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TECHNOLOGY AND GEOPOLITICS. ARTIFICIAL INTELLIGENCE IN GEOSTRATEGIC SECURITY PLANNING

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Purpose: Artificial intelligence is becoming an essential tool in the functioning of the economy, finance, and security management. In today's theater of war, technological superiority is the most crucial factor, while human masses are relegated to the background. Today, the arms race encompasses not only combat assets on the battlefield but also IT centers, where artificial intelligence is beginning to dominate. It is present both in the strategic planning stages and in the execution of tasks, both political and military.
Design/methodology/approach: Conducting a bibliometric review of online resources, including both scientific publications and journalistic articles on the phenomena analyzed in the article. Due to the specific nature of the phenomenon being analyzed, the bibliography is based on the most recent publications.
Research limitation/implications: This analysis contributes to broader research that appears essential to understanding the technological processes and related geopolitical, geostrategic, and geoeconomic implications currently underway worldwide. This article serves as an introduction to further analyses that appear essential to properly assessing the use of artificial intelligence in global security policy planning and implementation.
Practital implications: Artificial intelligence is becoming one of many tools used in geostrategic management. The experiences of countries supporting defense policy with AI-based analyses should be thoroughly analyzed in other countries, including Poland.
Social implications: Artificial intelligence will be, or rather, already is, a revolution in the planning and execution of tasks related to defense, strategy, security, and geopolitics. Like previous new technologies, it will lead, at least temporarily, to technological unemployment. Many defense and security professions will not withstand competition from AI. Observing these processes in the most technologically advanced countries can help us avoid the pitfalls inherent in the mass use of this new technology.
Originality/value: Drawing on a wealth of sources, this article explores a phenomenon that has been widely studied worldwide. The experiences of global powers, in particular, appear to be pioneering and original in their methods of implementing new technologies in managing geopolitical strategy.
Keywords: Artificial intelligence, technology, geopolitics, geostrategy, security.
Category of the paper: Literature review.

1. Introduction

The swiftly evolving domain of artificial intelligence (AI) is observed not merely as a technological event but as a significant impetus for change within the realms of global geopolitics and security strategies. As AI's influence becomes pervasive throughout every aspect of international relations, ranging from adjustments in military strengths to the revision of economic influence, the heightened significance of the situation is brought to light. The manner in which AI is utilized, governed, and contested by nations will significantly influence the geopolitical structure of the ensuing decades, notably among major global powers such as the United States, China, and the European Union (EU). An examination into the vital connection between technology and geopolitics is offered by this paper, delivering an analysis regarding the ways in which geostrategic security planning is being transformed by AI and the resulting effects on global power dynamics.

Central to this paper is its concentration on the convergence of AI and geostrategy, a subject of escalating importance as dominant powers contend for supremacy within this groundbreaking arena. The pursuit of power, resources, and influence has historically fueled geopolitics, with AI incorporating novel aspects into these time-honored dynamics. AI, in contrast to earlier technological advancements, is not restricted to one sector or use; its capabilities encompass military defense, economic systems, information warfare, and societal governance. For example, the United States and China, frequently cited as AI superpowers, have strategically incorporated AI into their national agendas, utilizing it to bolster both hard power, as seen in autonomous weapon systems, and soft power, which includes technological supremacy and global impact. Simultaneously, Europe, notwithstanding its relative deficit in AI innovation, has arisen as a regulatory authority, endeavoring to reconcile technological progress with ethical oversight. Pressing inquiries are prompted by these developments regarding the equilibrium of power within a multipolar environment and the function of AI in reshaping alliances, conflicts, and sovereignty.

An investigation is guided by the research question: In what ways is artificial intelligence reshaping geostrategic security planning, and what consequences are emerging for the dynamics of global power among major nations? A deeper comprehension of the ways in which AI is not only altering the instruments and methods of statecraft but also redefining fundamental tenets of international relations is aimed for through the exploration of this question. The objectives encompass an analysis of AI's contribution to military innovation, an exploration into the manner in which nations are assimilating AI into their geopolitical strategies, and an evaluation of the risks and prospects presented by AI within the framework of global governance. A comprehensive analysis that underscores not only the competitive facets of AI but also takes into account the potential for collaboration and the advancement of shared governance structures is intended to be provided.

A multifaceted strategy, drawing from a base of literature analysis and critical assessment, establishes the groundwork for this inquiry. A variety of sources, spanning from scholarly publications to policy documents and industry reports, are encompassed within this strategy. The methodologies employed involve comparative analysis—centering on the AI strategies of the United States, China, and the EU—along with scenario analysis, which is designed to forecast possible future paths of AI-driven geopolitics. Furthermore, the study integrates historical analysis, drawing parallels between the present AI competition and past technological rivalries, such as the space race. Particular emphasis is allocated to the ethical, regulatory, and societal facets of AI integration, reflecting upon the wider ramifications for stability and human rights.

Both prospects and obstacles connected to this transformative technology are brought to light by current research on AI and geopolitics. AI's capacity in enhancing military proficiencies, such as self-governing weaponry or surveillance technologies, has been addressed through studies, and national aspirations—China's objective to spearhead AI by 2030, the US's continuous investments in progressive research, and the EU's regulatory endeavors highlighted by the 2024 AI Act—have been documented. However, gaps remain regarding the broader geopolitical consequences, specifically concerning imbalances in power, global governance, and the opportunities for international collaboration. The aim of this paper is to bridge these gaps through the synthesis of existing research and the provision of novel perspectives into the strategic dimensions of AI.

