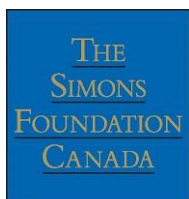


# 2022-2023 Graduate Research Awards *for Disarmament, Arms Control and Non-Proliferation*



Global Affairs Canada  
Lester B. Pearson Building  
Ottawa, Canada  
June 29, 2023

A joint project of:



Global Affairs  
Canada

Affaires mondiales  
Canada

## Executive Summary

The ***Graduate Research Awards for Disarmament, Arms Control and Non-proliferation*** (GRA) programme was initiated in 2003 by Dr. Jennifer Allen Simons, President of [The Simons Foundation Canada](#), in partnership with the International Security Research and Outreach Programme (ISROP) of Foreign Affairs and International Trade Canada, now [Global Affairs Canada](#). The primary objective of the Awards is to enhance Canadian graduate level scholarship on non-proliferation, arms control and disarmament (NACD) issues.

Since its inception, the Graduate Research Awards programme has provided over \$445,000.00 in scholarships to Canadian graduate students working on policy-relevant NACD issues and has helped to encourage a new generation of young Canadian scholars dedicated to further expanding their knowledge and expertise on these critical issues.

Originally, the programme offered three Doctoral Research Awards of \$5,000.00 and four Master's Research Awards of \$2,500.00 to support research, writing and fieldwork leading to the completion of a major research paper or dissertation proposal on an issue related to disarmament, arms control and non-proliferation.

In order to allow a greater number of students to participate, the GRA competition was later restructured to consist of a series of debates on timely issues. The eight students who made the strongest argument in support of their position, as determined by an expert review panel, were selected to receive a Graduate Research Award of \$3,000.00 and required to defend their position in person at the GRA Debates held at the Department of Foreign Affairs headquarters in Ottawa.

The competition has since been revised to simplify the application process and increase the value of the cash awards. A total of four awards of CAD\$5,000 are now available to Canadian Master's and/or Doctoral candidates to support the research and writing of an academic paper responding to a specific Non-Proliferation, Arms Control and Disarmament (NACD) topic.

The 2022-2023 Awards also included travel support to Ottawa for a special seminar and luncheon for the Graduate Research Award winners hosted by Global Affairs Canada to provide the next generation of experts in the NACD field a unique opportunity for exchange among officials from Global Affairs Canada's International Security and Political Affairs Branch and other government officials. We appreciate the contributions of Mr. Jon Wolfsthal, Senior Advisor, Global Zero, who gave the keynote address, and Dr. Jessica West, Senior Researcher, Project Ploughshares, who represented The Simons Foundation Canada at the event when Dr. Jennifer Allen Simons became unable to attend in person.

We also wish to recognize Kirsten Mosey, Policy Officer, Nuclear Weapons, Non-proliferation and Disarmament at Global Affairs Canada and Elaine Hynes of The Simons Foundation Canada for their work to coordinate and execute the programme this year.

For the 2022-2023 GRA competition, Master's and Doctoral candidates chose to address one of the following subjects:

1. Canadian civil society has made significant contributions to non-proliferation, arms control, and disarmament, both through advocacy and engagement in Canada and internationally. How can a new generation of advocates best engage to prevent or halt arms races and address emerging risks to humanity? What issues should they prioritize and why? What are the intersections between movements such as peace, climate action, cybersecurity, and non-proliferation, arms control, and disarmament?
2. In an increasingly polarized geopolitical context, how can states build agreement across geopolitical divides to regulate or prohibit the development of Lethal Autonomous Weapons Systems? What role do you see for civil society, academia, and private tech corporations?
3. Commercial space assets are starting to play a larger role in modern warfare, from providing telecommunications services to using Earth observation satellites to assist militaries with reconnaissance and logistics. What role should commercial entities and technologies have in modern warfare? Identify and examine arms control policies and initiatives that Canada could pursue, domestically and/or internationally, to address this growing issue.
4. The 2022 NPT Review Conference agreed to establish a working group to examine and make recommendations as to how the NPT's review process could be strengthened. What new measures would be useful in this regard?
5. Given NATO's declared goal of creating the conditions for a world free of nuclear weapons, examine possible arms control and disarmament policies and initiatives, as well as nuclear risk reduction measures, that Canada, in cooperation with like-minded NATO members, might pursue to assist the Alliance in making concrete progress toward that goal.
6. Cognizant of the differing impacts of weapons and conflict in regions across the globe, how can Canada engage Global South actors in disarmament, arms control, and non-proliferation across UN bodies and treaties more effectively? Please use an example of a specific issue, making clear the positions and priorities of Global South actors on proposed courses of action, highlighting the differences and similarities to Canada's stated positions and priorities.

We are pleased to congratulate the following 2022-2023 Graduate Research Award recipients who each received a cash award of CAD\$5,000.00 from The Simons Foundation Canada as well as travel support to Ottawa to participate in the Graduate Research Awards for Disarmament, Arms Control and Non-proliferation Seminar held on June 29, 2023.

- **Daniel Hogan**  
Master of Arts, History  
Simon Fraser University
- **Tay Jeong**  
Ph.D., Department of Sociology  
McGill University
- **Natalia Landaverde**  
Master of Arts, Public and International Affairs  
University of Ottawa
- **Nina Russell**  
Juris Doctor  
University of Ottawa  
& Master's in International Affairs  
Norman Paterson School of International Affairs  
Carleton University



Angelica Liao-Moroz, Nina Russell, Tay Jeong, Natalia Landaverde, Daniel Hogan, Jessica West, Jon Wolfsthal

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# 2022-2023 Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation Research Seminar and Awards Ceremony

Global Affairs Canada

June 29, 2023

## Opening Remarks

### Angelica Liao-Moroz

Executive Director

Non-Proliferation, Arms Control and Space Division

Global Affairs Canada



Good morning everyone and welcome to the 2023 Graduate Research Awards for Disarmament, Arms Control, and Non-proliferation.

Je voudrais reconnaître que je suis [sur / vous parle depuis] le territoire traditionnel et non cédé du peuple algonquin Anishinaabeg. ("Anishinaabeg" se prononce "ah-neesh-e-naa-beg").

Je reconnais que nous travaillons dans des lieux différents et que, par conséquent, il se peut que vous participiez à cet événement à partir d'un territoire autochtone traditionnel différent. Je vous encourage à prendre un moment pour y réfléchir et en prendre acte.

I would like to firstly extend a warm welcome to our winners, and let me be the first to say congratulations on your achievement. We are thrilled to have you here today. We would not be able host or fund these awards without the generous contribution and leadership from The Simons Foundation Canada, and Dr. Jennifer Simons herself. Dr. Simons regrettably was not able to make the trip to Ottawa due to a family emergency, but know that she sends her best wishes and congratulations.

The Graduate Research Awards for Disarmament, Arms Control, and Non-proliferation came to be out of a desire to build the next generation of Canadian activists, researchers, advocates, and diplomats in this field. In fact, it is far more accurate to say **generations**, as these awards have now seen well-deserving students like yourselves for more than two decades.

In that time, more than a hundred students have written thoughtful papers, travelled to Ottawa for this ceremony, and engaged with Global Affairs staff on these weighty issues. Former winners have ventured into industry, advocacy, academia, and field work, while a number have leveraged their experience into working for government. In fact, I am a proud to say that a past Graduate Research Awards recipient is a member of my team today.

Les bourses de recherche du cycle supérieur représentent une occasion unique pour des personnes au début de leur vie professionnelle, comme vous, de s'aventurer dans ce domaine niche mais vital du désarmement, du contrôle des armes et de la non-prolifération, et de s'attaquer à certains des plus grands défis de notre époque.

For youth globally, this is not a niche field, however, as over 250 million youth live in fragile and conflict affected regions. Their lives are not only interrupted due to the dangers of war, but youth also often find themselves intimately connected to armed conflict, whether as victims, soldiers, or bystanders. Many have no choice but to care about the state of disarmament, non-proliferation, and arms control because they are living with the consequences of the failed, slow, or ineffective systems designed to protect them. It is for these reasons, and many others, that here at Global Affairs Canada every single day we attempt to positively advance the state of non-proliferation, arms control, and disarmament.

Even if our work here today provides only an entry point for four new advocates of disarmament and non-proliferation, we are making an impact. Each person that is added to the fold provides an opportunity for lives to be changed. We encourage you to dive in headfirst, and use this opportunity to build your network, engage with our experts, and learn more about what it means to work towards disarmament. The Canadian disarmament community can often act as a closed circuit – many of us spend time in academia, civil society, *and* government over the course of our careers. Consider this ceremony today as a sort of inauguration. Even if you do not stay in disarmament work for the rest of your lives, you will always be a part of a community of Canadian experts who welcome you with open arms.

