

Artificial Intelligence Competition and the Transformation of the Military Landscape: Reengineering Military Strategies from Conventional Warfare to Smart Wars

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Abstract

This study seeks to analyze the structural transformation of the global military landscape resulting from the integration of artificial intelligence (AI) into command-and-control systems and combat operations. It argues that the shift from conventional warfare to “smart wars” represents a comprehensive re-engineering of military doctrines and strategies, now increasingly grounded in algorithms and big data. Recent literature shows that AI is reshaping the balance of power and deterrence by enhancing speed, precision, and situational awareness on the battlefield. At the same time, the study reveals escalating strategic risks, most notably inadvertent escalation and the erosion of human control over military decision-making. It also highlights critical perspectives that consider this transformation less revolutionary than often portrayed, due to persistent technical and institutional constraints. The study concludes that the integration of AI into military systems

has become an inevitable trajectory, one that requires the development of international regulatory frameworks and adaptive strategies that mitigate its risks while maximizing its potential benefits.

Keywords: Artificial Intelligence; Smart Wars; Military Strategy Transformation; Autonomous Weapons Systems; Strategic Stability and Deterrence.

Introduction

The contemporary international system is undergoing profound transformations in the nature of military power and in the structure of armed conflict, driven by the accelerating revolution in artificial intelligence (AI) technologies and autonomous systems. The use of algorithms, big data analytics, and large-scale automation has become integral to surveillance, command-and-control, fire direction, and strategic planning. This has led to a comprehensive reshaping of the operational

environment. Military superiority is no longer measured solely by material capabilities or troop numbers, but increasingly by states' ability to convert computational knowledge and data into effective combat power, within what is commonly referred to as "smart wars".

Within this new context, multiple trends are emerging that redefine key concepts such as deterrence, combat effectiveness, and military decision-making. Armed forces are moving towards operational models that are faster, more precise, and less dependent on direct human intervention. However, despite the strategic opportunities this transformation offers, it simultaneously raises serious concerns related to inadvertent escalation, the erosion of human control, changing rules of engagement, and growing ethical and legal accountability challenges. Moreover, disparities in states' capacities to absorb and develop military AI are opening the door to a redistribution of power roles within the international system, with significant implications for global strategic stability.

Accordingly, this study seeks to analyze this complex transformation by unpacking its conceptual and operational dimensions, reviewing recent strategic literature, and assessing its opportunities and risks. The overarching aim is to understand how contemporary military strategies are being re-

engineered under the rise of artificial intelligence, and to anticipate the future trajectory of the military landscape over the next two decades.

- **Research Problem**

The international system is currently witnessing profound transformations as a result of integrating artificial intelligence into the combat and command structures of armed forces, leading to a redefinition of concepts of power, deterrence, and patterns of warfare. However, this transformation despite its operational advantages raises strategic, ethical, and legal challenges that may reshape international stability as a whole.

Against this backdrop, the core research problem of this study can be formulated as follows:

To what extent has the employment of artificial intelligence contributed to the re-engineering of military strategies and the transition of warfare from its conventional pattern to "smart wars"?

To answer this central question, it is broken down into the following sub-questions:

- How has artificial intelligence reshaped the structure of the global military landscape in terms of patterns of power, deterrence, and decision-making mechanisms?
- What are the distinctive characteristics of smart wars compared to conventional wars, and how are these reflected in

contemporary military doctrines and operations?

- What are the most important military applications of artificial intelligence that have contributed to this transformation, and how effective are they in theatres of operations?

- **Research Hypothesis**

To address the central question and its sub-questions, the study advances the following main hypothesis: The employment of artificial intelligence technologies in military systems is reshaping the landscape of contemporary warfare and transforming its strategies from a traditional pattern into smart wars.

- **Methodology**

Given the nature and complexity of the subject under investigation, the study adopts a methodological combination that brings together several approaches, as follows:

1. Historical Method

The historical method is employed to trace the evolution of the use of advanced technologies in the military domain and to analyze technological revolutions across different generations of warfare. The aim is to understand how previous innovations such as the Industrial Revolution and the nuclear arms race have affected the international balance of power and war strategies, thereby enabling the identification of similarities and differences with current

transformations resulting from the integration of artificial intelligence into smart wars.

