Artificial Intelligence and its Impact in International Relations

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Artificial Intelligence and its Impact in International Relations

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Abstract
In an era marked by remarkable technological advancements, Artificial Intelligence (AI) has emerged as a powerful force in the realm of International Relations. AI's adaptability, which includes automating the processes of foreign policy-making and improving predictive analytics, is swiftly reshaping the ways in which countries participate in international affairs. The impact of AI is notably observed in activities like data analysis, policy assessment, conflict resolution, cybersecurity, language translation, and disaster response, all of which streamline diplomatic activities and enhance communication. This article discusses how AI technology will shape the field of International Relations.

Keywords: Artificial Intelligence, Politics, International Security, International Relations, Diplomacy, Democracy, Conflict Resolution, Global Governance, Policy Makers

Introduction
In an age characterized by remarkable technological advancements, Artificial Intelligence (AI) has emerged as a formidable force transcending boundaries and permeating every facet of our lives. This groundbreaking field of Computer Science empowers machines with human-like reasoning capabilities, and its influence spans a multitude of domains, including international relations. As AI technology rapidly evolves, it exerts an increasingly profound impact on global politics, diplomacy, and security.

Despite its growing ubiquity, AI remains a concept shrouded in mystery for many. It represents a versatile tool that encourages individuals to reconsider how they synthesize information, analyze data, and employ the results to enhance decision-making. As a scientific discipline, AI is already profoundly influencing our existence (Darrel & Allen, 2018). AI is expected to play a key role as the technology of the future. According to the U.S. Department of Defense AI pertains to the capability of machines...
to execute activities typically associated with human intellect. These tasks encompass activities such as pattern recognition, experiential learning, drawing inferences, making forecasts, and initiating actions. This can occur either in digital form or as the intelligent software that operates autonomous physical systems (Department of Defense, 2019).

The field of Machine Learning and AI is already seen to have a profound impact on how countries manage international relations. The evolution of computers, the availability of countless data and new algorithms have enabled the rapid development of AI (European Parliament, 2020). AI is designed to improve human life. Thus, many nations such as the USA and China are racing to achieve a global innovation advantage in AI as they believe that it will be able to protect national security among other fields (Castro, McLaughlin, & Chivot, 2019). Nevertheless, as far as International Relations is concerned, it will have implications for military, economic and information superiority (Allen & Chan, 2017). International Relations and International Security seem to be affected by AI innovations. This paper aims to present the way AI technology will shape the field of International Relations.

**Modern Artificial Intelligence**

It’s important to note that modern AI is a dynamic and evolving field, and it continues to advance rapidly. Researchers and practitioners are constantly working on improving AI models, algorithms, and applications, making AI an integral part of our contemporary technology landscape. Modern Artificial Intelligence (AI) refers to the current state of AI technology and research, characterized by significant advancements and innovations in machine learning, deep learning, natural language processing, computer vision, and related fields. It encompasses the latest approaches, techniques, and applications that have emerged in the field of AI.

AI is a field of Computer Science where machines can appear to be intelligent by running programs. It is a very broad topic and covers our daily lives and is found from smart phones and social media to smart cars. Also, AI machines are able to 'understand' their environment, solve problems and act towards a specific goal. AI systems are capable of adapting their behavior to a certain extent by analyzing the consequences of previous actions and solving problems autonomously (European Parliament, 2020).

Modern AI relies on deep learning, leveraging neural networks for tasks like image recognition and NLP. It harnesses big data for model training and employs sophisticated techniques like transfer learning. Reinforcement learning enables AI to learn from interactions, while computer vision allows
it to analyze visual data. Edge AI enables real-time processing on devices, reducing reliance on the cloud.

Throughout the years, there has been a rapid rise in the use of AI. Nowadays, AI is found in every aspect of life such as self-driving cars or in media, Healthcare, Finance, Education, Manufacturing, Energy, Agriculture, Environmental Conservation, Marketing and Advertising, Human Resources, even Space Exploration.

**Artificial Intelligence in International Relations**

Artificial Intelligence (AI) has emerged as a pivotal technological force in the 21st century, poised to profoundly impact international relations (Amaresh, 2020). Notably, nations such as the USA and China are fervently racing to secure a global innovation advantage in AI, driven by their belief in the technology's capacity to bolster national security, among other domains (Castro, McLaughlin, & Chivot, 2019). This fervor has triggered a race often likened to an arms race, although it's essential to recognize the limited scope of such AI development within the Department of Defense (DOD).