Congratulations again on your achievement and I look forward to hearing your presentations! Je vous félicite à nouveau pour votre réussite et j'ai hâte d'entendre vos présentations !

I now invite Dr. Jessica West to deliver opening remarks on behalf of The Simons Foundation Canada.

# Graduate Research Award Presentation 1

**Topic 5: Given NATO's declared goal of creating the conditions for a world free of nuclear weapons, examine possible arms control and disarmament policies and initiatives, as well as nuclear risk reduction measures, that Canada, in cooperation with like-minded NATO members, might pursue to assist the Alliance in making concrete progress toward that goal.**

## **TAY JEONG**

Ph.D., Department of Sociology  
McGill University

Tay Jeong is a Ph.D. candidate in sociology at McGill University, Canada. His main research interests include peace studies and the sociology of knowledge.



## **Arms control and disarmament in an era of great power transition**

### **Introduction**

The previous year saw an acceleration of two recent trends in world politics. First, there was a decisive downturn in efforts for global arms control and disarmament. Russia suspended the last remaining nuclear treaty with the US and announced its intent to deploy nuclear weapons to Belarus. China is speeding up the development of advanced delivery systems and seeking to increase its inventory of nuclear weapons. Second, there was a marked shift towards multipolarity. Many countries outside the Western world started to openly challenge the US dollar as the global reserve currency. The combined GDP of BRICS, which overtook that of G7 in 2020 in PPP terms, continued to widen its lead.<sup>1</sup>

The two developments are related. Without the unipolar leadership of the US-led West capable of securing the compliance of other regional powers, the world is moving into an era of increased conflict, uncertainty, and fragmentation. At the heart of this new order are two major-power conflict dyads, namely, the US-China dyad and the US-Russia dyad.<sup>2</sup> At least two minor conflict dyads—US-DPRK and US-Iran—also pose substantial security risks. Today, these four conflict dyads account for a major portion of emerging risks in nuclear buildup and proliferation. They also carry the potential for spillover effects in nearby states, either in the form of expanded deployment of nuclear weapons or by prompting rival states to strengthen or initiate their own nuclear weapon programs.

In this essay, I suggest two broad policy directions that Canada and “like-minded countries” may pursue to help curb the new global nuclear arms race. The first stresses the importance of diplomatic engagement and compromise following a realist discussion centered on power and security. The second presents an “idealist” critique focused on the concept of “strategic empathy,” which I think is critical for reaching international political settlements capable of harboring various nonproliferation and disarmament regimes. These two policies may not serve other popular foreign policy goals such as fighting for liberal values and punishing authoritarian governments. However, both are instrumental in the ideal of curbing the global buildup of nuclear weapons.



## Engagement and compromise

A fundamental paradox of bilateral bargaining is that the party with more coercive power (i.e., one with a “stronger hand”) tends to have a lower willingness to make concessions and a higher expectation of concessions by the opponent.<sup>3</sup> However, it is the concession made by the party with a stronger hand that is most conducive to deals, since it sends a strong signal of goodwill. Concessions made by the weaker party or the party whose relative power is on the decline are prone to be perceived as a sign of weakness, which induces the opponent to take a more aggressive stance and reduces the likelihood of a peaceful resolution.<sup>4</sup> The normative implication is that the party with a strong hand should initiate conciliatory processes, despite the likely lack of motivation to do so.<sup>5</sup>

The prime time for the West to effectively lead deals for denuclearization or disarmament is passing with the decline of the unipolar order. Yet, the West’s remaining position of strength leaves viable opportunities. This is particularly true for minor conflict dyads where the power imbalance is substantial. The case of the DPRK is especially illuminating. As cogently argued by Dr. Siegfried Hecker in his recent book, the US missed multiple opportunities for a complete or near-complete denuclearization of the Korean peninsula due to its extreme reluctance to make concessions when the DPRK’s nuclear program was still incubational.<sup>6</sup> The DPRK today is facing a more favorable international environment with the intensification of the two great-power conflicts and emboldened by rapid advances in its nuclear and missile program.

For the two minor conflict dyads involving Korea and Iran, the US-led alliance should initiate negotiations without delay. Even for the more advanced case of Korea, the “costs” that the US needs to pay to initiate a process of arms control do not place a great burden on American power and prestige, such as a partial lifting of sanctions that affect the civilian economy, ending the Korean war, and suspending or downscaling US-ROK joint exercises. In so doing, the US should treat the complete and verifiable denuclearization of the DPRK as a long-term goal rather than a prerequisite for a peace process.<sup>7</sup> For Iran, the US-led alliance should prevent it from becoming another Korea in the next decade. Iran, despite the recent internal unrest, is finding solace in the rise of China and BRICS and the ongoing rapprochement throughout the Middle East. The West should promptly restart the aborted denuclearization talks and be ready to partially lift sanctions as an initial show of goodwill.

For the two great-power conflict dyads, the situation is extremely difficult, much so that many pundits deem global arms control “dead” and “over.”<sup>8</sup> The US and China are locked in a Thucydides Trap, not unlike the relationship between Britain and Germany in the interwar years. For an opponent that is not yet a peer-level competitor but is well on track to becoming one, negotiating peace and disarmament through concessions is politically costly and often practically not very effective. One only needs to recall the policies of appeasement against Germany in the 1930s, which did nothing to prevent German military expansion. The rise of the Soviet Union to a peer-level challenger in the 1950s and 60s was accompanied by an arms race, which only started to abate after a certain degree of bipolar equilibrium had been reached. Negotiating with China today is further complicated by China’s relatively small nuclear arsenal not only compared to the US but also Russia.

Any practical major-power nuclear disarmament initiative will need to involve both China and Russia, most likely in separate bilateral treaties. For this to have even a minimal chance of realization, it is crucial that the US-led alliance improves relationships with both. For China, the West would need to be ready to

seriously address sources of China's perceived insecurity, such as increased allied military presence along the Western Pacific and the mounting sanctions on China's high-tech sectors. For Russia, ending the war in Ukraine would be necessary for any mention of disarmament talks. The collapse of West-Russia relations since 2022 nullifies reasonable prior policy proposals to first extend bilateral arms control treaties with Russia and then induce China to engage in talks.<sup>9</sup> Before the war, I think the structural conditions for initiating new arms control treaties were more favorable with Russia than with China due to the long history of bilateral cooperation with Russia and Russia's relative weakness vis-à-vis NATO. While neither of these conditions has changed, heightened wartime emotions currently make any cooperation with Russia highly unlikely.<sup>10</sup> I can only suggest that successfully managing both great-power conflicts in the coming years is crucial for preventing an all-out arms race.

Finally, some comment is needed about the role of Canada. The bulk of the decision-making agency within the "US-led alliance" will naturally come from the US, but Canada can still play the role of its "dovish" ally. Canada's geography allows it to pursue an ideal-based foreign policy in relative (albeit not complete) insulation from concerns of narrow national interest and security, and its soft power within the alliance gives it an independent voice over the alliance's foreign policy. It is possible that at least some of the flip-flopping between doves and hawks in US foreign policy could have been avoided had other major countries in the alliance consistently backed peace and diplomacy.

### **Strategic empathy**

Despite the rosy predictions of post-Cold War liberalism, the world has been moving further away from the liberal telos, with global liberal democracy on the back foot<sup>11</sup> and political opinions diverging between the West and the Rest.<sup>12</sup> Worldviews in international politics are hard to reconcile since each worldview consists of a complex network of interests and feelings, as well as epistemic, moral, and metaphysical beliefs. In an increasingly fragmented world that lacks hegemonic authority, cross-border and cross-cultural understanding is crucial for international cooperation.

Conflicting worldviews exacerbate nearly all major psychological hurdles in negotiation including suspicion of intent and moral repulsion. For example, prominent North Korea hawk Victor Cha's rather emotional condemnation of recent realist proposals to engage in disarmament talks with the DPRK hinged on its supposed lack of "rationality" and the "dangerous" character of its leader.<sup>13</sup> This resonates with Dr. Siegfried Hecker's lamentation that US policymakers let multiple promising deals with the DPRK slip away in large part due to their deep animosity towards this country and misinterpretations of its deeds and intentions.<sup>14</sup>

If worldviews between opposing forces in world politics cannot be expected to converge anytime soon,<sup>15</sup> and if clashing worldviews render dealmaking more difficult, what can be done about it? Former US National Security Advisor H. R. McMaster's call for "strategic empathy" offers an insightful answer: We may not agree with the political worldview of our opponents, but it should be possible to put ourselves in the shoes of our opponents to understand how the world appears from that perspective.<sup>16</sup>

Canada is in a good position to develop strategic empathy due to the multicultural diversity in its academia and civil society. Cultivating strategic empathy does not require a compromise of Canada's national identity based on Western liberal values or its firm position within the US-led political alliance. Today, intensifying global conflicts are posing challenges for strategic empathy, and policy- and opinionmakers should make conscious efforts to use Canada's strength in diversity to foster this crucial psychological

ability. Doing so will help Canada contribute to international arms control initiatives with independent agency and practical effectiveness.