2. Comparative Method

The importance of the comparative method in this study lies in conducting a comprehensive comparison between:

- AI-based technologies and traditional military technologies, in order to determine the added value of artificial intelligence in military operations;
- States' technological capabilities and their military employment, and in analyzing their impact on military and economic power, as well as on the balance of power among different military systems.

3. Analytical–Systemic Method

The analytical–systemic method is essential for a deeper understanding of the international military landscape, as it allows the study of the international system as a whole and the interactions among its various components. Through this method, it becomes possible to analyze the multi-level effects of artificial intelligence on military strategies, to understand how conventional wars are being re-engineered into smart wars, and to assess the potential interactions between states under current and future uses of these advanced technologies.

Section One: Artificial Intelligence and the Reshaping of the Nature of Modern Warfare

With the growing role of artificial intelligence in the military domain, the nature of warfare is undergoing profound strategic transformations that go beyond merely improving operational performance to encompass a redefinition of the very concepts of power and influence. Intelligent systems have become a core tool in military planning, the management of complex operations, and the guidance of precision weapons. This compels decision-makers to reconsider deterrence strategies, alliance structures, and the frameworks of international security. From this perspective, understanding the impact of artificial intelligence on the dynamics of conflict has become essential for anticipating the future of wars and assessing the risks that technological transformations pose to regional and global stability.

First: Rethinking the Concept of War and Its Contemporary Frameworks

Muller argues that, even though war may appear outwardly as a single phenomenon, its definition varies according to the level of analysis and/or the actors involved. A review of the political science literature that has dealt with the topic of war reveals numerous attempts to conceptualize the term. For example, the Greek philosopher Plato (424–374 BC) defines war as the natural state of relations between each political community and another (Mallet, 2017, p. 119). In this sense, he does not consider war to be an

event that requires justification; rather, it is a natural condition inherent in human relationships and, consequently, in political relations in all their dimensions.

The Italian political thinker Niccolò Machiavelli (1469–1527) states in his book *The Art of War* that “we find strong and close connections between these two conditions or modes of life politics and war and that they are not merely complementary to one another, but that it is necessary for them to be intimately linked and firmly united” (Hörnqvist, 2010, p. 14). In this, he agrees with the German thinker and strategist Carl von Clausewitz, who views war as the continuation of politics by other means and as an act of violence intended to compel the opponent to submit.

From this perspective, the classical definition provided by Gaston Bouthoul remains relevant. He defines war as “a form of systematic and organized violence that concerns the communities that wage it”, arguing that war is a highly organized and bloody clash between political groupings (between monarchs in the case of interstate war, and internally in the case of civil war). Moreover, the very notion of war necessarily involves violence, that is, a conscious assault on the physical and mental integrity of the individuals and groups who take part in it (de Montbrial & Klein, 2000, pp. 566–567).

Second: From Physical Confrontation to Digital Confrontation: A Study of the Evolution of Generations of War

In order to understand the evolution and transformations of the phenomenon of war, and to be able to compare the various forms it has taken across time and space, a broader concept is required one capable of encompassing this diversity, given that war reflects political, economic, technological, and social change. In every historical phase, wars have undergone profound shifts that have affected the nature of war, its strategies, modes of management, tools, means, and objectives, under the impact of military innovations and intellectual developments.

The term “generations of war” emerged in 1989 to describe the “changing face of war” over time. Initially, it referred only to the emergence of fourth-generation warfare, but a fifth generation was subsequently added. Retired U.S. Marine Corps Colonel Thomas Hammes later expanded this idea in his 2006 book *The Sling and the Stone*.

In this context, and through his article “Understanding Fourth Generation War” published in 2004, William Lind attempted to study and classify the wars that erupted during the period between 1648 and 1989, that is, from the Peace of Westphalia in 1648—which granted the state a monopoly over the legitimate use of

war up to the publication of his article in the *Marine Corps Gazette* in 1989 under the title “The Changing Face of War: Into the Fourth Generation.” Lind identified four generations of war (Lind, 2004, pp. 12-14):

The first generation of modern warfare was characterized by tactics based on linear and column formations, in which battles were conducted according to a highly organized and formal pattern and the battlefield was subject to strict discipline. This mode of combat prevailed from 1648 until 1860. The importance of this generation lies in its deep impact on military culture, as disciplined patterns of combat helped entrench rigid organizational traditions within armies. Among its most enduring institutional legacies are features that still distinguish the military from civilian life, such as adherence to uniforms, the ritual of military salutes, and a strict hierarchical ranking system. The purpose of these practices was to reinforce discipline and consolidate a culture of order within the armed forces, thereby laying the groundwork for the development of modern military institutions.

