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Methodology for Researching Digital Diplomacy in the New Era of Sustainable Development and Climate Change


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Abstract: The article examines into the contemporary theories and concepts surrounding the current landscape of digital diplomacy on both global and national scales. It explores the role of digital diplomacy in shaping the foreign policies of nations, with a specific focus on Ukraine's efforts in promoting and addressing international issues. The authors define modern theoretical foundations of digital diplomacy, and disclose categorial discourse of digital diplomacy within terms of web-diplomacy, twiplomacy and others. The novelty of this work lies in the interpretation of digital diplomacy as a tool for supporting social and economic recovery, and the characterization of social media as a tool for digital diplomacy in the context of geopolitical challenges and Sustainable Development Goals (SDGs). The authors set logical coherence between digital diplomacy and environmental diplomacy. Effective digital diplomacy relies on top-notch information and analytical efforts, demanding well-coordinated actions fueled by significantly enhanced information support and rigorous analytical processing. This approach is pivotal for advancing global challenges and achieving SDG. The contemporary information and communication infrastructure empowers diplomatic strategies to pivot towards climate objectives. Proposals are made to improve the system of digital diplomacy as a new paradigm of international relations, the level, possibilities and feasibility of implementing the use of digital diplomacy tools in Ukraine are determined. Authors substantiate the idea, that evolution of digital diplomacy encompasses critical areas such as advocating for climate-centric practices, bolstering digital inclusion and accessibility, resolving conflicts, advancing digital government and transparency, delivering diplomacy through digital channels, and driving cross-border humanitarian endeavors alongside sustainable infrastructure development.

Keywords: digital diplomacy, international relations, environmental diplomacy, climate, social media, communications, sustainable development.

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Keywords: digital diplomacy, international relations, environmental diplomacy, climate, social media, communications, sustainable development.

Introduction

The significance of this study arises from the growing prevalence of digital diplomacy, which represents a relatively novel instrument in the realm of foreign policy, actively adopted by major global players. Considering the imperative necessity of incorporating information and communication technologies into the sphere of diplomatic interactions, the subject of digital diplomacy has garnered significant attention within the academic discourse. However, scholars have predominantly concentrated their efforts on formulating a theoretical framework for diplomacy that leverages information and communication technologies, notably the Internet, as one of its operational instruments.

Digital diplomacy, as a term describing a moment capturing the novelty of information and communication technologies used for diplomacy, is interpreted, defined and understood by researchers and practicing specialists in different ways (Mazumdar, 2021). Consequently, there is no universally recognized definition or framework that encompasses this concept. Thus, it is safe to assume that current research has only begun to develop what digital diplomacy means and how it works. This explains the lack of a reliable conceptual framework in the current literature to assess the effectiveness of social media for public diplomacy purposes.

According to Ilan Manor and Ronit Kampf, digital diplomacy refers mainly to the increasing use of social media platforms by a country to achieve its foreign policy goals and actively manage its image and reputation (Manor & Kampf, 2022). Thus, digital diplomacy as the use of digital communication tools (social media) by diplomats to communicate with each other and with the general public. According to E. Potter (Potter, 2020), digital diplomacy mainly refers to diplomatic practice through digital and networked technologies, including the Internet, mobile devices and social media channels. It simply as the use of the Internet and new information and communication technologies to achieve diplomatic goals.

After the severe financial crises of 2014-2015, S. Sotiriou argues that "the involvement of the general public in the diplomatic equation has also increased the number of stakeholders involved in international diplomacy, from interaction between states to international organizations and international non-governmental organizations (Sotiriu, 2015). Expert Hayden defines digital diplomacy as "a strategy for managing change through digital tools and virtual collaboration," adding an emphasis on the integral nature of diplomatic cooperation both online and offline, which is not affected by digital information in any way (Hayden, 2018).

We have to admit, digital diplomacy has emerged from public diplomacy, a form of diplomatic practice that has been defined as "a tool used by states to understand cultures, attitudes and behaviors; build and manage relationships; influence opinions; and mobilize action to advance their interests and values" (Bjola et al, 2019).

