Artificial Intelligence and the Changing Nature of International Relations: Challenges and Opportunities

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Abstract **- Politics, considered as the master science, gained its stature because it is the most difficult aspect of study where human behaviour and preferences can be studied. It is true for the minutest level of politics and is exactly true and complicated at the level of international relations. This paper examines the transformative role of artificial intelligence (AI) in reshaping international relations. It explores how AI influences state sovereignty, geopolitical power dynamics, military strategy, diplomacy, and global governance. By analyzing recent developments and scholarly perspectives, the paper highlights both the opportunities and challenges posed by AI in the international arena.**

INTRODUCTION

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, particularly computer systems. These processes include A learning (acquiring information and rules for using it), reasoning (using rules to reach approximate or definite conclusions), and self-correction. AI encompasses various subfields such as machine learning, neural networks, natural language processing, and robotics, each contributing to the development of systems capable of performing tasks that traditionally require human intelligence[i]. AI models can process and analyze large volumes of text data, identifying patterns and trends. This capability is particularly useful in fields like sociology, psychology, and political science, where understanding public opinion and behavior is crucial. Bridging the gap between social sciences and technology[ii]. In recent years, AI has transitioned from a niche technological advancement to a cornerstone of global strategic competition. Nations worldwide are investing heavily in AI research and development, recognizing its potential to influence economic growth, military capabilities, and geopolitical power[iii].

The integration of AI into various sectors, including defense, healthcare, finance, and infrastructure, underscores its significance in shaping the future of international relations. However, complete trust on AI is still not suggested. For example, the term 'machine learning' is often is misleadingly used as a synonym for AI. Machine learning is in fact a specific subset of AI systems whose programming is not wholly written by humans but which 'learns' on the basis of reviewing datasets.

RESEARCH BASIS OF THE PAPER

The central argument of this paper is that AI is both a catalyst for innovation and a source of new risks in international relations. As we are living in a digitalized world, the political relations between countries are also being deeply affected and shaped by technology, especially the Artificial Intelligence. The paper is an attempt to pose key questions such as:

1. How is AI altering traditional power structures?
2. What ethical dilemmas arise from AI in diplomacy and warfare?

This research work is planned for a long-term period and will explore more focused areas of intersections between international relations and artificial intelligence in future[iv].

Artificial Intelligence and International Relations: Theoretical Basis

Artificial Intelligence (AI) is increasingly influencing global politics, prompting scholars to reassess traditional International Relations (IR) theories. While AI's impact on warfare and diplomacy is evident, its implications for foundational IR theories, such as realism, liberalism, and constructivism, are profound

and multifaceted. Realism posits that states operate in an anarchic international system, prioritizing power and security. The advent of AI introduces new dimensions to this power calculus. AI's integration into military strategies, exemplified by autonomous drones and cyber capabilities, enhances state power but also introduces vulnerabilities. The United States' initiative to promote responsible AI military use underscores the need for international cooperation to mitigate AI-related risks in warfare. Moreover, AI's role in surveillance and data collection can shift power balances, as states with advanced AI capabilities may exert influence over others. These dynamic challenges traditional notions of sovereignty and power in the realist framework.

Liberalism emphasizes the potential for international institutions to foster cooperation and mitigate conflict. The establishment of the Framework Convention on Artificial Intelligence by over 50 countries illustrates a collective effort to regulate AI development and ensure it aligns with human rights and democratic values. Additionally, the Global Partnership on Artificial Intelligence (GPAI) serves as a platform for governments, academia, and industry to collaborate on AI research and policy, reflecting liberal ideals of interdependence and institutional cooperation.

Constructivism focuses on the role of ideas, norms, and identities in shaping international relations. The development and deployment of AI technologies are influenced by societal values and ethical considerations. The Framework Convention on Artificial Intelligence, for instance, reflects a shared commitment to human rights and democratic principles, highlighting how norms can guide technological advancement. Furthermore, AI's impact on identity is evident in debates over data sovereignty and cultural preservation. Nations are increasingly concerned about the control and use of their citizens' data, leading to policies that assert digital sovereignty and protect cultural identities in the digital age.

AI and Global Inequities is a very interesting aspect. Critical and postcolonial theories examine how power structures and historical inequalities influence global affairs. The global AI race often mirrors existing power imbalances, with technologically advanced nations leading development and setting standards. This dynamic can perpetuate inequalities, as developing countries may lack the resources to participate fully in AI advancements. Moreover, the deployment of AI technologies can have disparate impacts, with marginalized communities bearing the brunt of negative consequences. These perspectives urge a more equitable approach to AI development and governance, ensuring that all nations and peoples benefit from technological progress[v].

Integrating AI into IR theory necessitates a reevaluation of traditional frameworks to account for the complexities introduced by technological advancements. AI's influence on power dynamics, institutional cooperation, norms, and global inequalities requires a multidisciplinary approach to understand and address its implications fully. As AI continues to evolve, its integration into IR theory will remain a critical area of scholarly inquiry, influencing how states and societies navigate the challenges and opportunities of the digital age.