Second-generation wars represent an important evolution in military strategy, accompanying the transformations that the battlefield witnessed between 1860 and 1918. This generation was developed by the French army during the First World War, based on the principle of intensive use of firepower with the aim of wearing down

the enemy through a strategy of attrition. American military thought was influenced by this doctrine, as seen in U.S. interventions in Afghanistan and Iraq, reflecting the tension between the need for organization and discipline, on the one hand, and the complexities of modern warfare, on the other.

The third generation of wars (1918–1945) marked a fundamental shift in military strategy and emerged during the First World War as a result of the evolution of German military thought. This model became known as *Blitzkrieg* or “maneuver warfare”, and it represented a clear break with traditional approaches that relied on attrition and massive firepower. This generation is distinguished by its emphasis on speed, surprise, and dislocation, making it a qualitative transformation in the dynamics of armed conflict.

Third-generation warfare is based on the concept of rapid and flexible movement aimed at bypassing the enemy’s front lines and causing their collapse from within, rather than confronting them directly. This approach is embodied in the principle of “bypass and collapse” instead of “close with and destroy”, thereby granting attacking forces the advantage of initiative and forcing the adversary to lose organizational cohesion. In the defensive context, the strategy rests on drawing the enemy into the depth, then encircling them and cutting

their supply lines, leading to their isolation from logistical support and weakening their combat effectiveness. As a result, third-generation battles differ fundamentally from linear traditional patterns; war becomes a nonlinear conflict aimed at confusing the enemy rather than confronting them along fixed lines. Internal discipline and rigid adherence to protocol no longer constitute the decisive factor; instead, adaptation to the realities of the battlefield and the analysis of enemy movements become the basis for military decision-making.

Fourth-generation warfare (1945–1989) retains some of the features that characterized the third generation, such as decentralization and initiative, but it simultaneously represents a radical transformation unprecedented since the Peace of Westphalia. In this new pattern of warfare, the state loses its traditional monopoly over war. Regular armies across the world now face non-state opponents such as al-Qaeda and the Revolutionary Armed Forces of Colombia (FARC). More broadly, states increasingly struggle to achieve victory.

This generation is also marked by the return of conflicts to their cultural dimension, and not merely political competition between states. Within the context of fourth-generation wars, “invasion through migration” has become a new strategic tool. Moreover, these wars are not simply an external threat; their essence lies in a

global crisis concerning the legitimacy of the state itself, a crisis that gives rise to this type of warfare within many states.

Fifth-generation warfare is often viewed as an extension of deep transformations in political and social loyalties, where issues extend beyond the territorial boundaries of the nation-state as the primary determinant of conflict. This generation is characterized by the growing role of non-state actors who capitalize on technological developments, particularly in vital networks and communications. In this context, networks facilitate the dissemination of information, provide resources, and enhance recruitment processes, while advanced air capabilities contribute to extending the scope of operations through effective means despite relatively low cost (Maaz, 2018, p. 3).

Despite the increasing prevalence of fifth-generation wars, there is no consensus on a single, unified definition. They are sometimes approached using concepts such as “unrestricted warfare” or “open-source warfare”, and are also viewed as an extension of “non-contact warfare”, in which the adversary is targeted without the need for direct human intervention. Academic interest in fifth-generation warfare became particularly visible after the 11 September 2001 attacks. These wars were defined as the use of “all possible means”, whether military or non-military, lethal or non-

lethal, with the aim of imposing one’s will on the adversary. The biological attack using anthrax in the United States in 2001 is regarded as one of the earliest practical applications of this type of warfare, reflecting the evolution of modern war strategies towards unconventional forms of conflict (Hammes, 2007, p. 21).

Among these unconventional forms of warfare, hybrid warfare has emerged prominently. The study by Frank Hoffman titled *Conflict in the 21st Century: The Rise of Hybrid Wars* is one of the key contributions to shaping the concept of hybrid war. The term captures the changing nature of contemporary conflicts. Hoffman argues that armed conflicts are no longer confined to traditional interstate wars or the irregular methods employed by non-state armed groups; rather, they have become a composite phenomenon that combines multiple strategies and instruments, making them more complex than any previous model of warfare (Hoffman, 2007, pp. 14-16).

