Forum: General Assembly 1 (Disarmament & International Security)

Issue: Promoting technological development of Artificial Intelligence as a facilitator of peace

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Introduction

Artificial Intelligence, being a transformational force, holds immense promise in our present world. Currently reshaping the global landscape, AI is a relatively new advancement being used in areas such as but not limited to healthcare, education, and military. Weaponized AI has become one of the most ominous developments in recent years, finding its use in autonomous systems integrated into fighter jets, artillery systems, and surveillance tools, which only accelerates the arms race and hampers disarmament efforts. Although a vast majority of the discourse around AI revolves on its dangers and potential risks for the future, can AI be used for fostering peace?

Having the capacity to process data in depth, identify patterns, and provide insights, AI can be used to facilitate peace by revolutionizing peacekeeping. Being predictive tools in nature, AI strengthens early warning systems, which enables nations to perform timely interventions and prevents conflicts, helps nations allocate resources for humanitarian aid through surveillance, and facilitates effective post-conflict reconstruction.

AI has a huge impact on humanity, and its future outcomes are yet to be known. Thus, it is crucial to create new regulation frameworks that will ensure its use as a facilitator of peace, and its development must eliminate factors that might lead to misuses, such as machine bias. Only then can we harness AI for creating a more stable, equitable, and secure world.

Definition of Key Terms

Artificial Intelligence

Artificial intelligence, also known as AI, is *the technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy* (IBM)*.*

Machine Learning

Machine learning is a branch of artificial intelligence, focusing on enabling computers and machines to imitate human learning, perform tasks autonomously, and improve their accuracy through exposure to more data (IBM).

Optimization

Optimization is the process of increasing the effectiveness of a system through adjusting the variables used for technical analysis (Investopedia). In the case of peacekeeping operations, optimization can be used for detecting the best way to distribute sources and where to open healthcare and education facilities.

Machine (Artificial Intelligence) Bias

Formally, "machine bias is the effect of an incorrect assumption in a machine learning model that's caused by overestimating or underestimating the importance of a particular parameter or hyperparameter" (Washington Technology Solutions). On this issue specifically, it should further be considered that "artificial intelligence bias occurs when the recommendation or predictions are discriminatory or misrepresentative of a group of people" (sdgs.un.org).

Peacekeeping Operations

Peacekeeping is the operations conducted by the UN to help countries navigate from conflict to peace. In order for the peacekeeping operations to take place, the parties must consent, there must be impartiality, and force must only be used for self-defence. The UN aims to maintain peace and security, facilitate political process, protect civilians, assist disarmament, promote human rights, and demobilize combatants through these operations, restoring the rule of law (United Nations Peacekeeping).

Digital Diplomacy

Digital diplomacy is the use of technological tools, such as AI and social media, to coordinate and mobilize diplomatic actions. Diplomats may utilize digital tools to communicate, analyze policies, and

negotiate. For example, the use of Twitter by political leaders is prominent in today's world. With the use of AI for peacekeeping, digital diplomacy's scope can expand further.

Lethal Autonomous Weapon Systems

The International Committee of the Red Cross defines LAWS as "Autonomous weapon systems, as the ICRC understands them, are any weapons that select and apply force to targets without human intervention." Though no census is reached on a standard definition, LAWS are recognized as an entity and are addressed mostly in the context of the definition of the ICRC.

Background Information

The integration of Artificial Intelligence into global systems evokes both concern and opportunity, especially in its applications to conflict and peace. Inasmuch as the application of AI in warfare poses ethical, legal, and humanitarian questions, its power to facilitate peace is equally great. Policymakers have to look at both sides of this technological advance in order to try and limit the risks while enhancing its potential for stability and cooperation in the world.

Use of AI in Warfare

AI has increasingly been integrated into military systems, fundamentally changing modern warfare. The debate often revolves around the integration of AI into weaponry, more precisely categorized as Lethal Autonomous Weapon Systems. Fully autonomous systems operate independently without human interference and raise a number of ethical, legal, and humanitarian questions, while semi-autonomous systems use AI to conduct tasks such as target identification, surveillance, and tracking. Both systems, however, pose challenges that influence global security and beg many questions about the role AI might play in conflict resolution.

