegoraro (Rome: Pontifical Academy for Life, 2020), 109-113.

[25] Ronald C. Arkin, "The case for Ethical Autonomy in Unmanned Systems", *Journal of Military Ethics*, 9:4 (2010), 334.

[26] Mark Gubrud, "Stopping Killer Robots" *Bulletin of the Atomic Scientists* 70, no. 1 (2014): 38–39. https://doi.org/10.1177/0096340213516745.

[27] Paul Scharre, *Four battlegrounds – power in the age of artificial intelligence* (New York, W. W. Norton & Company, 2023), p.p. 1-4.

[28] Noel Sharkey, "The Evitability of Autonomous Robot Warfare" *International Review of the Red Cross* 94, no. 886 (2012): 789. https://doi.org/10.1017/S1816383112000732.

[29] Jaap Hage, "Theoretical foundations for the responsibility of autonomous agents" *Artificial Intelligence and Law,* 25 (August 2017): 1-17.

[30] Daniel C. Dennett, "When Hal Kills, Who's to Blame? Computer Ethics", Hal's Legacy: 2001's Computer as Dream and Reality, D. Stork, (ed.), MA: MIT Press, Cambridge, 1997, p.. 351-365.

Kosteletos[31]. The authors argued that the lack of the essential qualities of a moral agent, such as intention, consciousness, and capacity for ethical reflection, makes it impossible to hold them morally and legally responsible for their actions. They also provided the argument of excessive effectiveness, a state of hyper-rational execution devoid of any emotion, which diminishes the very foundations of moral accountability. What all these researchers agree to is the fact that human supervision cannot be and should not be eliminated and is needed in every stage: design, deployment, oversight.

The machines are not moral and/or legal agents and by that we mean that they cannot tell right from wrong on their own unless we program them to. Thus, they lack free will and intention, so even though they are responsible, they cannot be punished[32]. Dennet concluded that there will always be the need for human involvement both in the design and deployment.

Machine ethics contributes to better AI by enabling systems to make morally informed decisions rather than merely following coded instructions. By embedding ethical reasoning directly into AI, machines can assess complex situations, weigh competing moral values, and act in ways that promote human well-being[33]. Applying this idea on LAWS, we could create A.I. systems that will enable people in making ethical decisions concerning the design of an operation or design them from the beginning with legal and ethical rules and boundaries so, in a way they could make ethical decisions in different situations. Of course, one could argue that this is not an autonomous state of the machines but an on-the-loop case. This case would not be so bad.

[31] Alkis Gounaris and George Kosteletos, "Licensed to Kill: Autonomous Weapons as Persons and Moral Agents," in Personhood, ed. D. Prole and G. Rujević (Sad Novi: Filozofski Fakultet & The NKUA Applied Philosophy Research Lab Press, 2020), 137. https://doi.org/10.12681/aprlp.49

[32] Asaro, 226.

[33] Alkis Gounaris, George Kosteletos, Michael Anderson, and Susan Leigh Anderson. "Towards Moral Machines: A Discussion with Michael Anderson and Susan Leigh Anderson." Conatus – Journal of Philosophy 6, no. 1 (2021): 37–51. https://doi.org/10.12681/cjp.26832.

Responsibility Gap

"Responsibility gap" is a term which describes the lack of existence of a breach between a fact and the realization of its agent. This gap has appeared in L.A.W.S conversations because it cannot be decided fairly who is to be accused when machines with A.I. do something wrong.

John Forge is adamant that every designer is responsible for providing a means to kill[34] by creating the weapons. If you make a gun, you intend for it to go off or else there is no need to build one. The gun might not be fired but that matters truly little, since its primary purpose was to be fired and hence to maim or kill. According to Forge, we have three choices: a. accept that every weapon designer is responsible for every use of their creations, b. accept that the designers should foresee every possible use of their creations to avoid wrongful use, which means that they will not be able to create any weapon ever, or c. accept the existence of a no man's land for Lethal autonomous weapons[35], meaning the responsibility gap.

Galliot agrees with Forge about the responsibility of designers but only partially. He disputes that this "responsibility gap" is presented in too broad a way and cannot be used carelessly to ban autonomous weapons[36] because that would also be misguided. What Galliot tries to point out is the fact that there should be, among other criteria, the scope of how beneficial or not is the use of such weapons along with how necessary they might be regardless of everything else. What should a country do if it were attacked by an enemy who uses only lethal autonomous weapons[37]? It is all fair in love and war until someone dies and people need to be accountable for how, why and under what circumstances this death occurred.