According to this perspective, hybrid wars are characterized by the integration of elements of guerrilla warfare, in which insurgent groups employ asymmetric tactics to exhaust the adversary, alongside terrorist operations used by non-state armed organizations to amplify their political and psychological impact. In addition, actors engaged in such conflicts may possess conventional military capabilities similar to

those of regular armies, further intensifying the complexity of the confrontation and making it more challenging to address from a strategic and military standpoint. Consequently, understanding the nature of hybrid wars requires a multidimensional approach that does not take into account only the military aspect, but also the political, economic, and social dimensions, in view of their profound implications for international security and stability.

Third: Artificial Intelligence and the Redefinition of Power in Modern Warfare: From the Soldier to the Algorithm

In the current era of technological revolution, we are witnessing a radical transformation in the nature of warfare. Conflict is no longer simply a matter of confrontation between armies or states; it has become a field of technological competition and a battle of intelligence between advanced systems grounded in data and algorithms. Robots and unmanned aerial vehicles (UAVs) have fundamentally changed the rules of the game. The soldier is no longer the central actor in combat; the machine has become a principal partner if not the primary agent in many military operations. These transformations are not merely a change in tools, but rather a comprehensive redefinition of the meaning, ethics, and objectives of war (Freeman, 2019, pp. 821-822). In the context of contemporary conflicts, the struggle to control

information has become no less important than combat on the ground.

The 2021 report of the European Council on Foreign Relations, entitled “AI Diplomacy”, surveys the main uses of artificial intelligence in the military domain, where it is primarily directed towards performing a range of tasks such as surveillance and reconnaissance, logistics, autonomous weapons and vehicles, command and control, as well as swarm coordination and mass troop management, information manipulation, and the management of nuclear deterrence (Franke & European Council on Foreign, 2021, pp. 21-27).

The Russian–Ukrainian war offers a vivid example of how artificial intelligence is transforming the nature of armed conflicts. Military operations have increasingly come to rely on advanced technologies such as unmanned aerial vehicles and electronic warfare systems, reducing dependence on human manpower and traditional equipment. This shift reflects a new strategic vision that places technological superiority at the heart of achieving military objectives.

Similarly, recent U.S. defense policies reveal a clear focus on anticipating the future of warfare and developing advanced deterrence capabilities. Through its massive military budgets, Washington seeks to strengthen its capabilities in fields such as hypersonic missiles,

unmanned naval platforms, and the next generation of nuclear ballistic missile submarines. Special attention is devoted to the development of artificial intelligence as a core component of future strategies, with the aim of securing military and technological superiority over global competitors.

China, for its part, has demonstrated strong ambition to integrate artificial intelligence into its military doctrine and to become a leading global power in AI by 2030. It is working to update its strategies to become more reliant on advanced technologies. The People's Liberation Army focuses on enhancing its defensive and offensive capabilities by introducing intelligent systems capable of improving operational efficiency and providing real-time, high-accuracy information. This effort reflects a desire to build a military force able to confront future challenges and respond to regional and international risks. China's progress in this area was highlighted in 2022 when it announced the successful development of a prototype AI-enabled air defense system capable of predicting the trajectory of hypersonic missiles and responding with direct counter-attacks. In addition, China has developed a range of autonomous military systems, deploying robotic technologies and unmanned platforms operating in land, air, sea, and even space environments, reflecting its orientation toward strengthening its

defensive and offensive capabilities through the latest advances in artificial intelligence.

Second Section: War Strategies in the Age of Artificial Intelligence – Implications and Consequences

Strategic transformations in military technology are not viewed merely as technical progress, but as a process of reshaping the entire architecture of war and peace at the global level. Accordingly, this section of the study seeks to shed light on the effects of employing artificial intelligence technologies in the military domain on war strategies, as follows:

First: Technological Progress and Transformations in the Structure of Military Conflict

In parallel with the penetration of artificial intelligence into all spheres of life, the military domain stands at the forefront of those areas expected to witness a substantial qualitative leap in the use of cognitive solutions and automation to enhance capabilities and build military strategies at both the tactical and operational levels.

