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# AI AND DIPLOMACY: CHALLENGES AND OPPORTUNITIES

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Abstract: *This article focused on two distinct areas: diplomacy for AI and AI for diplomacy. The first point investigated challenges faced by diplomats associated with creating stability in cyberspace and diversifying objects of cooperation. The second point sought to identify the threats and opportunities associated with AI in diplomacy; to explore the impact of digital tools on diplomatic capacity, technological limitations through digital diplomacy, and uncertain future demand for the diplomatic profession; to investigate the necessary competencies of civil servants in managing alternative reality and collaborating with technical specialists. The research utilized a qualitative approach, employing analysis of existing literature and diplomatic practices related to AI and its effects on diplomacy. The research underscored the importance of diplomats' readiness for change and their understanding and utilization of new technologies. It highlighted the need for interdisciplinary training programs incorporating innovative thinking, big data management, and machine learning to foster effective collaboration between diplomats and technical specialists. We concluded that embracing AI and digital capabilities can empower diplomats and enhance the effectiveness of diplomatic instruments in achieving national goals in times of peace and hybrid war in the real world and the metauniverse.*

Keywords: *Diplomacy; Artificial Intelligence; International Relations; Digitalisation*

## INTRODUCTION

In an era characterized by wave-like progress, the world is experiencing a surge in innovative discoveries. The competition for developing artificial intelligence technologies, such as ChatGTP from OpenAI, PerplexityAI, and AITestKitchen from Google, has convinced even the average user of breakthroughs in various fields. At the professional level, debates are ongoing regarding the impacts and challenges of new technologies.

As a tool for implementing a state's foreign policy, diplomacy cannot remain indifferent to these processes. Virtual embassies are being established, bots are being utilized for citizen communication, and "digital" ambassadors are being appointed to foster relationships with tech giants like Google, Microsoft, or Amazon. Consequently, the diplomatic service, which has traditionally been regarded as a conservative and slow-changing domain, is now confronted with the challenges posed by revolutionary technologies such as AI, machine learning, quantum computing, and the multi-technical realm of cyberspace.

The impact of social networks on the work of classical diplomats and the shifting of accents to non-state actors and their role in international relations are being discussed at the professional level. Specific tasks of AI are also being examined, including calculating the consequences of political decisions, improving the quality of diplomat's training for complex negotiations, predicting political crises, anticipating humanitarian catastrophes, or using quantum computing for encryption and its implications for surveillance.

The gradual transition from the "art of words" to the "art of digits" requires new digital skills and an understanding of how to correctly and where to use AI technologies and algorithms for working with big data for effective international activities, as well as analyzing the system of challenges that arise in diplomacy together with the development of AI, big data, and blockchain.

## BACKGROUND

With the development of the second generation of network services (Web 2.0) and the official introduction of the term Web 2.0 in 2004, the private sector in various production fields began using innovative digital tools to achieve their goals. In the field of public service, as the most inflexible and conservative mechanism, change was more difficult. Although scientific schools in various parts of the world began researching virtual diplomacy in advance (Makarenko and Pypchenko 2010), the issue only gained worldwide attention in 2012 with the publication of the first part of the scientific work by Lovi F. Hanson "Revolution and the State Department: The Spread of E-Diplomacy" (Fergus 2012) which significantly revived interest in the topic of "Network and Foreign Policy" and caused a turning point in its discussion. It is worth saying that during the first weeks after the release of the first part, the number of downloads reached tens of thousands, which is one of the record-breaking indicators for all "think tanks" worldwide. However, the process of reorientation and transformation seemed protracted for public service. According to Pypchenko's research (2021), it was only in 2014 that all Ukrainian diplomatic representations started using social media. During that period, a sociological survey was conducted among Ukrainian civil servants to assess their readiness for innovation and the use of information technology in their work (Konovalova 2014). The survey results revealed low readiness for innovation, research, and creativity among civil servants. They had a limited understanding of innovative processes and the essence of innovative activities but showed a positive attitude toward the potential for creativity in their work. The pace of technological progress demanded rapid responses from diplomats. It is worth discussing two parallel processes: the development of digital diplomacy and the functioning of diplomacy in the digital age.

