

DOI <https://doi.org/10.30525/2592-8813-2025-2-25>

VIRTUAL REALITY AND INTERNATIONAL DIPLOMACY

Nuraddin Mehdiyev,

PhD, Academy of Public Administration under the President of the Republic of Azerbaijan

(Baku, Azerbaijan)

ORCID ID: 0000-0003-4366-8580

nuraddin_mehdiyev@yahoo.com

Abstract. Virtual Reality (VR) technology offers new perspectives and opportunities in international diplomacy. Unlike traditional methods of establishing relationships between states, this technology allows diplomats to engage in discussions, establish contact, and resolve issues remotely while maintaining a sense of personal involvement. The application of VR in diplomacy can ensure more transparent and effective agreements through visual and interactive experiences. At the same time, the use of this technology may lead to new ways of thinking in security, ethics, and humanitarian matters.

This paper will explore the application of virtual reality in international diplomacy and the challenges and opportunities it presents in modern diplomatic practice. Additionally, it will analyze the potential future of this technology in diplomatic contacts and decision-making processes.

Key words: Virtual Reality, International Diplomacy, States, Security, Technology.

Introduction. In recent years, the development and spread of Virtual Reality (VR) technology have created new opportunities in the field of international diplomacy. This technology has made a significant revolution in the establishment of traditional diplomatic relations and communication between states. VR offers diplomats the ability to engage in personal contact and discussions from afar, providing a new perspective on international relations.

The impact of VR on diplomatic activities not only increases the number of contacts but also offers diplomats the opportunity to engage in deeper and more realistic discussions, make decisions, and solve problems. The use of this technology in diplomacy can enhance the transparency and effectiveness of agreements through more interactive and visual experiences. It can also lead to new ways of thinking on issues such as security, ethics, and humanitarian matters. This paper will investigate how VR technology is used in international diplomacy and its potential in this field. Additionally, it will address the challenges and opportunities that VR presents in modern diplomatic practices.

Virtual reality and international relations

Virtual Reality (VR) is a computer-generated artificial environment where people can interact with and control their surroundings through their actions. In the context of international diplomacy, VR technologies are primarily used in the following areas:

- Diplomatic simulations
- Conflict management
- Regular international dialogues

The dynamic nature of international relations demands new approaches to the effective management of state-to-state relations and crisis resolution. In this context, diplomatic simulations have become an essential methodological tool by leveraging modern technologies, optimizing the training and decision-making processes for international political actors. Diplomatic simulations not only apply theoretical knowledge but also develop strategic thinking, strengthen analytical skills, and allow the analysis of real international situations (Nye, Joseph 2011, p. 111-112).

Diplomatic simulations are methods used to model international relations and test various geopolitical scenarios. These simulations present scenarios that align with real-world conditions, improving the analytical and decision-making abilities of diplomats and politicians. Simulation exercises

held among representatives of different states contribute to successful diplomatic practices in international organizations and multilateral negotiations. For managing crises, simulations help predict the potential outcomes of real-world events and work on alternative solutions (Slaughter 2017, p. 99).

International organizations such as the UN, NATO, and the EU regularly utilize simulation programs. Additionally, academic institutions widely use these techniques to develop practical skills in international relations. With the advancement of modern technologies, AI-based and VR-based simulations open new opportunities for the study of international relations. These approaches are essential for optimizing diplomatic decisions and managing risks. State institutions and multinational corporations use simulations to test various policy strategies in areas such as global trade and energy security.

Diplomatic simulations play a crucial role in shaping flexible and innovative approaches to contemporary challenges in international relations. This methodological approach enhances the quality of decision-making processes both theoretically and practically, preparing international actors to address complex issues. In the future, the integration of AI and data analytics into simulation models will contribute to more predictable and effective decisions in international politics (Allison 2017, p. 215).

In managing conflicts, particularly in international relations, VR and AI technologies offer new opportunities. Through virtual environments, politicians and diplomats can test various scenarios relevant to real-world situations, analyze the development dynamics of crises, and determine optimal solutions. Conflict simulation in virtual environments allows the creation of effective resolution strategies, whether in interstate confrontations or ethnic and religious conflicts.

AI-based systems analyze the development dynamics of conflicts and identify potential risks. Decision support systems based on AI enable states, international organizations, and mediators to make more rational decisions. VR simulations created for diplomats and international security experts provide realistic scenarios for conflict management. For example, organizations like the UN and NATO use this technology to design peacekeeping missions. VR simulation games for international conflict resolution help prepare diplomats for negotiations and promote peaceful solutions through multi-faceted strategies.