AI and the Transformation of International Relations:

Artificial Intelligence (AI) is rapidly reshaping the landscape of international relations, influencing global power dynamics, diplomatic strategies, and governance frameworks. Once confined to the realm of science fiction, AI technologies are now integral to national security, economic competitiveness, and geopolitical influence. This transformation presents both unprecedented opportunities and complex challenges for states, international organizations, and non-state actors. Nations are increasingly recognizing AI as a critical component of their strategic arsenals. The United States and China, in particular, are engaged in an intense competition to lead in AI development, viewing technological supremacy as essential to maintaining geopolitical influence[vi]. This "AI nationalism" is prompting countries to invest heavily in domestic AI capabilities, implement restrictive trade policies, and form strategic alliances to safeguard their technological sovereignty.

The advent of AI is redefining traditional paradigms in international relations. Key areas of transformation include:

Military and Defense: There is a connected notion that the greater your amount of power, fundamentally

impacted by AI, the greater your potential to exercise influence in political, economic and military terms. This argument then leads to security competition around AI as an outcome[vii]The emergence of Artificial Intelligence and its rapid proliferation has begun to change fundamental international structures and processes in many ways. One significant area is that of the military, where AI systems are being trained to respond to threats, mostly through Human-In-The-Loop-Systems (HITLS), where an authorized person makes the final decision. South Korea is known to have placed such an automatic weapon system in its volatile border shared with North Korea (Velez-Green, 2015). AI technologies are revolutionizing military strategies through the development of autonomous weapons systems, sophisticated espionage, enhanced cybersecurity measures, and advanced surveillance capabilities. This evolution raises ethical and strategic questions about the future of warfare and global security dynamics[viii].

Artificial Intelligence (AI) is rapidly transforming military strategy and warfare, introducing capabilities that were once the realm of science fiction. From autonomous drones to predictive analytics, AI is reshaping how armed forces plan, execute, and adapt in combat scenarios. This section explores the multifaceted role of AI in modern military operations, highlighting its applications, advantages, and the ethical considerations it entails. AI enables the development of autonomous systems capable of performing complex tasks without direct human intervention. Unmanned Aerial Vehicles (UAVs), such as the MQ-9 Reaper, and Unmanned Ground Vehicles (UGVs) are increasingly utilized for reconnaissance, surveillance, and targeted strikes. These systems can operate in hazardous environments, reducing the risk to human personnel and providing real-time intelligence to commanders.

Swarm Technology: AI-powered swarm technology involves the deployment of multiple autonomous units that can communicate and coordinate actions to achieve a common objective. This approach allows for overwhelming enemy defenses, conducting synchronized attacks, and performing complex reconnaissance missions. The British Army's "20-40-40" strategy exemplifies this shift, allocating 80% of its combat capability to drones and autonomous systems, with 40% dedicated to reusable high-end drones.

Intelligence, Surveillance, and Reconnaissance (ISR): AI significantly enhances ISR capabilities by processing vast amounts of data from various sources, including satellites, drones, and sensors. Machine learning algorithms can identify patterns and anomalies, providing actionable intelligence for decision-makers. For instance, the U.S. Department of Defense's Project Maven employs AI to analyze drone footage, aiding in target identification and reducing the cognitive load on analysts.

Cyber Warfare and Defense: The integration of AI into cyber operations has revolutionized both offensive and defensive strategies. AI systems can detect and respond to cyber threats in real-time, identifying vulnerabilities and mitigating risks before they escalate. On the offensive side, AI enables the automation of cyber-attacks, allowing for precise targeting of enemy infrastructure and communication networks.

Decision-Making and Command Control: AI facilitates faster and more informed decision-making in complex combat scenarios. The U.S. military's Joint All-Domain Command and Control (JADC2) initiative aims to connect sensors from all branches of the armed forces into a unified network powered by AI. This integration allows for real-time data sharing and coordinated responses across land, sea, air, space, and cyberspace domains.

Ethical and Strategic Considerations: The deployment of AI in military operations raises significant ethical and strategic questions. The potential for autonomous systems to make life-and-death decisions without human oversight challenges traditional notions of accountability and responsibility. The U.S. Department of Defense has established ethical guidelines, such as the Department of Defense AI Ethical Principles, to ensure that AI is deployed responsibly in combat and military. Not only in warfare and conflicts, but in other innovations led by AI there is need for caution. Machines operate along a very limited set of parameters, where a human child can instinctively recognize a cat from any angle, a computer (even after sorting thousands of cat images) can be flummoxed by seeing a cat whose face is

temporarily hidden from view. Consider, for example, the case of the first fatal crash of a vehicle being operated in 'self-drive' mode: a Tesla Model S, which in May 2016 drove at full-speed into the side of a truck; its human driver was killed in the collision[ix]. According to investigators, the car's sensors were confused by sunlight reflecting off the white paint of the truck's trailer, which it was unable to distinguish from the sky. The system neither braked nor warned the human driver of the impending collision. Investigators concluded that the ultimate responsibility lay with the human driver, whose failure to properly oversee the operation of the vehicle led to the accident.[x]

However, these advancements also necessitate careful consideration of ethical implications and the establishment of robust governance frameworks. As AI continues to evolve, its role in military operations will likely expand, requiring ongoing dialogue and regulation to balance innovation with accountability[xi].