A comprehensive framework for AI's potential roles in policy formulation and international relations has been suggested by a Chatham House report. It classifies these roles into three categories: analytical, predictive, and operational. In the analytical role, AI stands to automate substantial portions of foreign policymaking. Predictive AI influences long-term perspectives, empowering policymakers to comprehend the ramifications of their actions. Operational AI, a more distant prospect, involves fully autonomous systems and weaponry (Cummings, Roff, Cukier, Parakilas, & Bryce, 2018).

Furthermore, a 2020 report from the US Congress underscores the burgeoning impact of AI on national security. AI research spans diverse realms, encompassing information collection and analysis, logistics, cyber operations, information operations, administration, and control. It finds application in a spectrum of semi-autonomous and autonomous vehicles. The United States, while feeling the competitive pressure in the AI market, is compelled to innovate in military AI applications. Concurrently, China strives to establish itself as an AI pioneer by 2030, while Russia concentrates its efforts on robotics (Congressional Research Service, 2020). It is acknowledged in the report that AI presents both advantages and disadvantages, facilitating autonomous operations, informed military decision-making, and expedited military actions, yet it remains vulnerable to unpredictability and unique forms of manipulation (Congressional Research Service, 2020). The strategic and economic importance of AI has led many countries to adopt national AI strategies. It’s worth mentioning that Canada, in 2017, was the first country to adopt a national AI strategy (Meltzer & Kerry, 2021).
However, U.S. AI policy also recognizes the importance of international cooperation on AI development. The State Department recognizes that partnerships with U.S. allies and partners can advance democracy and human rights by collaborating to recognize and capitalize on opportunities, all the while addressing challenges. This involves fostering mutual norms and agreements regarding the ethical and responsible application of AI. The main goals of engagement include supporting trustworthy AI innovation and promoting trust in and adoption of AI technologies for economic growth and global security (U.S. Department of State, n.d.). Something vital in the context of greater economic and political volatility, a phenomenon which threatens to undermine an otherwise cooperative world order.

Another global player is China, which also has a comprehensive and ambitious plan of AI policies. In 2017 the Chinese State Council published the “Next Generation AI Development Plan” includes a plan to become the global leader in AI by 2030 (State Council, 2017). In addition, China’s AI strategy is included in the “Belt and Road Initiative” as the “Digital Silk Road” which combines the efforts of the Chinese government and the involvement of Chinese tech companies. The DSR includes a wide array of areas, ranging from telecommunications networks to ‘Smart City’ projects, to e-commerce, to Chinese satellite navigation systems (Vladisavljev, 2021). Also, China’s AI program includes cooperation mainly with AI universities and research centers all over the world (State Council, 2017).

In considering China’s role in such initiatives, it is important to understand the extent to which material gains depend on such development, this is because of the historical precedent of stopped commitments in the face of worsening economic conditions, such a precedent could be seen in the belt and road projects pause in Pakistan post American sanctions.

However, Artificial Intelligence (AI) significantly impacts diplomacy and international relations in various ways, bringing notable consequences and implications within the field. Below, we highlight some of the notable consequences and implications of AI within diplomacy:

**Data Analysis and Prediction**

AI has the capacity to scrutinize extensive datasets from diverse sources, such as social media, news outlets, and government reports. This capability aids diplomats and policymakers in gaining insights into global trends, public sentiment, and potential conflicts. Predictive analytics can be instrumental in the early identification of emerging issues and crises (Al Fahim, 2022; Deloitte AI Institute for Government & Google Cloud, 2022). Also, Governments and think tanks use AI and machine learning to analyze vast datasets to make predictions about international relations and conflicts, informing diplomatic strategies and decisions (Perricos & Kapur, 2019).
**Policy Analysis**

AI can evaluate and model the potential consequences of policy decisions, enabling diplomats to make well-informed choices regarding international agreements and treaties (Moore, 2023).

**Conflict Resolution**

AI-driven tools can contribute to conflict resolution and negotiation processes (Efthymiou & Koukouliou, 2022). Natural language processing (NLP) algorithms can examine diplomatic communications and offer potential compromises or solutions. For example, UNICEF uses AI-enabled chatbots to engage with youth affected by conflict and crises. These chatbots collect data, understand the needs of affected populations and provide timely responses to mediate conflict and provide support (UNICEF EAP Blog, 2023).