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<sup>1</sup> Based on the author's own calculation using data from the International Monetary Fund, version April 2023.

<sup>2</sup> Mearsheimer, John. *John Mearsheimer: We're Playing Russian Roulette*. Unherd, 30 Nov. 2022, <https://unherd.com/2022/11/john-mearsheimer-were-playing-russian-roulette/>.

<sup>3</sup> De Dreu, Carsten K. W. "Coercive Power and Concession Making in Bilateral Negotiation." *Journal of Conflict Resolution*, vol. 39, no. 4, 1995, pp. 646–70.

<sup>4</sup> Michener, H. Andrew, et al. "Factors Affecting Concession Rate and Threat Usage in Bilateral Conflict." *Sociometry*, vol. 38, no. 1, Mar. 1975, p. 62-80.

<sup>5</sup> Komorita, S. S. "Concession-Making and Conflict Resolution." *Journal of Conflict Resolution*, vol. 17, no. 4, Dec. 1973, pp. 745–62.

<sup>6</sup> Hecker, Siegfried S. *Hinge Points: An Inside Look at North Korea's Nuclear Program*. Stanford University Press, 2023.

<sup>7</sup> Dalton, Toby, and Ankit Panda. *U.S. Policy Should Reflect Its Own Quiet Acceptance of a Nuclear North Korea*. Carnegie Endowment for International Peace, 2022, <https://carnegieendowment.org/2022/11/15/u.s.-policy-should-reflect-its-own-quiet-acceptance-of-nuclear-north-korea-pub-88399>.

<sup>8</sup> Chang, Gordon G. "Putin Scraps Arms Treaty, China and Russia Threaten to Use Nukes." *Newsweek*, 22 Feb. 2023, <https://www.newsweek.com/putin-scraps-arms-treaty-china-russia-threaten-use-nukes-opinion-1782881>.

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<sup>9</sup> Moeini, Arta, and Alexandra Slobodov. *Rethinking Nuclear Arms Control For A Multipolar World*. The Institute for Peace and Diplomacy," 2020, <https://peacediplomacy.org/2020/10/23/rethinking-nuclear-arms-control-for-a-multipolar-world/>.

<sup>10</sup> Boyon, Nicholas. *One Year in, Global Public Opinion about the War in Ukraine Has Remained Remarkably Stable*. Ipsos, 20 Jan. 2023, <https://www.ipsos.com/en/war-in-ukraine-january-2023>.

<sup>11</sup> Repucci, Sarah, and Amy Slipowitz. *Freedom in the World 2022: The Global Expansion of Authoritarian Rule*. Freedom House, 2022, [https://freedomhouse.org/sites/default/files/2022-02/FIW\\_2022\\_PDF\\_Booklet\\_Digital\\_Final\\_Web.pdf](https://freedomhouse.org/sites/default/files/2022-02/FIW_2022_PDF_Booklet_Digital_Final_Web.pdf).

<sup>12</sup> Ash, Timothy G., et al. *United West, Divided from the Rest: Global Public Opinion One Year into Russia's War on Ukraine*. European Council on Foreign Relations, 2023, [https://ecfr.eu/wp-content/uploads/2023/02/United-West-divided-from-the-rest\\_Leonard-Garton-Ash-Krastev.pdf](https://ecfr.eu/wp-content/uploads/2023/02/United-West-divided-from-the-rest_Leonard-Garton-Ash-Krastev.pdf).

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<sup>13</sup> Cha, Victor [@VictorDCha], “What is this nonsense in NYT and FT abt accepting NK as a nuclear weapons state...”  
Twitter, 15 October 2022, <https://twitter.com/VictorDCha/status/1581080326168006657>

<sup>14</sup> Hecker, *Hinge Points*.

<sup>15</sup> Mearsheimer, John J. *The Great Delusion: Liberal Dreams and International Realities*. Yale University Press, 2018.

<sup>16</sup> McMaster, H. R. *Battlegrounds: The Fight to Defend the Free World*. Harper, 2020.

## Graduate Research Award Presentation 2

**Topic 6: Cognizant of the differing impacts of weapons and conflict in regions across the globe, how can Canada engage Global South actors in disarmament, arms control, and non-proliferation across UN bodies and treaties more effectively? Please use an example of a specific issue, making clear the positions and priorities of Global South actors on proposed courses of action, highlighting the differences and similarities to Canada's stated positions and priorities.**

### DANIEL HOGAN

Master of Arts, History  
Simon Fraser University

**Daniel Hogan** is a Master of Arts student at Simon Fraser University (SFU) in Burnaby, BC, specializing in Interwar European History. He holds a Bachelor of Arts (Honours, 2002) from SFU and a Master of Defence Studies (2021) from the Royal Military College of Canada (RMCC) in Kingston, ON. Presently, he is also an Infantry Officer serving within the Canadian Armed Forces (CAF); during his 18-year military career, he has completed two overseas deployments to Kandahar, Afghanistan and one to Adazi, Latvia.



### **Arms Control Engagement with the Global South: The Opportunity presented by Lethal Autonomous Weapon Systems (LAWS) for Canada**

#### **Issue**

In the future, lethal autonomous weapon systems (LAWS) will transform the battlefield into a site of cold, technological predation where humans are lethally targeted by machines. The slow march to this brave new world, wherein life-and-death decisions are ceded to LAWS, has already begun. Research and development (R&D) by the world's largest defence contractors and militaries into LAWS continues today unabated. To no avail, Global South (GS) nations have made impassioned pleas for a LAWS ban: and herein lies an opportunity for Canada to lead an urgent arms control initiative. Outlining this opportunity and offering policy recommendations will be the aim of this paper.

#### **What are LAWS?**

The most cited LAWS definition comes from the United States (US) Department of Defense Directive No. 3000.09, which delineates it as “[a] weapon system that, once activated, can select and engage targets without further intervention by a human operator” (USA-DoD 13). Although weaponized military robots like armed unmanned aerial vehicles (UAVs) have been in use for decades, no current in-service weapons meet this definition (Thurnher 78). Armed UAVs still require direct human involvement to apply lethal force. Artificial intelligence (AI) has the potential to change this, removing humans completely from the targeting loop.

#### **Opening the Pandora’s Box that is LAWS**

There is still an opportunity for Canada and the international community to shape the future of LAWS collaboratively and pre-emptively before they are fielded at scale. The trends are clear: the automation of killing, battlefield robotization, operational tempo, and investment in LAWS R&D are all increasing; while unmanned platforms are increasingly preferred over exquisite, manned weapon systems due to

their decreased costs and risk profile. These trends are a potent mix that, if left unchecked, will inevitably lead to LAWS. Once LAWS are fielded by just one nation and viewed as conferring a military advantage, other nations will follow. Efforts to ban or regulate LAWS will then be resisted and insurmountably difficult (Carvin 132).

### **State-level discussions on LAWS within International Fora**

Presently, there is no legal instrument that governs LAWS. Since 2014, LAWS has been discussed at the UN Office of Geneva under the auspices of the 1980 Convention on Certain Conventional Weapons (CCW). The CCW is a multilateral arms control treaty that aims to ban or restrict the use of specific types of weapons. The CCW is modular, consisting of a Framework Convention and several Protocols. The Protocols deal with weapon types; they are negotiated as needed and then attached to the Convention. Thus, the CCW is ideal instrument for LAWS.

In 2017, CCW signatories established a subsidiary Group of Governmental Experts (GGE) with a mandate to assess LAWS-related questions in-depth. GGE dialogue on LAWS continues today but little tangible progress has been made. CCW signatories remain sharply divided, falling into three main camps. The first group consists of 30 nations, which favour a LAWS ban. The second group consists of moderates (E.g.: France and Germany), which prefer a political declaration or a strengthening of Article 36 weapons reviews (from Additional Protocol I of the Geneva Conventions) over a ban. The third group consists of nations like Israel, Russia, US, and UK, which oppose a LAWS ban and are engaged in LAWS R&D. They have hindered GGE progress by parsing definitions and obstructing consensus. And as Ingvild Bode and Henrik Huelss have noted, these three camps have remained “more or less tied to their positions” (40) since 2019.

Progress has also been stymied because of how the GGE operates. Firstly, GGE meetings only occur during 1-2 weeks per year. Secondly, the GGE’s mandate is weak, as it only discusses LAWS and then reports back to the CCW. Thirdly, GGE discussions adhere to the CCW practice of consensus recommendations and voting, which has been derided “as going slow and aiming low” (Rosert and Sauer 20). The CCW’s “rule of consensus” has allowed proponents like Russia to obstruct efforts, ensuring that a sixth CCW protocol on LAWS remains illusory (Akimoto 324).