The use of VR and AI technologies marks a new era in conflict management, offering significant contributions to effective crisis management, enhanced peace negotiations, and the assurance of global security. In the future, more advanced VR platforms and AI models will help international diplomacy make agile, scientifically-backed decisions.

In recent years, the rapid development of technology, particularly virtual reality (VR) and augmented reality (AR) technologies, has opened new horizons in international diplomacy. The ability for leaders from different geographical locations to convene in the same virtual environment not only enhances the effectiveness of regular international dialogues but also eliminates the limitations of time and space.

Virtual reality technologies enable leaders to meet in the same virtual room without physically being in the same place. This offers a more interactive and immersive experience compared to traditional video conferences, allowing participants to engage more effectively using non-verbal communication tools such as gestures and facial expressions.

Recent research indicates that the application of virtual reality technologies in international diplomacy offers numerous advantages. Leaders can discuss critical issues in a short amount of time without the need for physical travel. Encrypted virtual environments ensure the security of confidential discussions. Additionally, the reduction in physical travel contributes to a decrease in the carbon footprint (Slaughter 2017, p. 101-102)

The application of virtual reality technologies in international diplomacy facilitates the establishment of closer and more effective connections between leaders through the efficient use of modern technologies. This approach may contribute to the formation of new standards in the management of international relations in the future.

Advantages of virtual diplomacy

Over recent decades, the rapid development of information and communication technologies has added a digital dimension to traditional diplomacy. The digitization of diplomatic practices has not only changed the methods of building and exchanging relations but also ensured the use of faster, more flexible, and reliable tools in managing international relations. The transition of diplomacy to the digital sphere requires the use of new technological solutions alongside traditional diplomatic protocols, resulting in greater transparency, speed, and efficiency in diplomatic practices (Alden 2020, p. 46-47).

The digitization of diplomatic relations is primarily reflected in the exchange of information and the establishment of connections through various channels. For example, diplomatic communications and correspondence are no longer conducted only through traditional postal services but also through email and other online platforms. Furthermore, video conferences, virtual meetings, and other digital communication tools enable states and international organizations to establish faster and more effective interactions (Bjola 2021, p. 23-24).

However, the use of digital technologies in diplomacy also presents new challenges and ethical questions. Issues such as information security, privacy, and the protection of personal data are new challenges arising from the digitization of diplomatic protocols and relations. Responding to these challenges requires the development of appropriate legal and ethical frameworks. Additionally, forming broader understandings of digital diplomacy will help better follow the innovations arising in international relations (Zaharna 2020, p. 520).

In diplomatic practices, digitization not only preserves the fundamental principles of diplomacy but also facilitates more transparent and interactive relations, as well as faster and more effective decision-making processes. These developments will enable diplomatic activities to take place in a broader and deeper digital realm in the future.

The various threats and crises encountered in international relations remain one of the most complex areas of diplomatic activity. Diplomatic simulations and crisis models are applied tools developed to enhance the effectiveness of international diplomacy, resolve interstate disputes, and prevent confrontations. These simulations and models strengthen the interaction between diplomatic practice and theory, offering diplomats the opportunity to analyze how they should act in real situations (Pamment 2019, p. 76).

Diplomatic simulations are training processes conducted on digital and virtual platforms that imitate various scenarios related to international relations that could occur in the real world. These simulations are designed to help diplomats and politicians develop decision-making skills under high pressure and in extraordinary conditions. Through simulations, the replication of real diplomatic situations is carried out, and participants explore solutions through interaction and discussion. Additionally, these tools offer the opportunity to better understand the diplomatic behaviors and strategic approaches of different countries and organizations.

Crisis models, on the other hand, are theoretical frameworks created for managing and preventing conflicts in international relations. Crisis models present theoretical and practical approaches designed for managing interstate confrontations and tensions in specific situations. These models provide structures and strategies that assist diplomats and state leaders in making correct decisions during crises. By utilizing theories adapted to various types of crises, crisis models offer diplomatic interventions and solutions. These approaches are also significant in terms of predicting and preventing conflicts in advance (Melissen 2018, p. 44).

The connection between simulations and crisis models is quite strong. Simulations serve as an important tool for testing and improving how crisis models work in practice. For example, a diplomatic simulation could test the application of a crisis model for managing an international crisis. This experience helps improve the thought processes, approaches, and strategic thinking of decision-makers in real situations.

