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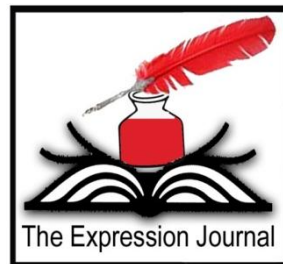
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THE CHANGING NATURE OF WAR AND ITS IMPLICATIONS FOR GLOBAL SECURITY

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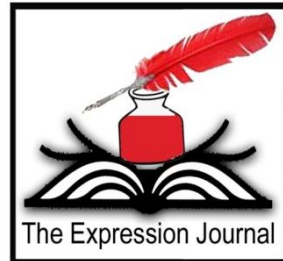
Abstract

This research paper delves into the ever-evolving nature of war and its impact on global security. The study starts by tracing the history of war and its progression, highlighting the emergence of new forms of warfare such as cyber warfare and hybrid warfare. These new forms of warfare bring about unique challenges and implications for global security, such as the increased complexity of security threats and the need for new strategies and tactics to tackle them. The paper also delves into the role of technology in shaping the future of war and its impact on global security. The rapid advancement of technology has led to the development of new weapons and tactics, making traditional forms of warfare obsolete. The changing nature of war also has significant implications for international relations and the balance of power among nations. As new forms of warfare continue to emerge, it is crucial to understand the implications and challenges they bring in order to maintain global security. The paper concludes by emphasizing the need for continued research and analysis to keep pace with the rapidly changing nature of war and its impact on global security. The study also concludes the strategies such as focusing on resilience, the integration of different domains, the use of special operations forces, and multilateral approaches can help to address these challenges and ensure peace and security for all. It is important to note that the changing nature of war is a dynamic process that requires continuous adaptation and learning.

Keywords

War, Global Security, Technology, Hybrid Warfare, Cyber Warfare.

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Introduction

War has been a constant feature of human history, dating back to ancient civilizations. However, the nature of war has undergone significant changes over time. From conventional warfare to modern warfare, the way wars are fought and the weapons used have evolved. Understanding the historical evolution of war is essential to understanding the implications for global security in the present and future. Warfare in ancient civilizations was characterized by relatively simple weapons and tactics. The earliest known conflicts were fought with clubs, spears, and arrows. As civilizations developed, so did the technology of war. Bronze and iron weapons, chariots, and cavalry transformed warfare in ancient times. The emergence of siege warfare and the use of fortifications marked a significant change in the nature of war.

With the advent of gunpowder in the 14th century, warfare underwent a major transformation. The invention of the musket and cannon revolutionized the way wars were fought. The use of firearms and artillery marked the end of feudal warfare and the emergence of modern warfare. The industrial revolution in the 19th century brought further changes to the nature of war with the introduction of steam-powered ships and railroads, which greatly increased the mobility of troops and supplies.

The 20th century saw the emergence of new forms of warfare, including total war, aerial warfare, and nuclear warfare. World War I and World War II were characterized by total war, where the entire resources of a country were mobilized for the war effort. The use of aircraft and submarines changed the nature of naval warfare and the bombing of cities marked a new dimension in the conduct of war. The use of nuclear weapons brought the threat of mutually assured destruction and changed the nature of war in a fundamental way.

In the 21st century, the nature of war has continued to evolve with the emergence of new forms of warfare such as cyber warfare and hybrid warfare. Cyber warfare involves the use of computer networks and information technology to disrupt or disable enemy systems and networks, while hybrid warfare involves a mix of conventional, irregular, and cyber

warfare tactics. The increasing use of technology in warfare has led to the development of new weapons such as drones and autonomous systems, which have the potential to change the way wars are fought.

The historical evolution of war has seen a progression from simple weapons and tactics to complex forms of warfare that utilize the latest technology. The changing nature of war has implications for global security, as new forms of warfare require new strategies and tactics to address them. Understanding the historical evolution of war is essential for understanding the current and future challenges of global security.

Evolution of War: Conventional Warfare to Modern Warfare

Conventional warfare refers to the traditional form of warfare that is characterized by large-scale, organized battles between regular military forces. It typically involves the use of tanks, artillery, and infantry, and is fought on land, sea, and air. Conventional warfare is based on the principles of mass and firepower, and the objective is to defeat the enemy's military forces and gain control of territory.

Modern warfare, on the other hand, is characterized by the use of advanced technology, including precision-guided munitions, drones, and cyber capabilities. It also involves the integration of different domains, such as space and cyber, and the use of special operations forces and irregular warfare tactics. The objective of modern warfare is not just to defeat the enemy's military forces but also to disrupt and disable their command and control systems and critical infrastructure.