### **The Global South’s Position of LAWS**

Within the GGE, 28 of the 30 nations opposed to LAWS are from the GS (E.g.: Brazil, Chile, Costa Rica, and Pakistan). Supported by non-governmental organizations (NGOs) like the Campaign to Stop Killer Robots (CSKR), these GS nations have been, as Bode notes, some of “the most active participants...in terms of both the number and the substance of their interventions” (359) in the GGE. Their statements against LAWS have become increasingly forceful and coordinated; for example, on 9 April 2018 at the GGE, the African Group declared:

The African Group finds it inhumane, abhorrent, repugnant, and against public conscience for humans to give up control to machines, allowing machines to decide who lives or dies, how many lives and whose life is acceptable as collateral damage when force is used (Africa Group par 8).

Such statements expose both GS frustration and how they have asserted leadership; as Bode correctly suggests: “in the case of LAWS, it is countries of the GS rather than Western states such as Norway or Canada that are taking the lead” (362).

GS nations are motivated by several factors. Firstly, nations like Pakistan oppose LAWS because they know that their territory may become a future battlefield for LAWS. Pakistan's past experience with armed UAVs and targeted strikes within its territory belies this (Bode 361). Secondly, as LAWS will likely be developed to long loiter, carry significant payloads, incorporate AI, and offer deep strike capabilities, GS nations know that such platforms will be expensive and only fielded by nations with the means (E.g.: not them). Thus, their LAWS opposition aims to prevent technological overmatch and threats to their sovereignty (Krishnan 190).

### **Canada's Position on LAWS**

Canada has been a regular participant in CCW/GGE discussions; its position on LAWS, though, has publicly evolved. Initially ambiguous, the Government of Canada (GC) position on LAWS was clarified on 13 December 2019, when Prime Minister Justin Trudeau, in a ministerial mandate letter, directed his Minister of Foreign Affairs (MFA), François-Philippe Champagne to: "advance international efforts to ban the development and use of fully autonomous weapons systems" (Canada-PMO 2019). This direction initially elicited hope amongst LAWS opponents; however, limited Canadian GGE contributions in 2020 led critics to lament that Canada has "chosen to remain on the sidelines" (Marijan par 8). Next, in March 2021, the US National Security Commission on AI issued its final report to the Biden Administration, strongly recommending against a LAWS ban (USA-NSCAI 10). Later that year, MFA Champagne's successor, Mélanie Joly, notably did not receive any direction on LAWS in her own mandate letter (Canada-PMO 2021). Lastly, in 2023 GGE meetings, Canada has supported a US-led proposal for voluntary guidelines for International Humanitarian Law (IHL) implementation in relation to LAWS (UNOG-CCW-GGE). This notable Canadian shift from advocating for a LAWS ban to a voluntary approach has not been publicly explained; one may infer that Canada does not want to be out-of-step with the US, its most important ally.

### **An Opportunity for Canada**

LAWS is not the only weapon system where international regulatory efforts through the CCW framework have been stymied by great powers: bans on anti-personnel landmines (APLs) and cluster munitions (CMs) were also blocked there. Instead, APLs and CMs were banned via the Ottawa and Oslo Treaties, respectively. Although several great powers are not parties to them, these treaties do enjoy considerable support: 164 and 111 signatories to the Ottawa and Oslo Treaties, respectively. And while APL and CM use has not been eliminated, both treaties have curtailed their use (Asaro 706). Thus, if CCW consensus cannot be found on LAWS, an arms control model akin to the Ottawa and Oslo Treaties could be used.

Efforts to ban or regulate LAWS have also been hindered by the fact that no Western middle power has stepped forward to shepherd the anti-LAWS movement. With the Ottawa and Oslo Processes, Canada was the middle power that led efforts to ban APLs, while Norway did the same for CMs. Thus, there is a real opportunity for Canada - if it wants it - to lead again and work with the GS to ban or regulate LAWS. Even if Canada does not desire a leadership role, it could still serve as a "patron" (Hynek and Solovyeva 91) to a GS nation, guiding them on how to lead an ad hoc arms control regime on LAWS.

### **Recommended Policy Options for the GC on LAWS**

To seize this arms control opportunity concerning LAWS, it is recommended that the GC pursue the following policy options:

- **Frank Discussions** – In international discussions on LAWS, it is recommended that the harsh realities of their use be acknowledged without equivocation by Canada. Namely, LAWS represent a paradigmatic shift in military technology because they eliminate human control over the use of lethal force and cede life-and-death decisions to machines. The technology behind LAWS is unproven, while suggestions that LAWS can be programmed to act ethically are speculative and have never been practically demonstrated. The use of LAWS does diminish human dignity and is manifestly unethical. Drawing a clear, principled line on LAWS will prevent their normalization.
- **National Moratorium** - It is recommended that Canada declare an immediate national moratorium on LAWS development. This measure would provide a template for GS nations to emulate and signal to defence contractors that there is no Canadian market for LAWS.
- **International Ban** - It is recommended that Canada lead efforts or provide technical advice to like-minded, GS nations to establish a legally-binding instrument to ban LAWS. If this cannot be negotiated within the CCW, it is recommended that an ad hoc forum be used. If ratified by most nations, it will become recognized as customary law and limit LAWS proliferation.
- **Regulatory Framework** - If efforts to ratify a LAWS ban fail, it is recommended that Canada and GS nations adopt a fallback position by regulating LAWS through a legally-binding, arms control framework. This framework should limit the number and types of LAWS and the contexts in which they can be deployed. Limiting LAWS use to certain contexts - uncluttered environments, against anti-materiel targets and/or only in defensive roles - will greatly reduce Law of Armed Conflict (LOAC) violations.
- **Legal Reviews** - Lastly, it is recommended that Canada urge nations engaged in LAWS R&D to conduct Article 36 legal reviews of these weapons. These legal reviews need to: ensure that LAWS are consistent with the requirements of LOAC/IHL; be conducted in good faith; and occur during development and testing phases.



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## Graduate Research Award Presentation 3

**Topic 2: *In an increasingly polarized geopolitical context, how can states build agreement across geopolitical divides to regulate or prohibit the development of Lethal Autonomous Weapons Systems? What role do you see for civil society, academia, and private tech corporations?***

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### **Prohibition or Regulation?: Lethal Automated Weapon Systems**

As technological advancements continue to permanently alter the functionality of society, a pressing matter lies within the realm of new war technology and its rapid development. Lethal automated weapons systems (LAWS) rely on artificial intelligence (AI) to independently identify, select and destroy a target in the absence of human control (Hiebert, 2022). The combination of military grade weapons and AI is transforming the way in which decisions pertaining to the use of force are made. The utilization of these systems will permanently alter how warfare and military defence are strategized and conducted. With this in mind, there are challenges regarding whether LAWS should be prohibited or regulated. Polarized geopolitical contexts create tension in the international field, as governments maintain different stances on this matter. This paper will examine the differences and potential outcomes that could occur as a result of prohibition or regulation across nations, while taking into account political tensions.

The complete prohibition of LAWS would be rooted in concerns over the legal, ethical, moral and humanitarian problems that would arise with their implementation. This is primarily due to the lack of clarity regarding the anticipation and limits of the effects of LAWS (International Committee of the Red Cross [ICRC], 2022). Prohibition of these systems would significantly impact the innovation of the military technology field. International strength and standings are often, if not always, determined by the level of military power the nation holds. The reality is that AI has already infiltrated multiple industries across the globe, meaning it is impractical to assume that prohibition will stop AI from filtering into military technology (Van Kralingen, 2016).

It is entirely possible that prohibition of LAWS may further exacerbate existing geopolitical tension and divides. It is not practical to prohibit one of the most innovative fields of technology in the world as well as ask that nations impede their progress. Authoritative regimes such as China and Russia are unlikely to agree to or follow prohibitions. If LAWS were prohibited and these authoritarian regimes, as well as non-state actors, continued to develop these machines it could result in malicious use and subsequent detrimental consequences. Additionally, a prohibition instead of regulation leaves room for nation's who do create LAWS to create legal guidelines of their own. This would have further negative impacts on the polarized geopolitical context as there would be varying types of LAWS created with different legal uses across many different nations. A prohibition would not entirely be proactive, but regulations can offer some rectitude before the development of LAWS progresses beyond means of control.