A comprehensive and systematic investigation of the topic is ensured by the structure of this paper. An examination of the global AI competition landscape, with specific emphasis on the strategic competition between the United States, China, and the EU, in addition to the dynamics of technological supremacy and the interplay between private and public sector initiatives, is undertaken in Chapter 2. An analysis of the military and security ramifications of AI, with a focus on defense system integration and information warfare capabilities, is presented in Chapter 3. The synthesis of the results and reflection upon the consequences for power dynamics and prospective routes for subsequent research are concluded in Chapter 4.

2. Methods

This article uses a research method called a literature review to gather, analyze, and synthesize relevant information from a wide range of sources. A literature review is a comprehensive research method. A well-conducted literature review allows for an understanding of the current state of knowledge in a given field and provides reliable answers to research questions (Snyder, 2019). It is an excellent method for analyzing interdisciplinary research. It also allows for the synthesis of research findings and the discovery of areas

requiring further research. The literature review was conducted using Google Scholar and Science Direct. Analyses from recognized geostrategic centers worldwide were also consulted. Additionally, publicly available journalistic sources were used, available on the websites of specialized media outlets covering technology, security, and artificial intelligence. Databases were searched using the following keywords: human resources, artificial intelligence, management, and new technologies. The arguments presented in this article also utilize the logical analysis method. The essence of this method is to use logical tools to distinguish valid reasoning, i.e., reasoning that conforms to the laws of logic, from reasoning that violates them. Logic and its methods allow us to discover the most general structural aspects of our thinking and actions (Peregrin, Svoboda, 2017). Applying the tools of logical analysis to sentences expressed in natural language is justified by the fact that the rules of this language are also subject to the laws of logic.

3. Global AI Competition Landscape

The growing race for AI dominance is changing world power with key actors using competition and technology leadership to reshape the globe. The varying AI regulations and strategies among different nations are impacting the worldwide balance of power, and technological leadership is becoming a significant factor affecting countries' future economic and political positions.

The strategic competition surrounding artificial intelligence (AI) illustrates divergent national interests between the main actors of the global system. While the United States and China are the technological leaders, Europe seeks to dominate AI’s regulation. In all cases, the main powers have been making significant investments in AI infrastructure, human capital, and research, seeking to stay at the top of the global race. For instance, the $2.12 billion artificial intelligence park inaugurated in China exemplifies the country’s goal to lead the global AI sector (Horowitz et al., 2018; Vyas, 2025; Marr, 2024; Kalkan Küçüksolak, Fırat, 2023). In the United States, hyperscale cloud providers constitute an advantage to innovate at high speeds, allowing the country to commercialize AI solutions in different sectors (Vyas, 2025). Europe does not have the infrastructure and technological supremacy of its competitors and is thus attempting to be at the forefront of regulation, with the EU AI Act scheduled for 2024 (Gajewski, 2023). Thus, AI is redefining the geopolitical arena with nations embracing the technology to pursue their own strategic interests. This is because AI is becoming integrated into national strategies, influencing military strategies and economic competition and driving geopolitical trends (Mokry, Gurol, 2024).

The United States has been strengthening its private AI sector with a dynamic research and innovation ecosystem (Vyas, 2025). This allows for a fast-moving commercialization of AI systems, with strong participation of the private sector and the use of hyperscale cloud providers. In addition, this ecosystem allows the United States to lead the way in military AI, with the incorporation of AI in the Third Offset Strategy, aimed at keeping the country at the top of the global order, preventing the rise of other nations (Bächle, Bareis, 2022; Vijaya, 2024). While market-driven solutions give a competitive advantage, their effectiveness may be limited by the alignment of company interests with the public interest, ethics, and safety. In addition, concerns have arisen regarding the weakening of operator control over autonomous weapons systems (AWS) in United States policy, which shows the complexities of implementing AI systems into military strategies (Bächle, Bareis, 2022).

China has adopted a state-led industrial policy that aims at becoming the most technologically advanced nation in AI. Investments in China's state-led approach to becoming the most technologically advanced nation have been extensive, in supercomputers and massive projects such as the $2.12 billion AI park, with state direction being a key to achieving strategic goals (Horowitz et al., 2018; Kalkan Küçüksolak, Fırat, 2023). China aims at being one of the leading countries in areas such as UAV and image/voice recognition by 2025 (Kalkan Küçüksolak, Fırat, 2023). The Chinese AI industry rose by 20.7 percent in 2020, to a total value of $43.4 billion, because the state-led approach enables strategic growth (Kalkan Küçüksolak, Fırat, 2023). This method, however, poses risks to the competitiveness of the private sector and also causes ethical concerns related to China's surveillance state. This state control also poses a challenge to the EU, which aims to promote ethical principles in its own regulatory environment (Mokry, Gurol, 2024; Kalkan Küçüksolak, Fırat, 2023). For the Chinese government, AI is an important asset in achieving strategic dominance. Thus, its policies reflect China's will to use AI in the development and strengthening of its geopolitical and economic objectives (Bächle, Bareis, 2022; Kalkan Küçüksolak, Fırat, 2023).

