Lethal Autonomous Weapons systems threatening Human Rights

Emin Alimusayev

Bachelor of Law Graduate from Baku State University Azerbaijan

Keywords: Human Rights, International Humanitariam Law, Artificial Intelligence, Lethal Autonomous Weapons Systems, Autonomous Weapons, Killer Robots, Slaughterbots

Abstract

United Nations published a report[1] last year suggesting that a drone used in Libya's civil war selected a target without human control. This signifies a new chapter in human history: A machine that identifies and selects target based on Artificial Intelligence; A machine that makes a decision about human life. The report calls them 'lethal autonomous weapons systems', but they are also called 'killer robots' or 'slaughterbots'. These systems raise a number of legal and ethical concerns. Killer robots change the relationship between people and technology by giving life and death decision-making to machines. What we watch in movies is not science fiction anymore. We see the cloud, so we should foresee the storm coming.

Introduction

The 20th century contributed a lot to both human rights and technology. After WWII, outraged by the horrors of war and the Holocaust, the newly-formed United Nations addressed issues such as torture, warfare against civilians, the treatment of prisoners of war, and the prosecution of war criminals, setting forth new rules for warfare that protected basic rights. In 1948, the member states of the United Nations drafted the United Nations Universal Declaration of Human Rights. Since the adoption of the declaration, the UN, national governments, and independent organizations have worked to advance, promote, and enforce human rights throughout the world.[2] During the last century, technology developed even more rapidly. The invention of the triode tubes, transistors and integrated circuits revolutionized electronics and computers, which made it possible for us to think about AI. The development of technology had direct effects on our society. Nowadays, computers are being used in different fields. Although the impacts of computers on our society are mostly positive, there are some areas, in which AI and Machine learning are being used, that we should worry about. The application of AI in military, more specifically in autonomous weapons systems raise a host of concerns. Drones have been using in military since last few decades. As Second Karabakh War demonstrated to us, drones are highly effective on the battlefield. We see the same in the ongoing Ukrainian war, even songs are composed for drones. But the key point is that they have been controlled by a human operator. Lethal autonomous weapons systems are weapons systems that use artificial intelligence (AI) to identify, select, and kill human targets without human intervention.[3] After initial activation or launch by a person, an autonomous weapon system self-initiates or triggers a strike in response to information from the environment

 ^[1] United Nations Security Council, 'Letter Dated 8 March 2021 From The Panel Of Experts On Libya Established Pursuant To Resolution 1973 (2011) Addressed To

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 accessed 9 April 2022

 ^{[2] &#}x27;Introduction To Development Of Human Rights | Encyclopedia.Com' (Encyclopedia.com, 2022) accessed 2 April 2022

^{[3] &#}x27;LETHAL AUTONOMOUS WEAPONS SYSTEMS' (2021) https://futureoflife.org/lethal-autonomous-weapons-systems/> accessed 11 July 2022

received through sensors and on the basis of a

generalized "target profile". This means that the user does not choose, or even know, the specific target(s) and the precise timing and/or location of the resulting application(s) of force.[4] Developing technologies like facial or vocal recognition often fail in recognizing people of colour or persons with disabilities. There are many examples on internet, which show failures of chatbots, self-driving cars, image recognition systems and many other AI systems. However, the mistake that a lethal autonomous weapons system might make, would not be forgivable as the mistakes of other AI systems. A machine with the ability to kill is a massive threat to human rights. It would be difficult for them to comply with international law, and their ability to act autonomously would interfere with legal accountability. The weapons would also cross a moral threshold, and their humanitarian and security risks would outweigh possible military benefits.[5]

Problems lethal autonomous weapons systems can cause.

A United Nations report suggested that a drone, used against militia fighters in Libya's civil war, might have selected a target autonomously. [6] The STM Kargu-2 drone, which the report described as "a lethal autonomous weapons systems", attacked soldiers during a battle in Libya's civil war in 2020, may have done so without human control, according to Final report of the Panel of Experts on Libya submitted in accordance with resolution 2509 (2020), published by UN Security Council on March 8, 2021. The Kargu-2 signifies something perhaps even more globally significant: a new chapter in autonomous weapons, one in which they are used to fight and kill human beings based on Artificial Intelligence.[7] Due to lack of human control, these systems raise a host of legal and ethical concerns. Main legal concerns:

1. Would autonomous weapons systems be able to comply with international humanitarian law's fundamental rules of distinction and proportionality? International humanitarian law stipulates the military operations, tactics and weapons that are permissible. The two generally accepted principles of Distinction and Proportionality are the basis for a number of specific rules such as the prohibition of direct attacks on the civilian population or on Civilian objects, the prohibition of indiscriminate attacks and the obligation to adopt precautionary measures (Precaution) so as to avoid or limit casualties among Civilians and damage to civilian objects to the greatest possible extent.[8] Without meaningful human control, lethal autonomous weapons systems cannot comply with the principles mentioned above.

2. Would these weapons be able to show compassion and respect human dignity in order to not to undermine the principle of humanity?

