THE HYDERABAD PUBLIC SCHOOL RAMANTHAPUR

IPSC MUN 2024

UNITED NATIONS GENERAL ASSEMBLY GUIDE (UNGA)

Agenda:

Artificial Intelligence in Military Applications: Regulating Autonomous Weapons and Their Impact on Global Security

About the Committee

The United Nations General Assembly

Introduction

The United Nations General Assembly (UNGA) stands as one of the six principal organs of the United Nations, embodying the essence of multilateral diplomacy and global governance. Established in 1945 under the UN Charter, the General Assembly serves as the main deliberative, policymaking, and representative organ of the United Nations. It comprises all 193 member states, each of which has one vote, and it functions as a unique forum where every nation, regardless of its size or power, has an equal opportunity to voice its perspectives and contribute to international decision-making.

Structure and Function

The General Assembly meets annually in a regular session beginning each September, in New York City, and it may also convene in special sessions as needed. During these sessions, the Assembly addresses a wide range of global issues including peace and security, human rights, international law, and economic development. Each session begins with an address by the Secretary-General and typically features speeches by heads of state or government, setting the stage for discussions on pressing global challenges.

One of the key features of the UNGA is its committees, which are instrumental in managing the Assembly's vast agenda. These committees focus on specific thematic areas, allowing for more detailed discussions and the formulation of recommendations that are

then presented to the full Assembly for consideration. There are six main committees within the General Assembly, each tasked with distinct responsibilities:

1. **First Committee (Disarmament and International Security):** This committee deals with issues related to disarmament, global security, and arms control. It addresses topics such as nuclear proliferation, conventional weapons, and the prevention of an arms race in outer space.

2. **Second Committee (Economic and Financial matters):** Focused on economic and financial matters, this committee tackles issues related to sustainable development, international trade, and global economic policies. It examines ways to foster economic growth while addressing poverty and inequality.

3. **Third Committee (Social, Humanitarian, and Cultural issues):** This committee deals with social and humanitarian issues, including human rights, the advancement of women, and the treatment of refugees. It also addresses cultural and educational topics.

4. **Fourth Committee Special Political issue and cooperation in outer space):** Responsible for political issues not dealt with by other committees, the Fourth Committee focuses on topics such as decolonization, the role of non-self-governing territories, and international cooperation in outer space and decolonization.

5. **Fifth Committee (Administrative and Financial Report):** This committee oversees the administration and budget of the UN. It reviews financial reports and budget proposals to ensure effective use of resources and transparency.

6. **Sixth Committee (Legal issues):** Dedicated to legal matters, this committee considers issues related to international law, including treaties, the law of the sea, and the International Court of Justice. It works to develop and codify international legal norms and principles.

Role and Impact

The UNGA committees play a crucial role in shaping global policies and fostering international cooperation. By addressing specific issues in a detailed and focused manner, these committees help streamline the General Assembly's work and enable more nuanced discussions. The resolutions and recommendations emerging from the committees reflect a collective effort to address global challenges and promote shared values.

The impact of the General Assembly's committees extends beyond the UN framework. Their discussions and resolutions can influence international agreements, shape national policies, and contribute to global norms and standards. For instance, the work of the First Committee has been pivotal in advancing arms control agreements and fostering disarmament initiatives. Similarly, the Second Committee's discussions on economic issues can influence global financial policies and development strategies.

In summary, the United Nations General Assembly, with its diverse committees, represents a cornerstone of international diplomacy and cooperation. Through its structured approach to addressing global issues, the UNGA provides a platform for nations to collaborate on solutions to common challenges, thus playing a critical role in maintaining international peace and security, promoting human rights, and fostering sustainable development.

Recent Meeting , Resolutions

The 79th session of the United Nations General Assembly marks a crucial milestone in the global effort to accelerate progress towards the 17 Sustainable Development Goals (SDGs). The highly anticipated Summit of the Future, held during UNGA, underscores the urgent need for enhanced international cooperation to address pressing challenges such as climate change, poverty and inequality, while also tackling the impacts of ongoing conflicts and global health crises. The UN Department of Global Communications will hold its flagship SDG Media Zone during the high-level week 23-27 September, with impactful in-depth interviews and dialogues on global issues that matter to people everywhere.