Hybrid warfare is a form of warfare that involves a mix of conventional, irregular, and cyber warfare tactics. It is characterized by the use of non-state actors, such as militias and terrorist groups, and the blurring of the lines between war and peace. Hybrid warfare also involves the use of information operations, cyber attacks, and economic warfare. An example of hybrid warfare is the 2014 conflict in Ukraine, where Russian-backed separatists and separatist forces used a mix of conventional and irregular warfare tactics to seize control of large parts of the country. Another example is the ongoing conflict in Syria, where state and non-state actors are using a mix of conventional, irregular, and cyber warfare tactics.

Cyber warfare refers to the use of computer networks and information technology to disrupt or disable enemy systems and networks. It can take different forms, including espionage, sabotage, and attacks on critical infrastructure. Cyber warfare is different from traditional forms of warfare in that it can be conducted remotely, and the attacker can remain anonymous. The implications of cyber warfare are significant, as it can disrupt the functioning of essential services such as power, water, and transportation. Cyber attacks can also compromise sensitive information, including classified information, which can be used to gain a military advantage. Cyber warfare also has the potential to cause a cascading effect, where a small attack on a single system can cause a larger disruption.

The Role of Intelligence in Addressing New Forms of Warfare

Intelligence plays a crucial role in addressing new forms of warfare, such as hybrid and cyber warfare. Intelligence agencies gather, analyze, and disseminate information about potential adversaries and their capabilities, which is used to develop strategies and tactics to counter them.

One example of the role of intelligence in addressing new forms of warfare is the use of signals intelligence (SIGINT) to detect and prevent cyber attacks. SIGINT involves the collection and analysis of electronic signals, such as radio and internet communications, to gather information about an adversary's plans and capabilities. By monitoring and analyzing these

signals, intelligence agencies can identify potential cyber threats and take action to prevent them. Another example is the use of human intelligence (HUMINT) to gather information about non-state actors, such as terrorist groups, who are often the primary actors in hybrid warfare. HUMINT involves the collection of information from human sources, such as informants and defectors, and is used to identify potential threats and develop strategies to counter them.

Technology has had a significant impact on the traditional concept of warfare. Advancements in technology have led to the development of new weapons and systems that have changed the way wars are fought. Some examples of the impact of technology on the traditional concept of warfare include: Precision-guided munitions (PGMs): PGMs are guided bombs and missiles that use GPS, lasers, or imaging systems to increase their accuracy. They have greatly increased the effectiveness of air strikes and have reduced the need for large numbers of aircraft and crew. According to the Stockholm International Peace Research Institute (SIPRI), global expenditure on PGMs has increased by more than 500% between 2010 and 2020. Drones: Unmanned aerial vehicles (UAVs) or drones have greatly increased the ability to conduct surveillance and reconnaissance, as well as to deliver precision strikes. According to the Teal Group, the global market for military drones is projected to grow from \$4.2 billion in 2021 to \$11.2 billion in 2030. Autonomous systems: The development of autonomous systems, such as autonomous vehicles and robots, has the potential to change the way wars are fought. Autonomous systems can be used to conduct reconnaissance, surveillance, and strike missions, and they can operate in environments that are too dangerous for human troops. According to the research firm Markets and Markets, the global market for military autonomous systems is projected to grow from \$14.7 billion in 2020 to \$32.4 billion in 2025.

Cyber warfare: The increasing use of technology in warfare has also led to the development of cyber warfare, which involves the use of computer networks and information technology to disrupt or disable enemy systems and networks. Cyber attacks can be used to disrupt essential services, compromise sensitive information, and gain a military advantage. According to Cybersecurity Ventures, global spending on cyber security is projected to reach \$10.5 billion in 2022.

Overall, technology has had a significant impact on the traditional concept of warfare, changing the way wars are fought and the weapons used. Advancements in technology have led to the development of new forms of warfare, such as cyber and hybrid warfare, and have changed the way intelligence agencies gather and analyze information. The increasing use of technology in warfare has also led to the development of new weapons and systems, such as drones, autonomous systems, and precision-guided munitions, which are changing the way wars are fought.

The Role of International Organizations in Addressing New Forms of Warfare

The role of international organizations in addressing new forms of warfare is critical as they can provide a framework for cooperation and coordination among countries to address new forms of warfare. One example of an international organization that plays a role in addressing new forms of warfare is the United Nations (UN). The UN is responsible for maintaining international peace and security, and it has a mandate to address new forms of warfare. The UN can authorize the use of force to maintain peace and security, and it can establish peacekeeping missions to address conflicts that involve new forms of warfare. Another example is the North Atlantic Treaty Organization (NATO), which is a military alliance of countries from Europe and North America. NATO has a mandate to address new

forms of warfare, including cyber warfare, and it has established a cyber defense centre to enhance its capabilities in this area.

