

The exploitation of geopolitical competition for the development of Kenyan connectivity

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Table of Contents

Abstract	3
1. Introduction.....	4
2. Literature review	6
2.1 Digital Geopolitics.....	6
2.2 The growth of studies on the Global South.....	9
3. The Kenyan Way to Digital Development.....	11
3.1 Kenya's Aims to Digital Geopolitics.....	11
3.2 Leveraging Geography.....	12
4. How Kenya exploits geopolitical competition for its purposes	14
4.1 The geoeconomic framework of balancing policy.....	14
4.2 The Great Game of Submarine Cables.....	17
4.3 AI, Smart Cities, and Other Applications of the "Kenyan Method"	19
5. Conclusion	21

Abstract

Digital technology has emerged as a new arena for geopolitical competition among states. The issue of connectivity, understood as the deployment of satellite constellations or submarine infrastructures, has profound implications on the tools adopted by states to assert their sovereignty, triggering dynamics of cooperation or conflict based on respective national interests. Although digital connectivity has become the subject of in-depth studies in geopolitics, two gaps can be identified in the literature: the exclusion of certain geographic areas from the analysis of digital geopolitical competition and a fundamentally Eurocentric and Americentric view of the phenomenon. This paper aims to make two contributions to the debate on digital geopolitics: (i) to offer a comprehensive study on digital geopolitical competition in Africa; (ii) to address the topic from a "Global South" perspective, emphasising the instrumental use that African states make of geopolitical competition among external actors to pursue their national interests. In this regard, Kenya – a country at the centre of rivalry between China and the United States and relevant to the strategic interests of Gulf countries – represents a relevant case study. Through an analysis of existing literature, this paper aims to demonstrate how Kenya is capable of exploiting competition between foreign powers to achieve its objectives in digital development. Through this analysis, we aim to show how the study of geopolitical competition in the connectivity sphere must necessarily integrate the strategic thinking of countries traditionally perceived as objects rather than active subjects in global geopolitics. Furthermore, the analysis of the Kenyan case allows us to reflect on the influential role that middle powers have assumed in the new multipolar context.

Keywords: Digital Geopolitics, Connectivity, Global South, Kenya

1. Introduction

The development of digital technologies has become a new field of competition among states. Just as with previous ones, the so-called fourth industrial revolution has triggered clashes and alliances among powers of various sizes to achieve a diverse range of goals; from securing resources necessary for its implementation (energy, financing, and rare earths) to acquiring a position of dominance over other competitors in general¹. In summary, the digital revolution opens geopolitical competition in a context where the old logics of power politics find new fields of application².

Digital geopolitics is emerging in the context of a gradual abandonment of bipolar (or even unipolar according to some²) balance and the advent of a more markedly multipolar geopolitical system; this also follows a first phase of great expansion of globalization dynamics that seems to have entered a slowdown phase. Although the literature has covered various themes related to geopolitical competition in the digital realm, there are at least two important gaps in the current debate. The first is the underestimation of some actors involved in this competitive process. Although some literature recognizes that global geopolitical balances are now characterized by a multipolar context³, the agency of countries in the so-called Global South is not yet fully considered or studied, both geopolitically and in terms of digital competition. Regarding the latter aspect, countries in Sub-Saharan Africa, Latin America, Southeast Asia, and to some extent the Middle East are seen and considered as passive elements in the confrontation between traditional major and middle powers, unable to conceive and fulfil their own objectives. The second element is the geographical territory of analysis. Most of the literature on geopolitical competition in the digital context focuses primarily on theatres such as Europe, North America, and the Indo-Pacific. This approach is problematic for several reasons. Firstly, it tends to exclude from the analysis those areas that will be the most populated on the planet in the coming decades. Secondly, it tends to automatically replicate the patterns adopted for interpreting competition between major powers in different theatres⁴. In this context, despite the presence of important studies in the economic and sociological fields, the development of digital technologies in Sub-Saharan Africa and its geopolitical effects are still limited. This

¹ K. Schwab "The Fourth Industrial Revolution" World Economic Forum (2016)