**Security and Cybersecurity**

In the realm of diplomacy, AI plays a pivotal role in cybersecurity efforts. It can swiftly detect and respond to cyber threats, safeguarding sensitive diplomatic information and communications. Also, AI is used in detecting and attributing cyberattacks, with diplomatic consequences. For instance, AI was instrumental in attributing the 2017 WannaCry ransomware attack to North Korea, leading to diplomatic actions (UNICRI & UNCCT, 2021).

**Language Translation**

AI-driven language translation tools have the power to overcome language barriers, making communication more accessible for diplomats as they interact with their counterparts from diverse nations. This, in turn, promotes enhanced diplomatic discourse and negotiation. Leading AI-based translation tools, such as Google Translate and DeepL, have played a pivotal role in streamlining diplomatic communication across linguistic divides, thereby fostering diplomacy and facilitating negotiations (Frąckiewicz, 2023).

**Diplomatic Communication**

Everyday diplomatic correspondence and queries can be handled by chatbots and virtual assistants, freeing up human diplomats to focus on intricate and strategic duties. Additionally, diplomats and government officials utilize AI tools to observe social media for public sentiment and responses to diplomatic initiatives, thereby shaping policy choices and public diplomacy endeavors (Sakhri, 2023).

**Trade and Economic Diplomacy**

AI can scrutinize economic data and trade patterns, offering insights into strategies and negotiations for economic diplomacy. AI is used to analyze trade data, market trends, and economic indicators,
informing trade negotiations and diplomatic efforts to promote economic cooperation (Frąckiewicz, 2023).

**International Law and Compliance**

AI can assist in the analysis of international agreements, treaties, and legal documents to ensure compliance and pinpoint potential violations (Deeks, 2020).

**Global Health and Crisis Management**

AI proves invaluable in monitoring and managing global health crises, such as pandemics. It can assist in tracking disease spread, evaluating the effectiveness of containment measures, and modeling various scenarios. During the COVID-19 pandemic, AI was employed for tracking the virus's spread, vaccine development, and predicting healthcare resource needs. International collaboration on AI-driven research and data sharing played a pivotal role in diplomacy and pandemic response (Fontes, Corrigan, & Lütge, 2023).

**Disaster Response and Humanitarian Aid**

AI-driven tools can enhance disaster response endeavors by forecasting and evaluating the ramifications of natural calamities and enhancing the allocation of humanitarian assistance. Through AI and machine learning, data from various sources such as satellite imagery and social media are scrutinized to gauge the consequences of natural disasters or conflicts, assisting international organizations in streamlining humanitarian relief actions and diplomatic reactions (Sachdev, 2023).

**Environmental Diplomacy**

AI is used in climate modeling, carbon emissions tracking, and environmental monitoring, supporting international agreements like the Paris Agreement (UN environment programme, 2022).

**Ethical and Security Concerns**

The integration of AI into diplomacy raises ethical and security concerns. Diplomatic communication and negotiations may be vulnerable to AI-driven cyberattacks, and there are concerns about potential misuse of AI for propaganda or disinformation campaigns (Krisnata, 2023).

**Diplomatic Training**

AI can be employed for training diplomats in various facets of diplomacy, including negotiation techniques, cultural understanding, and crisis management (Konovalova, 2023).

It is obvious the progression and maturation of AI have ignited a global race to advance AI technologies, spanning multiple sectors, from security to the economy. Partnerships and the
development and deployment of Artificial Intelligence (AI) may well redefine the dynamics between nations and their interactions.

In essence, AI holds the potential to greatly bolster the effectiveness of diplomatic efforts by equipping diplomats and policymakers with invaluable insights, advanced analytical tools, and enhanced communication capabilities. Nonetheless, it also poses multifaceted challenges, spanning security, ethics, and the imperative for international cooperation on AI-related diplomatic matters. As AI continues to progress, its role in diplomacy is poised for expansion and adaptation. The impact of AI on diplomacy remains in a state of continuous evolution, carrying substantial promise for enhancing diplomatic endeavors, refining decision-making processes, and tackling global challenges. However, it simultaneously raises pivotal ethical and security considerations that demand the attention of diplomats and policymakers as they integrate AI into their strategic practices.

Artificial Intelligence and Ethical Considerations in International Relations

Ethics in Artificial Intelligence (AI) within the context of international relations is a complex and evolving topic. It involves examining the ethical implications of using artificial intelligence and machine learning in various aspects of international relations, including diplomacy, conflict resolution, security, and global governance (Vousinas et al., 2022).