Immanuel Kant said, 'Act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means, but always at the same time as an end.' The concepts of sympathy, compassion and understanding belong to humanity,

^[4] International Committee of the Red Cross, 'ICRC POSITION ON AUTONOMOUS WEAPON SYSTEMS' (2021) https://www.icrc.org/en/download/file/166330/icrc_position_on_aws_and_background_paper.pdf> accessed 6 April 2022

^[5] Rights Watch, 'The Dangers Of Killer Robots And The Need For Preemptive Ban' (2016)Human Α https://www.hrw.org/sites/default/files/report_pdf/arms1216_web.pdf> accessed 5 April 2022

^[6] Cramer M, 'A.I. Drone May Have Acted On Its Own In Attacking Fighters, U.N. Says' (nytimes.com, 2021) https://www.nytimes.com/2021/06/03/world/africa/libya-drone.html> accessed 5 April 2022

^[7] Kallenborn Z, 'Was A Flying Killer Robot Used In Libya? Quite Possibly' (https://thebulletin.org/, 2021) <https://thebulletin.org/2021/05/was-a-flying-killer-robotused-in-libya-quite-possibly/> accessed 5 April 2022

^{[8] &#}x27;Practice Relating To Rule 1. The Principle Of Distinction Between Civilians And Combatants' (icrc.org, 2005) <https://ihl-databases.icrc.org/customaryihl/eng/docindex/v2_cou_ch_rule1#:~:text=The%20two%20generally%20accepted%20principles,adopt%20precautionary%20measures%20(Precaution)%20so>

and they cannot be mimicked by machines. So they need to be controlled by humans in order to respect human dignity and the principle of humanity.

3. Who would be held responsible for crimes committed by lethal autonomous weapons systems?

Both, internal law systems and international criminal law only recognize the criminal responsibility of persons. For example, according to Rome Statute, Article 25, only natural persons can be criminally responsible. In order to avoid accountability gap, people must make decisions.

4. How can we be sure that, the use of these systems would not undermine the right to live, remedy and dignity?

These rights are meant to be understood by people, not by machines. Machines only do what they are programmed to do. It's absurd to think that, they can substitute human understanding and human decision-making.

5. How can we be sure that these systems will not be used to target certain people groups?

It will only be a matter of time until they appear on the black market and in the hands of terrorists, dictators wishing to control their populace better, warlords wishing to perpetrate ethnic cleansing, etc. Autonomous weapons are ideal for tasks such as assassinations, destabilizing nations, subduing populations and selectively killing a particular ethnic group.[9]

From an ethical perspective, this functioning process risks effectively substituting human decisions about life and death with sensor, software and machine processes. This raises ethical concerns that are especially acute when autonomous weapon systems are used to target persons directly. They risk harming those affected by armed conflict, both civilians and combatants hors de combat, and they increase the risk of conflict escalation. Another issue is the deployment of Autonomous weapons systems in military operations may start global arms race. After gunpowder and nuclear arms, autonomous weapons have been described as the third revolution in warfare.[10]

Warnings and possible solutions.

In order to warn states and humanity, and recommend solutions to the problems mentioned above, international organizations set their positions on this topic.

In 2012, Human Rights Watch published a report called Losing Humanity: The Case against Killer Robots. The report specifies, 'Human Rights Watch and Harvard Law School's International Human Rights Clinic (IHRC) believe that such revolutionary weapons would not be consistent with international humanitarian law and would increase the risk of death or injury to civilians during armed conflict.' In order to solve this issue, the report makes the following recommendations to states: 'Prohibition of the development, production, and use of fully autonomous weapons through an international legally binding instrument; Adaptation of national laws and policies to prohibit the development, production, and use of fully autonomous weapons.' That report also suggests that the roboticists and others, involved in the development of robotic weapons should establish a professional code of conduct governing the research and development of autonomous robotic weapons, especially those capable of becoming fully autonomous, in order to ensure that legal and ethical concerns about their use in armed conflict are adequately considered at all stages of technological development.

^{[9] &#}x27;AUTONOMOUS WEAPONS: AN OPEN LETTER FROM AI & ROBOTICS RESEARCHERS' (2015) https://futureoflife.org/2016/02/09/open-letter-autonomous-weapons-ai-robotics/ accessed 5 April 2022

^[10] The Atlantic. 2021. The Third Revolution in Warfare. [online] Available at: ">https://www.theatlantic.com/technology/archive/2021/09/i-weapons-are-third-revolution-warfare/620013/> [Accessed 13 July 2022].

International Committee of Red Cross (ICRC) also addressed the concern autonomous weapons raise. ICRC's position on autonomous weapon systems argues that, 'the process by which autonomous weapon systems function: Brings risks of harm for those affected by armed conflict, both civilians and combatants, as well as dangers of conflict escalation; Raises challenges for compliance with international law, including international humanitarian law, notably, the rules on the conduct of hostilities for the protection of civilians; Raises fundamental ethical concerns for humanity, in effect substituting human decisions about life and death with sensor, software and machine processes.' Since 2015, The International Committee of the Red Cross has urged States to establish internationally agreed limits on autonomous weapon systems to ensure civilian compliance with protection, international humanitarian law, and ethical acceptability.