For Europe, competition and collaboration on AI are related to a struggle over how to globally regulate the technology. Europe lags behind in industry and technology but can be a leader in global regulation (Gajewski, 2023). It is trying to control the regulation of AI with the adoption of the EU AI Act in 2024, exporting an ethical way to govern the technology (Gajewski, 2023; Garrido Rebolledo, 2025). Although AI regulatory leadership does not automatically lead to technological superiority, it can bring influence beyond a nation's AI industry (Garrido Rebolledo, 2025). As the EU has no control over the suppliers of critical resources such as rare earth minerals, it has only been able to supply one percent of its demand of lithium for batteries (Gajewski, 2023). The EU is thus attempting to export ethical regulation globally, but it also contributes to the rise of digital fragmentation (Mokry, Gurol, 2024). China's digital sovereignty goals and the United States' promotion of an open system are competing with the EU's risk-based approach to AI regulation, causing increased divergences (Mokry, Gurol, 2024; Garrido Rebolledo, 2025).

Competition for talent in the field of AI is global and fierce. AI Ph.Ds. hired straight out of university can expect to be compensated for anywhere between $300,000 and $500,000 per year. This global race has driven up wages significantly but may also exclude small companies. For example, the European Union has fewer high-end specialists than the United States (Horowitz et al., 2018). This raises ethical issues for EU countries as top talent can be attracted to China and the United States for more lucrative career options (Horowitz et al., 2018).

The rise of AI is being influenced by infrastructure investments, state policy, talent competition, and technology regulation. The US advocates for open technology markets and multilateral technology collaboration (Mokry, Gurol, 2024). China favors technology sovereignty and control (Mokry, Gurol, 2024), and Europe endorses the ethical regulation of technology and data privacy (Mokry, Gurol, 2024). Divergent approaches to managing technology could increase digital fragmentation, potentially leading to geopolitical competition and rivalry for technology sovereignty and control (Garrido Rebolledo, 2025). Technology regulation becomes a crucial factor of global power, with the risk of nations engaging in technology regulation wars to control the global order (Mokry, Gurol, 2024; Gajewski, 2023).

AI is evolving into a tool to project global power and influence. For example, the development of AI in China contributes to the country's geopolitical goals. In the areas of UAVs and speech recognition, China aims to become a globally dominant country by 2025 (Kalkan Küçüksolak, Fırat, 2023). China can strengthen its global military power through artificial intelligence, but it might increase China's internal and external challenges through surveillance states and by the use of this new form of power in asymmetric wars, possibly creating resistance by smaller countries (Bächle, Bareis, 2022). In addition, the United States is looking at AI as a source of strategic and economic strength, which may also increase its potential for national and corporate security by using its innovation and strength in the areas of algorithms and hyperscale cloud providers to compete in the military AI markets.

Both the United States and China aim to achieve AI weapon supremacy (Bächle, Bareis, 2022). Because there are no universal standards to describe autonomous functions or how to ethically employ them in armed conflicts, it is extremely challenging to develop common approaches and arms controls (Mokry, Gurol, 2024). Nations are trying to implement their own methods to compete in military AI technology, which increases risk for arms races, strategic instability, and human oversight of conflicts, while simultaneously decreasing the likelihood of cooperation (Mokry, Gurol, 2024). Military AI breakthroughs such as AlphaGo (a program that beat Go champion Lee Sedol in March 2016) are not only considered advancements of technology but also serve as national power displays. AlphaGo's victory in Go became extremely popular in China and was a sign that their ambition to become the global leader in AI was attainable (Bächle, Bareis, 2022).

The competition around AI promises significant economic consequences. In 2030, AI is forecast to add $15.7 trillion to the global GDP (Garrido Rebolledo, 2025). China's economic growth is accelerating with massive investments in supercomputers and by gaining

greater access to the raw materials required for AI development (Kalkan Küçüksolak, Fırat, 2023). The ability of the United States to produce technology on an AI platform may give it an edge (Vyas, 2025; Marr, 2024). However, United States dominance in technology innovation may be harmed if it is excluded from the critical supply chain, because foreign nations control supplies of rare materials, in particular semiconductor raw materials. China may surpass United States AI power because of China's rare earth material availability, strong public research, technology clusters, government support for AI, and the world's largest databases and data market (Kalkan Küçüksolak, Fırat, 2023). China is making progress in establishing its own chip manufacturing supply chain to address the dependence on foreign semiconductors that might hurt its technology plans due to US and EU embargoes. However, China still depends on Taiwan for high-end AI chips, so any Chinese-Taiwan conflict could hurt its future in technology power (Kalkan Küçüksolak, Fırat, 2023). Europe's AI technological dependence may prevent the EU from being as innovative as desired because EU member states depend on imported sources (Gajewski, 2023). Thus, these countries must build capabilities to produce more of their own essential raw materials and components (Gajewski, 2023).

Defense organizations, intelligence agencies, and military think tanks increasingly use strategic foresight, scenario planning, and data-driven, predictive analytics to identify and preemptively respond to threats, with a wide range of possible uses for military and security applications (Wilner, Atkinson, 2025; Marr, 2024). Because technology changes and upgrades are continuously emerging, governments must always be ready to adapt in the defense industry by using legislative measures and international cooperation.