In his work on public diplomacy, Cull (2013) outlines the key stages of transforming public diplomacy in the US State Department into Model 2.0. He emphasizes the significance of prioritizing the network over specific technologies or platforms, thereby identifying the primary challenges for diplomats and practitioners in embracing the evolving world and effectively coexisting within it. In essence, the version number, be it 2.0 or 5.0, is not of utmost importance; what truly matters is the ability to react promptly and adapt to new technologies. This is why programmers do not like to publish scientific papers. By the time the book becomes available, new technologies will have emerged to solve problems.

Similarly, in diplomacy, keeping pace with progress may be challenging, but bridging the gap and minimizing resistance to new technologies can bring us closer to it. There is no need to fear that artificial intelligence will replace diplomats; rather, we should embrace and utilize it. Machines will not govern the world, but those who possess mastery over them will be capable of managing everything. This article explores the future development of diplomacy under new

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scenarios, examining the key challenges that diplomacy will encounter in the era of artificial intelligence. It will also shed light on the emerging opportunities and threats on the horizon of technological advancement.

## BASIC DEFINITIONS

In the article, diplomacy is understood as the activity or profession of managing relations between governments of different countries to achieve foreign policy interests. Riordan (2018) defines the goals and objectives of diplomacy as an enduring phenomenon, highlighting the existence of various subtypes of diplomacy that rely on a range of instruments. According to the scholar, conceptual confusion arises from the failure to differentiate between instruments that can be employed within a broader diplomatic strategy and the actual subject matter of diplomacy. Hence, electronic diplomacy, cyber diplomacy, digital diplomacy, virtual diplomacy, and new public diplomacy are just some of the terms that speak to the metamorphoses of digital diplomacy that are part of the practice of diplomacy and international relations. "Digital diplomacy" is characterized by using digital tools to achieve foreign policy goals and support broader diplomatic strategies. Accordingly, in this case, virtual diplomacy is diplomacy mediated by information and communication technologies instead of face-to-face communication. It has become particularly popular in the context of the coronavirus pandemic (Gordon 2008). Public diplomacy is a subgroup that seeks to help achieve policy goals by influencing external (and internal) public opinion. According to N. Cull, the modern public diplomacy model involves three essential components: dialogue, "active listening", and advocacy campaigns using the web and information and communication technologies (electronic diplomacy). However, we are still discussing traditional and public diplomacy as an instrument of foreign policy, defining other "types" of diplomacy as a manifestation of evolution and change in the subject. Therefore, digital diplomacy is just a way of implementing traditional and public diplomacy through digital technologies.

The term "cyber diplomacy" refers to applying traditional diplomacy to issues that arise in cyberspace, including the metaverse. The article uses the metaverse concept as a subset of cyberspace, including shared virtual worlds where users can interact in real-time (Lee et al. 2022). Traditional diplomacy, in both bilateral and multilateral forms, can also be used to address cyber issues. Cyber diplomacy is "a new international practice that seeks to build a cyber-international society, combining national interests with the dynamics of global society - an area in which cyberspace is developing" (Barrinha 2017).

To comprehensively study the challenges and prospects of AI in diplomacy, the following taxonomy has been identified - diplomacy for AI and AI for diplomacy.

### Diplomacy for AI

The diplomacy for AI approach is focused primarily on promoting cooperation in digital technologies (cyberspace, machine learning, artificial intelligence, blockchain) to achieve global goals such as democracy, peacebuilding, human rights protection, environmental protection, etc. AI has become a defining element of geopolitical power and an instrument of traditional

and public diplomacy, influencing the global balance of power. In 2018 the US Congress established the National Security Commission on AI. The Commission's report in 2021 presented the strategy of "winning the era of artificial intelligence". It was noted that "artificial intelligence systems will be used to pursue power". The report, specifically the section on the action plan for protecting the US in the AI era and responsible use of AI, mentioned diplomacy 44 times, emphasizing its important role in addressing global issues related to artificial intelligence.