² Nagata, M.K. (2022). Great Power Competition in the Digital Age. In: Farhadi, A., Masys, A. (eds) The Great Power Competition Volume 2. Springer, Cham. https://doi.org/10.1007/978-3-030-90390-9_13

² D. Battistella «Un Monde unidimensionnelle» Presse de SciencesPo (2015)

³ For a recent example see E. Badarin (2023) Politics, geography and recognition in the emerging multipolar world order, Territory, Politics, Governance, DOI: 10.1080/21622671.2023.2214172

⁴ An evident trend in the case of works on AI, see for example E. Schmidt *AI, Great Power Competition & National Security* Daedalus, 2022 where all international competition in this field is encapsulated in the dynamic between China and the U.S.

situation is not entirely surprising, considering that only recently have experts and scholars in geopolitics and international relations launched a process of "decolonization" of these disciplines⁵.

The purpose of this research is to contribute to filling these gaps by proposing the analysis of the case study of Kenya in the context of geopolitical competition for digital technology. Considered today as one of the most advanced countries on the continent in the digital sector (nicknamed the "Silicon Savannah"), Kenya is one of the states that has bet the most on the sector to achieve a series of objectives, some of a strictly geopolitical nature (such as increasing its regional influence) and others more purely economic (achieving middle-income status). The development of the digital economy has been the subject of several documents published by the country's authorities starting from the famous "Kenya Vision 2030" or the subsequent 2019 Digital Economic Blueprint; but what makes Kenya an interesting case study in the context of geopolitical competition for digital technology is the fact that this represents a good example of the expression of subjectivity by an African state. As we will see in the continuation of this study, in fact, the development of the Kenyan digital sector has attracted the attention of major powers (USA and China) and middle powers (United Arab Emirates) who have sought to increase their influence in the country. However, Nairobi has at least partly bent this competition to achieve its long-term goals, such as obtaining better infrastructure in terms of connectivity, attracting investments for the financing of its nascent digital industry, and the construction of megaprojects such as smart cities. The paper will answer the following research questions: 1) Why is Kenya investing in digital technology and what are its goals in this regard? 2) Why are other states competing to increase their influence on Kenya through this sector and how Kenya exploits this competition? To answer these questions, the paper will follow a qualitative approach based on an in-depth review of existing literature on the relationship between geopolitics and digital technologies. This work will be structured as follows: the first section will review the literature on the topic of digital geopolitics and introduce the definition of geopolitics adopted for the development of the research. In the following section, the paper will describe Kenya's strategy for digital development and trace the roots of the competition between powers for influence over the country, emphasizing the strategic placement of the African giant in the Horn of Africa region. In the third section, we will illustrate Kenya's exploitation of geopolitical competition for the development of its digital sector.

⁵ Zeynep Gulsah Capan (2017) Decolonising International Relations? *Third World Quarterly*, 38:1, 1-15, DOI: 10.1080/01436597.2016.1245100. Si veda anche C. Murray "Imperial dialectics and epistemic mapping: From decolonisation to anti-Eurocentric IR" *European Journal of International Relations*, 26(2), 419-442. <https://doi.org/10.1177/1354066119873030> For a historical reconstruction of the "colonial" origins of the IR, A. E. Davis, V. Thakur e P. Vale *The Imperial Discipline, Race and the Founding of International Relations*, Londra, Pluto Press (2020)

2. Literature review

2.1 Digital Geopolitics

Before analysing the contributions of literature to the relationship between geopolitics and digital technology, it is important to clarify from now on what we mean by "geopolitics" in the development of this work. Although some definitions such as the one proposed by Huskaj⁶ are quite exhaustive, it is useful to revisit the concept of classical geopolitics to understand the importance of the digital dimension in the relations between states and their competition. The first use of the term "geopolitics" is attributed to the Swedish geographer Rudolf Kjellén, who argued that geopolitics deals with studying the problems and conditions within a state that derive from its geographical characteristics⁷. A more concise definition was provided by Karl Haushofer, a German general and geographer, according to whom geopolitics should focus on political activity in space. Based on this definition, Haushofer offers a particular interpretation of the relationship between space and power, suggesting that states do not necessarily have to clash due to their respective geographical extensions⁸. On the contrary, geopolitics can systematize the set of relations and politics at the international level to achieve a proportionate division of geographical areas (a kind of spheres of influence) among the main competing actors. This would certainly not lead to the end of conflicts between states, but geopolitics would be able to reduce ongoing conflicts by delineating more coherent boundaries based on the relationship between geographic space and demography⁹. Starting from these basic concepts, it is possible to frame the context in which the technological-digital dimension of international relations is inserted.