In the last 70 years, war and security have gradually become less visible and more dispersed (Wilner, Atkinson, 2025). AI, with the potential to address new risks such as deepfakes, digital espionage, algorithm manipulation, and cyberattacks, offers capabilities to both enhance security and to increase risk and instability (Wilner, Atkinson, 2025; Marr, 2024). While China may be able to surpass United States AI capabilities, these advances increase the potential for tension because AI helps strengthen national defense plans.

The competition for AI technology leadership between the US, China, and the EU is characterized by different but overlapping strategies that increasingly define the global digital landscape. In 2023, the United States poured €62.5 billion into the AI sector, and this significant investment, combined with its sophisticated innovation ecosystem (Tréhu, Ricart, 2024), strong federal R&D, powerful academic institutions, and private engagement, makes it one of the front runners in the AI race. In addition, the ability to rapidly commercialize new technologies and easily apply them for military use makes the United States unique. However, this strategy comes at a cost of heightened innovation-related moral risk, and this AI-driven dominance raises strategic questions with regard to U.S. ability to set global norms and manage increasing geopolitical risks. Moreover, AI applications are now becoming embedded into defense systems through the Third Offset Strategy, increasing military reliance on emerging technology for dominance in the technological and global order (Bächle, Bareis, 2022, Proroković et al., 2025).

China has also taken a different strategy, relying on state-led industrial policy, investments, and a home-grown advantage: access to domestic data from its over 900 million internet users (Rauf, Iqbal, 2023; Olotu, Famiyesin, 2024). China also has set milestones with plans to become a $150 billion AI industry leader by 2030 and aims to reshape global governance structures, but also faces high levels of innovation risk related to transparency and ethics. With a centralized form of government that is committed to long-term innovation, China also faces a high level of implementation risk for a low-level degree of policy cohesion related to AI. China is making strategic investments and has made significant strides in the fields of surveillance technology, AI-controlled autonomous systems, and economic AI applications and is determined to pose a challenge to the leading countries in the global power structure. The geopolitics of Chinese technological dominance are further compounded by its use of AI to enhance military systems and modernize, which represents its quest to change global power asymmetries (Bächle, Bareis, 2022, Proroković et al., 2025). By becoming a competitor, China is demonstrating the importance of consolidating dominance of economic, diplomatic, and technology domains.

On the other hand, the EU has emphasized regulating rather than rushing to implement AI. This governance-first approach aims to establish horizontal regulations and standards for AI and its applications, exemplified by the AI Act being slated for implementation in 2024 across the EU member states. These horizontal rules could shape global norms and allow Europe to be the global normative leader for artificial intelligence technology (Tréhu, Ricart, 2024). However, this approach can lead to increased technological dependencies and fragmentation. Europe's regulatory focus on risk assessment is designed to curb innovation to alleviate risk but may impede technological growth to a degree, and reliance on foreign suppliers for strategic inputs in AI infrastructure—such as semiconductors, chipsets, and lithium batteries used in AI-enabled cars and devices—is becoming a significant vulnerability. EU policymakers aim to address the complexities of ethical challenges, moral standards, and protection of fundamental rights, as well as manage the societal risks posed by rapid advancements and increasing data usage (Pernot-Leplay, Pradhan, 2024).

The three models create policy incoherence as each tries to create the worldwide norm (Pradhan, 2024). However, each strives to maintain their own sovereign power, in part by ensuring technological advancements are not at odds with cultural beliefs. All of this causes policy incoherence that may impact multinational corporations and organizations that work globally and must comply with differing sets of regulations. As each nation struggles to stay competitive in the race to AI dominance, it leads to a discussion of whether different geopolitical blocs use AI to reconfigure global power. Are there competitive technology ecosystems that risk dividing nations and creating a global divide and growing inequality? These are strategic questions requiring increased public debate (Pradhan, 2024).

China has set milestones in terms of market share with its aims to have $60.3 billion in core AI industries by 2025 (Olotu, Famiyesin, 2024). As such, China has established a series of industrial clusters that benefit its champion technology and innovation companies. Policy leadership and strategic implementation of state resources in order to consolidate its position of power is evident by the fact that 90 percent of companies say they depend on government infrastructure for cloud computing and technology resources. By training large-scale AI models with a plethora of diverse domestic data, China has significantly reduced its dependence on foreign data sources and has been a major player in autonomous systems and language models. While the dominance of state actors can alleviate the risk of strategic confusion, ethical risk arises related to the proliferation of surveillance technology that can infringe upon data privacy. The use of AI to enhance surveillance and information control illustrates the centrality of AI in the transformation of war, emphasizing the strategic need for China to leverage digital capabilities to gain superiority in the technological, military, and global order (Pradhan, 2024).