This Summit aims to reaffirm commitments to the Sustainable Development Goals (SDGs) and the United Nations Charter while enhancing cooperation and laying the foundations for a reinvigorated multilateral system. The Summit will result in a negotiated Pact for the Future, an action-oriented document aimed to bolster global cooperation and adapt to current challenges effectively for the benefit of all and for future generations. In addition, the Secretary-General of the United Nations is convening the Summit of the Future Action Days on 20 and 21 September 2024 to generate additional opportunities for the engagement of all actors.

Introduction to the Agenda

Artificial Intelligence in Military Applications: Regulating Autonomous Weapons and Their Impact on Global Security

The increasing integration of Artificial Intelligence (AI) in military applications is reshaping modern warfare and global security. Among the most critical developments is the rise of _Autonomous Weapons Systems (AWS)_, which are capable of independently selecting and engaging targets without direct human input. This evolving technology presents significant ethical, legal, and strategic implications that the global community must address.

AI-driven military applications promise enhanced operational capabilities, greater precision, and reduced risk to human soldiers. However, the deployment of autonomous weapons introduces several challenges. Key concerns include the potential for unintended escalations, the absence of human accountability in decision-making, and the risks of AI being used in ways that violate international humanitarian law. The potential for misuse by non-state actors or in destabilizing global power dynamics further complicates the issue.

This agenda calls upon member states to engage in comprehensive discussions regarding the development, regulation, and control of AI technologies in the military sector. The goal is to explore frameworks for ensuring that the use of AI in warfare is aligned with international laws and ethical standards while preventing an arms race in autonomous weapons. This session will also address how the introduction of AI in military contexts impacts global security, focusing on mitigating risks and promoting stability.

The challenge lies in balancing the benefits of AI in enhancing security while ensuring that its application does not undermine peace or

human rights. This topic will examine both the technological developments and the urgent need for international cooperation in regulating the use of AI in warfare.

<u>AI in the recent years</u>

In the last five years, the field of AI has made major progress in almost all its standard sub-areas, including vision, speech recognition and generation, natural language processing (understanding and generation), image and video generation, multi-agent systems, planning, decision-making, and integration of vision and motor control for robotics. In addition, breakthrough applications emerged in a variety of domains including games, medical diagnosis, logistics systems, autonomous driving, language translation, and interactive personal assistance.

The core technology behind most of the most visible advances is *machine learning*, especially deep learning (including generative adversarial networks or GANs) and reinforcement learning powered by large-scale data and computing resources.GANs consist of two interlocked components—a generator, responsible for creating realistic content, and a discriminator, tasked with distinguishing the output of the generator from naturally occurring content. The two learn from each other, becoming better and better at their respective tasks over time. One of the practical applications can be seen in GAN-based medical-image augmentation, in which artificial images are produced automatically to expand the data set used to train networks for producing diagnoses.In the past ten years, machine-learning technologies have moved from the academic realm into the real world in a multitude of ways that are both promising and concerning.

Autonomous vehicles or self-driving cars have been one of the hottest areas in deployed robotics, as they impact the entire automobile industry as well as city planning. The design of self-driving cars requires integration of a range of technologies including sensor fusion,

AI planning and decision-making, vehicle dynamics prediction, on-the-fly rerouting, inter-vehicle communication, and more. Driver assist systems are increasingly widespread in production vehicles. These systems use sensors and AI-based analysis to carry out tasks such as adaptive cruise control to safely adjust speed, and lane-keeping assistance to keep vehicles centered on the road.

While many problems require more than just technical solutions, increasing attention is paid to technologies that can at least partly address the issues.

Military Technology

Military technology is the application of technology for use in warfare.

The global military apparatus is witnessing significant transformations and leveraging technology trends to strengthen capabilities. Major trends include artificial intelligence, robotics, and the Internet of Things to optimize defense operations and augment military efficiency. Today, conventional warfare is increasingly being replaced by hybrid approaches that also combine cyber warfare and other frontiers. Emerging military technology trends are changing the battlefield in four aspects—connectivity, lethality, autonomy, and sustainability.