Diplomatic simulations and crisis models contribute significantly to the more effective management of interstate relations, the resolution of conflicts, and the maintenance of international peace. These tools are also valuable as effective training resources that can be used to prepare diplomats, politicians, and international organizations for the challenges they face. Strengthening the interaction between diplomatic practice and theory will provide the conditions for better management of future crises and the establishment of more just international relations.

Global multilateral negotiations are complex processes conducted to balance mutual interests between states, resolve conflicts, and create international cooperation. These negotiations involve the participation of several states or international organizations and are crucial for preventing conflicts and misunderstandings, while also discussing global peace and security issues. Facilitating such negotiations plays a key role in ensuring diplomatic success and fostering effective cooperation among the parties involved (Hansen 2021, p. 111).

Facilitating multilateral negotiations requires greater transparency, trust, and mutual confidence. For this purpose, diplomatic simulations and crisis models offer various training and practice methods to advance negotiations. These tools can be used to help parties reach mutual understanding, resolve contentious issues peacefully, and sign long-term agreements.

Firstly, one of the most important factors in facilitating global multilateral negotiations is the proper management of communication channels and information. Different parties involved in multilateral negotiations come from diverse linguistic, cultural, and political backgrounds. Considering this diversity, communication and information exchange must be organized efficiently. This allows for a clearer understanding of the topics under discussion, enables participants to better understand each other, and accelerates the decision-making processes.

Secondly, international organizations and diplomatic mediators play a crucial role in facilitating multilateral negotiations. Organizations such as the United Nations (UN) and other international bodies coordinate the propaganda, discussion, and agreement processes among participating states, helping achieve the goal of the negotiations. Diplomatic mediators can apply various diplomatic methods to resolve disputes between parties and play a key role in building cooperation and trust among the relevant parties.

Thirdly, the use of technology and digital tools can make a significant contribution to facilitating global multilateral negotiations. For instance, virtual meetings and video conferences allow negotiations to be conducted more quickly and effectively, regardless of geographical distances. Additionally, through digital platforms, it is possible to share information regarding the topics under discussion and conduct discussions in a more transparent and traceable manner. These technological capabilities also ensure the rapid decision-making required during crisis moments.

Finally, political will and the constructive approach of the parties are essential for facilitating multilateral negotiations. The successful completion of negotiations depends not only on the presence of well-organized procedures and tools but also on the positive approach of the participating states and their willingness to engage in mutual compromises. The protection of each party's interests and the collective resolution of these interests require the trust and leadership skills of political leaders (Smith 2022, p. 133).

Facilitating global multilateral negotiations plays a key role in the development of interstate relations and the establishment of international peace. The effective use of factors such as communication, diplomatic mediation, technology, and political will create the conditions for successful negotiations and the strengthening of global cooperation.

Problems of virtual diplomacy

The development of virtual diplomacy not only increases the speed and efficiency of global connections but also creates new security challenges. Cybersecurity issues have become a significant concern, especially with the development of intergovernmental relations on digital platforms. Virtual

diplomacy raises serious concerns regarding the risks and threats existing in the digital environment, as diplomats and international relations now operate not only in physical spaces but also in the online world. Therefore, cybersecurity emerges as one of the key conditions for the effectiveness and security of virtual diplomacy.

First, cyberattacks can result in the theft and manipulation of sensitive information between states and international organizations. Diplomatic correspondence, secret agreements, high-level discussions, and strategic data could become primary targets of cyberattacks. For example, cyberattacks on email systems could lead to the leakage of diplomatic documents and the disruption of states' foreign policies. Such attacks can significantly damage the reputation of countries and harm international trust.

Cyberattacks not only have technical implications but can also have serious effects on diplomatic relations. An attack on one country may lead to distrust between that country and others, weakening diplomatic ties. This is particularly important during the periods when intergovernmental agreements are being discussed, signed, and implemented, especially in conflict zones and high-level diplomatic activities. Attacks could facilitate the manipulation of digital tools by one side to weaken the other, thus disrupting diplomatic processes.

The relationship between virtual diplomacy and cybersecurity calls for the strengthening of security infrastructure. States and international organizations must invest in modern cybersecurity technologies to ensure the security of digital tools and communication channels used in diplomatic activities. Technologies such as cryptography, multi-factor identification systems, and secure network protocols play a crucial role in protecting virtual diplomacy. Additionally, regular security training and penetration testing should raise the cybersecurity awareness of diplomatic bodies and minimize risks (Seib 2022, p. 55).

