Forum: GA1

Issue #G1-02: Emerging technologies regarding the arms trade

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Introduction

Although the arms trade is a lucrative business, with billions of dollars spent every year on weapons and military equipment, it is no secret that it has always been shrouded in controversy. Yet, with the emergence of new technological advances, this industry has been blessed with a diverse range of opportunities. From the 3D printing of weapons to the use of artificial intelligence in targeting systems, the arms industry is undergoing a technological revolution that raises ethical and security concerns, as well as creating an ambiguous and complex territory for policymakers. As we enter an era where autonomous systems, artificial intelligence, and robotics are increasingly prevalent, the question arises: are we ready for the ethical and legal implications of these advanced technologies? Although it is argued that their integration can potentially increase military efficiency and reduce human error, it also raises questions about accountability and the potential for misuse. It is important for policymakers and industry leaders to address these issues and ensure that the development and use of advanced technologies in the arms trade are guided by ethical principles and international law.

Definition of Key Terms

The Arms Trade: The arms trade refers to the buying and selling of weapons and military equipment between countries or companies. It involves the production, transfer, and circulation of weapons, including guns, ammunition, missiles, and other military equipment. The arms trade is often associated with the defence industry, which comprises companies that produce and sell weapons, as well as governments that purchase them for their armed forces or for other purposes such as law enforcement or national security. The arms trade can have significant economic, political, and social impacts on countries and regions, and is often subject to regulation and scrutiny by international organizations and governments.

The Arms Trade Treaty: The treaty was adopted by the United Nations General Assembly in 2013 and has been endorsed by over 100 countries. It consists of a multilateral treaty that aims to regulate international trade in conventional arms, seeking to prevent its illicit trade, as well as promoting transparency and reducing violence.

Emerging technologies: In this context, emerging technologies in the arms industry refer to new and advanced technologies that are being developed and used in military and security operations.

Autonomous weapons systems: Autonomous weapons systems, otherwise known as Lethal autonomous weapons (LAWs), are any weapon system that is capable of independently identifying a target and attacking it without human intervention. These weapons are developing at an incredibly rapid pace. The current debate is whether we should allow this technology to be deployed. On one hand, they are said to have the potential to revolutionize warfare, nevertheless, they also raise significant ethical and legal concerns at an international level.

Artificial Intelligence: Artificial Intelligence (AI) is a field of computer science that aims to create machines that can perform tasks that would typically require human intelligence, such as understanding natural language, recognizing images, and making decisions. AI has many applications in defense and security, from improving surveillance and reconnaissance capabilities to assisting with decision-making in complex military operations.

Cybersecurity and Cyberwarfare: terms used to describe the protection of computer systems and networks from cyberattacks, as well as the use of those systems to conduct offensive operations in the digital domain. Cybersecurity has become increasingly important in the modern world, as more and more critical infrastructure and sensitive information are stored and transmitted online.

Drones: Drones, also known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UASs), are aircraft that are operated remotely by a pilot on the ground or by a pre-programmed automated system.

Hypersonic: refers to the ability to travel at speeds greater than Mach 5, or five times the speed of sound.

Hypersonic weapons: Refers to a new class of weapons that can fly at hypersonic speeds and have the potential to bypass traditional defence systems. They are currently being developed by several countries and are considered a growing threat to global security.

Issue Overview

The controversy surrounding the use of emerging technologies in the arms industry stems essentially from the fact that new technologies give rise to previously unconsidered scenarios in arms control, in other words, policymakers cannot seem to keep up, making this an ambiguous legal territory. Some claim that the armaments industry's rapid technological development has surpassed regulation, thereby giving rise to the possibility of these technologies being abused by states or non-state entities. Additionally, concerns are growing about the development of weapons that can select and engage targets without human intervention. Many people are concerned that these weapons will malfunction or be hacked, resulting in unintentional harm and fatalities. Furthermore, drones, cyber weapons, and artificial intelligence, among other emerging technologies, have the potential to transform warfare by making it simpler and cheaper to launch strikes remotely, with fewer personnel required. Moreover, it can be argued that deploying new technologies in combat can have a significant impact on civilian populations, raising concerns about the

possibility of unintended harm and casualties, as well as long-term psychological effects on people and communities.

The other side of the debate stands by the fact that there are several advantages to adopting these new technologies. For instance, they could potentially improve the accuracy of weapons systems by not needing to be controlled by a human, hence reducing the risk of collateral damage and civilian casualties. Furthermore, unmanned aerial vehicles (UAVs) and satellites, for example, can supply commanders actual insights about the battlefield, enabling them to make more informed judgments and react to changing circumstances more swiftly. Moreover, the employment of these autonomous technologies can lower the risk to soldiers, and consequently decrease the number of deaths and violence, since there is no need for the soldiers to preserve themselves. In addition, By making military operations more effective, new technology can decrease the amount of time and money needed for setting and achieving military goals. On the same note, the creation of newer technologies can assist in the evolution of other fields that are essential to society, such as medicine and transportation.

Historical Background

The arms trade has a long history dating back to the earliest civilizations, where the production and trade of weapons played a crucial role in warfare and power struggles. During the early modern period, some European countries became self-sufficient in producing arms, while others contracted foreign firms to manufacture military equipment. The latter half of the 19th century saw the emergence of large military-industrial companies, which led to the modern arms industry. Germany and Prussia's adoption of mechanized weapons gave them an edge in World War I. This was made possible by the significant advances in technology that had military applications, such as the development of steam power, rifling in firearms, and the telegraph, which enabled more rapid communication between military leaders.