The regulation of LAWS would see an unprecedented trajectory of military technology and major benefits to each nation's economic and international standings. Automated weapons systems can aid in decreasing the loss of human life due to warfare and other military operations, are time efficient, and have incredibly accurate targeting (Longpre, et al., 2022). Additionally, LAWS can be mass manufactured at an efficient speed due to the easily accessible resources required to build them (Hiebert, 2022). Contrastingly, a human soldier requires feeding, medical attention, housing, and pensions (Van Kralingen, 2016). The American DoD found that on average, a singular soldier costs the Pentagon between \$850,000 to \$1.2 million per year (Francis, 2013). The cost to both build and maintain a lethal automated weapon is approximately \$230,000 (Francis, 2013). In addition to their cost advantages, LAWS would decrease the collateral damage caused by wars, including saving innocent lives, decreasing opportunities for sexual violence, looting and destruction of property (Hiebert, 2022). These negative aspects of war can generate intergenerational resentment towards nations, which in turn destabilizes international relations and leaves room for future conflict.

There are various approaches that nations could consider in order to regulate LAWS and mitigate potential legal and ethical dilemmas. Currently under international humanitarian law (IHL), LAWS are in violation because of their inability to decipher between combatants and civilians (Rosert & Sauer, 2019). Additionally, IHL states that there must be someone to blame for the death of a human (Davison, 2022). With LAWS, it is difficult to do so because they are programmed with an algorithm that aids in their decision to terminate a target. However, a legally binding clause under IHL could include that LAWS must maintain meaningful human control (MHC) in order for them to be ethically and lawfully acceptable (Amoroso & Tamburrini, 2020). This would include that general functions of the system are assigned to a human in order to have a *fail-safe actor*, to avoid accountability gaps, and as a *moral agency enactor* (Amoroso & Tamburrini, 2020). Additionally, an international code of conduct or principles could be further instated for all nations to follow when using LAWS. NATO's AI Strategy has put forward the "Principles of Responsible Use" which include: lawfulness, accountability and responsibility, explainability and traceability, reliability, governability, and bias mitigation (Christie & Stanley-Lockman, 2021). While these are not binding international regulations, they may assist in avoiding aggravating polarized geopolitical contexts. These principles could be instated as an international treaty to provide guidelines that nations follow.

A more effective and legally binding approach that focuses on logistics as opposed to ethics would be to create a new arms control policy (for LAWS specifically). This could be done through reliance upon existing frameworks as a guideline. This would include analyzing the types of LAWS, or perhaps the functions they possess, and measuring which combination holds the most military value while also considering which put civilians and non-combatants most at risk, similar to the Chemical Weapons Convention's schedule (Kallenborn, 2021). This categorization of LAWS would enable countries to utilize them in differing situations, based on the amount of force required. This approach may make a new policy structure and subsequent international law more attractive to nations who wish to employ LAWS and garner their agreement.

The actors who impact the regulation or prohibition of LAWS are not limited to, but are mainly composed of, civil society, academia, and private tech companies. The role of civil society for the case of LAWS is to voice their opinions and concerns. Some support their use, while others oppose it. This is crucial when debating enacting new policies as civil society holds the power to protect human rights, hold government accountable, defend the rule of law, and advocate for participation and inclusivity in decision-making (Global Affairs Canada, 2023). For those in academia, their research and educated discussions regarding LAWS' functionality, consequences, and analysis of past policies for similar situations are valuable when considering policy changes such as prohibition or regulation. Academia's role is to provide thoughtful examination of every aspect surrounding LAWS logically, ethically, legally, and morally while also taking into account the concerns raised by civil society. This allows for a well formed foundation that the government can rely upon to construct a reasonable and effective approach to controlling systems such

as LAWS. In addition, private tech companies hold a major role in the development of LAWS. They hold significant importance considering they have the resources and knowledge required to develop these automated systems. Their role, in conjunction with academics and the government, is to create these systems and consider the impacts of the varying degrees of LAWS. For example, they can test LAWS with and without MHC as well as different functions or models to create the most effective automated weapon, while ensuring all legal, ethical and moral guidelines are followed. Private tech companies can endorse these systems, while addressing concerns raised by civil society and academia. This would show the public that LAWS can be progressive as opposed to harmful, especially considering they currently maintain negative associations. The collaboration of civil society, academia, and private tech companies can provide a well-rounded approach, with all factors being considered, to determine how to regulate LAWS in a polarized geopolitical context.

While it is expected that not all nations will ever come to a singular agreement due to differing perspectives and political agendas, some form of regulation over LAWS is better than none. Enacting international treaties, code of conducts or principles to follow, and/or new arms policies are imperative to the future success of LAWS. It is inevitable that these systems will enter the realm of national defence, so states must work in collaboration to take the best approach possible that benefits the largest number of people. Scholars have cited that no country will maintain a monopoly on military AI based on the fact that it is a widely obtainable resource (Araya & King, 2022). As a result, it could in fact encourage extensive international cooperation to maximize the abilities and uses of LAWS in the global sphere. It is imperative that action be taken now to either prohibit or regulate LAWS as their development is outpacing ongoing deliberations.

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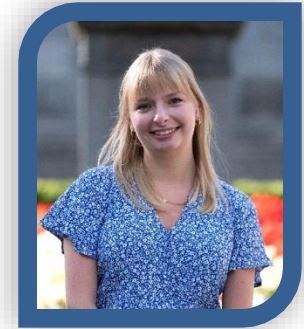
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## Graduate Research Award Presentation 4

**Topic 3: Commercial space assets are starting to play a larger role in modern warfare, from providing telecommunications services to using Earth observation satellites to assist militaries with reconnaissance and logistics. What role should commercial entities and technologies have in modern warfare? Identify and examine arms control policies and initiatives that Canada could pursue, domestically and/or internationally, to address this growing issue.**

### **NINA RUSSEL**

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Nina Russell is entering her third year in the joint JD/MA program at the University of Ottawa and Carleton University. Her academic interests focus on national security and international trade, and she is grateful for the chance to explore both areas through a procurement lens as a junior policy analyst for Public Services and Procurement this summer.

### **Attribution for Commercial Activities in Outer Space and the Use of Force: “National Activities”**

#### **Introduction**

The use of outer space for military purposes has increasingly become a topical issue as space technology continues to evolve. While states have sought to address the use of space for defensive and offensive purposes through the creation of regulations since the 1950s, the area of law remains underdeveloped and state practice remains disparate (US Department of State). Additionally, much of the existing regulation fails to account for the role of non-state actors, namely commercial actors, whose participation in the exploration of outer space has only become feasible in recent years. While commercial activity in space has historically occurred in partnership with governments, over the last two decades, commercial entities have gained the ability to increasingly act independently from their governments, with companies such as SpaceX and Blue Origin setting their sights as wide as colonising Mars (Raueenzahn, Wang, Chung, et al.). Canada's own Space Policy Framework prioritises supporting private industry in space, particularly where efficiency outweighs that of the government (Canadian Space Agency 9). Private companies' space possessions that have nothing to do with weaponry are already finding themselves in the crossfire when it comes to the application of the law of the use of force. This paper will therefore attempt to explore how the law of armed conflict applies to commercial actors operating in space. It will first focus on the legal framework for attributing actions of commercial entities to states; and second, it will examine that standard's implications for party status to conflict. It will use the example of Starlink's provision of wireless service to Ukraine during the Russian-Ukraine war to illustrate emerging state practice in what is currently a developing area of international law.



## The Standard of Attribution for Commercial Actors in Outer Space: National Activities

There currently exist several standards of attribution for the conduct of commercial actors on Earth. One such standard is that of effective control, which was first defined in the *Case Concerning Military and Paramilitary Activities in and against Nicaragua* and subsequently in the Draft Articles on State Responsibility for Internationally Wrongful Act. By contrast, Article VI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereafter referred to as the Outer Space Treaty, or OST), puts forward a different standard for attributing the actions of non-state actors to states. In the OST, state responsibility for non-governmental entities (NGEs) is determined on the basis of whether the activity carried out is a “national activity” (Art. VI). Article VI of the Agreement governing the Activities of States on the Moon and Other Celestial Bodies similarly writes that states are responsible for “national activities” on the Moon, without providing further interpretation (Art. VI). What national activities are is not further expanded upon anywhere else in that or any of the other five Outer Space treaties. Nor is there sufficient state practice to infer a customary definition of the standard of “national activities” (Von der Dunk “Origins of Authorisation” 5).

In light of this lack of clarity, academics have sought to interpret what constitutes national activities further, resulting in three broad categories of approaches. The first, termed the nationality approach, attributes responsibility on the basis of the nationality of the state concerned (Von der Dunk “Origins of Authorisation” 5). The second approach attempts to reconcile the principle of “international responsibility” as in Art VI with “international liability” in Article VII, the latter of which is attributed to the launching state (Von der Dunk “Origins of Authorisation” 6). This also ties in with the requirements of the Registration and Liability Conventions, which requires that states keep and maintain registries of all objects they launch into space. This approach, however, fails to account for objects launched by more than one state (Von der Dunk “Origins of Authorisation” 6). In those cases, states may choose where to register the object, but this allows states and private entities alike to forum shop among states with the least-stringent regulations (Robison 13). Furthermore, it fails to account for the fact that the authors of the OST simply meant liability as in Art. VII, they would not have used a different term. The third approach applies the broader concept of jurisdiction in general international law. Straightforwardly, it asserts that national activities are those for which the state has jurisdiction, interpreted as consisting of territorial, quasi-territorial, or personal jurisdiction, weighted differently depending on the context (Von der Dunk, “Origins of Authorisation” 5). This has been the interpretation most adopted in practice, though given the lack of territorial and quasi-territorial jurisdiction in outer space by virtue of the nature of space, critics worry that this may boil down to an application of personal jurisdiction in practice (Robison 14).