Academic, government, and corporate collaborations enhance U.S. strength and competitiveness in this field. The Third Offset Strategy demonstrates that AI has entered mainstream military operations, ensuring continued technological leadership in autonomous weapon systems and predictive analytics and improving information awareness and decision-making support on battlefields (Tréhu, Ricart, 2024; Bächle, Bareis, 2022). Even though America dominates global markets, strategic questions relating to global competitiveness, standards, and military readiness remain in the face of rising dominance by China. The need for open alliances is demonstrated through transatlantic regulatory and standard cooperation that attempts to forge collective power, but these attempts also are challenged due to underlying geopolitical tensions and competitive interests (Pham, 2024). However, the focus on the free market poses several risks including competing interests of corporations that may not serve strategic security priorities, while open sourcing poses ethical, military, and market threats. America had a relatively late start to consolidate its defense technology strategy, initially focused on retaining military superiority but gradually extending to meet the challenge posed by China, Russia, and other countries (Proroković et al., 2025; Pradhan, 2024).

The EU has chosen to pursue policy goals through extensive horizontal regulation and an emphasis on policy cohesion (Tréhu, Ricart, 2024). A governance-first approach requires the development of legal and regulatory standards for AI. The EU AI Act (European Commission, 2021) provides these requirements for high-risk AI applications related to biometric surveillance, law enforcement technologies, and others, and ensures protection of fundamental rights, which contributes to public confidence (Pernot-Leplay, 2025). This can reduce policy incoherence and strategic confusion for industries and promote standards compliance. However, this also may bring about risks of increasing compliance costs and reduced competitiveness and innovation. While the EU is attempting to position itself as the norm leader with a governance-first policy that promotes the integrity of data protection

standards and the safeguarding of rights in cyberspace, its strategic position of power and competitive advantage is hindered by private investment that is less than half the investment that China can access. For Europe to compete on the global stage, it would have to triple or quadruple its investment in private AI companies from the €9 billion it spent in 2023. Ultimately, the policy initiatives reflect Europe's deep concern about the social, cultural, and economic consequences of emerging technology and reflect the values of the continent. The normative leadership role attempts to address economic and security challenges as well as improve policy coherence by increasing cooperation and trust among geopolitical blocs (Pradhan, 2024).

All three countries are shifting the measurements of power from GDP and military assets to new measurements that include technology dominance (Korkmaz, 2024). Each nation is focusing on advancements in military technology that reduce risks to personnel and enhance intelligence and communication capabilities through the use of artificial intelligence, which is a leading indicator of global strategic importance. AI's rapid influence on military applications, diplomatic actions, and economic prosperity underscores its role in the evolving global balance of power. Still, it seems that innovation benefits and access to AI is concentrated with just a few powers. The need to prevent further stratification and inequities in the Global South must be addressed (Pham, 2024). Regulatory sandboxes, such as the creation of the Global Financial Innovation Network (GFIN), are just one example of a global strategy to manage and mitigate risks and help harmonize regulations and standards in a rapidly evolving technological landscape (Tréhu, Ricart, 2024). Technological interoperability and digital dependencies now have an effect on how alliances, conflicts, and relationships in the global order will be structured and how global power balances will be decided (Proroković et al., 2025).

The different and sometimes conflicting AI-led strategies of the U.S., China, and the EU, which impact competition, collaboration, standardization, and power structures, define this digital shift and pose a complex task in determining sustainable policy coherence across national and global levels (Pernot-Leplay, 2025).

4. Discussions

The nature of modern warfare and strategic stability is being transformed through the growing incorporation of artificial intelligence into military and security systems, with both operational opportunities and ethical dilemmas being presented. The ways in which AI is reshaping defense capabilities, information operations, and the wider security environment will be explored in this section, highlighting its vital function in current geopolitics. The shifting dynamics of power and conflict in the AI age are illuminated by an understanding of these developments in the context of global competition and governance.

AI in defense and warfare has revolutionized operational efficiency and introduced profound strategic considerations, exemplified by AI-equipped drones and drone swarms on the battlefield. A 2019 study revealed that Israeli AI-enabled drones operate significantly more effectively than their counterparts without AI. Similarly, nano-drones equipped with autonomous navigation systems have disrupted traditional doctrines that rely on large platforms, bringing about strategic challenges for military planners (Clauberg, 2024). However, the implementation of AI in defense systems also raises questions about the accountability of AI decisions and their potential to amplify conflict risks.

The US and China both view AI as integral to national security and have sought to develop defense-related AI systems. While the US has prioritized innovation through the Third Offset Strategy and DARPA's $2 billion AI Next campaign, which emphasize contextual and adaptive reasoning, China's approach has been centrally organized. The United States' $100+ million annual investment in NSF grants and the market-driven nature of the nation's AI development pose significant challenges in directing AI to address ethical or national interests (Araya, King, 2022). China, in contrast, adopts long-term industrial policies and invests heavily in AI, benefiting from a substantial domestic data pool and centralized decision-making, facilitating civil and military AI applications. However, it also raises serious ethical and privacy concerns (Bächle, Bareis, 2022).

AI is already deployed in military systems across almost 100 countries. Drones, nano-drones, and decision-support platforms are examples of AI technologies used in modern warfare, as is their integration in equipment such as the M142 Himars artillery system (Clauberg, 2024). AI-enabled drones, used for targeting decisions, analyze airborne imagery to instantly identify and engage targets in the blink of an eye (Clauberg, 2024). By minimizing human involvement in targeting decisions, the identify-decide-act cycle is accelerating, leading to the compression of time cycles in warfare. This compressed cycle may potentially destabilize global security, especially in crises, as AI makes strategic decisions autonomously and at rapid speed.

