

Research Report | XXXII Annual Session

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# Special Committee One

Militarization of artificial intelligence



**MODEL UNITED NATIONS**  
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<b>Forum</b>	Special Conference 1
<b>Issue:</b>	Militarization of Artificial Intelligence
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## Introduction

The rapid pace at which technology advances today is, in many ways, a double-edged sword. The 21st century has seen many controversial technological and scientific debates draw worldwide attention - none of which are more relevant than artificial intelligence. Perhaps the most potentially limitless tool in mankind's arsenal, AI's existence poses both a threat and opportunity to humanity, and it's critical that its usage is approached with the utmost caution and open-mindedness. Although we seem to be a step away from seeing androids capable of true independent thought, artificial intelligence is no longer a far-off concept, and it's critical to erase the belief that it is. Today, AI in many forms is used to perform tasks more efficiently and fervently than any human could. Social media uses AI algorithms to personalize advertisements based on the user's online activity. In the healthcare sector, machines capable of diagnosing patients see a large degree of success. Tech giants such as Google and Microsoft own functioning facial recognition tools. Furthermore, innovations such as autonomous cars and capable digital assistants are on the front page every other day.

However, AI can be equally deadly as it is productive - if not more - when used in the wrong ways. The questionable application of AI into the battlefield is a topic which concerns the very near future of warfare. In 2017, Harvard's Belfer Center predicted that Artificial Intelligence may be as transformative to common warfare as nuclear weaponry and even weaponized aircraft.

Internationally, there is huge interest and funding in R&D regarding the militarization of AI. Fiscal reports for 2022 have shown \$874 million in funding allocated to 'artificial intelligence projects' by the US Department of Defense. Furthermore, a recent study by the Georgetown University Center



for Security and Emerging Technology reported that the People's Liberation Army (PLA) of China spends an average of \$1.6 billion on AI-related projects.

In his 2018 agenda on disarmament, *Securing Our Common Future*, Secretary General António Guterres stated that, "Arms control has always been motivated by the need to keep ahead of the challenges to peace and security raised by science and technology." AI is here now, there's no question about it. As recently as June 2022, China's Sunway supercomputer AI ran 174 trillion parameters - rivalling the capacity of our own human brain. It's of the utmost importance that we race against the rapid development of AI to plan for potential issues, and protect those involved from the great threat to peace AI could pose - if used in the wrong ways.

## Definition of Key Terms

### Narrow AI vs Artificial General Intelligence (AGI)

Artificial Intelligence is an umbrella term which encompasses a vast branch of computer science, concerned with the creation and development of machinery capable of replicating human behavior and intelligence.

AI can be generally categorized into two forms: Narrow AI and AGI. The latter is purely theoretical; AGI describes a program's ability to be applied to virtually any scenario, capable of adapting to the problem presented to it. Narrow AI describes instances of adaptable programs created for very specific scenarios - a chatbot, for example. As such, we'll be dealing with Narrow AI when discussing its application into military endeavors.

### Machine Learning

Machine Learning is one of the most fundamental types of AI generally used today. Machine Learning is used to complete minimally difficult tasks humans are also capable of; albeit at a faster pace than us. When given a set of data, an AI can cluster the items into groups, seek out and detect anomalies, identify association between variables, and even - given time - eliminate redundant/repetitive variables.

Machine Learning AIs can fall into several subsets, including supervised, semi-supervised and unsupervised learning. This describes the extent at which humans aid in the AI's 'learning' process. For example, the AI could be given labeled data, or it could be given unlabeled data and required to draw its own conclusions.

Today, Machine Learning is most used in tasks such as detecting instances of fraud/spam, personalizing social media feeds, and even to prioritize messages and emails based on previous



interactions. This in mind, Machine Learning is no doubt used in hundreds of targeting systems and navigation tools for the military, even if most of these end up undocumented.

### **Lethal Autonomous Weapons (LAWs)**

LAWs are likely the most common militaristic application of AI. LAWs are capable of independent target-seeking and engaging. Although the majority of advanced LAWs today are Anti-Air devices, LAWs may also operate on water or in the air.

Examples of currently operating LAWs include Israeli 'Trophies' as well as the US-based 'Patriot' missile systems. Currently, most LAWs are made use of defensively - however, they hold huge potential for offensive use, and so must be regulated before they become mainstream.

## **General Overview**

### **The Danger of Human Absence**

The political and social implications of AI are very rarely considered - discussions usually fall under scientific and technological headings. Although AI is a very exciting tool for humanity, with potentially limitless benefits, it's important to think of what that means for us. What exactly does a world where humans don't make decisions look like?

Releasing any form of independently capable machines into battle is a huge risk. Today, gun control in the US is a mainstream topic: it's argued that guns don't belong in the hands of untrained citizens. How then, would we feel safe putting weapons in the hands of apathetic, emotionless machinery? Removing our involvement completely is a concept which shouldn't be in debate - humans should always have the final say. In fact, in a 2021 report, Michelle Bachelet, UN High Commissioner for Human Rights, affirmed this sentiment - warning that applying Artificial Intelligence to areas involving human rights could 'have negative, even catastrophic effects'.

