

Digital International Interaction: Towards a New Theory on International Relations

Interacción digital internacional: hacia una nueva teoría en Relaciones Internacionales

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ABSTRACT

This paper discusses the concept of new diplomacy and its relationship to smart power, arguing that soft power is just as important as hard power in international politics. The paper explores the emergence of geotechnology as a new variable in international relations, referring to the competition between countries to control and gain influence in areas of technological importance. Additionally, the paper highlights a theoretical gap in the study of international relations regarding cyberspace and the new realities imposed by technology. It discusses the role of technology in shaping a new framework for international relations, leading to increased complexity, interconnection, and interdependence. The paper argues that states must adapt to the logic of performance in the international environment and that technological progress has led to radical changes in the elements and balances of power. The researcher aims to present a new theory in international relations that analyzes the influence of digital technology and social media on shaping international relations and rearranging actors and factors. This theory suggests that these technological advancements have significant impacts on international policy directions, as well as political and economic decision-making.

PALABRAS CLAVE: new diplomacy - engineering diplomacy - international digital interaction theory - artificial intelligence - technology

INTERACCIÓN DIGITAL INTERNACIONAL: HACIA UNA NUEVA TEORÍA EN RELACIONES INTERNACIONALES

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RESUMEN

Este artículo analiza el concepto de nueva diplomacia y su relación con el poder inteligente, argumentando que el poder blando es tan importante como el poder duro en la política internacional. El documento explora la aparición de la geotecnología como nueva variable en las relaciones internacionales, refiriéndose a la competencia entre países por controlar y ganar influencia en áreas de importancia tecnológica. Además, el documento pone de relieve una laguna teórica en el estudio de las relaciones internacionales en relación con el ciberespacio y las nuevas realidades impuestas por la tecnología. Analiza el papel de la tecnología en la configuración de un nuevo marco para las relaciones internacionales, que conduce a una mayor complejidad, interconexión e interdependencia. El artículo sostiene que los Estados deben adaptarse a la lógica del rendimiento en el entorno internacional y que el progreso tecnológico ha provocado cambios radicales en los elementos y equilibrios de poder. El investigador pretende presentar una nueva teoría de las relaciones internacionales que analice la influencia de la tecnología digital y los medios sociales en la configuración de las relaciones internacionales y en la reordenación de actores y factores. Esta teoría sugiere que estos avances tecnológicos tienen importantes repercusiones en las orientaciones de la política internacional, así como en la toma de decisiones políticas y económicas.

KEYWORDS: nueva diplomacia - diplomacia técnica - teoría de la interacción digital internacional - inteligencia artificial - tecnología

Digital International Interaction: Towards a New Theory on International Relations

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Introduction

The emergence of geotechnology as a new variable in international relations refers to the competition between countries to control and gain influence in areas of technological importance. There is a theoretical gap in the study of international relations when it comes to cyberspace and the new realities imposed by technology. The role of technology in shaping a new framework for international relations is also discussed. Technological progress has led to increased complexity, interconnection, and interdependence in international politics. States must adapt to the logic of performance in the international environment, and technological progress has led to radical changes in the elements of power and the balances of power in international relations. Additionally, the role of artificial intelligence (AI) in diplomacy is explored. AI has the potential to enhance diplomatic efforts and facilitate better outcomes in

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various diplomatic endeavors. Technological progress has also led to changes in power dynamics and production methods, which in turn affect the balance of power in international relations.

Hypotheses

1. The more technological development increases, the more it affects international relations and diplomacy.
2. The shift in international politics from military and economic conflict to technological conflict has had an impact due to the absence of a new theoretical framework for interpreting and analyzing phenomena and events in international relations.

I. The new diplomacy

1.1 Definition of diplomacy

There are many varied definitions of diplomacy, some of which narrow it down to mere negotiation. According to this view, negotiation is the only method for managing international relations, it takes a simple definition as the way of conducting them. Another definition gives special importance to diplomacy, its role, and the science by which the State seeks to achieve its foreign policy objectives and prevent armed conflict. In this context, it cannot be said that diplomacy ends when war begins or vice versa. Furthermore, diplomacy and policy are components of this system that overlap and enjoy interests with other nations. It is essentially an art focused on managing relationships.² Diplomacy is a crucial practice involving negotiation, communication, and representation between nations and global players. It serves to advance national

2 Amin Shalabi, *Modern Diplomacy* (El Cairo: Aalam Al-Kutob, 1997).

interests, nurture peaceful relations, enhance cooperation, and avoid conflicts by resolving disputes and synchronizing actions on various issues.³

Diplomacy serves as the means through which States worldwide conduct their affairs in ways to ensure peaceful relations. The main task of individual diplomatic services is to safeguard the interests of their respective countries abroad. This encompasses not only the promotion of political, economic, cultural or scientific relations, but also international commitment to defend human rights or the peaceful settlement of disputes.⁴

Diplomacy is a word derived from the Greek "*diploma*", meaning the official document or certificate that folds upon itself (the folded paper or document). Historically, it was issued by the supreme authority in a country, granting special privileges to the bearer. These often included the status of an envoy and the task delegated to them. Additionally, it was called permits, which was granted by the judge to some individuals, and the concept expanded to other official documents, especially those that contained agreements and treaties with foreign parties.⁵