Advances in AI, such as large language models, domain-specific models for national crisis and conflict management, and recommendation systems for diplomatic negotiations, are increasingly prevalent. These AI models are used to analyze conflict scenarios and propose strategies, potentially transforming traditional conflict resolution and militarized bargaining. For instance, these models may predict how military responses from allies to a regional crisis can influence a dictator's incentives to invade a neighboring country. The opacity of AI in decision-making processes leaves policymakers uncertain about AI recommendations, especially since such systems are constructed differently at different levels and can yield varying results from the same input information (Cole et al., 2025). The implications of this uncertainty call for governance structures over the use of AI in defense and diplomacy, which must take into account varying national strategies. Without such AI governance, destabilizing

crisis management may arise, as some national crisis management systems will react to a crisis in ways their adversaries do not foresee.

AI is also gaining ground in cyber warfare, information operations, and security strategies, with major countries investing in this area. Due to the speed and scale that AI can be leveraged, adversaries are capable of running sophisticated cyberattacks, conducting sophisticated misinformation campaigns, and sabotaging digital systems, among others. These kinds of applications can force defense planners to make alterations in technical architectures, making them more robust. In addition, AI and cyber operations often lead to blurred boundaries between non-conventional and conventional warfare, thereby impacting strategic decision-making in a more complex manner (Correal, 2025). This raises the need for a sector and international response to address the issue of AI militarization.

The arrival of region-specific AI platforms, such as DeepSeek, is altering the structure of global technological power by intensifying the global digital arms race. Diverse strategic interests, shown in the divergent regulations between the US, EU, and China, result in different digital ecosystems with low interoperability. Low interoperability means low reliability of defense supply chains and low reliability of supply chains for the production of dual-use systems. Corporations and nations must ensure effective cross-border international cooperation to navigate diverging strategic and regulatory environments. This will provide more security for these supply chains. The current path of technological development suggests that decisions made over the next few years will determine whether AI is used to foster competition or cooperation (SpecialEurasia OSINT Unit, 2025).

The rise of AI for defense-related purposes also poses complex and potentially transformative issues for humanity, spanning both social and ethical domains. Automation-driven unemployment, increasing inequalities, and societal fragmentation, all with their accompanying policy challenges, may be some of the consequences of the increasing implementation of AI in defense systems. These issues call for cross-sector, interdisciplinary collaboration and careful planning and governance. If nations do not carefully consider the implementation of AI in defense systems, the societal resilience necessary for effective adaptation may not be enough (Gerlich, 2024; Silini, Molina, 2024). The transformation of defense and security systems by AI raises concerns about the human costs of this new arms race and highlights the imperative for carefully thought out defense planning that balances innovation with the economy and with the human condition.

Artificial intelligence (AI) in information warfare has enabled disinformation campaigns and psychological manipulation to such an extent that it changes the way that conflicts are fought and political operations are conducted. AI has enabled the creation of highly realistic deepfakes and of mass and automated propaganda, which undermines democratic systems. During the 2023 Slovak elections, audio deepfakes were used to influence the outcomes of the elections (Pauwels, 2024). Through the mass collection of personal data, as evidenced in Facebook's role in the 2018 US elections, AI has also enabled microtargeting, which allows

users to manipulate voting behaviors and public opinion. This highlights the strategic implications of AI in influencing political processes and the challenges that national governments will face in countering these operations (Pauwels, 2024).

The use of AI in disinformation campaigns also inhibits the ability to detect and attribute manipulative operations due to the overwhelming amount of AI-generated content. State and non-state actors utilize AI to destabilize societies without physical violence, adding an extra level of risk that the increasingly complex information environment needs to manage. As AI becomes more able to mimic human behaviors and perform scalable disinformation campaigns, power in information warfare shifts from traditional tools to algorithmic ones. Detection and international policy are needed to combat the risks, which may prove challenging to enforce in a fragmented world (Bin, Donic, Keke, 2023; Pauwels, 2024).

Another hypothesis is that as the capabilities of AI increase, the threshold to conduct successful psychological operations becomes lower, meaning that smaller actors or even a single individual can conduct large-scale manipulative campaigns. This challenges the notion that security risks come from states alone, which threatens the global balance of power. Countries or individuals who previously were not able to wield the influence of large-scale campaigns will now be able to compete in the political landscape. This requires that the international community make strides in AI governance and policy to ensure that these advances do not create a net negative benefit (Szczepański, Claros, Chahri, 2024).

The proliferation of AI-enabled disinformation campaigns necessitates the question of whether existing institutions are sufficient in addressing such challenges. The development of AI-aided tools of verification, as well as the implementation of legislative transparency for digital platforms, is crucial to the threat of synthetic content and restoration of trust in truth. However, technology and governance will have to develop in accordance with societal values, which is difficult when dealing with global platforms (Cole et al., 2025).

The scalability and automation that AI enables in disinformation campaigns has meant that it has gone worldwide. For example, the outsourcing of disinformation activities by Russia's troll factories to Ghana and Nigeria aimed to incite racial tensions in the United States (Szczepański, Claros, Chahri, 2024). The rise of this trend emphasizes the transnational dimension of propaganda and manipulation, in that these technologies make it possible for campaigns to go viral on a local, even cultural level (Pauwels, 2024; Szczepański, Claros, Chahri, 2024).