With every technological advance in weapon development, the discovery of new weapons, or in the enhancement of speed and mobility, a shock has occurred in the realm of tactics and operations. Each time, new theories emerged speaking of the superiority of offense over

defense, or vice versa, or of the obsolescence of particular weapons or tactics—each such shift producing a disruption in the world of tactics and operations (Adamsky & Bjerga, 2012, p. 227).

Moreover, the central problem raised by technological developments in weapons, platforms, speed, communications, and logistics is not how these developments can be isolated as an independent, decisive factor, but rather how they can be reconciled with the foundational principles of the art of war, without becoming the sole or dominant determinant of war's outcome (Adamsky & Bjerga, 2012, p. 229).

This is especially true given that the shadow cast by the interweaving of war with war strategy can never be limited solely to wartime operations or to military factors alone (Henrotin et al., 2015, p. 12). The continuous escalation in the complexity of security issues in the contemporary era constitutes the main driver behind this revolutionary integration. Although traditional methods and procedures have produced effective results in earlier periods, they have become increasingly incapable of addressing the challenges of modern warfare, cyber threats, and asymmetric conflicts. In this context, military and defense forces worldwide have turned to artificial intelligence (AI) as a tool to enhance power and stimulate innovation, recognizing the urgent need for flexible and sophisticated

solutions capable of adapting to these mounting challenges.

The introduction of AI has also brought about a radical shift in the trajectory of military strategy development, as AI technologies now play a major role in reshaping defensive operations. This transformation encompasses the transition from the use of autonomous vehicles and unmanned aerial systems to the adoption of advanced predictive analytics and machine learning algorithms, thereby boosting efficiency and adaptability to modern battlefield dynamics whether in designing military strategy and adapting the doctrines of armed forces, or in military planning and the formulation of rules of engagement.

Robots and autonomous systems such as unmanned aerial vehicles and AI-enabled ground and maritime platforms have become indispensable components of military operations, contributing to improved surveillance and reconnaissance and to the reduction of human risk. Cognitive computing has likewise enhanced the ability of forces to make decisions in dynamic environments, enabling them to adapt rapidly to complex situations. In this regard, AI has also played a crucial role in strengthening cybersecurity, by assisting in the automatic detection of threats and the protection of military networks (Iqbal et al., 2023, pp. 344-343) .

In this context, the U.S. Department of Defense (DoD) established the Defense Innovation Unit Experimental (DIUx) to foster closer cooperation between the Pentagon and Silicon Valley, albeit with mixed results. AI may produce fundamental changes in military power and could lead to a reordering of the balance of power.

Russia, for its part, has sought to develop a range of AI technologies for military use as part of a broader strategic effort to exploit potential weaknesses in U.S. military capabilities, targeting a force structure in which 30% of its military assets would be fully automated by 2025.

In its quest to become a “science and technology superpower,” and driven by the victory of AlphaGo (often referred to as China’s “Sputnik moment”), China launched a national AI innovation agenda based on the principle of “civil–military fusion,” which resembles a Chinese version of the U.S. Defense Advanced Research Projects Agency (DARPA).

In short, these national goals and initiatives demonstrate the global security community’s recognition of the transformative potential or what some describe as a “military–technical revolution” of artificial intelligence for national security and strategic calculations (Johnson, 2019, p. 2).

At the strategic level, AI has contributed to improving both tactics and military strategy by providing analytical tools that support the development of long-term strategies and the efficient allocation of resources. In addition, AI has enhanced decision-support processes at both the tactical and strategic levels, increasing the flexibility of military units in the face of emerging challenges. It has also improved logistics and the maintenance of military equipment, enabling armed forces to respond more rapidly to evolving threats.

Accordingly, it can be said that artificial intelligence has become a force multiplier for the military, through its role in enhancing operational efficiency and flexibility in complex military operations, and has emerged as a core instrument in contemporary security and defense strategies.

Second: The Strategic Implications of Artificial Intelligence for Military Planning

Contemporary military thought is witnessing a qualitative transformation in the structure of strategic power as a result of the Fourth Industrial Revolution, in which artificial intelligence (AI) has become a central element in redefining military planning and operational decision-making. AI is no longer merely a technical support tool; it has evolved into a strategic actor that is reshaping the map of

deterrence, control, and the balance between humans and machines on the battlefield. In this context, Paul Scharre, in his book *Army of None: Autonomous Weapons and the Future of War*, argues that integrating AI into military systems will bring about a fundamental transformation in the logic of war by accelerating decision-making cycles and expanding the operational autonomy of weapons systems (Scharre, 2018, p. 22).