Later, the term expanded to include papers and official documents containing the texts of the agreements concluded by the Roman Empire with foreign societies and tribes. This meant the study of ancient documents related to international relations. The Romans also used the word diplomacy to denote the nature of the envoy or ambassador, with its Latin root meaning a *two-faced hypocritical man*.⁶ The Oxford Dictionary defines diplomacy as *the profession, activity, or skill of managing international relations, typically by a country's representatives abroad*.⁷

3 "DiploFoundation - Where diplomacy meets technology", DiploFoundation, access September 12th, 2023, <https://www.diplomacy.edu/>

4 Swiss Federal Department of Foreign Affairs, *ABC of Diplomacy* (Bern: Cavelti AG, Gossau, 2008).

5 Hassan Muhammad Salah Hadid, "Diplomacy in Islamic Sharia", *Takit Journal of Legal and Political Sciences*, (1998): 17-30.

6 Saeed Abu Abah, *Diplomacy: Its History, Institutions, Types, Laws* (Jordan: Dar Al-Shaimaa for Publishing and Distribution, 2009).

7 Paul Sharp, "For Diplomacy: Representation and the Study of International Relations", *International Studies Review*, vol. 1 no. 1 (1999): 33-57.

Muawiyah bin Abi Sufiyan established the Umayyad Empire and was its first caliph. He was known for his wisdom and diplomatic approach to solve problems and disputes. Muawiyah, who ruled for twenty years, once said “*If there was a hair between me and the people, it would not be cut off. Because if they extend it, I will leave it, and if they are free, I will extend it*”.⁸ This saying is known among Arabs as “Muawiyah's strand of hair”.

In his report to the United Nations in 1992 on peace-making and maintaining security, Boutros-Ghali defined diplomacy as the work aimed at preventing the emergence of disputes between the parties, preventing the escalation of existing disputes into conflicts, and stopping these conflicts when they occur.⁹ Ernest Satow defined diplomacy as the application of intelligence and tact to the conduct of the official relations between the governments of independent states, extending sometimes also to their relations with vassal states.¹⁰

Harold Nicolson defined diplomacy as the management of international relations by negotiation; the method by which these relations are adjusted and managed by ambassadors and envoys; the business or art of the diplomatist.¹¹

1.2 Digital diplomacy

The importance of digital diplomacy is based on the usage of information and communication technology (later addressed as ICT), the internet and social media platforms, which at the same time represent the foundation for the strengthening of diplomatic relations. Therefore, knowledge about the role and importance of digital diplomacy becomes imperative. The search for a definition

8 Ali Hussein Al-Sham, *Diplomacy, its origins, development, and rules in international immunities and privileges* (Beirut: Science Research for investigation, printing, publishing and distribution, 2007)

9 Boutros Boutros-Ghali, *An agenda for peace: preventive diplomacy, peacemaking and peace-keeping: report of the Secretary-General pursuant to the statement adopted by the Summit Meeting of the Security Council on 31 January 1992* (New York: United Nations, 1992).

10 Ernest Satow, *A Guide to Diplomatic Practice* (Cambridge: Cambridge University Press, 1932).

11 Derek Drinkwater, *Sir Harold Nicolson and International Relations: The Practitioner as Theorist* (Oxford: Oxford University Press, 2005).

of digital diplomacy must start by examining the changes that occurred to both the definition and practice of diplomacy throughout the 20th century.¹²

Digital diplomacy refers to the broad use of technology, particularly the internet and other ICT-based innovations, in the conduct of diplomacy. With advancements in technology providing access to instant information and interactive online communication, the use of these tools by diplomats and government officials is becoming widespread. In fact, the internet has three fundamental impacts on diplomatic relations: Firstly, it multiplies and amplifies the range of voices and interests involved in international policymaking. Secondly, it accelerates and facilitates the dissemination of information – whether accurate or not – regarding any issue or event. Thirdly, it enables traditional diplomatic services to be delivered more rapidly and cost-effectively.¹³

Two significant early developments in digital diplomacy occurred in 1992. Firstly, civil society activists utilized emails and mailing lists for the first time during the United Nations Conference on Environment and Development in Rio de Janeiro – also known as the Earth Summit – to coordinate their stance during lobbying and talks. Additionally, the Mediterranean Academy of Diplomatic Studies created the first Unit for Computer Applications in Diplomacy in Malta. This group was later known as DiploFoundation.¹⁴

For instance, in 2008, Sweden was the first country to establish an embassy in the virtual world *Second Life*. This allowed that any computer user worldwide could access the embassy, overcoming constraints of time and space. The Arab Spring of 2010 also compelled ambassadors to use social media to engage with online users and monitor online discourse in order to foresee

12 Nandika Sharma, *Digital Diplomacy: The Evolution of a New Era in Diplomacy* (New Delhi: Research and Information System for Developing Countries, 2023). <https://ris.org.in/sites/default/files/2023-01/interns/topics/Nandika-Sharma.pdf>

13 Olubukola S. Adesina, “Africa and the future of digital diplomacy”, *Brookings*, (2022). <https://www.brookings.edu/articles/africa-and-the-future-of-digital-diplomacy/>

