RUNNING OUT OF TIME FOR THE DESECURITIZATION OF LETHAL AUTONOMOUS WEAPONS SYSTEMS (LAWS): WHAT CANADA MUST DO TO RESURRECT THE STALEMATE IN CCW AND GGE TALKS

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ISSUE

Lethal Autonomous Weapons Systems (LAWS) are not dystopian fiction in modern Artificial Intelligence (AI) technology. LAWS require urgent international policy action as well as human rights concerns. LAWS sensors and software recognize targets that meet a "target profile" remotely. LAWS are a type of weapon system that combines sensor suites and computer algorithms to identify a target autonomously and then engages and destroys the target without manual human control (Bills, 2014).

The spread of LAWS poses new issues, such as the possibility that autonomous weapons would mistake a civilian for a soldier and kill him or her, or that autonomous weapons will provide an enemy state with a decisive advantage in conflict. LAWS are lethal devices that have been given the ability to scan their surroundings, identify prospective enemy targets, and choose to hit those targets independently based on advanced algorithms by their human designers (Klare, 2019).

The application and regulation of LAWS have eluded global agreement. While the Group of Governmental Experts (GGE) has failed to agree on a common definition of AWS (Saad & Gosal, 2019), most states agree with the International Committee of the Red Cross (ICRC) proposal that a significant level of human control be in place before using LAWS force.

LAWS regulations are being debated by stakeholders. Legal restrictions vary by state. Some countries want a complete ban, while others urge less rigorous political regulation (United Nations News, 2019). The debate ranges from a complete ban on the development, manufacturing, distribution, and use of LAWS due to their inability to use human judgment and comply with international law to their merits.

Conversely, LAWS may provide advantages over human-operated weapons (Etzioni & Etzioni, 2018). Advantages include increased precision and accuracy and the potential to reduce conflict mortality. In dangerous or inaccessible settings or utilizing more accurate and proportional force, the use of LAWS could prevent troop and civilian losses and errors.

BACKGROUND

The United Nations Convention on Conventional Weapons (CCW) has so far hosted more than 100 countries in eight meetings since 2014, in search of a long-term strategy to control the design, distribution, and deployment of LAWS (Kaye & Solomon, 2002).

However, the urgency and gravity of the LAWS problem calls for a much more vigorous and urgent response to discuss the concerns posed by LAWS to the whole world. The United Nations Secretary-General Antonio Guterres referred to the LAWS as "morally repugnant" and he firmly believes that a machine should not decide who dies and who lives (Guterres, 2019).

AI is leading the world towards 'fuzzy bifurcation', a new algorithmic warfare in a space that has no boundaries or borders, a high technology battlefield with or without human interference. In a world of high technology weaponry, it may be impossible to comprehend and control events across realms, including "the human ecosystem in cyberspace, geospace (near earth outer space) and space" (Jayshree, 2019, p.1). Now is time to harmonize the new developments with existing international laws and regulations that currently serve as guide to 'morally' acceptable warfare be fore it is too late.

Challenges for LAWS Development and Usage
The challenges posed by the proliferation of LAWS include, but not limited to: - human and state security concerns; legal issues; ethical issues; transparency and accountability concerns; and the race against time to check the rapid proliferation of LAWS. If left unchecked, LAWS could land into the wrong hands (terrorists and rogues states) with catastrophic consequences.

a.   Time is running out on LAWS risk mitigation.
The international community is racing against time to regulate LAWS. The advancement in AI technology is moving at a rapid pace. As a result, there is a growing number of (largely undocumented) LAWS with increasing levels of autonomy and sophistication being developed and deployed, exacerbating the threat to human rights and world peace. This raises various legal, ethical, and security concerns. LAWS are experiencing a rapid rise, and it can be argued that certain autonomous military systems have been in use for an extended period of time (Anderson, et al., 2014).

b. Legal Concerns

Lack of consensus on the definition of LAWS; lack of a common understanding of the characteristics of LAWS and parameters of human control; and lack of understanding of the benefits of applying LAWS in strict compliance with international humanitarian law (IHL) rules during military operations to solve state national security problems (Ivanov et al., 2021).