This confirms the thesis that there is no single term for this phenomenon, such as "digital diplomacy," and the existing ones are used interchangeably: digital diplomacy, e-diplomacy, cyber-diplomacy, diplomacy 2.0, web-diplomacy, twiplomacy. Moreover, twiplomacy is a distinct concept that emerged from U.S. foreign policy during the presidency of Donald Trump (Šimunjak & Caliandro, 2019).

There are other formulations, but the above are the most common.

Ben Scott, Innovation Advisor to former US Secretary of State Hillary Clinton, outlines three components of digital diplomacy (Bjola et al, 2019):

- public diplomacy, including the use of online platforms;
- gaining expertise in technology policy and understanding the impact of the Internet on international events, such as political movements;
- influencing development policy and how DCTs can be used more effectively to promote economic growth around the world.

We adhere to the definition of digital diplomacy as the use of the Internet and new information and communication technologies to achieve diplomatic goals, including related goals. Digital diplomacy is seen as a crucial tool for promoting a country's foreign policy, as it provides direct

interaction and engagement with the foreign public (Duncombe, 2019). The proliferation of communications and information technology has not only transformed the means of social protest, but also pointed to an emerging revolution in diplomacy (Omotosho, 2019).

In addition, diplomatic activities are increasingly supported by Internet tools. The Internet can be considered by governments as a unique diplomatic tool; through its proper use, they can "advertise" not only their positions on various issues, but also promote their ideas around the world. Such a function, if used properly, helps the embassy and, as a result, the state it represents, to create a positive image in the host country (AZEEZ, 2023).

Diplomacy always adapts and changes according to certain forms of communication in its environment. In a world where everyone is increasingly connected, the ability to gather and share information to a wide audience at an unprecedented pace has created new opportunities for policy makers and government departments to share messages and set policy agendas outside of traditional channels. While traditional forms of diplomacy still dominate both domestic and foreign policy, more and more governments are using technology as a new tool to communicate, gather information, and promote values both at home and abroad (Hocking, 2020).

However, the role of digital diplomacy runs even deeper in the contemporary global landscape. Digital diplomacy can serve as an effective guide in addressing global challenges (Shrestha et al, 2022; Hedling & Bremberg, 2021). For instance, the achievement of sustainable development goals is viewed through the prism of digital diplomacy (Zaree et al, 2019). For example, increasing attention is being devoted to the exploration of digital diplomacy in combating climate change, specifically environmental diplomacy (Rietig & Peringer, 2020).

Digital diplomacy is precisely designed to provide adequate information in a timely manner, refute incorrect information, and confirm information from official sources.

Materials and Methods

The article uses the informational, comparative, institutional, and comprehensive approaches, as well as adheres to the principles of objectivity, specificity, and systematicity, which allowed for a detailed and comprehensive study of digital diplomacy. A significant role in the study was played by the principle of systematicity, which allowed us to consider digital diplomacy in the context of diplomatic instruments for implementing the state's foreign policy. During the study, the following general scientific methods were used: content analysis, induction and deduction, descriptive, retrospective, comparative, generalization and grouping.

The classification method was used to analyze sources and literature, as well as to identify the main types of media used as tools of digital diplomacy. In particular, the historical and logical methods were used for the theoretical and methodological analysis of sources in determining the essential characteristics of the key concepts of digital diplomacy research. The method of content analysis was used to analyze official documents, media publications and personal profiles of statesmen in social networks. The method of analysis and synthesis was applied during the processing of the available literature. The integrated use of various methods and approaches in the work contributed to a more objective study of the topic.

The materials of this article can be used as a theoretical and methodological basis for the study of digital diplomacy at the level of professional discussion.

Results

Global scale of digital diplomacy: benefits, challenges and risks

Today, digital diplomacy is an important factor in foreign policy, a compelling and timely complement to traditional diplomacy that can help a country advance its foreign policy goals. The growing popularity of digital diplomacy is enough to suggest that there must be advantages to its use, so it is essential to analyze some of these advantages. One of the most attractive aspects of digital diplomacy is its ability to facilitate bilateral communication. The digital arena opens up new possibilities from individual conversations to dialogues with communities (Hocking, 2020).