14 Olubukola S. Adesina, “Foreign policy in an era of digital diplomacy”, *Cogent Social Sciences*, vol. 3 (2017): 1-13. <https://doi.org/10.1080/23311886.2017.1297175>

upcoming shifts to the international system. In response to the absence of a physical diplomatic presence in Teheran, the United States also opened a virtual embassy in 2011. In the present times, the COVID-19 pandemic has once again changed digital procedures. Diplomats increasingly blended offline diplomacy with virtual summits using platforms such as Zoom or similar tools. In other words, the pandemic led to the advent of what is now called “Zoom Diplomacy”.¹⁵

Emerging digital technologies are increasingly a catalyst for geopolitical competition and a gauge of global influence. For example, they are used by foreign actors to threaten the security and integrity of the European Union and its member States, to manipulate the information landscape and interfere with democratic processes. The threats to the EU’s human rights-centered approach to digital transformation have become more acute and the importance of the leadership of the EU on global digital governance is growing.¹⁶

1.3 Cyber diplomacy

Cyber diplomacy is the art, the science, and the means by which nations, groups, or individuals conduct their affairs in cyberspace, in ways to safeguard their interests and promote their political, economic, cultural or scientific relations, while maintaining peaceful relationships.¹⁷

It involves the use of diplomatic tools and initiatives to achieve objectives in the complex and continuously evolving uncharted territory of cyberspace. States use the shared and accepted rules, protocols, and behaviors, to facilitate interactions between global actors of the public and the private sector.¹⁸

15 Nandika Sharma, *Digital Diplomacy: The Evolution of a New Era in Diplomacy* (New Delhi: Research and Information System for Developing Countries, 2023). <https://ris.org.in/sites/default/files/2023-01/interns/topics/Nandika-Sharma.pdf>

16 “Digital Diplomacy”, The Diplomatic Service of the European Union, access June 29th, 2023, https://www.eeas.europa.eu/eeas/digital-diplomacy_en

17 What is diplomacy?”, The Cyber Diplomacy Toolbox, access August 2nd, 2023, <https://www.cyber-diplomacy-toolbox.com/Diplomacy.html>

18 Mark B. Manantan, “Defining Cyber Diplomacy”, *Australian Outlook – Australian Institute of International Affairs*, (2021). <https://www.internationalaffairs.org.au/australianoutlook/defining-cyber-diplomacy/>

Cyber diplomacy is also defined as the use of diplomatic techniques and the performance of diplomatic tasks by governments, organizations, or individuals, in cyberspace to protect their interests. This is also called digital diplomacy, virtual diplomacy, or more commonly known as e-diplomacy as it views digital technology as a means or an instrument to promote the interactions between States, people, or businesses in various avenues such as politics, economics, culture, or science while maintaining peaceful relations.¹⁹

The discussion surrounding diplomacy in the modern era has become muddled as a result of the interchangeable use of terms such as e-diplomacy, cyber diplomacy, and digital diplomacy. This interchange blurs the distinction between utilizing digital tools for diplomatic endeavors and employing diplomatic strategies to address problems in the digital realm. To mitigate this confusion, it is recommended that the term "digital diplomacy" be employed when referring to the utilization of digital tools for diplomatic purposes, whereas "cyber diplomacy" should be reserved for the application of diplomatic methods in resolving issues within cyberspace.

Diplomatic efforts play a crucial role in global security within the interconnected world of international relations. The emergence of cyber diplomacy in 2007 was marked by a significant event, a widespread cyber-attack on Estonia. This country, known for its advanced technological infrastructure, was a victim to hackers who targeted and disrupted government and corporate networks. This incident underscored the importance of governments developing national cyber strategies to address the growing threat of cyber-attacks. It became evident that cyberspace, similar to the physical world, has military and strategic implications, necessitating collaborative efforts among nations to combat cyber adversaries.

The well-established, obligatory, and anticipated conventional criteria, standards, skills, and abilities of diplomacy may not be well-suited for the ever-changing nature of diplomacy in today's interconnected world, which

19 Oleksandra Mamchii, "The Significance of Cyber Diplomacy in the 21st Century", *Best Diplomats (blog)*, February 21st, 2023, <https://bestdiplomats.org/cyber-diplomacy/>

is constantly threatened by evolving cyber-attacks, viruses, and other digital threats. The resulting consequences and damages are not only physical but also virtual and cannot be managed in the same manner as more traditional physical threats. The evidence from observations strongly supports this notion. However, due to the novelty of this field, the methods employed, even in the limited number of studies analyzed, are constrained and rooted in past concepts, norms, and theories. It is uncertain whether these methods are suitable for application in this domain, and relying solely on theoretical or conceptual studies is insufficient. Therefore, more empirical research is needed to gain a better understanding of cyber diplomacy. For example, there has been no investigation into cyber diplomacy in international cyberspace relations using a combination of interviews, observations, and analysis of existing literature. To address the need for empirical evidence, studies can be expanded by incorporating evidence from interviews with diplomats, observations of diplomatic activities, and targeted case studies. Thus, our taxonomy assists in identifying relevant methods by providing a comprehensive overview of the field.

Furthermore, the categories of references mentioned earlier prompt further exploration of concepts and theories related to the core subject of cyber diplomacy, particularly in the areas of multilateralism, security, and capacity building. Additionally, some authors focus on diplomacy as the foundation of foreign relations and policies, while others delve into the digital strategies and changes that have implications within cyberspace. This is why Barat-Ginies raises the question regarding the viability of international law, which is linked to the subject matter.