In practice, the majority of states with domestic space legislation have adopted the third approach. No state purely applies its national state laws to nationals, though the United Kingdom in its legislation attempts to claim jurisdiction over its nationals wherever they are (*Outer Space Act* c. 38 §§ 1-2). State practice therefore suggests that national activities should be interpreted in a way that “encompasses all private sector space activities conducted from within the territorial, quasi-territorial and personal jurisdiction of the state at issue” (Von der Dunk, “Scoping National Space Law” 231). Canada’s regime, which includes the *Remote Sensing Space Systems Act* and the *Radiocommunication Act*, each apply to activities taking place within Canada, as well as to Canadian citizens who are operating spacecraft outside Canada, rendering it within the third approach to the interpretation of Article VI (Art. 6; Art. 3).

## *National Activities and Starlink in Ukraine*

This section will review the application of the “national activities” standard to one of the first instances of non-governmental entities engaging in armed conflict: SpaceX’s provision of internet services to Ukraine during the Russia-Ukraine war. Following its illegal invasion of Ukraine, Russia has perpetrated cyberattacks attempting to prevent the Ukrainian military and civilians from accessing the internet. In response, American billionaire Elon Musk, who owns the company SpaceX, offered to provide Ukraine with access to Starlink, a series of satellites close to Earth’s surface launched from the United States in 2019, free of charge (Iyengar). According to Ukrainian government officials, access to Starlink proved to be vital in combating the Russian invasion. In a different Tweet nearly eight months later, Musk proposed a solution to the conflict, involving Ukrainian cession of Crimea to Russia, that was largely and rightfully derided as unproductive (Boichak and Lokot). Following a largely negative response, Musk tweeted again that he would stop providing Ukraine with Starlink, stating that the United States government should be funding it instead. Musk officially sent a letter to the Department of Defence stating SpaceX was no longer able to continue to fund Starlink in Ukraine (Boichak and Lokot). In one final reversal, Musk then begrudgingly tweeted that he would continue to fund Starlink (Boichak and Lokot).

Musk’s unpredictability has consequences that go deeper than those felt by Ukrainians reliant on Starlink’s services. Under Art. VI of the OST, his actions qualify as national activities and are therefore attributable to the US. The first batch of Starlink satellites were launched from California in 2018 (Grush). According to the *Commercial Space Launch Act*, these launches would have required authorization from the United States Department of Transportation (Sec. 6(a)(1) and (2)). Additionally, Musk has American citizenship, bringing him under the national jurisdiction of the Act, and SpaceX is incorporated in the United States. There is therefore little question as to whether Musk’s provision of Starlink to Ukraine falls under the criteria for “national activities” as set out in the OST.

### **Implications of “National Activities” Standard for Party Status to Conflicts**

The possibility of having the actions of someone as impulsive and volatile as Musk automatically imputed to the state, particularly when that relates to the use of force, poses obvious challenges for states. To determine whether a state is party to a conflict, its actions must be both attributable to the state and amount to participation in hostilities. This final section will examine how the “national activities” standard may interact with issues such as co-belligerency and party status to conflicts, and why the current regime may be inadequate.

There exists no definite standard for what constitutes participation in hostilities, though experts agree that a degree of directness, as referred to in Additional Protocol I to the Geneva Conventions, is required (Art. 51(3)). One non-binding interpretation of the direct participation threshold comes from the International Committee of the Red Cross, which sets out three criteria: a threshold of harm; a direct causal link between the activity in question and that harm; and a “belligerent nexus” (Melzer). Another interpretation of direct hostilities comes from the criteria set out in the Tadic case regarding the internationalisation of civil conflicts. In its decision, the International Tribunal for the the Former Yugoslavia detailed the “overall control” test, which requires that states have a “role in organising, coordinating or planning the military actions of the military group, in addition to financing, training and equipping or providing operational support to that group” (*Prosecutor v Duško Tadić* para. 137). Taken

together, these two conceptions of direct participation provide a complete enough definition for the purposes of this paper.

#### *Starlink's Activities did not Constitute Direct Participation in Hostilities*

The provision of wireless services likely does not qualify as direct participation in the conflict on its own according to both the standard set by the ICRC and the one described in the Tadic case. While access to the internet is required for military activities to occur, it likely cannot be directly linked to the perpetration of harm by the Ukrainian military. Similarly, the US, through its indirect provision of Starlink, cannot be said to be participating in the organisation of military activities, per the Tadic case. In March, Starlink revealed that it was limiting the Ukrainian military's use of Starlink and preventing them from controlling drones (Roulette). While SpaceX justified the decision on the basis of its claim that it aimed to prevent the "weaponization" of Starlink, it also prevented Starlink from engaging in actions that would have brought it, and therefore the US government, into closer proximity with the direct participation threshold (Duffy).

#### **Conclusion**

This paper has described the standard for attributing the activities of non-governmental entities in Outer Space to states, as well as how that standard interacts with international humanitarian law in determining party status. In demonstrating the risks associated with the national activities standard under the OST, it suggests that Canada should strengthen its laws to ensure that private actors cannot act in ways that may be associated with armed conflict. As the commercialization of space becomes increasingly common, ensuring there exists consistency between international and domestic legislation and state practice is of the utmost importance. This case demonstrates the need for increasing care in states' dealings with commercial actors under their jurisdiction.

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## Expert Review Panel

**George A. MacLean** is Professor of Political Science in the Faculty of Arts at the University of New Brunswick. He is also an adjunct faculty member in Political Science and a Research Fellow at the Centre for the Study of Security and Development at Dalhousie University.

Dr. MacLean served as Vice-President Academic at the University of New Brunswick from 2016 to 2021, and Dean of Arts at UNB from 2014 to 2016. Prior to UNB, at the University of Manitoba he was Associate Dean of Graduate Studies from 2011 to 2014, and Department Head of Political Studies from 2005 to 2011.

His PhD is from Queen's University in Kingston, Ontario, where his doctoral work focused on political economy and nuclear disarmament. A specialist in international politics, Dr. MacLean's writing and research areas include Canadian foreign policy, human security, non-proliferation initiatives, and multilateralism. He completed his MA at McMaster University, and his BA(H) is from Dalhousie University/King's College.

He is the author or co-author of several books including *Politics: An Introduction* (2020, 3e; 2014, 2e; and 2010, 1e); *Ideas, Interests and Issues* (2008, 2e and 2006, 1e); *Clinton's Foreign Policy in Russia* (2006, reprinted in 2017); *Canada and the United States: A Relationship at a Crossroads?* (2005); *Introduction to Politics: Power, Participation and the Distribution of Wealth* (2001); and *Between Actor and Presence: The Future for the Transatlantic Relationship* (2001).

Dr. MacLean's articles have appeared in the *Journal of Human Security*, *International Journal of Canadian Studies*, *Foreign Policy Review*, *Whitehead Journal of Diplomacy and International Relations*, *Revista Mexicana de Estudios Canadienses*, *The Australian Journal of International Affairs*, *Policy Options*, *Journal of Conflict Studies*, *Canadian Foreign Policy* and *Journal of World Affairs and New Technology*.

Recipient of multiple awards for teaching and research and listed by Maclean's magazine as one of the top professors in Manitoba, Dr. MacLean has presented lectures in the United States, Mexico, Brazil, Europe and Asia. He has been contracted with the Canadian government on matters of foreign and security policy and has appeared before the Canadian Senate and House of Commons hearings.

**Aditi Malhotra** is the Editor-in-Chief of the *Canadian Army Journal* and a Fellow at the Canadian Global Affairs Institute. Formerly, she was the Co-Editor of the *Journal for Intelligence, Propaganda and Security Studies (JIPSS)*, Austria. She holds a Ph.D. in Political Science from the University of Muenster, Germany and a MA in International Studies from the University of Sheffield, United Kingdom. She is the author of *Understanding Security Role Evolution of US, China and India: Setting the Stage* (Routledge) and *India in the Indo-Pacific: Understanding India's Security Orientation towards Southeast and East Asia* (Barbara Budrich).

She was a Visiting Fellow at the Henry L. Stimson Center (Washington D.C.) and the Norwegian Institute for Defence Studies (Oslo). Prior to that, she was an Associate Fellow at the Centre for Land Warfare Studies (CLAWS) and Senior Research Fellow at the International Strategic and Security Studies Programme (ISSSP) at the National Institute of Advanced Studies (NIAS), India.