Connectivity solutions address concerns about how combatants detect and locate their adversaries, communicate with each other, and direct operations. Advances in missile and weapons technologies increase lethality, making battlefield operations more effective. On the autonomy front, startups utilize robotics and AI to execute decisions with zero or minimum human interference. Lastly, startups are improving sustainability in the defense industry with technologies like additive manufacturing and electrification.

In response to emerging threats, more sophisticated defense equipment is being developed. This includes innovations from hypersonic flights and directed energy weapons to space militarization. Aligning with the objective of achieving net-zero emissions, the defense industry is making significant strides.

Investments are being made in battlefield electrification techniques, such as electric propulsion and hydrogen fuels for military aircraft. This facilitates a transition towards more sustainable operations.

In addition, research in biotechnology and nanotechnology is advancing, leading to the creation of innovative equipment like self-healing armor. Advanced wearable tech, integrated with biometric sensors, is another area of focus. This technology optimizes combat readiness and situational awareness for soldiers, enhancing their performance on the battlefield.

Autonomous Weapons

What are Autonomous Weapons Systems (AWS)?

Autonomous Weapons Systems (AWS) refer to weaponry that can select, engage, and potentially destroy targets without human intervention. These systems utilize Artificial Intelligence (AI), machine learning, and sensors to independently carry out complex military tasks, including target identification, tracking, and engagement, with minimal or no real-time human control. AWS encompasses a range of technologies, including drones, unmanned ground vehicles (UGVs), autonomous submarines, and robotic combat platforms.

While they can operate under human supervision (semi-autonomous), fully autonomous systems are designed to operate in dynamic environments where they make life-or-death decisions without immediate human oversight.

Types of Autonomous Weapons Systems:

1. **Lethal Autonomous Weapon Systems (LAWS):** These systems are designed to apply deadly force without human intervention.
2. **Non-lethal Autonomous Systems:** Used for reconnaissance, surveillance, and logistics, non-lethal systems do not engage in combat but can be employed for support roles in military operations.

Potential Uses of Autonomous Weapons Systems

1. **Combat and Direct Engagement**: AWS could be used in _direct combat_ scenarios, where they autonomously engage enemy forces, destroy critical infrastructure, or neutralize threats. This can include aerial drones, ground vehicles, or naval systems

engaging with enemy forces in conventional warfare or asymmetric conflict.

2. **Surveillance and Reconnaissance:** One of the primary non-lethal applications is in *intelligence, surveillance, and reconnaissance (ISR).* Autonomous systems can gather critical information on enemy movements, track targets, and provide real-time intelligence to commanders without putting human personnel at risk.

3. **Logistics and Supply Chain:** Autonomous systems could be employed for *logistical support,* delivering supplies, ammunition, and medical aid in battlefield environments. Unmanned systems can operate in dangerous areas to support human soldiers, reducing logistical delays and ensuring continuity in operations.

4. **Border and Maritime Patrol:** Autonomous systems can monitor borders or patrol vast maritime regions, detecting unauthorized intrusions, illegal activities, or potential threats. These systems can operate continuously and cover more ground than human patrols.

5. **Mine Detection and Clearance:** AWS could be used to *detect and neutralize mines* and other explosives in combat zones or former battlefields, reducing risks to human personnel.

Global Impact and Regulatory Challenges

The deployment of autonomous weapons presents a significant challenge for *international security and diplomacy.* The lack of global consensus on AWS usage risks a fragmented approach, where countries develop and deploy these systems independently of international norms or regulations. The United Nations and other multilateral institutions are working to develop a framework that can address the following:

1. **Legal Framework:** There is a need to develop international legal standards governing the development and use of AWS. Ensuring compliance with International Humanitarian Law (IHL) is critical to maintaining the legitimacy of military operations.

2. **Ethical Guidelines:** Global efforts to create ethical standards for AWS are essential. These standards would govern not only the development and deployment of such systems but also the accountability mechanisms in case of misuse or errors.