We will refer to the definition proposed by Yves Lacoste, which defines geopolitics as the struggle for power between different actors in each geographical territory¹⁰. The use of this definition is particularly suitable for the analysis of this case study for several reasons. Firstly, the competition among various actors in Kenya is hybrid, meaning it combines tools directly attributable to states (such as foreign direct investment, FDI), along with others of a different nature (such as private companies and investment funds). Consequently, this combination needs to be considered based on a flexible interpretative framework that considers the role of non-state actors in this competitive process. Secondly, the development of the digital economy in Kenya involves a wide range of actors of different kinds in the sector.

⁶ G. Huskaj « Digital Geopolitics: A review of the Current State » Geneva Centre for Security Policy (2023)

⁷ R. Kjellén, *Lo stato come forma di vita*, 1916.

⁸ M. Marconi, *Come la geopolitica approdò sulla terra*, *Gnosis (Rivista italiana di intelligence)*, 3/2015, pp.59-67

⁹ Marconi *Ibid.*

¹⁰ Y. Lacoste "La géographie ça sert d'abord à faire la guerre" *La Découverte* (2014)

Keeping in mind the hybrid nature of the confrontation between states, it is evident how the digital dimension of competition between geopolitical actors is increasingly asserting itself as a matter of absolute importance in relations between powers. The growing digitalization of relations between state actors is partially reshaping the classical concept of geopolitics. In fact, whereas once relations between states in each geographical space were understood as constant, static, and certain from a territorial perspective, today international relations are subject to significant changes in an extremely limited time frame.

The digital dimension necessarily influences all major areas of international relations: political, military, and economic. Moreover, new technologies have reduced physical distances between states; a state actor can, for example, carry out a hostile act against another from a great distance. Consider a large-scale cyber-attack, which can pose a risk to the political stability, military apparatus, and economic security of a nation. Or sabotage of a maritime data transmission infrastructure, which can disrupt communications between spaces thousands of kilometres apart from each other. It is therefore essential to consider the digital dimension and the high level of connectivity that characterizes contemporary international relations. Analysing geopolitical competition between states in the context of digital development thus requires specific attention to defining the relationship between geopolitics and technology, a duality that has always been present since the early theorizations of the discipline¹¹. For example, Turner's work in 1943 delineated the relationship between technology and geopolitics and how they influence competition between states¹². Khan and others have considered technological development and power politics in a geopolitical context as directly proportional factors in modern international relations¹³. Noël has included the digital aspect, understood as the ability to influence the behaviour of other actors through the development of new internet-related technologies, as an indispensable factor for competition among modern powers¹⁴.

Similarly, in the context of critical geopolitics, contributions to the relationship between digital and competition between states are not lacking. Recently, for example, Jack and Avle included the relationship between geopolitics and digital within discussions on gender issues in their study on Feminist Geopolitics of Technology¹⁵.

In the literature on the relationship between geopolitics and technology, two subsets can be distinguished. The first one focuses on geopolitics in relation to specific technologies. In this context, studies by Mialhe¹⁶ on the geopolitics of artificial intelligence, those by Douzet on the geopolitics of cyberspace¹⁷, and those by Hoffmann, Bradshaw, and Taylor on the competition between large powers are included, for example, "Powers for the development of the 5G network"¹⁸, similarly to what Tekir¹⁹ has done, or the studies of Pollio on smart cities²⁰, or of Medinilla, Sergejeff, and Domingo on renewable energies²¹.

¹¹ Kjellen Ibid.

¹² R. Turner, *Technology and Geopolitics*, *Military Affairs: Journal of the American Military Institute*, 1943.