Can we, then, accept the existence of a responsibility gap and move on? Christof Heyns, in the Report for the Human Rights Council, states clearly that the use of the L.A.W.S system is not only a military issue, but also a human rights issue as there are a lot of lives on the line[38]. Hiding behind the void of a responsibility gap is not an option. This vacuum will allow atrocities during attacks because machines have no feelings. It will make the decision of going to war uncomplicated and effortless. Poorer countries

[34] Galliot and Forge, 137.
[35] Galliot and Forge, 139.
[36] Galliot and Forge, 134.
[37] Galliot and Forge, 136.
[38] Christof Heyns, "Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions", United Nations (2014).

that cannot afford to have such technology will be easy prey. Death will be dehumanized, and human lives and fates will be contained in a series of numbers, the algorithms.

Robots, War and Ethics

According to Saint Augustine, war is bad but not always the worst option[39]. This is the jus ad bellum, a principle examining the morality of going to war. Morality and war in the same sentence seem contradictive and pacifists would choke before uttering them together, because for them, there can never be a justifiable cause for war and certainly not a moral one.

Must we go to war, it must be more ethically conducted. The reason war is not so ethical, some argue, is because the old-fashioned weaponry is only as good as their masters[40]. If the need arises to go to war, then machines like LAWS can help make it more just. Autonomous systems do not act on impulse or bias, they stay consistent with the rules they were provided, unlike humans who conduct wars based on emotions and personal gains. LAWS can process vast amounts of data which allows them to engage legitimate targets with great accuracy and less casualties. The most important, of course, is their ability to enter dangerous environments this way saving human lives, like entering a mined path[41].

Both Kahn[42] and Sparrow[43] on their respective papers have made space for the jus ad bellum and jus in bello theories in connection to the use of Lethal Autonomous Weapons. The are some specific conditions to meet

[39] "But, say they, the wise man will wage just wars. As if he would not all the rather lament the necessity of just wars, if he remembers that he is a man; for if they were not just, he would not wage them, and would therefore be delivered from all wars." St. Augustine "City of God", book XIX, ch.7.

[40] Ronald C. Arkin, "The case for Ethical Autonomy in Unmanned Systems", *Journal of Military Ethics*, 9:4 (2010), 334-336.

[41] Amitai Etzioni and Oren Etzioni, "Pros and Cons of Autonomous Weapons Systems," *Military Review*, May–June 2017 p. 72-74. https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/.

[42] Leonard Kahn, "Military Robots and the Likelihood of Armed Combat", in *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*, eds Patrick Lin, Keith Abney and Ryan Jenkins (New York: Oxford Edition, 2017): 281.

[43] Robert, Sparrow "Killer Robots" Journal of Applied Philosophy, vol 24, n. 1(2016): 67.

the jus ad bellum theory, like a justifiable cause. The benefits must outweigh the losses, right intentions, last resort choices, good chances of success rate and public announcement by legitimate authorities[44]. What Kahn suggests is that the use of L.A.W.S in war will make going to war easier, thus leading to more war, which will lead to a morally worse war. He argues that it will be morally worse because many of the principles of jus ad bellum will not be met from at least one side. This is supported by the positive offers A.I. has provided to the military. It allows for low-cost, easier, and swift mission accomplishment, has immunity to chemical and biological weapons, there is less grieving as machines are replaceable. Moreover, there is precision and speed in targeting and engaging and of course endurance since machines do not need sleep[45]. Cheap, fast, and precise with no funerals to hold and no PTSD[46] for soldiers in battles, the machines are a gift to warcraft.

The jus in bello theory is concerned with the moral conduct within war and how it is progressing. Among the various principles for a jus in bello, Sparrow brings to light a side principle which is the responsibility of one's death[47]. He points out the importance for a family to know the person responsible for their child's death. Is this something that anyone would argue against? If there is no one to blame and no one to take responsibility for an action as violent as the murder of people fighting in wars with machines, then we strip the deceased of all their dignity. They died not living but existing each day to fight off an enemy that does not die and that cares nothing about anything. Then, to top it all off, we disregard their death as a number who willingly gave their life doing their duty. The basic human rights state that we all have a right to life and dignity but maybe now, they need to add an absolution clause *"unless someone dies in a combat with a non-human A.I. entity."*

[44] Kahn, 281.

[45] Ronald C. Arkin, "The Case for Ethical Autonomy in Unmanned Systems", in *Journal of Military Ethics,* v. 9, n.4 (2010): 334.

[46] Post Traumatic Stress Disorder, is a mental disorder that was recognized in the DSM-III by the American Psychiatric Association, and is common for soldiers who have been through war and survived. It is a serious mental disorder that has affected not only the lives of those soldiers but their families as well.

[47] Sparrow, 67-68.

Extreme scenarios vs reality

In 2018 the Future of Life Institute made a statement to the United Nations representing "nearly 4,000 AI and robotics researchers and scientists" from all around the world with a request to negotiate a legal ban on LAWS[48]. The reasons stated in the letter concerned the lethal use of these weapons compared to chemical, biological and space-based nuclear weapons, which have already been banned or heavily restricted due to their devastating potential. The scientific community considers LAWS as likely for devastating potential as these, because of their ability to select and engage targets without human intervention, their cheap mass production with lead to a global arms race by their use of dictators, terrorists, in a phrase, in the wrong hands to use. The closing of the statement characterized this situation as Pandora's box, underlying the highest importance to act now and fast.