Other domains of use of AI by States:

Nations are leveraging AI to gain economic advantages, leading to a new form of technological nationalism. Countries are striving to develop and control AI technologies to bolster their economic standing and reduce dependence on foreign technologies. AI is also influencing diplomatic practices by enabling more efficient data analysis, improving decision-making processes, and facilitating real-time communication. However, it also presents challenges related to data privacy, surveillance, and the potential for AI-driven misinformation. The rapid development of AI technologies has outpaced international regulatory frameworks, prompting calls for global cooperation to establish norms and standards that ensure the ethical use of AI and prevent misuse.

Recent Developments in AI and International Relations: Case Studies

Recent geopolitical events highlight the growing intersection of AI and international relations[xii]. A look into these cases will enable us to understand the discourse of AI and IR in a better way. It must be mentioned here that as the concept of AI nationalism is gaining power, with countries like the United States, China[xiii], and France developing national AI strategies to assert technological sovereignty. This trend is reshaping global alliances and influencing trade policies[xiv]

Artificial Intelligence (AI) has become a transformative force in international relations, influencing diplomacy, security, economics, and governance. This section examines these developments, focusing on international treaties, diplomatic initiatives, and strategic partnerships that are shaping the future of AI in global affairs.

International Treaties and Agreements: Framework Convention on Artificial Intelligence

In September 2024, over 50 countries, including EU member states, the United States, and the United Kingdom, signed the Framework Convention on Artificial Intelligence and Human Rights, Democracy, and the Rule of Law. This treaty aims to ensure that AI development aligns with fundamental human rights and democratic values. It establishes principles such as transparency, accountability, and non-discrimination, and mandates risk assessments to mitigate potential harms. The convention also provides safeguards, including the right to challenge AI-driven decisions, and applies to both public authorities and private entities acting on their behalf. The OECD's Recommendation on AI, include robustness, security and safety as key AI governance principles, noting that 'AI systems should be robust, secure, and safe throughout the entire lifecycle so that, in conditions of normal use, foreseeable use or misuse, or other adverse conditions, they function appropriately and do not pose unreasonable safety and/or security risks' (OECD, 2022)

AI Safety Institute Network: Following the AI Safety Summit in November 2023, international leaders agreed to form a network of AI Safety Institutes (AISI) to evaluate and ensure the safety of advanced AI models. This network includes institutes from countries such as the United Kingdom, the United States, Japan, France, Germany, Italy, Singapore, South Korea, Australia, Canada, and the European Union. The AISIs aim to collaborate on AI safety research and establish international standards for AI development.

Diplomatic Initiatives and Strategic Partnerships: AI Seoul Summit

The AI Seoul Summit, held in May 2024, was co-hosted by South Korea and the United Kingdom. The summit adopted the Seoul Declaration, committing to the development of safe, innovative, and inclusive AI. Leaders from G7 countries, including the United States, Canada, France, and Germany, as well as representatives from the United Nations, the Organisation for Economic Co-operation and Development, and the European Union, attended the summit. The declaration emphasizes international cooperation and the development of human-centric AI in collaboration with the private sector, academia, and civil society.

United States-India Initiative on Critical and Emerging Technology (iCET): In 2023, the United States and India launched the iCET to enhance cooperation in developing critical and emerging technologies, including AI, quantum computing, semiconductors, and wireless telecommunication. Under iCET, the two countries announced over $2 million in 2024 for collaborative research initiatives in AI and quantum technology. This initiative aims to strengthen the technological partnership between the two nations and counter China's growing influence in the tech sector.

CONCLUSION

The developments in AI and international relations in recent years demonstrate a concerted effort by nations to establish frameworks for responsible AI development and to foster international cooperation. Treaties like the Framework Convention on AI and initiatives such as the AI Safety Institute Network and the AI Seoul Summit reflect a shared commitment to ensuring that AI technologies are developed and deployed in ways that align with human rights and democratic values. Strategic partnerships, such as the United States-India iCET, highlight the importance of collaboration in advancing critical technologies. As AI continues to evolve, these international efforts will play a crucial role in shaping a global landscape that balances innovation with ethical considerations. Artificial Intelligence is no longer a peripheral concern but a central element in the fabric of international relations[xv]. Its impact spans military strategy, economic competition, diplomatic practices, and global governance. As AI continues to evolve, it will undoubtedly play a pivotal role in shaping the future of global affairs, necessitating thoughtful consideration and collaborative efforts to harness its potential responsibly. While all that is very relevant, we must not ignore the limitations of AI.

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