The 20th century saw the arms trade expand significantly, with the US and USSR supplying weapons to their proxies worldwide during the Cold War. This was accompanied by the introduction of many new technologies that were quickly adopted for military use. During World War I, aeroplanes were used for reconnaissance and later for bombing, while tanks, submarines, and machine guns were widely used. Advances in radar technology during World War II enabled more effective air defence and allowed for more accurate bombing runs. The atomic age was ushered in at the end of the war with the use of nuclear weapons, demonstrating the devastating power that technology could wield in warfare.

In the post-World War II era, advances in missile and satellite technology have given military forces new capabilities for reconnaissance and long-range strike, while the development of cyber weapons and the increasing importance of information technology have given rise to new types of warfare. Despite being criticized as "merchants of death," arms dealers continue to play a significant role in international relations, with governments around the world investing heavily in technology to maintain an edge on the battlefield.

Latest Events

Although the international arms market has suffered a downturn over the previous decade, military imports into Europe have spiked significantly, partly due to tensions between Russia and Ukraine. The weapon industry is currently worth an estimate of $112 billion (since 2020)

Major Parties Involved

The United States (USA)

With over 38% of all global arms exports from 2017 to 2021, the United States is the world's largest exporter of weapons worldwide, supplying weapons to over 100 countries. The US also participates in the development of cutting-edge technologies related to the arms trade and is a significant producer of military technology.

Russia

With 20% of all global arms shipments from 2017 to 2021, Russia is the second-largest exporter of weapons worldwide, nevertheless, this percentage has decrease over the last years. Russia is a major producer of conventional weapons, including tanks, fighter jets, and missiles.

France

France is the world's third-largest supplier of weapons, accounting for over 10% of total shipments between 2017 and 2021, and is appearing to be challenging Russia's position as the world's second-biggest arms exporter behind the US.

China

China is the fourth-largest supplier of weapons, accounting for 5% of total shipments between 2017 and 2021. This nation is also a significant producer of military technology, with significant investments in new technologies related to the arms trade.

DPRK

North Korea has been sanctioned since 2006, and under international law is not allowed to produce or export arms, nevertheless, it has been rumored that they do so illicitly.

Relevant UN Treaties and Events

The use of new technology in the arms trade is a concern of the international community. In response, the United Nations (UN) and Member States have taken several steps to regulate their use.

1. Arms Trade Treaty (ATT): Adopted in 2013, the agreement aims to regulate international trade in conventional arms, including small arms, ammunition and military vehicles. The agreement provides countries with domestic controls to control arms exports, assess the potential risks of using weapons to commit human rights abuses, and refuse exports where there is a risk of such abuses. demanding the adoption of regulations. The treaty also includes provisions governing the transfer of technology that may be used for military purposes.

2.   Convention Concerning Certain Conventional Weapons (CCW): The convention was adopted in 1980 and has since been updated several times to accommodate new technologies. It regulates the use of certain types of weapons, such as mines, booby traps, and incendiary bombs. The treaty also includes provisions for emerging technologies, such as autonomous weapon systems, which are currently being discussed by member states.

3. Biological Weapons Convention (BWC):This treaty, passed in 1972, prohibits the development, production and stockpiling of biological weapons. It also calls on Member States to eliminate all existing biological weapons and prevent the spread of biological weapons technology.

4. Chemical Weapons Convention (CWC):The treaty, passed in 1993, prohibits the development, production and stockpiling of chemical weapons. It also calls on Member States to eliminate all existing chemical weapons and prevent the spread of chemical weapons technology.

5. Nuclear Non-Proliferation Treaty (NPT):This treaty was passed in 1968 and aims to prevent the proliferation of nuclear weapons and nuclear weapons technology. It called on Member States to work towards nuclear disarmament and to use nuclear technology only for peaceful purposes.

These treaties and agreements form the basis for regulating arms and technology trade and preventing the proliferation of weapons of mass destruction. As new technologies emerge, it will be important for Member States to work together to ensure that they are used for peaceful purposes and do not contribute to global unrest and instability.

Past Action

The United Nations and Member States have taken action in the past to address concerns about new technology and the arms trade. In 2019, the United Nations hosted a conference on the use of autonomous weapon systems (AWS) and their potential impact on international security. The conference brought together Member States, international organizations, and civil society groups to discuss the risks and benefits of AWS and explore ways to regulate its use. In 2018, the UN Security Council passed a resolution calling on Member States to take measures to prevent the acquisition and use of weapons of mass destruction, including those using new technologies, by terrorists and other non-state actors.. The report called for greater dialogue and cooperation among countries to address these technological challenges.

Furthermore, The Wassenaar Agreement, a multilateral export control regime, regulates the export of dual-use goods and technology, including those that may be used for military purposes. The contract has been updated to include new technologies such as cybersecurity software and artificial intelligence systems. These actions demonstrate that the international community is aware of the potential risks and benefits of new technologies in the arms trade and is taking steps to address these concerns. However, much remains to be done to ensure that new technologies are used responsibly and do not contribute to global instability and anxiety.

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