The role of diplomacy is seen in addressing the acute issues of AI in the areas of security, economy, human rights, and regional aspects of foreign policy (for example, providing a single definition of "anonymous data", consent, and issues of public interest). The report also recommends establishing a diplomatic presence in technology centers in the US and other countries, strengthening US universities' "Diplomat in Residence" program to accumulate a professional community. Recommendations for US government agencies have been identified, including creating an International Digital Democratic Initiative (IDDI) to engage partner countries in synchronizing policies and initiatives in artificial intelligence and digital technologies. The report outlines the initiative's strategy and ways to promote it through public diplomacy. The importance of diplomatic efforts, programs, and foreign operations in AI, new technologies, and data is evidenced by the call for financial support for such events.

A report titled "Artificial Intelligence Diplomacy: Managing with AI as a New Tool of EU Foreign Policy" (Franke 2021) was published in the European Parliament in response to a request from the Special Committee on AI in the Digital Age. The report emphasizes the priority of creating a European research institute focused specifically on the geopolitical impact of AI on security and establishing a European Commission on AI security. The report states that "reliable AI is defined as lawful, ethical (adhering to ethical principles and values), and reliable from both a technical and social point of view", achievement of which requires the consolidation of diplomatic efforts from all member countries.

Challenges are emerging in the issues of security on the metaverse level, which primarily transcends into the geopolitical realm. Barbados became the first country to announce the opening of an embassy in the metaverse (Atjam 2022). Although detailed information about such an embassy is unavailable on the Ministry of Foreign Affairs and Foreign Trade of Barbados's website, the announcement challenges international law and geopolitics (such as developing new behavioral norms or applying existing international law in cyberspace).

Despite Francis Fukuyama's hopes for an ideal future based on liberal democracy, social market economies, and globalization, when "more traditional geopolitical plans focused on territory, resources, interstate conflicts, spheres of influence, and the balance of power were considered to be sent to the trash heap of history", we live in a time when geopolitics has returned to the forefront, overshadowing global issues of humanity and commercial competition. The Russo-Ukrainian war has once again confirmed that autocratic regimes do not abandon the desire to seize foreign territories, which can also occur in the virtual world.

Riordan (2019) emphasizes the importance of deeper involvement of diplomacy in cybersecurity issues, particularly in the realm of cybersecurity, which could contribute to "interstate cooperation, transparency, and predictability to reduce the risks of misperception, escalation, and conflict caused by cyber threats". The issue of cyber threats and future wars in cyberspace (in an alternative reality) must be addressed not only at the technical level or in the

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realm of national security or defense agencies, but at the level of diplomatic agencies, in foreign policy strategies that will sooner or later incorporate relations in alternative realities into the agenda. Technical solutions and cybersecurity decisions are necessary but insufficient. Diplomatic efforts can contribute to creating stability in cyberspace. Van der Meer argues that protection and restraint must give way to diplomacy in cybersecurity affairs in the long term to ensure international security (Van der Meer 2016).

Diplomacy will be crucial for predicting the behavior of major players in cyberspace and identifying areas of possible cooperation or shared areas on which future agreements can be built.

The opportunities arise in expanding the capabilities and transferring the knowledge - the ability to interact with a range of state and non-state actors and build heterogeneous coalitions based on shared desired outcomes rather than shared values or ideologies. This applies to global problems or a new international security agenda, where diplomats must interact and negotiate with various companies, non-governmental organizations, and civil society groups. The key non-state actor in this aspect is technological giants (internet companies), which become geopolitical actors and have increasing influence. In this aspect, it is necessary to mention the global technology diplomacy with a strong foundation in Denmark. The Danish Ministry of Foreign Affairs actively implements the technology diplomacy strategy for 2021-2022. The strategy identifies the main roles of the technological diplomat:

- The representative of the Danish government and central administration in global technology industry organizations focused on accountable and critical dialogue.
- The policy developer who, through knowledge gathering and international perspectives on technological development, contributes to solving global problems.
- The global leader draws attention to Denmark as a digital pioneer and promotes the export of Danish technology and foreign investment in Denmark.

A technological ambassador's duties are similar to a regular embassy's functionality: information gathering, regulatory discussions, representation, public diplomacy, and commercial promotion. Thus, the work of a diplomat in the digital age expands due to new actors and spaces but is based on classical functionality. By analogy, the knowledge and skills of a classical diplomat at the metaverse level, where a diplomat with a technical arsenal of knowledge will ensure national/supranational foreign policy goals, will remain in demand.