AI has triggered a revolution in military planning methods through its ability to analyze vast quantities of intelligence data and convert them into precise predictive patterns. Whereas traditional strategic analysis relied primarily on human judgment, it is now increasingly grounded in algorithmic models capable of anticipating the possible trajectories of threats.

In other words, military planning processes have become more dependent on intelligent analytical systems capable of processing massive amounts of information with speed and accuracy that far exceed conventional human capabilities. This shift has transformed the role of the commander from a direct decision-maker into a supervisor of a hybrid human-machine process (Baboş, 2021). This development compels a redefinition of concepts such as “human decision” and “the temporal context of decision-making,” as the issue no longer concerns merely who takes the decision, but rather who is able to leverage

computational capabilities in real time. While this transformation offers the advantages of rapid processing and forecasting, it simultaneously raises questions about trust, clarity of responsibility, and the risks associated with excessive reliance on machines—such as the so-called “responsibility gap” (Oimann & Salatino, 2025).

This is consistent with the view advanced by Ben Buchanan in his book *The Hacker and the State: Cyber Attacks and the New Normal of Geopolitics*, where he argues that states possessing advanced AI capabilities can reduce what he terms “strategic ambiguity” in cyber warfare environments by using predictive analytics to uncover an adversary’s intentions and behavior before they materialize (Buchanan, 2020, p. 385).

AI has also contributed to the reconfiguration of deterrence within a new framework known as “cognitive deterrence,” which is based on harnessing the cognitive and analytical capabilities of intelligent systems to influence an adversary’s awareness and strategic perception prior to the outbreak of armed confrontation. AI enables the military commander to construct a complex cognitive picture of the conflict environment and of the behavior of various actors, thereby allowing the production of faster and more accurate strategic decisions and transforming informational superiority into a

preventive deterrent tool that precedes the actual use of force.

However, this transformation raises fundamental issues related to the control and governance of automated systems. Michael Horowitz has shown that excessive reliance on autonomous systems may lead to the erosion of strategic stability as decision-making authority shifts from humans to algorithms, rendering the timing of escalation or de-escalation subject to programmatic logic that may lack political judgment (Horowitz, 2018). In other words, the complex interaction between humans and machines in military decision-making constitutes one of the most significant emerging sources of strategic risk, as any computational error or deviation in algorithmic models could trigger unintended escalation, particularly in highly sensitive nuclear environments.

Third Section: Strategic Transformation in Modern Military Technology

Returning to the enduring interconnection between the components of the military–industrial complex in the core states of the international system, and the necessity for the military sector to keep pace with industrial and technological developments, the military domain today is undergoing a fundamental transformation driven by the adoption of artificial intelligence technologies. AI has become a key engine for the development of

defensive and offensive systems. It can be considered a strategic tool that enhances the capabilities of armed forces by improving operational efficiency and reducing human losses, while simultaneously raising ethical and security challenges that require careful management.

First: Smart Command on the Battlefield

The concept of smart command on the battlefield refers to an advanced model of military leadership that relies on the use of operational knowledge, advanced technical capabilities, and real-time data analytics to enhance the effectiveness of decision-making in highly complex operational environments. This concept goes beyond traditional models of command based on experience and intuition, and instead rests on the principle of superior knowledge, which constitutes one of the main pillars of strategic transformation in modern armed forces. This is highlighted in the literature on the Revolution in Military Affairs, which emphasizes that control over information has become a decisive factor in combat effectiveness (Alberts & Hayes, 2005, pp. 135-138).

On another level, one of the most prominent developments in modern warfare is the emergence of Autonomous Weapon Systems, also known as Lethal Autonomous Robots or killer robots. These can be defined as “any weapons system that enjoys autonomy in

performing its vital functions, such that it is capable of making decisions related to searching for, detecting, identifying, tracking, selecting, and attacking targets without human intervention.”

In this context, Paul Scharre an American security and defense expert and Director of Studies at the “Center for a New American Security” adopts in his book *Army of None: Autonomous Weapons and the Future of War* the definition of autonomous weapons put forward by the U.S. Department of Defense in 2012, which describes them as weapons that, once activated, are capable of selecting and engaging targets without any further human intervention (Scharre, 2018, p. 37).