¹³ Khan, K., Su, C.-W., Umar, M., & Zhang, W. (2022). Geopolitics of technology: A new battleground? *Technological and Economic Development of Economy*, 28(2), 442-462. <https://doi.org/10.3846/tede.2022.16028>

¹⁴ J.C Noël What Is Digital Power? *Etudes de l'Ifri*, November 2019

¹⁵ M. Jack e S. Ayle A Feminist Geopolitics of Technology *Global Perspectives* (2021) 2 (1). <https://doi.org/10.1525/gp.2021.24398>

¹⁶ N. Mialhe, "The geopolitics of artificial intelligence: The return of empires?", *Politique étrangère*, 2018/3 (Autumn Issue), p. 105-117. URL: <https://www.cairn-int.info/journal-politique-etrangere-2018-3-page-105.htm>

¹⁷ F. Douzet « La géopolitique pour comprendre le cyberspace » *Hérodote* Vol. 152-153 Iss.1-2, pp.3-21 (2014)

¹⁸ S. Hoffmann S. Bradshaw E. Taylor *Networks and Geopolitics: How Great Power Rivalries infected 5G* Oxford Information Labs (2019) <https://oxil.uk/publications/geopolitics-of-5g/>

¹⁹ G. Tekir, "Huawei, 5G Networks, and Digital Geopolitics". *International Journal of Politics and Security (IJPS)*, Vol. 2, No. 4, 2020, pp.113-135

²⁰ A. Pollio "Cities as Geopolitical Testbeds of Digital Infrastructure: A View from Nairobi, Kenya" *The Chicago Council on Global Affairs* (2023)

²¹ A. Medinilla, K. Sergejeff ed E. Domingo *the Geopolitics of African renewable energy* ECDPM discussion papers n.16 (2022)

Alongside these studies are those on macro-geographic areas. In this regard, the work of Qobo and Mzyece can be mentioned, which analyses the implications for Africa regarding the intertwining of geopolitics, technological competition, and value chains²². Other contributions, such as those of Broeders, Cristiano, and Kaminska, analyse the involvement of the European Union in the digital geopolitical competition²³. Finally, studies of the media system in Asia in the context of digital geopolitics can be mentioned²⁴.

The advancement of studies in geopolitics highlights the triad between new technologies, geography, and the system of relations between states. This requires observing all factors that influence a country or region, selecting each element to better understand its implications, and then putting them together and attempting to produce a framework for a particular topic.

Digital geopolitics has been defined by Huskaj as the analysis of interconnected information systems (the so-called "networks of networks"), in the context of the Earth's geographical characteristics and Space, which have an impact on the politics, military systems and subsystems, economic, social, and infrastructural systems of one or more states²⁵. What emerges from the current system of international relations is not a lack of order in the relations between states, but the existence of a semi-structured order in power relations compared to the past²⁶. In general, the studies conducted so far agree that new digital technologies can influence the actions and objectives of geopolitical actors in at least three areas. The first is the diplomatic/propagandistic one. The action of an actor through digital means allows accrediting its image broadly, increasing the perception of power or charm among the target of his initiatives²⁷. This type of dynamics has already been studied, in crisis contexts such as the COVID-19 pandemic, or the Russian invasion of Ukraine²⁸. It is evident that such effects are attributable to the so-called soft power of a geopolitical subject.

Another type of objective that can be achieved is purely economic, through the dissemination of technologies within a third market to favour the enrichment of a producing subject and its capabilities of influence and control in the receiving country. In this context, the issue of data usage and extraction is relevant since can guarantee an informational advantage to a subject that implements such actions. Regarding this phenomenon, the interpretative key of "neo-colonialism" has been proposed to describe, for example, the process of data appropriation by developed countries towards countries in the Global South²⁹.

Finally, in relation to hard power, competition in the digital realm, or the use of digital technologies in general, can allow physically targeting an opponent, obtaining a purely military advantage³⁰.