## AI for Diplomacy

AI can support the functions of diplomacy and the everyday tasks of diplomats. AI is mainly used in the following areas: as an assistant in traditional diplomacy (e.g. executive assistant to the President of the UN General Assembly, who analyzes speeches in real time, forms an understanding of the context of conversations, positions, and strategies of other participants, and uses prompts to adapt their advice to the President in the Assembly); in the consular service, AI can embody informational functions (gathering information to better understand the agenda (example in Menguaslan and Celik 2023) and procedural knowledge (know-how) (for example, predicting the oscillation in demand for consular services by location, time, and

audience profile based on a large amount of data), in public diplomacy, AI becomes a tool for conducting effective dialogue based on "active listening", as AI opens up opportunities for processing a large amount of data (better understanding of cognitive frames and emotional subtext of audience messages), and implementing e-diplomacy at the micro-level with the audience based on individual interests and preferences. As the volume of interaction and data management continues to grow exponentially, one can make themselves heard by professionally learning to separate "signals" from background "noise" and "correcting their message in advance to ensure maximum visibility in the online space, in real-time" (Scott et al. 2018).

Corneliu Biola asserted that advances in technology and the public's demand for transparency had reduced the practice of secret diplomacy, with 45 percent of the world's population being under 25 and connected to networks. As communication, advocacy, and negotiations increasingly enter the digital realm, the author and others claim the irreversible use of social networks for public diplomacy (Manfredi-Sánchez et al. 2015). Similarly, Cull emphasized the importance of using ICT as a key principle of the concept of new public diplomacy, with the effectiveness of public diplomacy depending on the existence of a dialogue between the government of one country and foreign society, which can be established by studying all signals, assessments, and opinions from foreign society (Cull 2013, 10). The use of advanced AI technologies will undoubtedly enhance the effectiveness of public diplomacy.

It is also noteworthy to mention technological capabilities designed to improve the functioning of the diplomatic corps in the context of AI for diplomacy. For example, a recent presentation showcased a Hungarian digital application for cyber diplomacy that uses new digital technologies and tools to support traditional diplomatic activities (Cîrnu and Vasile 2022). The application on the blockchain provides the advantages of encrypted communication with different levels of access for all employees of the diplomatic corps across the globe. Cyber-diplomacy, which the program particularly supports, involves regulating the risks, consequences, and opportunities created by new digital technologies, such as artificial intelligence and blockchain, along with other diplomatic work.

Among the challenges in this aspect, several threats can be identified.

Firstly, the demand for the profession is at risk of being replaced by machines or at least transformed by the accelerated development of digital technologies and the active involvement of AI in processing large amounts of data on a global scale. It is also important to remember that diplomatic partners or geopolitical adversaries (states or sub-state entities) also use digital technologies in a competitive environment.

Digital technologies have accelerated the speed of events and, even more, the speed at which they are reported and discussed on social media. Technologies such as AI, machine learning, and quantum computing only amplify this trend. This will force diplomatic services to reconsider how their structures are organized, particularly how embassies abroad are connected to their foreign ministries. Effective interaction with social media already requires foreign ministries to delegate authority to diplomats abroad to participate in real-time debates on social media, as there is no time to refer to headquarters for instructions.

Secondly, technological challenges are associated with technical disorganization. As Riordan argues, algorithms that underlie social media, on which public diplomacy increasingly

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depends, limit the effectiveness of such public diplomacy while facilitating disinformation and disruption operations (Riordan 2018, 46-50).

Social media has made diplomats lazy to some extent, creating an illusion that they allow diplomats to reach the entire public through tweets or Facebook posts. However, the issue lies in the fact that the algorithms used in targeted marketing also contribute to filtering news and opinions, presenting users with content that aligns with their preferences or beliefs. This poses a significant challenge for public diplomacy, as it necessitates finding effective methods to engage and influence a hostile audience rather than relying on disinformation campaigns or solely targeting those who already share similar views. More seriously, as in search engines, algorithms can spread disinformation and fake news to influence political debates and undermine them. The possibilities for the diplomatic sphere in the context of AI development can be traced as follows:

The optimization of human resources - for example, machines can perform some daily functions, freeing up time and speeding up and increasing the ability of "live people" in strategic planning. The key diplomatic skill - empathy, the ability to see the problem through the eyes of others or even opponents, stands as an argument in favor of the further existence of the diplomat profession in the era of artificial intelligence. The concept of a "shared experience" (Sharp 2009) plays a crucial role in the capability of diplomats to handle international affairs. It enables them to engage in meaningful discussions with diplomats from other nations, especially in conflicts where politicians may not effectively communicate. The evolution of new roles within the diplomatic service, such as a digitalization manager, is also foreseeable.