The advantage of social media is the ability to reach citizens of other countries in almost real time. Social media platforms also provide a space for interaction, increased engagement, and thus contribute to the achievement of diplomacy goals. The potential ease of access to social media and its low cost compared to other methods make it an attractive tool for many embassies, as well as other government agencies facing budget cuts and demands to increase engagement (Hedling & Bremberg, 2021).

Digital technologies can be especially beneficial in public diplomacy in the areas of information gathering and processing, consular activities, and communication during emergencies and disasters. International practice shows that the effective use of digital diplomacy tools can bring great dividends to those who invest in it. Moreover, digital diplomacy does not always require financial investments. On the contrary, it is often aimed at reducing costs. Thus, digital diplomacy is not a substitute for classical diplomacy, but if used skillfully, this tool can strengthen the state's work in international relations and foreign policy faster and more cost-effectively.

Michael Oren, former Israeli ambassador to the United States, notes that many diplomats use social media to connect with the younger generation, recognizing how often they use it (Bjola et al., 2019). Further examples of this are demonstrated by the DOS Digital Outreach Team, which has created profiles on popular Arabic, Urdu, and Persian language forums to connect with citizens living in the Middle East. Digitalization has even given rise to a new, unique type of network known as "Twiplomacy" (Zytoon & Husain, 2023). Twiplomacy refers to how people in the modern world form relationships simply by "following" each other on Twitter.

Another significant advantage of digital diplomacy is that it leads to an increased sense of transparency. In today's world, people post everything online. People recount their lives to the public by updating their Facebook statuses and posting photos on Twitter. This trend, along with the natural desire to know what the government is up to, has led to a public demand for transparency. As diplomacy is a profession notorious for its confidentiality, some diplomats have found it difficult to strike a balance between the two (Hocking, 2020). However, it is essential for diplomats to use this new technology to its fullest potential. By creating personalized posts about the activities they conduct, diplomats and political leaders can make the public feel as if they are included in important conversations.

Considering the current situation in the world due to the after-coronavirus pandemic and geopolitical challenges, digital diplomacy has become the main means of communication in international relations, in the absence of personal contacts, which is another, in our opinion, its most significant advantage.

While this new technology has many benefits, it also poses a number of challenges. One of these problems is that some of the aforementioned benefits are not actually achieved in practice. For example, while social media sites provide an opportunity for government officials to expand their influence by being interactive, personal, and transparent, not all leaders seem to be taking advantage of this opportunity.

Another complex challenge posed by digital diplomacy is cybersecurity. While the rapid dissemination of information is often an advantage for digital diplomacy, it can also be a major disadvantage. Cybersecurity threats have caused diplomats to worry that digital diplomacy is not possible. As diplomacy has been a field known for its confidentiality, in the months following the WikiLeaks incident, many diplomats struggled to do their jobs as information gatherers, knowing that there was a constant threat of exposure (Lilli & Painter, 2023). However, over time, it seems that governments are learning to take the precautions necessary to prevent information leaks in order to still reap the benefits of digitization.

Digital diplomacy plays a crucial role in climate mitigation by leveraging technology to facilitate global cooperation, disseminate information, and implement sustainable practices. Next, we will provide substantiation for this statement.

Digital platforms enable real-time sharing of climate-related information, research findings, and best practices, that helps raise awareness about the impact of climate change and fosters a shared understanding among nations. Moreover, digital diplomacy facilitates cross-border collaboration by providing a platform for nations to share expertise, coordinate efforts, and jointly address climate challenges. Online forums and virtual conferences enable real-time communication, fostering a more efficient and collaborative approach to climate mitigation. Besides, this encourages international

advocacy and public engagement as well as social media and digital platforms offer a space for governments and organizations to engage with the public on climate issues. This engagement helps build public support for climate policies and encourages individual and collective actions that contribute to mitigation efforts.

Technological aspect also plays an important role. Thus, technologies such as satellite imaging, data analytics, and remote sensing contribute to monitoring and reporting on climate-related activities. Digital tools provide accurate and timely information, aiding in the enforcement of environmental regulations and accountability. As a result, digital diplomacy encourages the exchange of innovative solutions for climate mitigation.