The geographical expansion of AI-enabled propaganda indicates that the reach and impact of campaigns are also increasing. As platforms can automatically adapt content to the current local fault lines, it is easier to exploit vulnerable populations and erode national coherence and interstate relations. Empirical evidence suggests that over 80 countries actively engage in computational propaganda via social media. As AI continues to be used for influence and disruption operations on a global scale, these technological advancements challenge national

security. It is important that global frameworks be put in place to regulate the use and development of such manipulative tools (Szczepański, Claros, Chahri, 2024).

The growing dependence on transnational platforms, coupled with rising external risks, suggests a need to redefine digital sovereignty to ensure that states are in control of what transpires online and maintain access to data flows across borders. Due to AI-driven disinformation campaigns, digital sovereignty is also challenged by threats to state control over national information infrastructures. Although some states are striving to increase their digital sovereignty, it is difficult to ensure this when most of the risks are originating from sources outside of national borders. International cooperation is thus necessary to fight these threats, but this has proven challenging due to competing national interests. If these technological advances are not regulated at an international level, the effects may have devastating impacts. Thus, to avoid any worst-case scenarios, there has to be a development of institutional frameworks to ensure transparency and accountability (Elbashir, 2025).

The scalability of AI in generating and transmitting information leads to increased strategic agility. This is evidenced by an Israeli political consulting firm using AI to sway legislative support in the United States. With AI-generated disinformation, the time needed to adapt to current events is significantly reduced as it can quickly propagate manipulative messages through large-scale and highly automated campaigns. AI challenges the traditional functions of information gatekeepers such as election commissions or regulatory news agencies, due to its ability to disrupt established news sources and spread misinformation and targeted narratives (Pauwels, 2024; Cohen et al., 2023).

Generative AI provides both unprecedented avenues for advanced countermeasures and risks of an "AI influence arms race" by lowering the threshold for highly effective manipulative campaigns. Developing AI-enabled methods to detect synthetic content can significantly improve the defense of manipulation campaigns. With AI, it is becoming difficult to distinguish between the truth and the falsehood. As it becomes more and more commonplace, the danger of undermining all digital content becomes a great risk. Policymakers have to prioritize safeguards to ensure that there will not be widespread societal mistrust of information and that the advances of AI technology will not be undermined (Cole et al., 2025).

AI can assess and target vulnerabilities, identify psychological needs, and deliver messages that are most likely to influence behavior in strategic contexts. China and the United States leverage AI for both domestic and international psychological operations in order to gain a strategic advantage and shape public opinion. As there has been a rise of automated influence capabilities that bypass traditional soft power and hard power tactics, this trend has significantly altered the nature of statecraft. This indicates a need to reassess how to measure power in IR theory (Feakin, 2024; Bin, Donic, Keke, 2023).

As AI makes it easier to conduct psychological operations and reach a global audience, the development of new control mechanisms is crucial to prevent the abuse of these advanced technologies. The ability to conduct large-scale influence campaigns necessitates oversight

frameworks to prevent AI-enabled human rights violations and address the complex ethical dilemmas. To enhance the trustworthiness of AI and diminish the risk of abuse, greater accountability must be established to ensure that the systems are aligned with human and ethical values. The ability of private tech corporations to develop and manage these advanced AI systems raises concerns, because these non-elected and under-regulated organizations can wield a disproportionate amount of power and control over global influence and opinion (Cohen et al., 2023; Bin, Donic, Keke, 2023).

The increasing contest for information dominance will make it necessary for current governance structures to develop to meet the demands and challenges that come with advanced AI. A scenario of AI making complex decisions regarding conflict escalation or termination highlights the lack of existing international frameworks that are prepared to address these risks. The development and standardization of sector-specific control mechanisms, such as AI safety audits or international agreements for data and information integrity, would be beneficial, as it would improve the trustworthiness of the technology and ensure safety and accountability. If governance of AI in information warfare continues at the current rate, it will be fragmented and will not be sufficient to address any concerns (Elbashir, 2025; Cole et al., 2025).

The rise of digital sovereignty and the development of sovereign national language models and cloud services represent a strategy to regain control over digital infrastructures. However, the emphasis on digital sovereignty can also fragment and weaponize AI, leading to the deterioration of governance and collaborative efforts. This can exacerbate risks associated with information warfare due to limited cross-border cooperation. In order to combat the proliferation of AI-enabled manipulative operations, policymakers should advocate for a values-aligned, open, and cooperative model of AI governance, which balances AI security and development by maintaining technological innovation in a safe and democratic manner (Elbashir, 2025).

The continuous development of AI will lead policymakers to deal with the challenge of balancing the innovation of the technology with ensuring AI safety. Technological superiority and societal values must be balanced through institutional frameworks and international cooperation as AI changes global stability and the landscape of information warfare (Cohen et al., 2023; Elbashir, 2025).