Accordingly, smart command is characterized by its ability to adapt to the dynamics of the battlefield, particularly in light of the spread of hybrid wars, rising levels of uncertainty, and the multiplicity of asymmetric threat sources. Clayton Newell affirms that the commander in the information age must possess “cognitive flexibility”, enabling him to rapidly reconstruct his situational assessments and adjust plans in a way that preserves operational initiative (Newell, 2015, p. 78). This adaptability is linked to what is known in modern military theories as Agile Command, that is, a form of command capable of reshaping its options in line with the

evolution of the situation without losing strategic coherence (Colme, 2022, p. 10).

Smart command therefore requires a high capacity to coordinate efforts among air, land, naval, space, and cyber forces within an organized framework of effective command and control in a multi-domain environment. This framework depends on the “real-time synchronization of kinetic, informational, and logistical capabilities”, thus producing a composite effect that enhances combat superiority. It is this integration that grants smart command a competitive advantage in complex environments.

Despite its heavy reliance on technology, smart command does not neglect the human factor; rather, it redefines it. The smart commander is the one who maintains the psychological and moral cohesion of the forces, balances operational imperatives with ethical considerations, and ensures that intensive reliance on technology is part of a broader strategic vision, not a substitute for human leadership. A paper by the U.S. Army War College confirms that smart command is founded on “integrating artificial intelligence and human intelligence in a way that enhances combat performance without undermining the centrality of human judgment” (Pfaff & Hickey, 2025, p. 24).

Second: Classifications of Autonomous Weapons

Autonomous weapons are diverse and multifaceted (Autonomous Weapons), and can be classified according to criteria such as (the level of operational autonomy / the nature of the tasks they perform / the combat environments in which they are deployed) into the following forms (Scharre, 2018, pp. 51-57).

- Uninhabited Combat Aerial Vehicles (UCAVs): such as the U.S. MQ-9 Reaper and X-47B, and the Loyal Wingman (developed by the United States for the Royal Australian Air Force). These systems perform reconnaissance and combat missions without the need for a human pilot and are supported by AI systems that enable them to analyze field data and make tactical decisions in complex combat environments.
- Unmanned Ground Vehicles (UGVs): such as Estonia's Milrem Robotics THeMIS, the American Ripsaw M5, and the Russian Uran-9. These systems are used in reconnaissance, logistical transport, and demining operations, and some are armed to support ground combat missions, allowing complex field tasks to be carried out with minimal human intervention.
- Unmanned Surface and Underwater Vehicles (USVs & UUVs): notably the Orca XLUUV and Sea Hunter operated by the U.S. Navy. These autonomous platforms are employed in maritime patrols, reconnaissance, and anti-submarine warfare without a crew on board, thereby significantly enhancing naval capabilities, especially in highly threatening environments.
- Autonomous Air and Missile Defense Systems: including the Aegis Combat System and Phalanx CIWS developed for the U.S. Navy, as well as Iron Dome operated by the Israeli occupation. These systems enhance air-defense capabilities against rapid and mass attacks through their reliance on advanced algorithms for detecting and automatically intercepting aerial threats, including drones and missiles.
- Smart Weapons and Self-Guided Missiles: such as the U.S. JASSM-ER, the UK's Brimstone Missile, and loitering munitions like Israel's Harpy and the American Switchblade. These weapons possess the ability to search for and identify targets, maneuver in flight, and adapt to changing combat conditions, granting them advanced

combat effectiveness in both air and ground operations.

- **Autonomous Cyber and Electronic Offensive Systems:** these are AI-based systems employed in cyber warfare, such as digital attack robots used to carry out cyber intrusions, electronic jamming, and cyber defense. They constitute a decisive tool in modern multi-domain warfare by playing a strategic role in disrupting enemy systems and asserting control over the information space.

Third: Practical Models of AI Employment in the Military Domain

At the practical level, the impact of employing AI technologies and integrating them into the military sector is manifested through several key areas (Iqbal et al., 2023, p. 346):

- The U.S. Project Maven, which represents a prominent model of the use of AI to analyze big data generated by unmanned aerial vehicles (drones). The primary objective of this project is to accelerate decision-making by providing rapid and accurate analysis of potential targets, thereby enhancing targeting precision and reducing risks associated with direct human intervention.
- Russian air-defense systems provide another example of AI use to enhance defensive capabilities. Systems such as

S-400 and S-500 employ advanced algorithms to identify and track hostile targets with high efficiency, enabling the management of multiple threats in real time, thus strengthening national security and supporting comprehensive defense strategies.