Cybersecurity issues are not only related to technological aspects but also involve ethical and legal matters. The legal aspects of cyberattacks, particularly in the context of international law, can lead to disputes. Any cyberattack may be considered a violation of laws based on international law, thus causing intergovernmental conflicts. Moreover, the ethical aspects of such attacks raise discussions about the responsibility of the attacker and the consequences of the attack. This calls for the creation of new legal frameworks in international diplomacy and the application of stronger resistance methods against cyberattacks.

Cybersecurity concerns are among the greatest challenges facing virtual diplomacy. Along with the digitalization of diplomatic relations, states and international organizations must take cybersecurity measures, ensure the protection of their data, and strive to prevent cyberattacks. This is a multi-faceted issue that requires not only technological solutions but also ethical and legal approaches. In order for virtual diplomacy to develop in a sustainable and reliable manner, cybersecurity issues must be addressed, and relevant international norms should be established.

The development of digital technologies and innovative tools such as virtual reality (VR) has created an infrastructure for a new global information and communication system. However, this development also creates digital inequalities and disparities between some states on a global scale. While some states can easily access advanced technologies and resources, others are deprived of these opportunities. This situation deepens the phenomenon known as the "digital divide" or "digital gap." This phenomenon is not only the result of economic and technological differences but also relates to social, cultural, and political factors.

One of the primary and most crucial issues is the availability of the necessary infrastructure for obtaining and using digital technologies. In developed countries, access to high-speed internet, modern computer technologies, and VR devices is widespread and affordable. For instance, the United States, China, and European Union countries widely apply VR technologies in education, diplomacy, medicine, and business. These countries use the potential of these technologies in both domestic markets and international relations to accelerate the development of the digital economy (Lee 2021, p. 311).

However, in developing and underdeveloped countries, particularly in Africa, Asia, and Latin America, the infrastructure required to access and use these technologies is still lacking. In these countries, internet speed and coverage are limited, and high-priced VR devices are accessible only to the wealthy. This makes it difficult for broader social groups or countries to use these technologies, deepening the digital inequality.

The digital divide also manifests itself in the education sector. Virtual reality technologies enable the implementation of new approaches in educational systems, such as distance learning and interactive teaching methods. However, in some countries, especially in areas facing resource shortages, access to these opportunities is very challenging. While the quality of the internet and the digitization of educational materials provide vast opportunities for students in developed countries, educational resources in other countries are still limited to traditional methods. As a result, the issue of accessing digital education opportunities and benefiting from them creates global inequalities.

The digital divide can also exacerbate social inequalities. In developed countries, affordable access to technologies acts as a factor that enhances social equality, while in developing countries, this access contributes to a deeper social divide. People living in regions where digital tools and technologies are not widespread lag behind in economic and social development. Moreover, this disparity between digital regions creates new challenges related to human rights and social justice.

In relation to the application of virtual diplomacy, the digital divide could lead to changes in inter-governmental relations and diplomatic practices. Developed countries are able to make more efficient and faster decisions, engage in diplomatic discussions, and participate actively in international relations through digital diplomacy and virtual reality. These capabilities are especially significant during the management of global crises and conflict resolution. On the other hand, states deprived of technological resources are excluded from such diplomatic practices. This could lead to more global injustice and inequality in international relations (Lund 2019, p. 144).

The digital divide further deepens the differences between developed and developing countries regarding access to advanced technologies and resources. Countries that can easily access virtual reality technologies are taking significant steps in areas such as education, economy, social development, and diplomatic relations. However, on the other hand, states facing the scarcity or limitation of digital technologies are unable to benefit from these opportunities, leading to global digital inequality. This issue is significant not only from an economic perspective but also in social and political aspects and remains a major challenge for international cooperation and development.

Conclusion. The development of virtual reality (VR) technologies has led to significant changes in many areas, including international diplomacy and international relations. These technologies offer new opportunities that make intergovernmental relations and international discussions more dynamic, efficient, and fast-paced. While traditional diplomatic practices require independent tools and platforms for discussion and dispute resolution, virtual reality offers innovative approaches to diplomacy. The intersection of virtual reality and international diplomacy introduces new discussion spaces, practical approaches, and strategies for both states and international organizations.

Virtual reality fundamentally changes the process of building and advancing intergovernmental relations in international diplomacy. While traditional forms of diplomatic relations are constrained by distance and time, VR technologies overcome these barriers, allowing for effective diplomatic relations to be established in real-time and irrespective of location. Diplomatic simulations, conflict resolution, peace talks, economic cooperation, and cultural exchanges, all facilitated by VR technologies, allow diplomats to engage in discussions without physically meeting. This results in more agile and extensive diplomacy.