She has been a recipient of research and field trip grants from the Deutscher Akademischer Austauschdienst (DAAD) and the Norwegian Institute for Defence and her research interests include Indo-Pacific security and geopolitics, nuclear deterrence and changing trends in warfare.

**Michael W. Manulak** is Assistant Professor of International Affairs, anchoring the Norman Paterson School of International Affairs' Diplomacy and Foreign Policy cluster. He received his bachelor's degree from the University of Toronto, his M.A. from the Norman Paterson School of International Affairs at Carleton University, and earned a D.Phil in International Relations from the University of Oxford.

His research focuses on international organizations, multilateral diplomacy, Canadian foreign policy, global environmental politics, and Non-Proliferation. His book, *Change in Global Environmental Politics: Temporal Focal Points and the Reform of International Institutions*, was published in 2022 with Cambridge University Press and won the International Studies Association's Chadwick F. Alger prize in 2022 for the best book on international organizations and multilateralism.

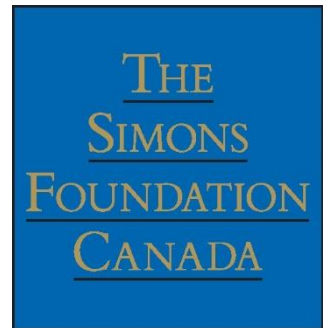
An alumnus of the Government of Canada's Recruitment of Policy Leaders program, he served mainly within the Department of National Defence. In government, he represented Canada in international proliferation security negotiations, supported the national security review of foreign investments, and composed Cabinet documents within National Defence's Cabinet Liaison bureau.

He is a Fellow at the Balsillie School of International Affairs, University of Waterloo, and at the Canadian Global Affairs Institute. He also serves on the External Advisory Board of the Canadian Foreign Service Institute, providing advice on Canada's diplomatic training priorities.



Global Affairs  
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Canada



***Graduate Research Awards for Disarmament,  
Arms Control and Non-Proliferation***

***(2023)***

**29 June 2023, 9h30 to 12h00**

**9<sup>th</sup> Floor, 125 Sussex Drive**

|              |  |   |
|--------------|--|---|
| <b>9:30</b>  | <b>Welcome, opening remarks</b>            | <b>Angelica Liao-Moroz</b><br>Executive Director, Non-Proliferation, Disarmament and Space  |
| <b>9:40</b>  | <b>Remarks</b>                             | <b>Dr. Jessica West</b><br>Senior Researcher, Project Ploughshares  |
| <b>10:00</b> | <b>Presentation of Research, Q&amp;A</b>   | <b>Tay Jeong</b><br>PhD Candidate, McGill University<br><b>Daniel Hogan</b><br>Masters Student, Simon Fraser University<br><b>Natalia Landaverde</b><br>Masters Student, University of Ottawa<br><b>Nina Russell</b><br>MA/JD Student, University of Ottawa and Carleton University |
| <b>11:00</b> | <b>Expert Briefing, Q&amp;A</b>            | <b>Jon Wolfsthal</b><br>Senior Advisor, Global Zero   |
| <b>11:15</b> | <b>Award Presentation, Closing Remarks</b> | <b>Dr. Jessica West and Angelica Liao-Moroz</b>   |

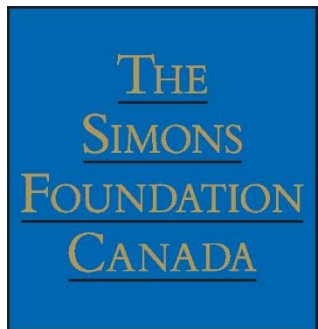
***Photo opportunity to follow***





Global Affairs  
Canada

Affaires mondiales  
Canada



***Les Bourses de recherche aux cycles supérieurs  
pour le désarmement, le contrôle des armements et la non-  
prolifération (2023)***

**29 juin 2023, 9h30 - 12h00**

**9ème étage, 125 promenade Sussex**

|              |   |  |
|--------------|---|--|
| <b>9:30</b>  | <b>Mot de bienvenue,<br/>remarques d'ouverture</b>  | <b>Angelica Liao-Moroz</b><br>Directrice exécutive, Direction de la non-prolifération, du<br>désarmement et de l'espace  |
| <b>9:40</b>  | <b>Discours</b>   | <b>Dr. Jessica West</b><br>Chercheur senior, Projet Ploughshares   |
| <b>10:00</b> | <b>Présentation des<br/>résultats de la<br/>recherche, session<br/>de questions-<br/>réponses</b> | <b>Tay Jeong</b><br>Candidat au doctorat, Université McGill<br><b>Daniel Hogan</b><br>Étudiant de maîtrise, Université Simon Fraser<br><b>Natalia Landaverde</b><br>Étudiant de maîtrise, Université d'Ottawa<br><b>Nina Russell</b><br>Étudiant de maîtrise/JD, Université d'Ottawa et Université<br>Carleton |
| <b>11:00</b> | <b>Breffage d'expert,<br/>session de Q-R</b>  | <b>Jon Wolfsthal</b><br>Conseiller principal, Global Zero  |
| <b>11:15</b> | <b>Remise des prix,<br/>remarques de clôture</b>  | <b>Dr. Jessica West and<br/>Angelica Liao-Moroz</b>  |

2023

**GRADUATE RESEARCH AWARDS**  
***for Disarmament, Arms Control and Non-  
Proliferation***

**\$5,000**

**Competition Details**

***Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation*** are offered by The Simons Foundation Canada and Global Affairs Canada (GAC).

A total of **four awards of CAD \$5,000** are available to Canadian Master's and/or Doctoral candidates to support the independent research and writing of an academic paper responding to a specific Non-Proliferation, Arms Control and Disarmament (NACD) topic. Awards also include domestic travel support to Ottawa where successful candidates will present their completed papers during a special seminar at Global Affairs Canada Headquarters in June 2023.

|   |                             |
|---|-----------------------------|
| <b>Deadline for applications:</b>                   | <b>April 28, 2023</b>       |
| <b>Selection of four award recipients:</b>          | <b>May 26, 2023</b>         |
| <b>Presentations at GAC Headquarters in Ottawa:</b> | <b>June 2023 (Date TBC)</b> |

**HOW TO APPLY:**

Complete applications should be sent to Elaine Hynes at The Simons Foundation Canada by email to: [ehynes@thesimonsfoundation.ca](mailto:ehynes@thesimonsfoundation.ca) by the close of business (PDT) on April 28, 2023.

Your application must include:

- Your resume, including proof of Canadian citizenship status.
- A complete, official transcript of your grades (including undergrad). Electronic copies of **official transcripts** are acceptable.
- An academic paper (approx. 1,500 words, MLA format) responding to one of the specific Non-Proliferation, Arms Control and Disarmament topics shown below.

**ELIGIBILITY:**

The competition is open to Canadian citizens and Canadian permanent residents/landed immigrants currently enrolled in a Winter 2023 university graduate programme. Graduate students studying outside Canada are eligible to apply but please note that funding to cover the cost of successful

applicants' travel to Ottawa for the event at Global Affairs Canada is limited to domestic travel within Canada (or the equivalent).

In order to expand the community of Canadian scholars working on non-proliferation, arms control and disarmament (NACD) issues, employees of Global Affairs Canada, and previous recipients of a Graduate Research Award are not eligible.

#### **SELECTION PROCESS:**

Applications will be reviewed by an Expert Review Panel made up of three experts and academics working in this field who will recommend four award winners for final approval by representatives of The Simons Foundation Canada and Global Affairs Canada. Successful candidates will be notified by May 26, 2023.

#### **PRESENTATIONS AT GLOBAL AFFAIRS CANADA HEADQUARTERS:**

Award winners will present their papers at a special event hosted by Global Affairs Canada at the Lester B. Pearson building in Ottawa in June 2023, and will be asked to produce a PowerPoint deck for their presentation. The cash awards will be issued at the Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation seminar in Ottawa and a report, including the papers presented, will be published online by The Simons Foundation Canada. ***Please note that attendance at the GRA for Disarmament, Arms Control and Non-Proliferation event in Ottawa is a mandatory requirement of the award.*** Approved domestic travel, accommodation and meal expenses will be provided by Global Affairs Canada.

### **TOPICS for 2023**

**Master's and Doctoral candidates may choose to address one of the following subjects:**

- Canadian civil society has made significant contributions to non-proliferation, arms control, and disarmament, both through advocacy and engagement in Canada and internationally. How can a new generation of advocates best engage to prevent or halt arms races and address emerging risks to humanity? What issues should they prioritize and why? What are the intersections between movements such as peace, climate action, cybersecurity, and non-proliferation, arms control, and disarmament?
- In an increasingly polarized geopolitical context, how can states build agreement across geopolitical divides to regulate or prohibit the development of Lethal Autonomous Weapons Systems? What role do you see for civil society, academia, and private tech corporations?
- Commercial space assets are starting to play a larger role in modern warfare, from providing telecommunications services to using Earth observation satellites to assist militaries with reconnaissance and logistics. What role should commercial entities and technologies have in modern warfare? Identify and examine arms control policies and initiatives that Canada could pursue, domestically and/or internationally, to address this growing issue.