While advanced, AI systems suffer from machine bias and accuracy issues. Errors in target recognition and classification, inherited from biased training data, can result in false positives, increasing the risk of civilian casualties and potential war crimes. For example, South Korea's SGR-A1 sentry gun highlights how semi-autonomous systems struggle with nuanced decision-making. AI-powered drones, deployed in conflicts such as the Russo-Ukrainian War and the Nagorno-Karabakh War, have come under question for collateral damage and destabilization of battlefield dynamics.

Compliance with International Humanitarian Law is the main issue concerning AI systems. Humanity, distinction, and proportionality are all principles that demand decision-making based on ethics and understanding of a situation, which is exactly what AI lacks. AI is void of empathy and cannot effectively draw lines between combatants and civilians in somewhat gray situations, hence its heightened risk for

misidentification. The principle of proportionality, where an attack's collateral damage must not exceed the military advantage, remains something cumbersome for AI systems to calculate; thereby, it leads to unintended humanitarian crises. Advanced military applications further expanded the role of AI in warfare. Autonomous vehicles and drones powered by AI have increasingly been employed for reconnaissance, surveillance, and even precision strikes, and they significantly reshape military operations. In the command and control system, AI processes the vast amount of battlefield data to assist in decision-making, while overreliance on automation introduces risks of misjudgment in critical situations. Cyber warfare is another domain in which AI plays both a defensive and offensive role: detecting cyber threats in real-time and allowing for automated attacks that could destroy critical infrastructure.

The absence of accountability for autonomous systems brings up urgent questions. Unlike human soldiers, AI systems cannot be held responsible for errors, making it unclear where liability lies: with programmers, operators, or the AI itself. This lack of regulation has enabled countries to develop and experiment with LAWS without oversight, accelerating the prospect of an AI arms race. Geopolitical tensions are further heightened while global powers like the United States, China, and Russia race for dominance in AI-enabled weaponry. Smaller nations, in turn, are driven to invest in similar technologies or form defense alliances, increasing the militarization of AI worldwide.

It was further said that the unabated integration of AI into military systems without ethical regulations and international frameworks threatens to undermine global security and erode confidence among nations. Modern warfare has indeed been transformed, but the unregulated militarization of AI underlines the need to shift AI development toward peace-oriented applications.

The Potential Use of AI for Peace

Given AI challenges in warfare, there exists an opportunity to employ this technology for global stability: using its potential as a facilitator of peace. Therefore, AI is an extremely good tool in conflict prevention, peacekeeping, and post-conflict reconstruction thanks to its ability to process loads of data, show pattern recognition, and work resource-efficiently.

AI can predict and prevent conflicts by recognizing early warning signals of instability. Algorithms, which can analyze economic, political, and social information, enable governments and international organizations to identify trends, often precursors to violent conflicts, such as misinformation, rising tensions, or resource scarcity. Organizations like the United States Institute of Peace are already using AI-driven analytics to forecast unrest and facilitate preemptive interventions.

AI improves monitoring and crisis management in peacekeeping operations. With the help of drones, satellite imagery, and AI-powered data analysis tools, real-time surveillance is possible, which can be used by organizations such as the United Nations for tracking ceasefire violations, detecting human

rights abuses, and delivering humanitarian aid with efficiency. These tools ensure that peacekeeping missions remain effective while minimizing risk to personnel on the ground.