3. **Technological Control:** Effective mechanisms to *control and restrict* the proliferation of AWS are vital. Monitoring the development and sale of AWS to prevent access by rogue states or non-state actors is critical to global stability.

4. **Non-State Actors and Terrorism:** There is growing concern that AWS could fall into the hands of non-state actors or terrorist organizations. The accessibility of AI technology and autonomous systems increases the likelihood that these technologies could be used for malicious purposes.

Advantages of Autonomous Weapons Systems

1. **Increased Efficiency and Speed:** AWS can process vast amounts of data in real-time, making quick decisions based on pre-programmed criteria or machine learning algorithms. This enables faster response times in combat situations compared to human decision-making.

2. **Reduced Risk to Human Soldiers:** By using autonomous systems, militaries can minimize the risk to human personnel, especially in dangerous combat zones or high-risk missions, such as bomb disposal or surveillance in hostile environments.

3. **Precision and Accuracy:** Autonomous systems can be programmed to minimize collateral damage through precision targeting. With AI, AWS can be designed to discriminate

between combatants and civilians, potentially reducing the risk of civilian casualties when properly implemented.

4. **Cost-effectiveness:** Over time, the deployment of autonomous systems can reduce long-term costs related to personnel training, logistical support, and casualties. AWS can operate continuously without fatigue, extending operational capacity.

5. **Scalability and Multi-tasking:** Autonomous systems can be scaled to handle multiple tasks simultaneously, from conducting surveillance to providing logistical support or engaging multiple targets in combat scenarios.

Disadvantages and Concerns of Autonomous Weapons Systems

1. **Ethical and Moral Concerns:** The most significant concern is the delegation of lethal decision-making to machines, raising profound ethical issues. Can machines be trusted to make life-or-death decisions? Is it morally acceptable to remove human judgment from the battlefield?

2. **Lack of Accountability:** In cases of errors or wrongful killings, it is difficult to hold anyone accountable. If an AWS makes a mistake, it raises the question of responsibility: is it the machine's designer, the programmer, or the commander who deployed it? This creates a legal gray area.

3. **Risk of Escalation and Unintended Consequences:** AWS could act in ways that escalate conflict unintentionally. For instance, autonomous systems may misinterpret signals or data, potentially leading to unnecessary or disproportionate violence, which could lead to broader escalations of conflict.

4. **Technological Reliability and Errors:** Despite advancements, no system is perfect. AWS can still malfunction, be hacked, or misinterpret information. Technical errors or adversarial

manipulation could lead to unintended and possibly catastrophic consequences.

5. **Arms Race and Proliferation:** The development and deployment of AWS could trigger a new arms race, with countries competing to develop increasingly sophisticated and lethal systems. This raises the risk of global instability as more countries and non-state actors gain access to these systems.

6. **Inability to Adhere to International Humanitarian Law (IHL):** AWS may struggle to comply with established norms of warfare, such as distinguishing between civilians and combatants, understanding context, or making proportionate responses in dynamic environments. These are key principles of IHL, and their violation could have severe humanitarian implications.

Note from Executive Board

Dear Delegates,

As we approach the upcoming HPSR IPSC Model United Nations conference, we would like to emphasize the importance of thorough and comprehensive preparation. The background guide provided serves as an essential starting point for your research, offering foundational information on the topics of AI's role in recent years, autonomous weapons, and their impact on global security. However, it is crucial to recognize that this guide is only a base and should not be your sole source of information.

We strongly encourage each of you to conduct extensive research beyond the background guide. A well-rounded understanding of the issues at hand will be crucial for effective participation and debate. In addition to the content outlined in the guide, please ensure you explore recent developments, diverse perspectives, and the latest research related to the agenda items.

Furthermore, a deep understanding of foreign relations and the positions of various countries on these issues will enhance your ability to engage in meaningful discussions and negotiations. Familiarizing yourself with different national policies, international treaties, and geopolitical contexts will provide valuable insights and enable you to represent your assigned country's stance more effectively.

We look forward to your active participation and well-informed contributions at the conference. Thank you for your dedication to thorough preparation.

Best Regards

The Executive Board (UNGA)