5. Conclusion

The transformation of global geopolitics, security architectures, and power distribution by artificial intelligence was examined by this scientific work, with a particular emphasis placed on the continuous competition and interaction among the United States, China, and the European Union. A thorough understanding of how AI is redefining power dynamics,

defense innovation, economic competitiveness, and regulatory influence on the global stage is provided through a systematic analysis of the diverse strategies, technological initiatives, and governance models that are employed by these actors. The central research question regarding the degree to which AI breakthroughs are changing geostrategic security planning, information environments, and states' capacity to project influence in a digital order that is becoming more interconnected and contested was addressed by this investigation. The achievement of the stated objective has been ensured throughout the work through the integration of comparative analysis, scenario-based exploration, and synthesis of international security studies.

Several important findings are articulated in the main body of the paper, and these findings collectively clarify the multifaceted role that AI plays in contemporary international relations. It is demonstrated by the analysis that the competition for AI dominance is not just a race for technological superiority but rather a multidimensional contest that has an impact on the economic, political, and security spheres. The United States makes use of its strong innovation infrastructure and vibrant private sector in order to maintain its position as a technological leader, while China pursues a state-led model that places emphasis on strategic industrial policy, the centralization of resources, and a concentration on technological sovereignty. The European Union, in contrast to the others, is a proponent of an approach that prioritizes ethical standards and regulatory influence above all else. These disparate strategies are manifested in distinct national strategies for the development, implementation, and international standard-setting of AI, which in turn contribute to increasing regulatory fragmentation and the potential for conflicts over digital sovereignty. The integration of AI into defense systems has, in the realm of security, increased operational effectiveness while also raising serious concerns about accountability, crisis escalation, and the weakening of human oversight in important military decisions. A paradigm shift in warfare is indicated by the emergence of autonomous weapons and AI-enabled intelligence systems, in which algorithmic speed and adaptability redefine traditional military doctrines and alliances. Equally, the work reveals the growing centrality of AI in information warfare, emphasizing its role in enabling disinformation on a massive scale, psychological operations, and the manipulation of public opinion across geopolitical boundaries. The vulnerability of societies and democratic institutions to threats that are technologically mediated is highlighted by the proliferation of AI-driven influence campaigns and automated propaganda, which amplifies the urgency of adaptive governance and international cooperation. The complexity and volatility inherent in the current phase of global digital competition is underscored by the rapid evolution of these dynamics, in addition to the speed of technological innovation.

The placement of these findings within the broader research context reveals important contributions to the growing body of literature on AI, security studies, and international relations. The work advances understanding through the synthesis of technological, regulatory, and geopolitical perspectives, as well as through the articulation of how the interplay between

these domains shapes emerging patterns of global order. By clarifying the implications of regulatory divergence and the militarization of AI, the study illuminates the intensifying arms races and the risk of fragmentation among competing governance models—topics of critical debate among leading scholars and policymakers. The necessity of integrating technological expertise with policy analysis in order to generate nuanced insights into the consequences of accelerated AI adoption is underscored by situating the analysis within current theoretical and empirical discourses. Furthermore, the comparative approach deepens appreciation for the complex trade-offs between innovation, ethical governance, and national sovereignty, thus enriching ongoing conversations about the prerequisites for stable and inclusive digital transformation.

A critical reflection on the research process brings to light a number of limitations that are inherent in the process. The generalizability and empirical depth of certain assessments may be constrained by the reliance on secondary sources as well as the methodology, which is primarily qualitative and comparative. Maintaining the currency and relevance of analysis is an ongoing challenge due to the rapid pace at which AI technologies are evolving. Additionally, the scope of this work necessarily precludes an exhaustive exploration of every affected domain, particularly with regard to the perspectives of the Global South or the long-term socioeconomic impacts of AI-driven change. The recognition of these limitations encourages further empirical research, which is enhanced by interdisciplinary and cross-regional collaborations, in order to monitor, contextualize, and anticipate the ramifications of AI advancement as new technologies, alliances, and points of contention come to the forefront.

Looking ahead, the research highlights a number of promising avenues for future research. It is essential to continue monitoring the global AI landscape, particularly as the regulatory competition between major powers intensifies and new governance frameworks are put to the test in real-world scenarios. Important avenues for advancing the field are represented by longitudinal studies that assess the effects of digital fragmentation on international cooperation and global inequalities, as well as investigations into the distinct challenges that are faced by actors who are less technologically advanced. It is becoming increasingly clear that there is a need for robust, adaptive frameworks for collaborative AI risk management and governance, as is the urgency of legislative adaptation to respond to emergent security threats and preserve democratic resilience. Building on these foundations, future research ought to make an effort to bridge the gap that exists between technological innovation and policy development, fostering approaches to AI governance that are informed, inclusive, and responsible at both the national and international levels.

Significant learning gains have been realized as a result of the systematic engagement with the intersections of technology, geopolitics, and societal transformation, which is something that is reflected upon throughout the research process. The investigation has served to reinforce the significance of interdisciplinary analysis as well as the value of critical, comparative research in grappling with the complexities of technological landscapes that are rapidly

evolving. The commitment to contributing to ongoing scholarly and policy conversations on AI governance that is responsible, equitable, and inclusive remains a key motivation. This underscores the broader significance of maintaining vigilance, adaptability, and ethical integrity as artificial intelligence continues to shape the contours of the global order.

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