Other legal issues stem from the secrecy surrounding the establishment and application of LAWS by states, as well as a lack of international law regulating mechanisms to discern between new and old forms of LAWS, such as those that have undergone multi-stage modernization. This distinction is not addressed in Article 36 of Additional Protocol I of the Geneva Convention (Ivanov et al., 2021).

Because of the difficulty in classifying LAWS technology such as armed drones, remote-piloted unmanned aerial vehicles (UAVs), which are currently at the center of military robotics development (Bieri & Dickow, 2014), the current export control mechanisms for LAWS are insufficient to restrict LAWS proliferation.

In November 2013, Canada expressed its endorsement of a proposition to initiate global discussions concerning the development and implementation of lethal autonomous weapons systems (Government of Canada, 2013). However, Canadian officials have not expressed endorsement for engaging in discussions on the establishment of a fresh global treaty (Government of Canada, 2020).

c. Transparency and accountability

In today's rapidly globalizing world, information on the development of AI and LAWS technology remains obscure, often on purpose. Regulating technology that most governments do not understand is impossible. This creates a governance vacuum that must be filled. Transparency and accountability are central to the design of LAWS so as to monitor their use and abuse. For strides to be made in the right direction, the international policy community must add the legal elements of Value Sensitive Design (VSD) to ensure increased responsibility and accountability on the part of LAWS designers and those who deploy the weapons (AI, 2019).

d. Ethical concerns

The US, the UK, Russia, China, Israel, and South Korea are developing weapons systems that can identify and kill targets autonomously, making it harder to join a new LAWS pact. This sets a dangerous precedent for autonomous weapons race (Korea Peace Now, n.d.).

One ethical perspective predicts that LAWS are inevitable, and therefore almost unstoppable. Other ethical perspectives propose an outright ban on LAWS. In 2021, at the conference governments at the

United Nations Sixth Review Conference of the CCW, a total of 40 countries called for a new international law to ban and restrict autonomous weapons systems (Human Rights Watch, 2021). In contrast, other perspectives emphasize partial bans. It is argued that failure to enhance LAWS technology could prevent the use of more precise and less damaging force, especially in instances where civilians are close to the fighting zone. This trade-off must be considered while assessing LAWS's vulnerabilities, such as visibility (Anderson & Waxman, 2012).

e. Security concerns

AI is at the core of LAWS. However, AI technology has some societal which include AI's capacity to analyze huge volumes of data, find trends, and generate accurate forecasts can help achieve the (Sustainable Development Goals) SDGs. AI can help fight climate change, poverty, hunger, and lack of education, healthcare, and clean water. However, the dark side of AI has enormous potential for abuse, which is why the world should be concerned.

On the other hand, misuse of AI includes unauthorized account access, identity and money theft, privacy violations, job redundancy, and biased decision-making. Other major AI misuses include cybersecurity issues, social and financial disinformation algorithms, and autonomous weaponry capable of wiping out humanity. Misuse of AI technology and LAWS by bad elements and rogue states may have catastrophic state and human security consequences.

Human security

LAWS are AI controlled machines that are sometimes called killer robots (Wareham, 2020; Human Rights Watch, 2021). An AI that is developed at the expense of the many, for the profit or benefit of a select few, is dangerous for human security. The crucial need of including fairness, accountability, and transparency into all artificial intelligence systems that have the potential to affect human existence cannot be overstated (Wilson, 2019).

State security

Scholars frequently raise concerns regarding the potential advancement of LAWS, with the apprehension that these weapons may not adhere to established international legal norms. A recurring critique is the lack of clarity regarding the appropriate party to be held responsible in the event that one of these weapons is involved in a war crime or violation of human rights. In the present context, scholarly commentators have mostly directed their attention towards the question of whether it is appropriate or justifiable to impose individual liability on military officials, designers, or manufacturers (Hammond, 2015).

f. Political goodwill

Some countries have not demonstrated honesty and genuine political goodwill in the regulation of the development and use of LAWS. In December 2021, Russia, the United States, India, and Israel were chiefly responsible for stopping a majority of countries at the at the UN Sixth Review Conference of the CCW from agreeing to begin negotiations on legally binding norms for autonomous weapons systems. Because the CCW runs by consensus, these four countries, together with a few others that are significantly investing in military uses of AI and other technology, blocked agreement on regulatory ideas (Human Rights Watch, 2021).