AI applications are also great beneficiaries in post-conflict reconstruction. With the help of AI tools, humanitarian aid can be distributed to where it is most needed, quickly and more effectively. AI further assists in urban planning, infrastructure rebuilding, and healthcare assessments in war-torn areas. For instance, AI has been used to map damage in post-war zones, predict outbreaks of diseases, and coordinate relief efforts to better living standards. Global initiatives have gone ahead to emphasize the potential of AI for peace. For example, AI for Peace advocates for a collaborative approach in the application of AI to conflict resolution, misinformation mitigation, and diplomatic dialogue. The AI for Good Global Summit is a platform driven by the ITU, bringing together stakeholders in the development of AI-driven solutions that contribute to the SDGs on peace, justice, and effective institutions. While AI will continue to be a force for peace, ethical governance cannot be sacrificed. Initiatives such as UNESCO's AI Ethics Framework have underlined the need for equitable access, transparency, and accountability in the development of AI. Equally, the UN Secretary-General's Roadmap for Digital Cooperation emphasizes the need for inclusive, international cooperation to prevent AI technologies from exacerbating global inequalities or fanning conflicts.

By focusing on the ethical development of AI and encouraging international cooperation, countries can transform AI from a weapon of war into a bridge to sustainable peace. If harnessed for preventing conflicts, responding to crisis situations, and rebuilding shattered societies, AI will yield long-term stability and security for the world.

Major Countries and Organizations Involved

United Nations

The United Nations has embraced artificial Intelligence for the outstanding contribution it can make towards the advancement of global peace and security. AI technologies are being used increasingly to support peacekeeping operations, humanitarian responses, and conflict resolution by making the collection, analysis, and interpretation of data much faster and more efficient. UN activities revolve around making the technology responsible, and ethical standards to protect human rights, and not perpetuate inequality. The key initiatives included providing frameworks to guide AI use in conflict prevention and peacebuilding while tending to the risks driven by unregulated AI-inclusive biases or military misuse.

European Union

The European Union has adopted an integrated approach to AI, emphasizing ethical use, innovation, and societal benefits. Several treaties govern the approach of the European Union to AI, including the TFEU for innovation and technological development, and the Charter of Fundamental Rights for ensuring that AI respects human rights. Specific AI regulations, such as the AI Act, are established to develop safety standards and ethical guidelines for deploying AI across member states. This ensures that the application of AI in various areas, including peacebuilding and security, is done responsibly and for the benefit of many. The EU seeks to create an enabling environment where AI can be developed responsibly while continuing to advance economic growth and social welfare.

African Union

In order to achieve socio-economic development on the continent, the African Union is committed to utilizing AI in full throttle. In 2024, the AU adopted its Continental AI Strategy, which aligns with Agenda 2063's goal of Africa becoming a global leader in innovation and technology developments. The plan seeks to satisfy African requirements while making AI responsible, inclusive, and ethical. The AU fosters the "local-first" approach to AI: it needs to be directed at the concrete problems of African countries-such as healthcare, agriculture, climate change, and all the rest.

United States of America

The US defines LAWS as "a special class of weapon systems that use sensor suites and computer algorithms to independently identify a target and employ an onboard weapon system to engage and destroy the target without manual human control of the system." The U.S. claims to possess no weaponry that fits its description; however, as mentioned before, there is no agreed-upon description of LAWS and current descriptions certainly do not prohibit the assistance of AI. Furthermore, according to the Congressional Research Service, published on February 1st, 2024, "U.S. policy does not prohibit the development or employment of LAWS." So if not semi-autonomous, the development of fully-autonomous weaponry is unregulated, if not encouraged. The US Air Force's F-35 Lightning II, F-22 Raptor, General Dynamics Griffin, and many more weapon platforms utilize or plan to utilize AI. Infamous US unmanned aerial vehicles, such as the MQ-9 Reaper utilize AI for autonomous flight, data processing, and most importantly, automatic target recognition.

Russia

Russian weaponry such as autonomous weapons, missile systems, command and control systems, and weapons of cyber warfare have all been reported to have utilized AI. The platforms that have been reported to have utilized AI the most are autonomous weapons. The new Russian UAV Altius-U, for example, has been of being capable of "independently [laying] a route to a target or a given patrol area without a human operator, bypassing a potential enemy's air defense zones, and also detect and attack important ground targets: missile launchers, communication centers, and headquarters" (Sergey).