²² M. Qobo & M. Mzyece (2023) Geopolitics, technology wars and global supply chains: Implications for Africa, *South African Journal of International Affairs*, 30:1, 29-46, DOI: 10.1080/10220461.2023.2191988

²³ D. Broeders, F. Cristiano, M. Kaminska In Search of Digital Sovereignty and Strategic Autonomy: Normative Power Europe to the Test of Its Geopolitical Ambitions *Journal of Common Market Studies* (2023)

²⁴ Y. Braester "Digital Geopolitics: Intermediality and New Media in East Asia" *Concentric: Literary and Cultural Studies*, Vol. 43 Iss.2 (2017) DOI: 10.6240/concentric.lit.2017.43.2.01

²⁵ G. Huskaj, *op. cit.*

²⁶ N. Godehardt e K. Postel-Vinay, Connectivity and Geopolitics: Beware the "New Wine in Old Bottles", *Swp Commentary*, 7/2020

²⁷ E. Shumba, An investigation into 'Wolf Warrior' diplomacy in Africa via Twitter and Facebook at the height of the COVID-19 pandemic, *South African Journal of International Affairs*, 28:3, 471-483, DOI: 10.1080/10220461.2021.1976267 (2021)

²⁸ E. Shumba, *Ibid.*

²⁹ D. Coleman "Digital Colonialism: The 21st Century Scramble for Africa through the Extraction and Control of User Data and the Limitations of Data Protection Laws" *Michigan Journal of Race and Law*, Vol. 24 (2019) <https://doi.org/10.36643/mjrl.24.2.digital>

³⁰ I. Aviv and U. Ferri Russian-Ukraine armed conflict: Lessons learned on the digital ecosystem, *International Journal of Critical Infrastructure Protection* Vol.43 <https://doi.org/10.1016/j.ijcip.2023.100637>. (2023)

2.2 The growth of studies on the Global South

The goal of this article is to offer an analysis within the digital geopolitics framework on a case in the so-called Global South. Before proceeding with the analysis, it is therefore appropriate to emphasize the relevance - an terminology - of the literature on Global South.

Although widely used within academic and specialized literature, the term Global South was coined within the varied universe of the protest movements of the 1960s and is has therefore a clear political connotation. The first to use this term was the American activist Carl Oglesby, leader of the left-wing party Students for Democratic Society. Oglesby used the term in one of his articles published by the Catholic-liberal magazine *Commonwealth* in the context of the conflict in Vietnam³¹. Due to its strong political connotations, the term was rarely used until the end of the Cold War, preferring the more neutral term "third world." With the collapse of the Soviet Union (so-called second world), the term Global South gradually began to be adopted in scientific literature as well. Geographically, the Global South includes Latin America, Central and the Caribbean, Africa, and Asia. Although now fully integrated into common language, the use of the term Global South is at the centre of some conceptual criticisms. On the one hand, the term encompasses a very vast and varied area that can hardly be enclosed within a single analytical and interpretative scheme³². On the other hand, in some contributions, an ethnocentric view of this expression has been emphasized, which only works by virtue of a juxtaposition between the West and the rest of the world and for this reason is mainly used within critical studies of Geopolitics and International Relations. Currently, the term Global South is used in the context of a redefinition of studies on International Relations that consider states and populations from this geographical area³³, questioning some axioms such as preconceptions by the literature and the legacy of the colonial past in the Global South.

Apart from purely intellectual debate, the growing interest in this part of the world is due to at least three main reasons. Firstly, the demographic balance now clearly favours these countries considering the progressive aging of the population in Europe and the sustained growth of a similar process in the more developed economies of Asia. In short, the Global South has yet to reach the levels of economic development that characterize the rest of the planet, but its economic balance is already significantly in surplus.

Secondly, the countries in this area are assuming an increasingly evident strategic relevance, also in terms of technological development, in certain sectors. One of the most evident cases is that of rare earths, whose main deposits are all concentrated in this part of the world, and which are functional for processes ranging from the production of smartphones to electric vehicles and to the process of the so-called ecological transition.

Finally, the development of competition between the major world powers (USA and China) is becoming increasingly evident also in the race for influencing the Global South, with Beijing and Washington mobilizing growing diplomatic and economic resources to attract countries from the Global South into

³¹ Stewart Patrick and Alexandra Huggins, *The Term "Global South" Is Surging. It Should Be Retired*. Carnegie Endowment (2023)

³² *Ibid.*

³³ C.Yuan Woon "The Global South", in M. Kuus, K.Dodds and J. Sharp *The Ashgate Research Companion to Critical Geopolitics*, Routledge (2013) <https://doi.org/10.4324/9781315612874>

their sphere of influence. In this context, it should also be remembered how the growing multipolarity has given rise to a series of bilateral relations between countries and regional organizations, for which the term "South-South cooperation" is used to indicate a process of "multipolarization" that increasingly characterizes the relations between the Global South and the rest of the world.