Cyber diplomacy and engineering diplomacy are two distinct fields that play crucial roles in international relations. Cyber diplomacy focuses on addressing the challenges and opportunities arising from the use of cyberspace, while engineering diplomacy deals with the application of engineering principles in diplomatic efforts. These two disciplines require different skill sets and knowledge bases, but both are essential in promoting cooperation and resolving conflicts in the global arena. By combining the expertise of

cyber diplomats and engineering diplomats, nations can effectively navigate the complexities of the digital age and harness the power of technology for the benefit of all.

1.4 Engineering Diplomacy

It can be said that engineering diplomacy, similar to engineering in the natural sciences, aims to transform and translate ideas and theories into tangible practical realities in accordance to predetermined goals. This implies that diplomatic engineering is a field of knowledge that utilizes natural resources, scientific and technical tools to design and produce structures, processes, systems, and institutions in society, all adhering to specific standards and agreed-upon goals.²⁰

This concept involves the application of wisdom and reason, employing smart systems and methods, proactive vision, and innovative initiatives that necessitate participation, cooperation, and negotiation rather than isolation and short-sighted policies. It also entails harnessing a country's intellect and brightest minds rather than relying solely on brute force. This approach implies employing systems-oriented, proactive vision and innovative initiatives that require engagement, collaboration, and negotiation, rather than adopting shortsighted isolationist policies.²¹ Engineering diplomacy initiatives incentivize neighboring countries to engage by focusing on issues of mutual concern that benefit from cooperative problem-solving, resulting in interactions that could lead to better relationships.²²

There is no agreement upon the definition of diplomatic architecture, but it can be defined as the interlocking network of widely shared principles, institutions and practice that shape decisions at all levels in a given area of the

20 Benaicha Mohamed El Amine, *Algerian diplomacy in the African coast between continuity and change* (Saarbrücken, Noor Publishing, 2017).

21 Ibid.

22 Najmedin Meshkati, "Engineering Diplomacy: An Underutilized Tool in Foreign Policy", *Science & Diplomacy*, vol. 1 no. 2 (2012): 50-62. <https://www.sciencediplomacy.org/perspective/2012/engineering-diplomacy>

Earth's governance system.²³ It is also defined as a comprehensive system of private and public institutions that exist and are active in the field of a specific issue in global politics. This system consists of organizations, systems and other forms of principles, rules and regulations, and decision-making procedures.

Thus, engineering can be described as the meta-level of governance.²⁴ By linking diplomacy and engineering, many discussions and questions have been raised about how diplomacy can be a part of engineering and how engineering is a part of diplomacy. This overlap can be expressed through the use of engineering approaches and tools to design a diplomatic approach or perception, in order to find solutions to problems.

For example, let us examine the issue of borders. Consideration may be given to the role of diplomats in paving the way for engineers to participate in national projects such as the development of national road networks at border areas (e.g., the Inter-American Highway System), air traffic control systems, and waterways. This collaboration efforts enables diplomats to find solutions that help secure state borders.²⁵

Upon this premise, it can be said that diplomatic engineering essentially involves that a person could, scientifically and systematically, change their society through the modification of its institutions, laws, and political processes. Political engineering transforms theoretical concepts and principles into a practical and tangible reality, moving from the realm of slogans to the realm of programs, and a realistic and practical embodiment of the ideas endorsed by the members of society. This endeavor is aimed at instituting modern governance mechanisms, shaping political behavior within the state, establishing institutions, formulating laws, determining political geography,

23 Frank Biermann et al., *Earth System Governance: People, Places and the Planet. Science and Implementation Plan of the Earth System Governance Project* (Bonn: The Earth System Governance Project, 2009).

24 Frank Biermann et al., "The Fragmentation of Global Governance Architectures: A Framework for Analysis", *Global Environmental Politics*, vol. 9 (2009): 14-40. <https://doi.org/10.1162/glep.2009.9.4.14>

25 Najmedin Meshkati, "Engineering Diplomacy: An Underutilized Tool in Foreign Policy", *Science & Diplomacy*, vol. 1 no. 2 (2012): 50-62. <https://www.sciencediplomacy.org/perspective/2012/engineering-diplomacy>

and employing curricula and scientific methods to address reality and bring positive change. Additionally, it aims to establish distinguished relations with neighboring countries and the rest of the world.²⁶

Engineering diplomacy is both a science and an art. It is scientific as it is founded on theories, laws, and principles of negotiation and political engagement. Additionally, it is an art because it is a delicate and sensitive profession that requires specific personal aptitudes. The subject of engineering diplomacy includes the art of negotiations, negotiation management, communications, and the establishment of embassies and consulates. It also involves appointing envoys, representatives, ambassadors, and delegates to countries, international organizations, and institutions. Additionally, it includes various scientific and engineering means that enable experts and engineers to contribute to a diplomatic role.²⁷

From the previous context, it is evident that the subject of diplomatic engineering presents considerable complexity. While its meaning suggests transparency, dealing with it demands individuals possessing special and different advantages. This is because diplomacy encompasses a scientific, technical, artistic and dimension, making it challenging to differentiate the approaches. In fact, what has been written on the subject of diplomatic engineering does not match its importance and magnitude. It also does not align with the existing literature and research that have addressed this important subject, which is considered one of the important sciences in the relations between people, States, and individuals of international law.