Amnesty International also started a petition and called people to sign it. They called on government leaders around the world to launch negotiations for new international law on autonomy in weapons systems – to ensure human control in the use of force and to prohibit machines that target people, reducing us to objects, stereotypes and data points. [11] 'We are stumbling into a nightmare scenario, a world where drones and other advanced weapons can choose and attack targets without human control', said Verity Coyle, Amnesty International's Senior Advisor on Military, Security and Policing.

In 2013, nongovernmental organizations launched the Campaign to Stop Killer Robots, and since then, concerns about lethal autonomous weapons have steadily climbed the international agenda. A growing number of policymakers, legislators, private companies, international and domestic organizations, and ordinary individuals have endorsed the call to ban fully autonomous weapons. The United Nations Secretary-General António Guterres said, 'Imagine the consequences of an autonomous system that could, by itself, target and attack human beings. I call upon States to ban these weapons, which are politically unacceptable and morally repugnant.' Referring to the development of weapons that could select targets and kill people without any human intervention as "unconscionable", 20 individuals and organizations who have won the Nobel Peace Prize issued a joint statement endorsing the call for a preemptive ban on these fully autonomous weapons: 'We, the undersigned Nobel Peace Prize Laureates, applaud this new global effort and whole-heartedly embrace its goal of a preemptive ban on fully autonomous weapons that would be able to select and attack targets on their own.' Almost 100 states have acknowledged the importance of meaningful human control over the use of force. Many tech companies have pledged not to participate in the development and the use of lethal autonomous weapons systems.

In 2015, the Future of Life Institute announced an open letter (Autonomous Weapons: An open letter from AI & Robotics researchers), which foresaw some of the problems which that might be posed by Autonomous weapons in future. The letter indicates: 'If any major military power pushes ahead with AI weapon development, a global arms race is virtually inevitable, and the endpoint of this technological trajectory is obvious: autonomous weapons will become the Kalashnikovs of tomorrow.' The letter suggests a ban on offensive autonomous weapons beyond meaningful human control as a solution. It has been signed by famous names, such as Elon Musk, Stephen Hawking, Steve Wozniak and many others.

A chapter ('The Need for and Elements of a New Treaty on Fully Autonomous Weapons') from publication by Fundação Alexandre de Gusmão, based on a presentation at the Rio Seminar on Autonomous Weapons Systems, February 20, 2020, argues, 'fully autonomous weapons

cross the threshold of acceptability and should be banned by a new international treaty'. The chapter proposes key elements of a new treaty to maintain meaningful human control over the use of force and prohibit weapons systems that operate without it. As the author suggests, the main element of the 'new treaty' should be meaningful human control.

As mentioned above, many international organizations and scientists warned humanity about the problems that lethal autonomous weapons systems can cause, offering few possible solutions. First of all, it should be understood that autonomy in weapons systems is not entirely useless. Using advanced military technology helps to diminish casualties on one's own side. However, there is a saying, 'guns don't kill people, people do'. Giving the decision-making to machines is what causes the problem.

It is obvious that military operations carried out by humans are not perfect and they often cause civilian casualties (it is called 'collateral damage'). But according to international criminal law, it is acceptable as long as it was not intentional and only constitutes war crimes when committed intentionally. Nevertheless, the same logic cannot be applied to lethal autonomous weapons systems, as they are unpredictable by their nature. The mistake of a machine and the mistake of a human cannot be considered the same.

Prohibition of the development of lethal autonomous weapons systems seems like the first solution to the problem. Such prohibition can be included in a new treaty or new protocol. However, considering the fact that these weapons do not require hard-to-get materials and their systems are built on computers, such prohibition would be difficult to monitor. Also, it is not certain whether states will reach a consensus on such prohibition or not. Another possible solution of the problem is regulating the use of lethal autonomous weapons systems. Defining the main principles, standards and criteria for the development and the use of such systems would increase their reliability. Such regulations can also be included in a new treaty or protocol. Instead of prohibiting such weapons systems, regulating them seems like a better option. Standards should be defined about lethal autonomous weapon systems. Such as, what level of autonomy is acceptable, on what missions these systems can be used and etc.

Conclusion.

The first possible solution to the above mentioned problems is the prohibition of lethal autonomous weapons systems. The second one is the regulation of the development and the use of lethal autonomous weapons systems. Either way, it's obvious that something must be done. As mentioned above, a complete ban of such systems doesn't seem to be possible in the modern World. Instead, setting rules for developing and using such systems appears to be a more reasonable option. Key factor in such regulations should be limiting the level of autonomy in weapons systems and providing meaningful human control or supervision over decision-making. Such prohibition or regulations could come in the form of a new treaty or protocol to the Convention on Conventional Weapons.

It is encouraging, there is an increasing union of opinions among states that something must be done about lethal autonomous weapon systems. A new international law that bans or regulates the development and the use of such systems is the perfect way to solve these problems before technological developments have gone too far.