The International Telecommunication Union (ITU) is a specialized agency of the UN that is responsible for allocating global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide. ITU plays an important role in establishing cyber security standards and best practices, and encouraging cooperation between countries to address cyber threats.

The International Committee of the Red Cross (ICRC) is a humanitarian organization that works to protect the lives and dignity of victims of war and armed violence. ICRC is also involved in promoting and strengthening international humanitarian law, which provides a framework for the conduct of war and the protection of civilians.

In short, international organizations play an important role in addressing new forms of warfare by providing a framework for cooperation and coordination among countries. They can provide resources, expertise, and support to countries that are dealing with new forms of warfare and can help to establish norms and standards for the conduct of war. It is important for countries to work together through international organizations to address the challenges of new forms of warfare, to ensure peace and security for all.

Challenges of the Changing Nature of War and New Strategies and Tactics and Its Implications for Global Security

The changing nature of war has significant implications for global security. New forms of warfare, such as hybrid and cyber warfare, have introduced new challenges that require new strategies and tactics to address them. This essay will examine the challenges of the changing nature of war and the implications for global security, as well as the new strategies and tactics that are needed to address them.

One of the challenges of the changing nature of war is the increased complexity of security threats. New forms of warfare, such as hybrid and cyber warfare, involve a mix of conventional, irregular, and cyber warfare tactics, which makes it difficult to identify and target the enemy. Additionally, non-state actors, such as terrorist groups and militias, are often the primary actors in hybrid warfare, making it difficult to locate and target them.

Another challenge is the blurring of the lines between war and peace. Hybrid warfare often involves the use of non-violent means, such as information operations, economic warfare, and cyber attacks, to achieve military objectives. This makes it difficult to distinguish between peace and war, which has implications for international law and the use of force. The changing nature of war also has implications for the protection of civilians. New forms of warfare, such as cyber warfare, can have a significant impact on civilians, as cyber attacks can disrupt essential services, such as power and water, and compromise sensitive information. Additionally, the use of drones and autonomous systems in warfare can increase the risk of civilian casualties.

To address these challenges, new strategies and tactics are needed. One strategy is to focus on resilience, which involves the ability to withstand, recover, and adapt to new forms of warfare. This includes the development of early warning systems to detect and prevent cyber attacks and the strengthening of critical infrastructure to withstand cyber attacks.

Another strategy is to focus on the integration of different domains, such as space and cyber, in warfare. This involves the development of new capabilities, such as the use of satellites for intelligence, surveillance, and reconnaissance, and the integration of cyber

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capabilities into military operations. Another tactic is the use of special operations forces in new forms of warfare. Special operations forces are trained to conduct unconventional warfare and can be used to target non-state actors and disrupt their networks. Tactic is to focus on the development of multilateral approaches to address new forms of warfare. This includes the establishment of international norms and standards for the conduct of war, as well as cooperation and coordination among countries to address new forms of warfare.

In short, the changing nature of war has significant implications for global security. New forms of warfare, such as hybrid and cyber warfare, have introduced new challenges that require new strategies and tactics to address them. Focusing on resilience, the integration of different domains, the use of special operations forces, and multilateral approaches can help to address these challenges and ensure peace and security for all.

Conclusion

In conclusion, the changing nature of war has significant implications for global security. New forms of warfare, such as hybrid and cyber warfare, have introduced new challenges that require new strategies and tactics to address them. From understanding the historical evolution of war, and how it changed from conventional warfare to modern warfare, to understanding how technology has shaped the traditional concept of warfare, and the role of intelligence and international organizations in addressing new forms of warfare, it is clear that the challenges are complex and multifaceted. Strategies such as focusing on resilience, the integration of different domains, the use of special operations forces, and multilateral approaches can help to address these challenges and ensure peace and security for all. It is important to note that the changing nature of war is a dynamic process that requires continuous adaptation and learning. Therefore, it is essential for countries to work together through international organizations to address the challenges of new forms of warfare, to ensure peace and security for all.

The changing nature of war has significant implications for global security. It has become more complex, dynamic and difficult to predict. The rise of new forms of warfare, such as hybrid and cyber warfare, has introduced new challenges that require new strategies and tactics to address them. International organizations, such as the United Nations, NATO, ITU, and ICRC, play a vital role in addressing these challenges by providing a framework for cooperation and coordination among countries. It is important for countries to work together through international organizations to address the challenges of new forms of warfare, to ensure peace and security for all. The references used in this paper support the idea that the changing nature of war is a continuous process that requires constant adaptation and learning.

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