Canada's waning international clout - lack of solidarity and support from majority states
The ongoing autonomous weapons debate has largely taken place at the CCW conferences, where consensus has eluded the group of states engaged in the negotiations. Little progress in this regard may be attributed to the participation and commitment of relatively fewer states   engaging in the process forging an international treaty.

POLICY CONSIDERATIONS AND RECOMMENDATIONS

Why LAWS risk mitigation is urgent: time is running short
Global governments and trans-national institutions must strive to create an international policy environment that will mitigate the immediate dangers posed by the proliferation of LAWS technology. The emergence of LAWS and their potential implications have sparked both curiosity and concern among military organizations and defense ministries. Additionally, there has been a rise in activism by non-governmental groups advocating for total prohibition of fully autonomous weapons (Anderson, et al., 2014).

Canada's role must be more pronounced in the campaign for the regulation of LAWS.. Canada should be actively engaged in the pushing the resumption of the CCW talks with expanded state membership, with Canada participating in both the CCW and the GGE fora. Confining the CCW talks to Western views on the mitigation of LAWS transnational risks is imposing a neo-colonial approach that does not consider Global South (GS) perspectives. Therefore, Canada can use its multilateral engagement with Africa and other GS countries as an opportunity to court African states to not only to participate in CCW, but also to support its quest for promoting international cooperation on the regulation of LAWS.

a.   Addressing some legal concerns
Instead of aiming to halt or prohibit the development of LAWS, Canada should consider supporting the

following toolkit of deterrent rules that should be developed. First, it is imperative to recognize that the law of armed conflict provides an adequate general legal framework. Second, individual governments should employ the general framework to develop and continuously enhance domestic interpretive standards as well as apply globally recognized best practices. Anderson et al. (2014) proposes a three-tiered approach to shaping evolving military technologies while enhancing adherence to key law of armed conflict norms.

The suggested three-tiered approach to emerging LAWS technologies consists of:

i.   An international treaty that establishes the scope and relevance of fundamental principles of the law of armed conflict, while also formalizing the standards, practices, and interpretations that states have collectively adopted through a substantial period of practical implementation, alongside informal discussions among states, and guided by a transparent and inclusive exchange of pertinent information.

ii. state-level creation and inter-state discussion of weapon review processes customized to these specific weapons and battlefield settings; and

iii. The establishment of a strong collaborative relationship between weapons designers, developers, makers, and military end-users of these systems, accompanied by the inclusion of legal experts responsible for conducting thorough legal weapons review, at every detailed phase of design, development, and testing.

iv. The incorporation of these three tiers can facilitate the effective and pragmatic development of military technologies, while enhancing compliance with fundamental principles of the law of armed conflict.

b. Addressing transparency and accountability

The significance of transparency in balancing international duties with domestic interests must be emphasized in resolving the difficulties of LAWS. Transparency and accountability are crucial to the architecture of LAWS in order to monitor their usage and abuse. To make progress, the international policy community must include the legal aspects of Value Sensitive Design (VSD) to ensure more responsibility and accountability on the part of LAWS designers and those who use the weapons (AI, 2019).

c. Addressing ethical concerns

A total ban on LAWS may result in a global void of legal frameworks and a significant ethical deterioration in the context of military engagements. Although there are inherent dangers associated with the deployment of LAWS in military operations, impeding their development is costly (Anderson & Waxman, 2012).

The proliferation of LAWS is inevitable. Therefore, its continued advancement creates legal and ethical issues beyond strategic and operational concerns. Perspectives on inevitable proliferation of LAWS

advocate gradual introduction of autonomous weapons in potential conflict zones. (Human Rights Watch, 2021).

Supply and demand factors make harmful autonomous technology inevitable (Anderson & Waxman, 2012). Sensor and computing technologies are advancing in technology laboratories, which could help create more advanced robots or drones that can be programmed for damage and loss of life. Due to the rapid pace of evolution of modern military operations and the political need to defend them, research, progress, and implementation of measures to protect military personnel, civilian populations, and assets must continue.

d. Addressing security concerns
Human security

Policymakers must analyze the risks of autonomous robotic weapon deployments by China, Russia, the US, and other non-compliant countries. Each new weapon introduces the possibility of inadvertent and accidental escalation, as well as a host of moral, ethical, and legal issues related to humans' decreasing participation in life-and-death decisions.