Six years later, in 2024, the same Institute highlighted the urgency in a policy brief, about the escalating risks by combining Ai and chemical biological weapons (CBW)[49]. AI has many potentials which also means that it can be used either for good or harm. This duality of AI's technology poses a substantial challenge to existing non-proliferation frameworks. The authors want to emphasize the need to get ahead of such scenarios that can compromise global security. They suggest scrupulous oversight and regulation of AI applications that can lead to CBW implications. Of course, the need for research for the development of AI systems that would prevent misuse of CBW is always continuous as well as the collaboration with other nations for a catholic agreement on this serious matter of the dual use of AI in the context of CBW.

It seems that most scientists and researchers of AI agree on one thing, and that is the need for proper regulation. Going against the tide, Vincent

[48] Future of Life Institute, "Statement to United Nations on Behalf of LAWS Open Letter Signatories," Future of Life Institute, last modified August 2018, https://futureoflife.org/open-letter/statement-to-united-nations-on-behalf-of-laws-open-letter-signatories/.

[49] Hamza Chaudhry and Landon Klein, *Chemical & Biological Weapons and Artificial Intelligence: Problem Analysis and US Policy Recommendations* (Cambridge, MA: Future of Life Institute, 2024), https://futureoflife.org/document/chemical-biological-weapons-and-artificial-intelligence-problem-analysis-and-us-policy-recommendations/.

C. Müller[50] suggests that the responsibility gap evaporates because, exactly, of the precise data on decision making processes. Back to the favorite argument, strictly programmed LAWS will not deviate from the principles of the IHL, saving many casualties and unlawful killings, which human operations cannot avoid. Their lack of emotion, portrayed as a flaw in the human eyes, is a life savior in battlefield, because unless told to, the machines have no desire and empathy towards the enemy. They cannot identify him as such, but only as a target. No revenge looking for, fewer civilian casualties and less overall suffering. Contra to the belief that such weaponry would lead to easier decision of going to war, Müller, opposes that because of their efficiency and accuracy the adversaries would think thrice before diving into an armed conflict. Although, the different voices come from alternate paths, they all come back to the need of proper ethical guidelines, ethical design of AI machines and international agreement on their use.

One such report on ethical guidelines is the UNESCO report (2002)[51]. The year of its publication underlines the importance of this issue and, even though we had major breakthroughs in AI technology this last decade, it shows the need for a precautionary approach. This report emphasizes the importance of not losing our ethical principles when we develop AI, so that it supports and follows human rights, ensures fairness and respects our dignity. It cannot be stressed enough how valuable it is to have international collaboration for setting up global standards that will make sure that AI technology benefits democracy and is used in favor of humanity and not against it.

The human imagination tends to over dramatize the future, so that previous generations can turn to the next ones and say, “I told you so.” One look at the *Back to the Future* trilogy and we will realize that nothing is as simple as it may appear, not even the past. There is no point in engaging in thought experiments to prove which scenario of using Lethal Autonomous Weapons is the most alarming and horrid[52]. Our world will never be this Utopia found only in Disney movies, and it does not have to be, it is perfect the way it is, with its flaws and miscalculations. Since we humans want to create those machines, we should be smart enough to create

[50] Vincent C. Müller, "Autonomous Killer Robots Are Probably Good News," Frontiers in Robotics and AI 3 (2016), https://philarchive.org/rec/MLLAKR.
[51] UNESCO, Ethics of Artificial Intelligence (Paris: UNESCO, 2002), https://unesdoc.unesco.org/ark:/48223/pf0000139578.
[52] Galliot and Forge, 139.

regulations and safeguards accordingly to prevent any future or past Sarah O'Conor from fighting for her life.

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Abstract

A.I. and Lethal Weapons: A blameless army of killer robots?

Lethal Autonomous Weapons Systems (L.A.W.S) and robot armies are the way of the future for conducting wars. This means that A.I. systems will make life and death decisions during war attacks. A major issue that derives from this potential situation is the challenging part of placing the responsibility on someone. Who is to be accountable for, when a machine, fully equipped to function and "think" on its own, kills civilians? Is it simply a matter of individual blaming divided amongst the parties concerned that helped create the A.I. machines or is it something that needs to make us reconsider the basis of our moral values? We should be more worried, not about putting a name on a blameworthy derail but on what kind of ethics we allow such a derail to be caused.

Keywords: Lethal Autonomous Weapon Systems, responsibility gap, ethics, killer robots.

Λέξεις-κλειδιά: Αυτόνομα Φονικά Οπλικά Συστήματα, κενό ευθύνης, ηθική, στρατός ρομπότ.

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