Engineering diplomacy is regarded as a product of technological advancement that has impacted the global landscape. This innovative field merges conventional diplomatic practices with modern technology, leading to a transformation in diplomatic operations through the utilization of applications, websites, and artificial intelligence. This fusion of diplomacy and technology has ushered in a new era of diplomacy across various spheres.

26 Benaicha Mohamed El Amine, *Algerian diplomacy in the African coast between continuity and change* (Saarbrücken, Noor Publishing, 2017).

27 Ibid.

II. New technologies, new reality, new theories of international relations “theoretical framework”

2.1 International Digital Interaction Theory

For many years, the interpretation of international relations and competition between nations has been based on the concept of "geopolitics," meaning international competition to control or gain influence in areas of strategic importance from a military perspective. However, with the rise of globalization, the analysis then moved to economic geography, or what is called "geoeconomics", referring to countries' competition to access regions of economic importance.

Today, a new variable has emerged to explain contemporary international relations: the technological variable known as "Geotechnology".²⁸ Several factors have contributed to the exploration and theorization of this topic, including:

- Firstly, the existence of a theoretical gap between the theory of international relations in the 20th century and the new realities imposed by cyberspace, which is known as *cyber realities*. This gap has influenced the theoretical trends in the study of international relations.
- Secondly, the existence of an empirical analysis gap. This gap exists between the existing information and the required measurements of trends in activities taking place through cyberspace. It also exists between the extent to which these activities can be subjected to quantitative analysis and the extent to which cyberspace can be considered a single unit of analysis that can be measured and observed or related to setting clear indicators.

²⁸ Benaicha Mohamed El Amine, "Digital international interaction: towards a new theory in international relations", *ElWassat (blog)*, September 10th, 2023, <https://shorturl.at/brnr28>

- The third problem is related to the existence of a political analysis gap. This gap exists between traditional political practice and the need for new analytical tools and multiple research approaches. This is especially important in light of the change that has occurred on the ground in global society.

The world has witnessed the phenomenon of the proliferation of multinational partners after their control over global investment, foreign trade, and the precise technological industry. Companies such as Apple, Amazon, Facebook, Alphabet, and Microsoft have transformed in empires, with some boasting annual revenues exceeding a trillion dollars and market values surpassing several trillion dollars. This has raised concerns about the growing influence of digital capitalism, and its potential to become an uncontrollable economic and political force, according to the opinions of some political leaders and economic experts.

Artificial intelligence has the potential to revolutionize international relations by serving as a valuable assistant in diplomatic affairs and the diplomacy of nations. With the exponential growth of data, it has become increasingly challenging for the human mind to analyze and process vast amounts of information. By delegating time-consuming computational tasks to intelligent assistants, decision-makers in foreign policy institutions can focus on the critical aspects of judgment and decision-making in their diplomatic interactions and negotiations. This efficient use of time is particularly crucial in a rapidly changing world that demands instant reactions and decisions, and it opens the possibility of significant transformations in international calculations.

However, it is important to acknowledge the potential risks associated with this phenomenon in the realm of international relations. The emergence of a "global digital gap" poses a new form of imbalance, where some countries benefit from the advantages of artificial intelligence while others lag behind. Projections for the future indicate that North America and China are likely to experience the greatest economic gains from AI by 2030, while developing countries with lower AI adoption rates may witness more moderate economic

growth. Moreover, artificial intelligence has the potential to alter the balance of power between nations, raising concerns about a new arms race, particularly between the United States and China, as they vie for dominance in this field.

Undoubtedly, artificial intelligence will have a profound impact on international relations. It will introduce new issues to the international agenda, challenge existing geostrategic relationships, serve as a valuable tool for diplomats and negotiators, and raise both opportunities and concerns regarding human rights issues. It is crucial for nations to navigate this transformative landscape with caution, ensuring that the benefits of artificial intelligence are harnessed while mitigating any potential risks or imbalances that may arise.

From this perspective, I decided to present a new theory in international relations titled: *The Theory of International Digital Interaction*. This theory suggests that digital technology and social media plays a pivotal role in influencing and shaping international relations and rearranging actors and factors. It asserts that there are strong and real pressures, leading to more influential reactions in international policy directions, as well as in political and economic decision-making. Moreover, it is founded on the premise that whoever has cognitive power determines global control, implying that whoever controls technology controls the world. This theory will aim to understand how collective interactions are formed across borders and how to achieve global influence through it. It is based on understanding and analyzing the impact of digital technology on international relations. This seeks to explain international relations through technological development, and how these technological changes affect power shifts,²⁹ deterrence, diplomacy and other tools of international relations, so that artificial intelligence will replace tanks and military missiles.³⁰

29 Amitav Mallik, *Role of Technology in International Affairs* (New Delhi, Pentagon Press, 2016).

30 Benaicha Mohamed El Amine, "Digital international interaction: towards a new theory in international relations", *ElWassat (blog)*, September 10th, 2023, <https://shorturl.at/blr28>

2.2 The hypotheses of the theory

1. The more governments rely on new technologies, the more likely they are to be hacked.
2. International relations are governed by the extent of a country's development in the field of artificial intelligence.
3. States are not the only international actors.
4. Social media and modern technologies bring international actors closer together.

