The impact of the expansion of artificial intelligence on modern diplomacy in countries worldwide

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Article Info	Abstract
	This article examines artificial intelligence technology as a modern and challenging phenomenon over the past decade. This technology has had a significant impact on the economic, political, and socio-cultural life in many countries. In this review article by using the descriptive-analytical method, the authors strive to define artificial intelligence within modern scientific discourse and introduce two practical applications of AI technologies. They discuss the "practical mode", which is used for effective management and accident prevention in industrial machinery, medicine, transportation, construction, oil and gas industries, mining, the nuclear sector, and more. Additionally, they introduce "generative AI", which is used for translating large texts, predicting business processes, evaluating financial and commodity markets, assessing societal feedback to any economic, political, and social changes, mastering risk management, and more. The article also explores the main challenges and risks of AI for modern society, including the creation of fake narratives, information bubbles, saturation, and other manipulation tools employed by technocratic elites in their quest for dominance. The concentration and distribution of AI development centers in specific areas could lead to increased inequality and tension between the North and South regions. Controlling the AI domain to protect national interests and maintain modern international relations poses a fundamental challenge for political and economic groups, institutions, and society. Researchers attempt to make predictions about the impact on energy, which will intensify with increased energy consumption and competition over rare elements. This rapidly growing demand cannot be met by "clean energy", so the energy transition might be slowed down by AI. This research proposes international actions for control, risk assessment, and an in-depth analysis of AI's impact on the development of other sectors.

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Extended Abstract

Background

This article examines artificial intelligence (AI) technology as a modern and challenging phenomenon over the past decade. This technology has profoundly impacted the economic, political, and socio-cultural landscape in many countries, reshaping industries and influencing various aspects of human life.

Aims

In this review article by using the descriptive-analytical method, the authors aim to define artificial intelligence within the framework of modern scientific discourse and introduce two primary practical applications of AI technologies.

Discussion

One significant aspect discussed is the "practical mode" of AI. This application is pivotal for effective management and accident prevention across a range of industries, including industrial machinery, medicine, transportation, construction, the oil and gas sector, mining, and the nuclear industry. For instance, in industrial machinery, AI systems are employed to monitor equipment in real-time, predict potential failures, and suggest timely maintenance, thus preventing costly downtimes and accidents. In medicine, AI-powered diagnostic tools enhance the accuracy of disease detection and treatment plans, improving patient outcomes. Transportation systems benefit from AI through the development of autonomous vehicles and smart traffic management systems, which aim to reduce accidents and improve traffic flow. In the construction industry, AI aids in project management, optimizing schedules, and resource allocation, thereby increasing efficiency and safety. Similarly, the oil and gas, mining, and nuclear sectors use AI for predictive maintenance, safety monitoring, and operational efficiency, ensuring that these critical and high-risk industries operate smoothly and safely. Additionally, the article introduces "generative AI", a category of artificial intelligence that has shown remarkable capabilities in several domains. Generative AI is employed for translating large volumes of text, making it invaluable for breaking down language barriers and enhancing global communication. It also plays a crucial role in predicting business processes, allowing companies to forecast market trends, consumer behavior, and supply chain dynamics with greater accuracy. This predictive capability extends to financial and commodity market evaluation, where AI analyzes vast datasets to provide insights into market movements, helping investors and policymakers make informed decisions. Furthermore, generative AI is utilized to assess societal feedback on various economic, political, and social changes, enabling governments and organizations to gauge public sentiment and adjust their strategies accordingly. Mastery of risk management is

another area where generative AI excels, providing tools to identify, assess, and mitigate risks across different sectors, thereby enhancing overall stability and resilience.

Results
The article delves into the main challenges and risks associated with AI in modern society. One significant concern is the creation of fake narratives, facilitated by sophisticated AI tools capable of generating realistic yet false information. This can lead to misinformation and manipulation, undermining public trust and democratic processes. Information bubbles and saturation are other issues, where individuals are increasingly exposed to information that reinforces their existing beliefs, leading to polarized societies. Moreover, AI can be used as a tool for manipulation by technocratic elites seeking to maintain or extend their dominance. These elites might leverage AI for surveillance, influence, and control, posing ethical and governance challenges. The concentration and distribution of AI development centers predominantly in specific regions, often in developed countries, could exacerbate global inequalities. This centralization of AI expertise and infrastructure may lead to increased disparity between the technologically advanced North and the less developed South, creating economic and geopolitical tensions.

Conclusion
Controlling the AI domain to protect national interests and maintain modern international relations thus becomes a fundamental challenge for political and economic groups, institutions, and society at large. Researchers in the article attempt to make predictions about the impact of AI on energy consumption. As AI technologies become more pervasive, their demand for energy will intensify, contributing to increased competition over rare elements essential for AI hardware, such as rare earth metals. This rapidly growing energy demand cannot be sustainably met by "clean energy" sources alone, potentially slowing down the transition to renewable energy. Therefore, managing the energy footprint of AI technologies is crucial to ensure that their benefits do not come at an unsustainable environmental cost.

Conflict of interest
The authors declared no conflicts of interest.

Authors' contributions
All authors contributed to the original idea, study design.

Ethical considerations
The author has completely considered ethical issues, including

informed consent, plagiarism, data fabrication, misconduct, and/or falsification, double publication and/or redundancy, submission, etc.

Data availability

The dataset generated and analyzed during the current study is available from the corresponding author on reasonable request.

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