- The 2022 NPT Review Conference agreed to establish a working group to examine and make recommendations as to how the NPT's review process could be strengthened. What new measures would be useful in this regard?
- Given NATO's declared goal of creating the conditions for a world free of nuclear weapons, examine possible arms control and disarmament policies and initiatives, as well as nuclear risk reduction measures, that Canada, in cooperation with like-minded NATO members, might pursue to assist the Alliance in making concrete progress toward that goal.
- Cognizant of the differing impacts of weapons and conflict in regions across the globe, how can Canada engage Global South actors in disarmament, arms control, and non-proliferation across UN bodies and treaties more effectively? Please use an example of a specific issue, making clear the positions and priorities of Global South actors on proposed courses of action, highlighting the differences and similarities to Canada's stated positions and priorities.

For more information, please contact Elaine Hynes at The Simons Foundation Canada by email to [ehynes@thesimonsfoundation.ca](mailto:ehynes@thesimonsfoundation.ca) or at telephone number 778-782-7779.

***The primary objective of the Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation is to enhance Canadian graduate level scholarship on disarmament, arms control and non-proliferation issues.***

# 2023

## BOURSES DE RECHERCHE DES CYCLES SUPÉRIEURS *pour le désarmement, le contrôle des armements et la non-prolifération*

### 5,000 \$

Les bourses de recherche des cycles supérieurs pour le désarmement, le contrôle des armements et la non-prolifération sont offertes par la Simons Foundation Canada et Affaires mondiales Canada (AMC).

En tout, **quatre bourses de 5 000 \$ CA** seront remises à des étudiants canadiens à la maîtrise ou au doctorat afin d'appuyer les recherches indépendantes et la rédaction d'un essai universitaire portant sur un sujet précis lié à la nonprolifération, au contrôle des armements et au désarmement. Les bourses comprennent également les frais de déplacement à l'intérieur du Canada pour les lauréats qui seront invités à présenter leurs travaux lors d'un événement spécial à Affaires mondiales Canada à Ottawa en juin 2023.

|  |                                     |
|--|-------------------------------------|
| <b>Date limite de présentation des candidatures:</b> | <b>28 avril 2023</b>                |
| <b>Sélection des quatre boursiers:</b>               | <b>26 mai 2023</b>                  |
| <b>Présentations à AMC à Ottawa:</b>                 | <b>juin 2023 (date à confirmer)</b> |

#### COMMENT PRÉSENTER SA CANDIDATURE

Les demandes complètes doivent être acheminées par courriel à Elaine Hynes de la Simons Foundation Canada à [ehynes@thesimonsfoundation.ca](mailto:ehynes@thesimonsfoundation.ca) avant la fermeture des bureaux (HAP) le 28 avril 2023.

Votre demande doit comprendre:

- Votre curriculum vitae, y compris une preuve de citoyenneté.
- Un relevé de notes **complet et officiel** (des copies électroniques des relevés officiels sont acceptées).
- Un essai universitaire (approximativement 1 500 mots, format MLA) portant sur l'un des sujets proposés ci-dessous concernant la non-prolifération, le contrôle des armements et le désarmement.

#### ADMISSIBILITÉ

Ce concours est ouvert aux citoyens canadiens et aux résidents permanents du Canada actuellement inscrits à un programme universitaire d'études supérieures pour l'hiver 2023. Les étudiants de cycle supérieur qui poursuivent leurs études à l'étranger peuvent présenter une demande, mais les frais couverts pour le voyage à Ottawa permettant aux lauréats de prendre part à l'événement organisé par Affaires mondiales Canada seront limités aux déplacements à l'intérieur du Canada (ou l'équivalent).

Afin d'accroître le nombre de chercheurs canadiens travaillant dans le domaine de la non-prolifération, du contrôle des armements et du désarmement, les employés d'Affaires mondiales Canada et les personnes ayant déjà obtenu la Bourse de recherche des cycles supérieurs ne sont pas admissibles.

### **PROCESSUS DE SÉLECTION**

Un groupe d'experts formé de trois spécialistes et universitaires travaillant dans le domaine examinera les demandes et recommandera quatre candidats. Des représentants de la Simons Foundation Canada et d'AMC devront approuver les recommandations. Les candidats sélectionnés seront informés le 26 mai 2023.

### **PRÉSENTATIONS À L'ADMINISTRATION CENTRALE D'AFFAIRES MONDIALES CANADA**

Les lauréats présenteront leur travail lors d'un événement spécial organisé par Affaires mondiales Canada à l'édifice Lester B. Pearson à Ottawa à juin 2023 (date à confirmer). Ils seront invités à présenter leur recherche à l'aide d'une présentation en format PowerPoint. Les bourses seront présentées lors de la cérémonie des bourses de recherche des cycles supérieurs pour le désarmement, le contrôle des armements et la non-prolifération à Ottawa et un rapport comprenant les essais présentés sera publié en ligne par la Simons Foundation Canada. ***La présence à la cérémonie des bourses de recherche des cycles supérieurs qui se tiendra à Ottawa est obligatoire.*** Les frais de déplacements au Canada, ainsi que les coûts pour l'hébergement et les repas seront remboursés par Affaires mondiales Canada.

### **SUJETS pour 2023**

**Les candidates à la maîtrise et au doctorat peuvent choisir un des sujets suivants :**

- La société civile canadienne a contribué de manière significative à la non-prolifération, au contrôle des armements et au désarmement, à la fois par la défense des intérêts et l'engagement au Canada et à l'international. Comment une nouvelle génération de défenseurs peut-elle s'engager au mieux pour prévenir ou arrêter les courses aux armements et faire face aux risques émergents pour l'humanité ? Quels sont les sujets qu'ils doivent traiter en priorité et pourquoi ? Quelles sont les intersections entre des mouvements tels que la paix, l'action climatique, la cybersécurité et la non-prolifération, le contrôle des armes et le désarmement ?
- Dans un contexte géopolitique de plus en plus polarisé, comment les États peuvent-ils parvenir à un accord au-delà des clivages géopolitiques pour réglementer ou interdire le développement de systèmes d'armes autonomes létaux ? Quel rôle voyez-vous pour la société civile, le monde universitaire et les entreprises technologiques privées ?
- Les actifs spatiaux commerciaux commencent à jouer un rôle plus important dans la guerre moderne, qu'il s'agisse de fournir des services de télécommunications ou d'utiliser des satellites d'observation de la Terre pour aider les armées en matière de reconnaissance et de logistique. Quel rôle les entités et les technologies commerciales devraient-elles jouer dans la guerre moderne ? Identifiez et examinez les politiques et les initiatives de contrôle des armements que le Canada pourrait mettre en œuvre, au niveau national et/ou international, pour répondre à ce problème croissant.

- La conférence d'examen du TNP de 2022 a convenu de créer un groupe de travail chargé d'examiner la manière dont le processus d'examen du TNP pourrait être renforcé et de formuler des recommandations à ce sujet. Quelles nouvelles mesures seraient utiles à cet égard ?
- Compte tenu de l'objectif déclaré de l'OTAN de créer les conditions d'un monde exempt d'armes nucléaires, examiner les politiques et initiatives possibles en matière de maîtrise des armements et de désarmement, ainsi que les mesures de réduction des risques nucléaires que le Canada, en coopération avec des alliés aux vues similaires à l'OTAN, pourrait mettre en œuvre pour aider l'Alliance à réaliser des progrès concrets vers cet objectif.
- Conscient des impacts différents des armes et des conflits dans les régions du monde, comment le Canada peut-il engager plus efficacement les pays du Sud dans le désarmement, le contrôle des armes et la non-prolifération au sein des organes et des traités des Nations unies ? Veuillez utiliser un exemple de question spécifique, en précisant les positions et les priorités des pays du Sud sur les lignes d'action proposées, en soulignant les différences et les similitudes avec les positions et les priorités déclarées du Canada.

Pour obtenir de plus amples renseignements, veuillez communiquer avec Elaine Hynes de la Simons Foundation Canada par courriel à [ehynes@thesimonsfoundation.ca](mailto:ehynes@thesimonsfoundation.ca) ou par téléphone au 778-782-7779.

**Les bourses de recherche des cycles supérieurs visent d'abord et avant tout à accroître le financement accordé au cycle supérieur pour les recherches en matière de désarmement, de contrôle des armements et de non-prolifération.**