China

China has employed AI in similar areas to that of the US, including but not limited to autonomous weapons, missile systems, command and control systems, and weapons of cyber warfare. It is widely suspected, but not proved due to the confidentiality of information regarding CH-5 Rainbow, that the CH-5 Rainbow of China utilizes AI like its counterparts on similar tasks to that of the MQ-9 Reaper's. The development of LAWS is similarly not prohibited by Chinese policy, and AI has started to be widely incorporated into weaponry.

Israel

Widely reported on in the last few years, Israel openly utilizes AI in weaponry as demonstrated most popularly with their missile defense system "Iron Dome". The Iron Dome is used in action frequently, intercepting incoming missiles. There are numerous reports where the Iron Dome has saved lives that have been claimed to be unsavable without AI, and it has also failed to intercept on occasion, causing casualties. As it is a defense system, the ethics of autonomous lethality does not pose a great issue, however, the failed interceptions do tell a story. Israel and the Iron Dome is a case study for the resilience of AI and how it can be trusted. Similar defense systems such as South Korea's SGR-A1 which have been in use for some time outline measures of the incorporation of AI into weaponry.

Industry Leaders

Google DeepMind, OpenAI, IBM Watson, Microsoft AI for Humanitarian Action, and Amazon Web Services have pioneered advancements in AI, developing machine learning and data analysis capabilities, and enabling AI tools to address global challenges such as resource allocation. These companies have stated that they're aiming to develop safe and transparent tools that can be applied to humanitarian operations, such as communication facilitation, healthcare optimization, crisis response, and post-conflict reconstruction.

Timeline of Events

Date	Description of event
1950s	AI concepts emerge with Alan Turing's "Turing Test."
1956	Dartmouth Conference establishes AI as a field.
1980s	AI experiences an "AI winter," reducing funding.
2010s	Deep learning revolutionizes AI with applications in voice recognition, gaming, and autonomous vehicles.
November 2022	ChatGPT gets launched by OpenAI, enabling the public to access AI tools regularly.

Previous Attempts to Solve the Issue

Previous efforts using AI for peace have shown both its potential in conflict prevention and peacebuilding, though challenges are persistent. The UN, EU, and African Union have explored the role of AI in improving peacekeeping, analysis of conflict, and communications between parties. AI tools are being developed for conflict escalation prediction and to aid in post-conflict recovery. However, the dual-use nature of AI complicates applications. While AI has been integrated into military weaponry, raising concerns about autonomous weapons systems, its potential for destabilization is evident. The research underlines that ethical guidelines and responsible design are needed not to increase conflicts. Despite progress, the militarization of AI remains a significant negative aspect. In conclusion, while AI offers hope for peace, the use of AI warfare still is a threat to international stability, stressing the need for international cooperation and regulation in order to ensure its peaceful use.

Possible Solutions

Global cooperation is very instrumental in promoting AI as a peacemaking tool. A unified framework under the UN would provide ethical guidelines on how AI should be used in building peace, thus allowing different nations to contribute to or benefit from its peaceful applications. Collaboration between AI industry leaders and countries affected by conflict should focus on equitable access and knowledge and technology sharing.

The research should be incentivized towards developing applications of AI for early conflict detection, in support of peace negotiations, and the better delivery of humanitarian aid. Public-private partnerships can contribute to financing these initiatives to ensure that resources are spent on projects whose objective is the welfare of humans. Developing countries also need focused capacity-building programs to assist them in leveraging AI for conflict resolution and humanitarian purposes. These should include the training of AI systems using diverse, unbiased data to avoid perpetuating existing inequalities. The potential of AI in peacekeeping should be further explored.