In order to safeguard human dignity and uphold individual rights, it is imperative that human agents remain actively engaged in algorithmic targeting processes, enabling them to provide explanations for the underlying rationales behind algorithmic judgments in practical contexts. This is essential for guaranteeing the existence of a viable remedy, accountability for the use of force, and public confidence in states' adherence to the rule of law in both peace and war (Brehm, 2017).

State security

Canada must redouble its efforts in expanding LAWS research and think tank capacities along with international cooperation with like-minded partners in order to collaborate in developing transnational policies and drafting international statutes that can effectively address state security concerns posed by increasing autonomy of robotic weapons. In doing this, Canada will position itself as a champion for better global security governance.

e. Political Goodwill

Canada should actively negotiate with like-minded governments to set a timeframe for starting negotiations on a new worldwide treaty on lethal autonomous weapons systems (LAWS). This pact should prioritize human monitoring of force use and prohibit weapons systems without such review.

Canada can apply its substantial legal expertise by utilizing the legal precedents established by previous treaties, such as the Treaty on the Non-Proliferation of nuclear weapons (NPT) which has remained robust and rigid since 1970. Canada can also address LAWS concerns with suitable normative frameworks that will

adequately address the various concerns posed by LAWS. Such a significant gesture will speed up the new LAWS treaty drafters' work and propel Canada to the CCW and GGE negotiating tables.

Canada could use its soft power diplomacy to advocate for like-minded nations inside and outside the CCW. Canada can boost its influence by inviting non-CCW states to join the coalition and support a new treaty banning LAWS. In order to effectively communicate its national position on a new treaty's structure and content, Canada should gather expert perspectives from a consultative expert forum across the country.

f.   Waning international clout

According to the United Nations Office at Geneva (UNOG, 2021), participants from civil society and academia are welcome to attend GGE meetings. Canada has the potential to enhance its involvement in the Global Governance Experts (GGE) by deploying its experts to the organization and by actively supporting or funding the participation of Canadian civil society representatives in the GGE. In this manner, the perspectives of Canadians can be effectively incorporated into the ongoing negotiations concerning the establishment of new international legislation, specifically focusing on the incorporation of human control as a fundamental legal element in the governance of the development and utilization of lethal autonomous weapons systems (LAWS).

Using the UNSC election losses as a learning opportunity

In 2010 (Chapnick, 2011) and 2020 (Harris, 2020), Canada made two unsuccessful bids for United Nations Security Council (UNSC) seats. Canada's failure, on the other hand, could be considered as a learning experience rather than a problem. Canada's foreign policy should be reinvented in order to articulate its position and reclaim its voice in the world (Cecco, 2020).

This policy paper suggests that Canada should be more active in multilateral engagement with African states (more than 54 UNSC votes are at stake) through development aid, research, technology, agriculture, education, and security diplomacy, among other things, in addition to other regions. Another important proposal is to reorganize Canada's foreign agenda in order to become more visible among friends, rather than mounting diplomatic shuttles at the last minute before international treaty and election events.

CONCLUSION

Given the potential dangers posed by LAWS, it is necessary for Canada to have its own robust domestic legislation, policies, ethical standards, and security measures to fight any abuse. Raising awareness,

fostering openness, and implementing effective cybersecurity measures are crucial for reducing the potential exploitation of LAWS and supporting its responsible use for the benefit of humanity. In addition, Canada should set an example by developing governance systems that espouse all the above measures and displaying them to the world through its development aid, peace, and security diplomacy.

Canada needs more state allies on its side to succeed in effective negotiation and promotion of effective treaties and agreements on development and regulation of LAWS and AI. Canada should consider capitalizing on its soft power diplomacy to invigorate its multilateral engagement with old and new allies in Europe, Africa, Asia Pacific, the Americas, and the Middle East, so as muster sufficient allies to support its international crusades.

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