2.3 Main assets of the theory

The theory is based on several basic principles, including:

1. Mutual interaction: digital technology and social media serve as means of facilitating two-way communication between countries and individuals.
2. Change in authoritarian dynamics: this principle focuses on altering the nature of power in international relations, enabling individuals to participate and exert influence on a larger scale in global politics.
3. Influence on foreign policy: it is believed that digital technology has transformed the decision-making process in foreign policy. Citizens can now directly engage with governments and international institutions, thereby influencing the political agenda.
4. Global interaction: the Internet and social media platforms have facilitated easier interaction among people and events worldwide, resulting in increased cross-border communication and the formation of non-traditional international alliances.
5. New challenges: this theory faces challenges such as the rapid spread of inaccurate information (known as fake news), privacy, and digital security.

6. Cybersecurity: technological development opens the door to cyberattacks between countries, increasing the importance of international dialogue and cooperation in the field of cybersecurity.
7. Social change: social media contributes to enhancing cross-cultural communication and highlighting important social and political issues.
8. Challenges to traditional diplomacy: diplomats find themselves needing to adapt to this rapid change in means of communication. In total, the theory of international digital interaction suggests that digital technology has changed the nature of international relations and affected the interactions of states, international institutions and individuals on the global stage.
9. E-Governance: digital technology has enabled governments to streamline their operations and provide services more efficiently through e-governance initiatives. This includes online portals for citizen engagement, digital payment systems, and online voting. These advancements have the potential to improve governance and increase citizen participation. There is not only a flow of official messages from governments to the public, but also interaction from the public to governments and between individuals themselves.
10. Change in the distribution of power: the theory assumes that digital technology has changed the balance of power in international relations.³¹ It suggests that individuals and civil societies now have the ability to participate in dialogue and influence foreign policy, thereby strengthening their role in the political process.
11. Cross-border communication: digital technology enables instant and cross-border communication. Individuals can now communicate with each other and with international institutions without relying on traditional media or diplomatic channels.

31 Josephine Wolff, "How Is Technology Changing the World, and How Should the World Change Technology?", *Global Perspectives*, vol. 2 (2021): 15-25. <https://doi.org/10.1525/gp.2021.27353>

12. Increased awareness and engagement: mass digital communication and the rapid spread of news information have heightened awareness of international issues and encouraged interaction and participation in public debates.
13. Transformation in diplomacy: international digital engagement requires diplomats to adapt to a new reality that involves communicating directly with the public and adopting new strategies for interacting with civil societies.

All these factors coalesce to offer a comprehensive understanding of the Theory of International Digital Interaction, and how digital technology impacts international relations and the dynamics of global politics.

In summary, the principle of the international digital interaction theory continues to evolve to encompass new standards and demanding situations within the interactions of global states and societies. It will play a critical role in understanding the impact of technology and virtual communication on international relations and politics in general.

The evolution of diplomacy into the digital realm occurs across three primary domains:

- Alterations in the political, social, and economic landscape within which diplomacy operates, digitalization and the shift of power in global relations, novel forms of disputes, digital interconnectivity, and autonomy, and so forth.
- The introduction of fresh policy issues in diplomatic discussions: over fifty digital management topics encompassing cybersecurity, privacy, data regulation, e-commerce, cybercrime, and AI management.
- The use of digital instruments in diplomatic activities: social networking platforms, virtual meetings, extensive data and AI examination, and more.

III. International relations in the age of AI

3.1 Impact of artificial intelligence international relations

In this section, we explore the concept of new diplomacy using the perspective of soft power. Soft power, as defined by Joseph Nye, is the ability to influence and attract others through beliefs, values, and ideas rather than through military or economic coercion. Nye distinguishes between two types of power: *hard power*, which involves getting others to act against their preferences, and *soft power*, which involves persuasion and attraction.³²

Increased globalization and rapid advances in technology have weakened national borders and enhanced technology diffusion. The IT revolution and the spread of individual skill-oriented knowledge, make export controls almost impractical in some areas. Applying export controls to a large band of technologies and to all countries requires significant infrastructure to help make licensing assessments if implementation is to be effective. The associated costs, combined with the opportunity costs from lost export earnings, could make export controls too expensive to justify for many nations.³³

Technological development plays a decisive role in shaping a new framework for international relations characterized by complexity, interconnection, and interdependence. This phenomenon can be conceptualized as a series of "transformations" that express the change of societies, the development of science and research in various fields, and, most importantly, the transformation of geopolitical formations, from local to global scales. Particularly, technological advancements impact both the international landscape and the processes of knowledge and science development, emphasizing the spatial dimension of international relations. Technological progress has ushered in new

32 Olubukola S. Adesina, "Africa and the future of digital diplomacy", *Brookings* (2022). <https://www.brookings.edu/articles/africa-and-the-future-of-digital-diplomacy/>

33 Amitav Mallik, *Role of Technology in International Affairs* (New Delhi, Pentagon Press, 2016).

conditions and environments wherein states exercise their sovereign rights and pursue their interests in both domestic and foreign policy.³⁴

Technological progress compels States to adapt to the logic of performance in the international environment and is characterized by a growing network of interconnectedness, increasing density, complexity, and dynamism in international political relations, and an era governed by science and culture. Recent advancements in this field indicate radical shifts in the elements of power that shape the global landscape, alongside significant transformations in production methods and power balances governing international relations.