The demand for diplomatic skills - in the context of the restrictive properties of algorithms, the previous form of diplomacy in "pre-social media" comes to the fore. The fight against cyber disinformation and deactivation operations in the world of echo chambers reinforced by social media algorithms will require diplomats and politicians to return to the previous form of public diplomacy, using the orientation and cultivation of individual influential opinion formers to unite different echo chambers (Riordan, 2018, p.27).

Thirdly, the delegation of power. Accelerating events and information flows may force the foreign ministries to delegate wider powers to embassies and ambassadors. In the future, foreign ministries may be limited to setting diplomatic goals, missions, leaving it up to diplomats in the field to decide how to achieve them. The speed of response and the competition for audience attention has become paramount. In the context of the "paradox of abundance" (Perell 2021) of information, AI can serve as a valuable tool for diplomats in establishing authority and fostering trust. It can assist in continuously monitoring vast amounts of data and facilitate the swift identification of influential public figures.

## CONCLUSION

The era of artificial intelligence has swiftly permeated all aspects of life. The diplomatic apparatus executing foreign policy decisions and pursuing national and global objectives cannot remain detached from these innovative processes. Security concerns, traditional diplomacy, and public diplomacy in their various innovative dimensions (electronic, virtual, and cybernetic) are intrinsically intertwined with artificial intelligence technologies. In the future, the effectiveness of

these endeavors will hinge on diplomats' abilities and skills to adeptly harness and leverage new knowledge. Diplomacy for AI is called upon to address threats that will arise in cyberspace. Among the main threats are the security of territories and the prevention of wars, an alternative reality that requires further diplomatic work at the international legal level. Opportunities arise in the expansion of entities with which the diplomatic corps collaborates, that is, in the expansion of diplomatic knowledge and transfer of diplomatic knowledge to the level of the metaverse.

AI outlines a pool of threats and opportunities for diplomacy. Among the threats, it is worth highlighting the uncertain future of the demand for the diplomat profession and technological limitations. Readiness for change, the perception and understanding of new technologies, and elements of digital transformation management will become essential competitive components in diplomat training. When digital tools are effectively utilized, the diplomatic corps can exponentially enhance its capacity to accomplish national objectives. Simultaneously, the amalgamation of classical diplomatic methods such as negotiations, media engagement, public outreach, and engagement with diasporas can adeptly transcend technological limitations (such as echo chambers) and serve as a resistance element in the non-technical realm of hybrid warfare.

The threat and opportunity cycle is closing with the expansion of powers, which will inevitably become a characteristic of embassies in the context of accelerated information flows and reactions. Working with big data and leveraging digital capabilities, including AI, will give diplomats a competitive edge, partially transforming governance structures from hierarchical to linear.

The development of AI, machine learning, and blockchain technologies requires the scientific community to keep up with the times, identifying potential threats and solving urgent problems. It is important to research and determine the necessary skills and competencies of civil servants who will soon need to participate in managing alternative reality alongside technical specialists. The role of a diplomat is transforming into that of a manager who coordinates the activities of many actors (NGOs, activists, businesses) to achieve national goals. Technical staff (specialists in machine learning and big data, blockchain, and quantum technologies) is becoming another essential actor, with collaboration requiring a basic understanding of new technologies.

Another task is to identify ways to strengthen the potential of civil servants in the diplomatic field through artificial intelligence. It is important to conduct a thorough analysis of training programs for diplomatic institutions and educational programs that aim to train future professionals in the diplomatic field and identify positive practices for incorporating interdisciplinary components related to innovative thinking and knowledge of working with big data and machine learning for effective collaboration with technical specialists and increasing the capacity of diplomatic instruments. It is also important to further research existing and identify new requirements for civil servants in the context of digitization.

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