The Paris Agreement, adopted in 2015, and subsequent EU climate roadmaps in 2019-2022, represent a significant example of digital diplomacy contributing to climate mitigation. The negotiations leading to the agreement heavily relied on digital communication tools and platforms. Diplomats and negotiators used video conferencing, online document sharing, and social media to coordinate efforts and engage in discussions. The digital aspect of diplomacy played a pivotal role in the success of the agreement by facilitating real-time collaboration among representatives from various countries, despite the geographical distances.

The use of digital diplomacy also leads to a reduction in financial and environmental expenses. This means that foreign offices no longer need to spend as much on transportation and can use this money to invest in other areas. But telecommunications not only provide diplomats with financial gains, but also environmental benefits. By minimizing the need for physical travel, digital diplomacy cuts financial and environmental costs.

Taking into account benefits of digital diplomacy, we can arrange the following directions for environmental diplomatic affairs within informational society:

1. Virtual summits and conferences. Within the realm of environmental diplomacy, virtual platforms and video conferencing enable the conduct of diplomatic negotiations and discussions. This virtual approach promotes international collaboration and treaty agreements, obviating the necessity for in-person meetings, thereby contributing to a reduction in the carbon footprint associated with travel.

2. Online climate data sharing. Nations may employ digital diplomacy to exchange environmental data and research through secure data-sharing platforms. This collaborative framework plays a pivotal role in the monitoring and mitigation of global environmental challenges, such as climate change, deforestation, and pollution.

3. Social media campaigns. Scientific endeavors in environmental diplomacy can leverage the expansive reach of social media platforms to heighten public awareness and engage with the global audience regarding environmental issues. These digital campaigns foster international cooperation and garner support for environmental causes.

4. Digital climate agreements and treaties. The negotiation and ratification of environmental agreements and treaties are increasingly facilitated through digital channels. Electronic signatures and secure document-sharing platforms streamline the diplomatic process while augmenting transparency, particularly in the scientific context.

5. Online environmental education and capacity building. In the realm of environmental science, countries employ digital diplomacy to offer training and capacity-building initiatives related to environmental conservation and sustainable practices. This may encompass the provision of online courses, webinars, and knowledge-sharing platforms, thereby bolstering international collaboration on environmental matters.

These points underscore the pivotal role of digital diplomacy in addressing global environmental and climate challenges within the scientific community, fostering effective communication, cooperation, and knowledge exchange among nations and stakeholders.

Consequently, digital diplomacy brings both opportunities and challenges. On the one hand, social media, in particular, provides countries with more information to address social issues. For example, people in conflict areas use social media to mobilize support, organize protests, communicate, and inform the world about what is happening in their countries, especially where their media is often subject to shutdowns and censorship. However, on the other hand, there are a number of risks associated with using social media and using it as a tool of diplomacy. Nevertheless, according to experts, the opportunities outweigh the challenges. Thus, countries that are slow to

embrace digital diplomacy cannot afford to be left behind in this current of digital diplomacy, as they can greatly benefit from these new diplomatic trends. Digital diplomacy and online activities in general can significantly help in projecting a state's foreign policy positions to domestic and foreign audiences.

Digital diplomacy in Ukraine's foreign policy strategy

Digital diplomacy has become a phenomenon in the field of international relations and foreign policy, so identifying patterns in this process is extremely relevant. Ukraine's European aspirations and the reform of the country's public administration system in line with European standards prompt the search for ways to improve the overall situation in this area. Today, the field of information management, including the accumulated knowledge and experience, has accumulated a large amount of information that can be successfully used in political forecasts and strategic planning. Digital technologies in the field of diplomatic activity make it possible to improve consular activities, in particular, processing and preparation of visa documentation, direct contacts with citizens abroad. In the event of emergencies and natural disasters, the use of cyberspace will be appropriate for emergency communication with the embassy of the state abroad.

In 2019, the number of Internet users in Ukraine was already 22.96 million, which indicates a change in the trend of information consumption from traditional to digital sources. The constant monitoring of the popularity of the media among the main rating of information dissemination channels disclosed wide opportunities of using social media for the purposes of informational campaign (Bryikhanova et al., 2021).

However, despite this activity, the Internet is currently underutilized as a tool of diplomacy and to increase the attractiveness of the country's image. It is also important to note that not only state authorities, but also representatives of non-governmental organizations and civil society should be actively involved in shaping a positive image of the country in the international arena in cyberspace.