In the realm of real-life diplomacy, the significance of artificial intelligence for international relations operates in dual directions. On one hand, diplomacy plays a critical role in fostering international cooperation for the development and regulation of AI. On the other hand, AI technology itself holds the potential to significantly enhance diplomatic efforts, leading to improved outcomes in various diplomatic endeavors.³⁵

By contrast, within the less cooperative realm of diplomacy's counterpart, espionage, China has demonstrated the use of AI-enabled satellites to augment its surveillance capabilities. Researchers from Wuhan University utilized AI's complex decision-making processes to conduct surveys of sensitive military areas in Japan and India. Parallel to the evolution of unmanned aerial vehicles (UAVs) for reconnaissance and surveillance in combat scenarios, the global expansion of AI surveillance may present another, and potentially less reversible, steppingstone for the use of technological means for violent purposes.³⁶

34 Monika Szkarłat and Katarzyna Mojska, *New Technologies as a Factor of International Relations* (Cambridge, Cambridge Scholars Publishing, 2016).

35 Reece Krisnata, "Artificial Intelligence and International Affairs", *Australian Outlook – Australian Institute of International Affairs*, (2023). <https://www.internationalaffairs.org.au/australianoutlook/artificial-intelligence-and-international-affairs/>

36 Ibid.

3.2 Whoever controls technology controls the world

There is a strong correlation between new technologies and power dynamics in international relations. The cumulative advancement of knowledge and technological innovations in areas such as communications, biotechnology, artificial intelligence, nanotechnology, military fields, and outer space exploration creates a platform for international competition for power and its redefined distribution. On one hand, these advancements serve as advanced tools to bolster the power of certain entities, including non-state actors. On the other hand, technological power is not just an independent tool of potential, it also acts as a catalyst for bolstering other dimensions of power, including economic, political, ideological, cultural, social, security, military, and environmental.³⁷

Accordingly, the digital revolution will be the largest geopolitical revolution in human history. Whereas the industrial revolution transformed the world by substituting humans with machines, human intellect remained essential for constructing, operating, and maintaining these machines. However, the digital revolution will surpass this paradigm by replacing human intellect with “artificial intelligence”, capable of outperforming humans in various tasks. In essence, intelligent robots will possess both the physical capabilities to perform tasks and the brainpower to operate autonomously.

In summary, the concept of international digital interaction provides a framework for understanding the complicated courting between virtual technology and international relations, highlighting both the opportunities and challenges provided via the digital revolution.

The rapid development of digital technology has left a profound impact on various aspects of our lives, including international relations. The integration of digital technologies into the global landscape has transformed the way nations interact, communicate, and conduct business. This technological revolution has not only revolutionized traditional diplomatic channels but has also given rise to new challenges and opportunities in the international arena. This paper aims

37 Benaicha Mohamed El Amine, “Digital international interaction: towards a new theory in international relations”, *ElWassat (blog)*, September 10th, 2023, <https://shorturl.at/blr28>

to explore the significant impact of digital technology on international relations, with a focus on communication, globalization, cybersecurity, information and influence, diplomacy, and e-governance. By comprehending how digital technology has reconfigured the dynamics of international relations, we can navigate more adeptly through the complexities of an ever-evolving global landscape.³⁸

The emergence of artificial intelligence (AI) has revolutionized various aspects of our lives, including international relations. The integration of AI technology into diplomacy, conflict resolution, trade, and communication has opened new opportunities and challenges for the global community.³⁹ In this article, we will explore the relationship between AI and international relations and discuss the potential impact of this revolutionary technology.

3.3 AI and Diplomacy

AI technology has changed the way diplomacy is conducted, allowing diplomats to work more efficiently and effectively. AI systems can analyze vast amounts of data, provide insights, and support decision-making, thereby helping diplomats to make informed policy decisions.⁴⁰ For example, the United Nations uses AI to identify early warning signs of conflicts and human rights violations.

Moreover, AI-powered language translation tools have made it easier for diplomats to communicate with their counterparts from different countries, with real-time translation services now available in multiple languages. This has accelerated the pace of negotiations and helped to foster better understanding between countries.⁴¹ AI technology has also played a role in conflict resolution and prevention. Machine learning algorithms can analyze vast amounts of data from various sources, such as social media, news outlets, and government reports,

38 Ibid.

39 Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford: Oxford University Press, 2014).

40 Ian Bremer, *Us vs. Them: The Failure of Globalism* (New York: Portfolio, 2018).

41 Thilo Hagendorff, "The Ethics of AI Ethics: An Evaluation of Guidelines", *Minds and Machines*, vol. 30 (2020): 99-120. <https://doi.org/10.1007/s11023-020-09517-8>

to identify potential conflicts and predict their outcome. This information can be used to prevent conflicts from escalating or to develop strategies to resolve them.⁴²

For example, the *New York Times* used machine learning (ML) to analyze Twitter activity of ISIS supporters. By analyzing data on their locations, interests, and behaviors, they were able to identify networks and key influencers, which enabled policymakers to develop strategies to counter the group's messaging and recruitment efforts.⁴³ AI has also had a significant impact on global trade. With the rise of e-commerce, AI-powered tools such as chatbots and virtual assistants have made it easier for customers to interact with businesses, thereby facilitating international trade. Additionally, AI technology can analyze trade data to identify trends and patterns, supporting policymakers in developing trade agreements and policies.⁴⁴ AI has also transformed communication between nations, with natural language processing (NLP) technology making it easier to communicate across language barriers. Chatbots and virtual assistants can interpret and respond to messages in multiple languages, facilitating cross-border communication.⁴⁵