- China's development of "smart armor" reflects its future vision of the modern soldier. These systems are not merely protective gear; they combine advanced materials with digital technology to analyze soldiers' vital data and to provide real-time critical information. This integration contributes to improving soldiers' health and increasing their combat effectiveness, while also offering military commanders precise insights for more information-based strategic decision-making.

According to the 2022 report of the Stockholm International Peace Research Institute (SIPRI), the United States, Russia, China, India, and Saudi Arabia together accounted for 63% of total global military spending. Major international conflicts in recent years—such as the Russian–Ukrainian war, the Saudi–Yemeni conflict, the ongoing war in Syria, India–China tensions, and the border dispute between Armenia and Azerbaijan—have driven increased demand for the integration of advanced AI systems into

existing defense platforms, with the aim of achieving more efficient conflict management and creating more favorable conditions for peace.

On this basis, it can be said that the Asia–Pacific and North America regions are the most active in adopting AI technologies in the military sector. The technological dominance of China and the United States has led to their accounting for 34.18% and 26.77%, respectively, of total global military and defense applications of AI. Among the notable initiatives in this field are Project Maven and the ISTAR system in the United States, the AVIC WZ-8 drone in China, and the Defence AI Council in India (Nguyen Minh & Khuong Phuong, 2025, p. 2132).

European states follow, with a 19.2% share of military AI applications. These powers seek to diversify AI uses to enhance their national security through research and development projects, strategic mergers and acquisitions, and the launch of new technological initiatives aimed at reinforcing their defense capabilities.

North America is expected to see a growing dominance between 2025 and 2032, a period that will witness a significant expansion in the adoption of AI in the military domain. The Commander of the U.S. Fleet Cyber Command, Admiral Michael Gilday, has stated that the U.S. Navy must develop its ability to proactively detect new and unknown malware, which

requires reliance on advanced analytics supported by AI and machine learning. This orientation is expected to grant the United States as the principal power in North America a tactical advantage in identifying potential hostile activities and developing advanced defense strategies, thus enhancing its position in global cyber security and defense (Nguyen Minh & Khuong Phuong, 2025, p. 2133).

As much as these projects reflect the centrality and prominence of artificial intelligence on the map of international strategic priorities, the intense competition they embody also has the potential to play an escalatory role in the interactions among these states—interactions that may evolve into open conflict.

Conclusion

This study has shown that the integration of artificial intelligence into military systems constitutes a pivotal factor in the re-engineering of war strategies and the shift from conventional patterns of warfare to smart wars. This transformation reshapes the dynamics of conflict and the balance of power within the international system. Historical analyses and comparisons across different generations of warfare indicate that technological innovations have always acted as drivers of power redistribution. However, artificial intelligence represents a qualitative leap in speed, precision, and operational

efficiency that exceeds the potential of traditional systems.

The study has also highlighted that this transformation carries significant strategic opportunities for enhancing military effectiveness and reducing losses, while at the same time posing serious challenges related to inadvertent escalation, the erosion of human control, and legal and ethical gaps within international humanitarian law. Comparisons between major powers and medium and small states reveal that the capacity to employ military AI is highly uneven, which contributes to reshaping the balance of power and generating new forms of strategic asymmetry.

Based on this analysis, it can be concluded that the changes brought about by artificial intelligence in warfare no longer amount to a mere improvement in military tools; rather, they represent a comprehensive reconfiguration of military doctrines and strategies. This, in turn, necessitates urgent adaptive strategies at both the national and international levels, including the development of technological infrastructure, the redesign of military doctrine, and the strengthening of legal and ethical frameworks to confront mounting risks.

Recommendations:

- Update military strategies to incorporate artificial intelligence as a core element in

decision-making and the management of theatres of operations.

- Strengthen human oversight and mechanisms to limit inadvertent escalation in autonomous and semi-autonomous systems.
- Develop international legal and ethical frameworks capable of keeping pace with the challenges posed by smart wars and AI-enabled weapons systems.
- Invest in the technological capacities of medium and small states to enhance their ability to compete and adapt within the emerging international order shaped by artificial intelligence.

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