The degree of information support for diplomatic bodies directly affects the level of development of all digital governance initiatives, the provision of various services, and, more broadly, digital diplomacy.

The formation of the legal framework for the introduction of digital technologies in the field of public diplomacy is a complex and comprehensive process, and therefore requires some time and appropriate professional resources and skills. The development of the regulatory framework for the digitalization of diplomatic activities is rather chaotic, and the existence of a large number of different acts adopted to introduce an ineffective concept of e-government does not indicate the perfect state of Ukraine's current legislation in this area.

In recent years, a number of measures have been taken to enhance information support and communication of state institutions, which is undoubtedly crucial for the development of diplomatic activities and the introduction of digital services. According to the research, an analysis of the recent practice of implementing digital diplomacy in Ukraine shows that it is currently only at the initial stage of development, at the level of information through the websites of the Ministry of Foreign Affairs and diplomatic missions abroad (Pipchenko, 2020). Despite the active use of social media by Ukrainian diplomats and the creation of official websites of diplomatic missions, it must be stated that the potential of modern communication tools of the Internet in diplomatic activities has not yet been fully utilized, although the latest digital communication technologies open up prospects for more professional and high-quality interaction.

In Ukraine, the development of digital diplomacy can align with the goals of sustainable development by focusing on several key directions:

1. Promoting sustainable energy and climate oriented practices. According to this statement, digital diplomacy initiatives could be implemented to facilitate international cooperation and knowledge exchange on sustainable energy and environmental conservation; and to share best practices, technologies, and policies for mitigating climate change, reducing pollution, and transitioning to clean energy sources.

2. Enhancing digital inclusion and accessibility. Digital diplomacy efforts prioritize inclusivity and accessibility to promote internet access and digital literacy to all segments of society, including

marginalized groups, can participate in diplomatic processes and benefit from the digital transformation.

3. Conflict resolution and peacebuilding. Digital diplomacy should be considered as a soft tool for conflict prevention and resolution, thereby contributing to peace and security. International cooperation and mediation are implied through online channels to address regional and global conflicts.

4. Digital government and transparency to ensure government transparency and accountability through digital tools and platforms. This means fostering open data initiatives, e-governance, and digital services that improve public access to government processes and decision-making.

5. Promotion of cultural and scientific diplomacy through digital means. This means encouraging of international collaborations, art exhibitions, scientific research partnerships, and cultural exchanges that reflect Ukraine's cultural diversity and contributions to sustainable development.

6. Cross-border humanitarian initiatives. This implies facilitating international assistance, relief efforts, and refugee support through online platforms, emphasizing a human-centered approach to sustainable development.

7. Sustainable infrastructure development within sustainable infrastructure projects, utilizing digital tools for project management, environmental impact assessments, and stakeholder engagement. Digital diplomacy contributes to eco-friendly infrastructure development in line with sustainable development goals.

By pursuing these directions for digital diplomacy in Ukraine, the country can contribute to the achievement of the Sustainable Development Goals while enhancing its international partnerships and standing on issues related to sustainability, peace, and global well-being.

To summing up, in the context of the digital revolution and new digital technologies, "digital diplomacy" is being formed, so diplomats face new challenges related to their professional training in the cybersphere, the ability to manage large information flows, use database information in such a way as to avoid duplication of it, process information using digitized archives and data storage and retrieval systems. Of particular importance is the problem of confidential assessments that are not available to the general public, the ability to correctly analyze and interpret information and process it in such a way that it brings maximum benefit to the foreign policy department.

Therefore, taking into account the above, we offer some proposals for the implementation of digital diplomacy in the sphere of foreign policy relations of Ukraine, which include:

- creation and maintenance of the state's brand in the globalized world, in particular, the implementation of state branding in the network environment;
- the Ministry of Foreign Affairs of Ukraine acting as a moderator of the dialogue (in establishing contacts with the online audience and developing new communication tools, digital diplomacy will provide an opportunity to address the target audience directly with specific messages)
- accumulation and analysis of a significant amount of digital information that can be used in political forecasts and strategic planning;
- implementation of virtual consular activities (digital diplomacy becomes effective in working with foreign audiences, especially in the process of presenting the official position of the state and forming its positive image);
- ensuring the openness of the authorities in the digital network space, which is an indisputable necessity along with other sources of information; availability of appropriate instructions for specialists of public authorities engaged in external relations to determine the boundaries of communication in case of careless messages (tweets) or other digital messages;
- development of new digital formats for internal, inter-institutional and international communication involving diplomats;
- formulation of digital culture requirements and their strict observance in the field of foreign relations;
- the use of artificial intelligence in diplomatic activities; negotiation processes (application of algorithms and negotiation strategies);
- overcoming communication barriers between states and citizens of other countries;

- improving the security of diplomatic missions; resolving diplomatic crises, supporting peacekeeping operations, and resolving international disputes and conflicts.

Digital diplomacy is the enrichment of traditional foreign policy tools with innovative public administration instruments that will be aimed at fully realizing the potential of networks, technologies, and the population in an interdependent manner (Manor, 2023). Thus, developing digital diplomacy in Ukraine requires a strategic and multifaceted approach. From the governmental point of view, the attention should be paid to the investment in technological infrastructure, capacity building and training, and establishment of digital diplomacy units within the Ministry of Foreign Affairs or relevant government bodies dedicated to digital diplomacy. These units can focus on developing and implementing digital strategies, monitoring online discussions, and engaging with international audiences.

Summarizing the above, it should be noted that the level of development of initiatives to introduce digital diplomacy tools in Ukraine depends on the degree of organizational support for the digitalization of diplomatic institutions and the regulatory framework for their use.

Conclusions

Unlike traditional diplomacy, digital diplomacy allows anyone, regardless of location, to have a voice and influence on a particular situation or a particular politician. New types of diplomatic language are emerging: "hashtags", "smiles", "stickers", videos, photos. Thus, the diplomatic code of conduct based on classical concepts is being transformed. The Internet lexicon is also changing, incorporating elements of social media culture. The so-called Internet trolling, a form of social provocation or online hooliganism often used by bloggers, is also turning into one of the manifestations of modern political dialogue.

So far, experts have only gotten used to the opportunities of the digital age that lie on the surface. In our opinion, great potential for digital diplomacy lies in the following areas: digitalization of services provided to citizens; analysis of foreign audiences; data processing and exchange; optimization of internal processes; development of new formats of multilateral interaction.

Having analyzed the features of digital diplomacy as a modern phenomenon of foreign policy activity, it is established that, given such current trends in international relations as democratization of foreign and domestic political processes, personalization of subjects of international relations and growing informatization of the environment of international interaction, digital diplomacy is becoming an obligatory sphere of activity and development of states. In our opinion, digital diplomacy can be defined as activities aimed at creating and maintaining official websites of state institutions and thematic online resources about the state, which serve as the main source of information about it, as well as filling the information space with publications, news, events and other materials on topical issues of foreign policy, and therefore there is no doubt that digital diplomacy will take a firm place in the future and become an essential part of international relations.

International experience shows a significant arsenal of techniques and methods that will allow the introduction of digital mechanisms in the diplomatic sphere to solve foreign policy problems in Ukraine. In addition, according to the experience of foreign countries, analytical work needs to be significantly improved in order to develop effective digital diplomacy services. High-quality information and analytical work will contribute to the development of digital diplomacy, provided that actions are clearly coordinated, based on a significant improvement in information support and the process of analytical processing of the information received.

Digital diplomacy successfully addresses to global challenges and SDG's goals. Since, modern informational and communicational infrastructure allows to refocus diplomatic strategy to environmental and climate targets. Thinking this way, the development of digital diplomacy cover such important sectors: promoting sustainable energy and climate oriented practices; enhancing digital inclusion and accessibility; conflict resolution and peacebuilding; digital government and transparency; promotion of cultural and scientific diplomacy through digital means; cross-border humanitarian initiatives and sustainable infrastructure development.

Conflicts of interest

The authors declare no conflict of interest.

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Authors contribution

Conceptualization, M.I. and K.V.; analysis of environmental and climate discourse of digital diplomacy, M.I.; literature review, V. K. and B.M.; formal analysis, L.R.; methodology, K.V.; project administration, K.V. All authors have read and agreed to the published version of the manuscript.

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