AI-powered systems can be used to monitor ceasefires, track human rights violations, and enable communication between parties in conflict. After the end of conflicts, AI can contribute to rebuilding, for example, by managing resources and infrastructure development. To make sure that AI is used ethically and responsibly, auditing frameworks for AI systems in conflict zones should be established. These

audits will ensure transparency, and accountability, and that AI remains aligned with peacebuilding objectives. So, AI regulation in conflict situations is still largely unregulated; therefore, this issue is of much concern for all nations. Even as every country has its interests, nobody is better off without an inclusive and cooperative convention. To mitigate risks, the need to come together and reach common ground is imperative to prevent a very controversial stance with an end to consensus on global peace and stability.

Bibliography

admin. "Artificial Intelligence and Disinformation: Role in 21st Century Conflicts | Centro de Estudios Estratégicos Del Ejército Del Perú." *Centro de Estudios Estratégicos Del Ejército Del Perú | Think Tank Del Ejército Del Perú*, 15 Aug. 2024, ceeep.mil.pe/2024/08/15/inteligencia-artificial-y-desinformacion-papel-en-los-conflictos-del-siglo-xxi/?lang=en. Accessed 21 Dec. 2024.

""Altius." Heavy Russian drone with artificial intelligence." *Military Review*, 27 March 2020, https://en.topwar.ru/169438-altius-tjazhelyj-rossijskij-bespilotnik-s-iskusstvennym-intellektom.html. Accessed 20 December 2024.

Dresp, Birgitta. "The weaponization of artificial intelligence: What the public needs to be aware of." *NCBI*, 8 March 2023, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10030838/. Accessed 20 December 2024.

Hawley, John K. "Patriot Wars." *Center for a New American Security*, https://www.cnas.org/publications/reports/patriot-wars. Accessed 20 December 2024.

"Kluz Prize for PeaceTech." *Kluzprize.org*, 2024, www.kluzprize.org/updates/how-artificial-intelligence-can-support-peace/. Accessed 21 Dec. 2024.

Niyitunga, Eric. "The Role of Artificial Intelligence in Promoting Digital Public Participation for Successful Peacebuilding in Africa." *African Journal of Peace and Conflict Studies*, vol. 13, no. 1, Apr. 2024, pp. 25–49, https://doi.org/10.31920/2634-3665/2024/v13n1a2. Accessed 26 Sept. 2024.

Sayler, Kelley M. "Defense Primer: U.S. Policy on Lethal Autonomous Weapon Systems." *CRS Reports*, https://crsreports.congress.gov/product/pdf/IF/IF11150. Accessed 20 December 2024.

Senatus, F. "Pentagon Integrates New AI into F-35 to Fly & Attack into 2070." *Warrior Maven*, 13 December 2023, https://warriormaven.com/air/pentagon-integrates-new-ai-into-f-35-to-fly-attack-into-2070. Accessed 20 December 2024.

Tirpak, John A. "Fifth-Generation Weapons." *Air & Space Forces Magazine*, 16 February 2023, https://www.airandspaceforces.com/article/fifth-generation-weapons/. Accessed 20 December 2024.

"UN Science Policy Brief.docx." *Sustainable Development*,

https://sdgs.un.org/sites/default/files/2023-05/A14%20-%20Abbey%20-%20Artificial%20Intelligence%20Bia

   s.pdf. Accessed 16 February 2024.

Pandit, Puja. "Artificial Intelligence for Peacebuilding - Opportunities & Challenges." *Vision of Humanity*, 9 Dec.

   2022, www.visionofhumanity.org/artificial-intelligence-as-a-tool-for-peace/.

"Promoting Peace: How Can Data Assist? ." *Unesco.org*, 2024, unesdoc.unesco.org/ark:/48223/pf0000372284.

   Accessed 21 Dec. 2024.

"What is Machine Bias?" *WaTech*, https://watech.wa.gov/what-machine-bias. Accessed 20 December 2024.

Yazıcı, Bülent. "Problematic Issues of Autonomous Weapon Systems In terms of International Law of Weaponry

   and Politics." 03.05.2019. *dergipark*, https://dergipark.org.tr/tr/download/article-file/745344. Accessed 20

   December 2024.