### **The Possible Benefits**

Although AI, in its current juvenile state, poses immense threats if applied irresponsibly and hastily, there are also many benefits to consider. Chief among these is the concept of fully automated warfare - and the elimination of human involvement from conflicts. In fact, in situations such as American involvement in Middle-Eastern conflicts, the use of unmanned and automated weapons have seen immense backing for this reason. Why send one's own men and women overseas to fight, when a nation could simply send machines with minimal risk?



Although flawed, this is a very valid argument. Countless deaths in conflicts worldwide could be prevented in the future through mutual usage of autonomous weapons by both parties. Entire wars and battles could end with not a single drop of human blood spilled. Of course, there then arises the issue of a gigantic global imbalance of power, but it stands to reason that economic superpowers see military dominance regardless of AI involvement.

## Major Parties Involved

### United Nations Office for Disarmament Affairs (UNODA)

Launched in 1998 as part of former Secretary General Kofi Annan's UN reform plan, the UNODA aims to achieve the 'ultimate goal of general and complete disarmament'. Its mandate is derived from the 10th Special Session of the General Assembly, the first disarmament-centered GA session.

The UNODA works alongside other UN bodies such as the First General Assembly and the Disarmament Commission. Through diplomacy and transparency, the UNODA consistently sets the golden standard for disarmament efforts on a regional and international scale.

As well as encouraging disarmament, the UNODA also serves as an impartial information hub on disarmament issues. It spreads objective and up-to-date information to UN Member States, as well as governmental institutions, the general public/media, and NGOs.

### Key Manufacturers

Throughout the arguments for and against the implementation of AI in the military, it's essential to include prominent and key manufacturers in this field.

In the United States, market leaders involved with the military include Lockheed Martin, L3Harris Technologies and Northrop Grumman.

UK-based BAE Systems plc is Europe's biggest defense contractor, and the seventh largest in the world as of 2021. Rafael Advanced Defense Systems, the Israel-based manufacturer, was Israel's Defense R&D Laboratory before it became a limited company.

### Leaders in Innovation



While they may not directly cooperate with international militaries, tech giants such as Google, Amazon and IBM are all major parties in this discussion. Google's DeepMind AI has been groundbreaking for research and development in AI worldwide, becoming the first computer to beat human champions in games such as Chess, Go and Jeopardy. Meanwhile, Amazon Web Services (AWS) consistently makes use of its top-of-the-line Machine Learning and AI systems to serve personalized advertisements and even develop further AI solutions. Neglecting market leaders in political discussions is common, but in such a critical situation, it's essential to consider how AI's transformative potential can even shape the market.

### Timeline of Key Events

Date	Description of event
1950	Alan Turing develops Turing Test to evaluate machine intelligence
February 22nd, 1978	Successful launch of Navstar 1, first GPS-oriented satellite
January 1994	Under US contract, General Atomics develops first Predator drone
March 22nd, 2003	Destruction of RAF Tornado Jet ZG710
November 15th, 2013	117 countries at the UN CCW agree to tackle autonomous weaponry

### UN involvement, Relevant Resolutions, Treaties and Events

- Meeting of the High Contracting Parties to the CCW, 13 November 2019, (CCW/MSP/2019/9-Annex III)



- Impact of rapid technological change on the achievement of the Sustainable Development Goals, 22 December 2017, (A/RES/72/242)
- Role of science and technology in the context of international security and disarmament, 4 December 2017, (A/RES/72/28)
- Letter from the Panel of Experts on Libya to the Secretary General, 8 March 2021, (S/2021/229)

## Previous Attempts to solve the Issue

### United Nations' Convention on Conventional Weapons (CCW)

In its efforts to gain a handle on growing AI fears, the UN has focused its efforts to regulate Artificial Intelligence through its Convention on Conventional Weapons.

The CCW is the perfect stage upon which the humanitarian benefits and risks of AI can be considered. Members of the CCW are very varied and balanced, bringing together various different perspectives on the issue. Every country with notably functioning AI weaponry is a High Contracting Member, and so are several independent institutions and organizations such as the Human Rights Watch and the International Committee of the Red Cross. Furthermore, the inclusion of young entrepreneurs and prominent business and industry leaders aids in combating the exclusion of the industry from ethical debate, as there are many stakeholder companies majorly involved.

Although the CCW has not yet produced a complete, substantial treaty signed by its members, it has served to foster constructive debate on the legal and ethical aspects of Artificial Intelligence. The CCW's Group of Governmental Experts (GGE) meet annually, with a large-scale CCW Review meeting every five years.

## Possible Solutions

### Enforcing Human Involvement

As previously stated, AI is in its juvenile state. However, it is also no longer a theoretical far-off problem, so we must now rapidly develop means of controlling and regulating the forms AI can take shape in.

After World War 1, the international community banded together to utterly ban biochemical warfare - an international agreement of this sort is now necessary. At this time, it is very improbable if



not impossible to achieve a full global ban on the militarization of AI. However, it is plausible to totally and completely ensure that there must remain human involvement.

A treaty, likely UN-formed, should be written on the issue, and the international community should halt all instances of totally independent machine weaponry - at least for now. There yet remains the possibility in the future of perfecting AI to the point where these concerns no longer exist.

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## Appendix

<https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/background-on-laws-in-the-ccw/> - Relevant Publications regarding LAWs and the results of CCW meetings