One of the primary ethical concerns in AI is bias. In international relations, AI systems can reinforce existing biases in decision-making processes. For example, if the data used to train AI models is biased, it can lead to discriminatory outcomes in diplomacy and international negotiations. Also, ensuring transparency in AI systems used for international relations is essential. Decision-makers should understand how AI algorithms arrive at their recommendations. Additionally, there must be mechanisms in place to hold those responsible for AI decisions accountable for any mistakes or unethical actions (Sutaria, 2022).

Also, the use of AI in military applications, such as autonomous weapons, raises significant ethical concerns (Meleouni, 2021). There is an ongoing debate about the moral implications of delegating life-and-death decisions to AI systems in the context of armed conflicts (Geiss, 2017). AI can disrupt traditional diplomacy by influencing decision-making processes and information warfare. Ethical considerations involve understanding how AI can be used for strategic advantage or to manipulate international events.
Another aspect is how resources are allocated for AI research and development in international relations can have ethical implications. There may be concerns about inequality in access to AI technology, which could affect the power dynamics among nations (European Parliament, 2020).

AI applications in international relations should respect and promote human rights. There should be safeguards in place to prevent AI from being used to infringe upon human rights or suppress dissent. However, AI systems used in international relations should be culturally sensitive and consider the diversity of nations and societies. Lack of cultural awareness can lead to misunderstandings and conflicts (ÓhÉigeartaigh et al., 2020).

The United Nations General Assembly in September 2023, discussed the role of AI in international relations. The U.N. Secretary-General's envoy on technology, Amandeep Gill, hosted an event titled "Governing AI for Humanity" to address the risks and challenges of international cooperation on AI. Secretary-General António Guterres and Gill believe that a new U.N. agency may be needed to manage AI globally, but the specifics are yet to be determined, and strong support from powerful nations is uncertain. One proposed model suggests creating an International AI Organization (IAIO) that partners with national regulators and certifies jurisdictions, which could be more acceptable to powerful countries. Cooperation with China and Russia presents unique challenges, as both nations have differing views on international AI oversight (Henshall, 2023).

Finally, several scientists and entrepreneurs among them Elon Musk and Mark Zuckerberg have expressed their concern about the evolution of AI – mainly in the military field- in a letter sent to the United Nations (Tegmark, 2017; Future of Life, 2015).

Ethics in AI in international relations is a critical and evolving field. It involves addressing issues related to fairness, transparency, accountability, privacy, and the responsible use of AI in various aspects of diplomacy, conflict resolution, and global governance. It also requires international cooperation to establish norms and regulations that guide the ethical use of AI on the global stage. Addressing AI ethics in international relations requires global cooperation and regulatory frameworks. Multilateral agreements and international norms are necessary to ensure that AI is used responsibly and ethically across borders.

**Conclusions**

The impact of Artificial Intelligence (AI) on the realm of International Relations is profound, reshaping various facets of global affairs and introducing both opportunities and challenges. AI has the capacity to transform conflict resolution through its advanced data analysis tools, which can assist in predicting...
and preventing conflicts. Furthermore, AI-driven diplomatic tools can enhance communication and negotiation processes among nations.

Another domain where AI can have a positive effect is in bolstering security. It can be deployed to more effectively identify and respond to security threats, encompassing both conventional and cyber-related dangers (Cong Truong, Bao Diep, & Zelinka, 2020). Nonetheless, alongside these prospects, AI also presents novel challenges. The use of AI in cyber warfare has the potential to disrupt a nation's infrastructure and compromise its security, giving rise to ethical concerns regarding AI's role in warfare and the necessity for international agreements to regulate such practices.

Moreover, the growing reliance on AI in international relations raises inquiries about the framework of global governance. Nations must collaborate to establish explicit guidelines and regulations governing the responsible utilization of AI on the international stage.

In conclusion, AI is fundamentally reshaping the landscape of International Relations, offering possibilities for conflict resolution, improved diplomacy, and enhanced security. Yet, it simultaneously poses fresh challenges in the realms of cyber warfare, ethics, and global governance. To navigate this evolving terrain successfully, international cooperation and the establishment of responsible AI usage standards are imperative, shaping the future of global politics and diplomacy. The influence of AI on global politics and diplomacy will continue to evolve, exerting a lasting impact on international relations.

References