Moreover, the simulation of diplomatic practices through virtual reality requires diplomats to analyze international issues more deeply and make strategic decisions. Diplomatic simulations can help countries and international organizations react positively to various conflict and pressure situations,

ensuring successful outcomes. These new approaches ensure the modernization and practicality of diplomatic education, thus promoting the development of diplomacy as a profession.

The application of VR technologies in international diplomacy directs diplomatic practices towards a more global and modern direction. Through diplomatic simulations, states can respond to issues like natural disasters, conflicts, and economic crises. For instance, VR allows countries to discuss international aid strategies more effectively during emergencies. This is especially critical for developing countries, as these technologies reduce the physical and financial resources required to participate in diplomatic meetings.

Additionally, VR enables the participation of more states, organizations, and stakeholders in diplomatic discussions and meetings. Traditional diplomatic meetings require physical presence, but VR technologies eliminate this obstacle, allowing more participants to join global discussions. This makes cooperation among states in multilateral diplomatic meetings, such as those within the UN, G7, G20, and other international organizations, more efficient.

One of the primary challenges faced by virtual diplomacy is cybersecurity. Diplomatic discussions, sensitive information, and strategies demand secure VR platforms. Cyberattacks, data theft, and other technological threats raise the issue of safeguarding diplomatic data. Diplomatic missions and international organizations must prepare high-security protocols and measures against such threats. To ensure this, additional security measures, encryption technologies, and data protection protocols should be implemented on VR platforms.

Virtual diplomacy also brings up the issue of digital divide between states. Developed countries, with advanced technological infrastructure, can effectively use VR technologies. However, developing and underdeveloped countries, which lack access to these resources, remain excluded. This can lead to global digital inequalities and disparities in diplomatic representation. International organizations and developed countries must allocate resources for the equal distribution and use of VR technologies, supporting developing nations in this field.

In the future, there will be even more application areas for virtual reality and international diplomacy. These technologies offer new perspectives in maintaining peace, addressing global challenges, strengthening diplomatic relations, and advancing international education. However, with the development of these technologies, ethical, social, and legal issues also arise. The widespread application of VR in diplomacy will enhance the agility of diplomatic relations but also create new challenges in the digital environment.

Virtual reality is an important technology shaping the future of international diplomacy. Its application in diplomacy enables countries to establish relations faster, more flexibly, and more effectively. However, the implementation of VR in international diplomacy raises several security, ethical, and social issues. In the future, to utilize this technology effectively, international cooperation, digital equality, and security issues must be prioritized, and technological infrastructure development should be directed accordingly.

References:

1. Allison, Graham (2017). *Destined for War: Can America and China Escape Thucydides's Trap?* Houghton Mifflin Harcourt, p. 210-233.
2. Alden, A., & Armitage, D. (2020). *Digital Diplomacy: Theory and Practice*. Oxford University Press. p. 350.
3. Bjola, C., & Holmes, M. (2021). *The Digital Transformation of Diplomacy: Insights, Challenges, and Opportunities*. Palgrave Macmillan. p. 300.
4. Hansen, J. B., & Madsen, K. (2021). *Cybersecurity in International Relations: The Emergence of a New Diplomatic Arena*. Routledge. p. 250
5. Lee, S., & Choi, Y. (2021). Virtual Diplomacy in the 21st Century: The Case of South Korea. *Asian Journal of Communication*, 31(3), 301-319.

6. Lund, A. T., & Troels, M. (2019). Digital Diplomacy: A Revolution in International Relations. *Diplomatic Studies Journal*, 19(4), 134-152.
7. Melissen, J. (2018). *The New Public Diplomacy: Soft Power in International Relations*. Palgrave Macmillan. p. 350
8. Nye, Joseph S. (2011). *The Future of Power*. PublicAffairs, p. 103-125.
9. Pamment, J. (2019). *Digital Diplomacy: A New Framework for the Age of Connectivity*. Routledge. p. 280.
10. Seib, P. (2022). The Globalization of the Public Sphere: The Role of Digital Diplomacy. *International Journal of Communication*, 16(1), 47-64.
11. Slaughter, Anne-Marie (2017). *The Chessboard and the Web: Strategies of Connection in a Networked World*. Yale University Press, p. 88-112.
12. Smith, R. S., & Albin, C. (2022). *Global Politics and the Dynamics of Digital Transformation*. Cambridge University Press. p. 320
13. Zaharna, R. S., Arsenault, A., & Fisher, H. (2020). Digital Diplomacy: Theories and Practices of Digital Communication. *International Studies Review*, 22(4), 516-530.