Countries such as China have adopted AI and ML around diplomacy and related government areas. China introduced an AI foreign policy toolbox and has its "New Generation Plan" to be the world leader in AI by 2030. Other countries such as Russia, Canada, and the United States are also using AI as an instrument in the international diplomacy area. The areas such as international security, cyber-security, threat monitoring, autonomous weapon systems, monitoring of concluded agreements, military power, and warfare.⁴⁶

42 J. Ramon Gil-Garcia, Sharon S. Dawes and Theresa A. Pardo, "Digital government and public management research: finding the crossroads", *Public Management Review*, vol. 20 (2018): 633-646. <https://doi.org/10.1080/14719037.2017.1327181>

43 Nazli Choucri, *Cyberpolitics in International Relations* (Massachusetts: The MIT Press, 2018).

44 Tony Schwartz and Donald Trump, *Trump: The Art of the Deal* (New York: Random House Publishing Group, 2009).

45 Ian Bremer, *Us vs. Them: The Failure of Globalism* (New York: Portfolio, 2018).

46 Parul Saxena, "AI Across Borders: AI in Diplomacy, International Relations, and Humanitarian Efforts", *IndiaAI*, April 15th, 2021, <https://indiaai.gov.in/article/ai-across-borders-ai-in-diplomacy-international-relations-and-humanitarian-efforts>

AI has a significant impact on international relations. It is seen as an accelerating and enabling force that can have broad applications in various areas such as military, defense, trade, diplomacy, and foreign policy decision-making.⁴⁷ The proliferation of AI technology motivates global pursuit and investment in AI research and development by state actors.⁴⁸ The competition surrounding AI between major global powers like China and the United States can aggravate strategic mutual suspicion, accelerate the AI arms race, and change power dynamics.⁴⁹ AI also has the potential to open new areas of cooperation between countries.

Conclusion

The concept of international relations has evolved from geopolitics to geoeconomics and now to geotechnology, which refers to the influence of technology on international relations. Traditional theories of international relations do not account for the realities of cyberspace, making it difficult to measure and observe activities in this realm. The rise of multinational technology companies has raised concerns about the influence of digital capitalism, leading to the development of the Theory of International Digital Interaction to provide a framework for addressing challenges and harnessing the opportunities presented by the integration of digital technology in international relations.

AI technology has revolutionized diplomacy, conflict resolution, trade, and communication, but there are concerns about its use for espionage and surveillance. The integration of digital technology into international relations has transformed the way nations interact and communicate, presenting new challenges and opportunities in various areas.

47 Amelia C. Arsenault and Sarah E. Kreps, "AI and International Politics", in *The Oxford Handbook of AI Governance*, ed. by Justin B. Bullock et al. (Oxford: Oxford University Press, 2022).

48 Amanda M. Buch, David M. Eagleman and Logan Grosenick, "Engineering Diplomacy: How AI and Human Augmentation Could Remake the Art of Foreign Relations", *Science & Diplomacy*, (2022). <https://doi.org/10.1126/scidip.ade6798>

49 Qichao Zhu and Kun Long, "How will artificial intelligence impact Sino-US relations?", *China International Strategy Review*, vol. 1 (2019): 139-151. <https://doi.org/10.1007/s42533-019-00008-9>

Geotechnology is a crucial variable in understanding and analyzing contemporary international relations. Its emergence as a result of globalization and technological advancements has highlighted the need for new theoretical, empirical, and political approaches. By incorporating geotechnology into the study of international relations, we can gain a deeper understanding of the changing dynamics and complexities of the global landscape.

Digital international interaction theory aims to provide analytical tools for assessing the impact of artificial intelligence and big data analysis. The improvements in these two fields have the ability to enhance the theory's predictive abilities and its ability to investigate global policies. Additionally, these advancements may lead to an evolution in political concepts including strength, diplomacy, and public influence, as the flow of data increases over the Internet. Concerns about privacy issues and control over the use of non-public and political statistics are also likely to increase. The idea of worldwide digital interaction can contribute to understanding how collective interactions are shaped across borders and how global influence is exerted through them. Moreover, this idea can empower small countries to reinforce their global presence and effectively deliver their messages and opinions to the world.

Digital international interaction and international relations are increasingly intertwined in the modern world. With the advancement of technology and the widespread adoption of the internet, digital platforms have become essential tools for communication, diplomacy, commerce, and cultural exchange on the international stage.

In summary, digital international interaction plays a significant role in shaping contemporary international relations, influencing diplomacy, communication, commerce, and cultural exchange on a global scale. As technology continues to evolve, policymakers, diplomats, and stakeholders must navigate the opportunities and challenges presented by the digital age to promote peace, cooperation, and sustainable development on the international stage.

The process of development in information and communication technology came to resolve the controversy with its increasing role in reshaping contemporary life according to new foundations with the emergence of the age of information and knowledge and their impact on the emergence of a new field in international relations, which is the field of cyberspace, which has had an impact on the nature of interactions, their patterns, their scope, and the variables that move them to influence International politics, and this consequently resulted in a change in the nature of the tools, issues, actors, and patterns of responses within the international community.

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