3. The Kenyan Way to Digital Development

3.1 Kenya's Aims to Digital Geopolitics

To understand how Kenya seeks to leverage competition between major powers to its advantage in the digital sector, it is necessary first to frame the objectives that the country aims to achieve.

At first glance, a peculiar factor in the relationship between Nairobi and digital development is immediately noticeable: Kenya aims to achieve almost exclusively economic objectives. If we examine certain documents such as, for example, the latest White Book for defence policy in 2017, the digital sector is considered only at a purely defensive level and is not seen as a tool for military competition with other countries³⁴.

The Digital Economy Blueprint published in 2019 by the Ministry of Information, Communications, and Digital Economy indicates two key concepts in the development of the digital sector for Kenya: the first concept is the use of the digital sector to foster national economic growth, literally defined as the "keystone" of the country's development and democracy³⁵. This concept has been widely reflected in the so-called Vision 2030, a strategy initiated by the Kenyatta presidency aiming to achieve the so-called medium-income threshold, improve the quality of life, and achieve eco-sustainability through the development of digital infrastructure and businesses³⁶.

The second concept is the development of public-private partnerships for the implementation of the digital economy, and the collaboration with foreign partners for development policies (i.e., other state actors³⁷). This principle highlights the close link between geopolitics and digital development for Nairobi. This approach to digital development, conceived during the Kibaki and Kenyatta presidencies, has been reiterated in various contexts by the new administration led by William Ruto. For example, the electoral program presented by the president's party, the United Democratic Alliance, dedicates considerable words to the relevance of the digital sector for the country's development³⁸. Specifically, the Kenya Kwanza manifesto emphasizes the need to combine digital development and commercial diplomacy to achieve a systemic advancement of economic activities related to the digital sector³⁹. More recently, the link between the development of Kenya's digital sector and the quest for international partnership has been demonstrated by President Ruto's visit to Silicon Valley to attract investments in the sector, within what the president's office itself has defined as a "charm offensive."⁴⁰

³⁴ Kenya Ministry of Defence, Defence White Paper (2017)

³⁵ Kenya Ministry of Information, Communication and Digital Economy, Digital Economy Blueprint (2019)

³⁶ Government of the Republic of Kenya "Kenya Vision 2030" <https://vision2030.go.ke/>

³⁷ Ibid.

³⁸ United Democratic Alliance "The Kenya Kwanza Plan" (2022)

³⁹ Ibid.

⁴⁰ Office of the President of Kenya "President Ruto In Silicon Valley Charm Offensive" <https://www.president.go.ke/president-ruto-in-silicon-valley-charm-offensive/>

Thus, Nairobi aims to use digital development for mainly “soft power” purposes. In this respect, while the first concept illustrated in the Digital Economy Blueprint aims at fostering the country’s image and breaking prejudices or pessimistic views about Kenya, and Africa more generally, through the development of digital technology,⁴¹ the second concept illustrates the need to take advantage of diplomatic opportunities provided by the so-called Digital Diplomacy.

3.2 Leveraging Geography

To promote the development of the digital sector, Kenya has primarily leveraged its geographical location, to increase its geopolitical relevance. As former President Uhuru Kenyatta wrote, “one of Kenya’s advantages is its geographical position, bordering on an emerging trade system (the Indo-Pacific), characterized by investment opportunities and strategic relevance at the security level. Being able to exploit the proximity to this (region) economically and make it stable is a priority for this and future generations⁴².”

Kenyatta’s words represent an effective synthesis of Nairobi’s geopolitical approach to its near abroad, a vision that has been enriched in subsequent years. Located in the eastern area of the Indo-Pacific, the Horn of Africa region is characterized by complex political, security, and socio-economic dynamics. Kenya, with its strategic location and high economic potential, has seen significant infrastructural development (ports, railways, and extractive activities), relevant both on a civilian and military level⁴³. It becomes intuitive, therefore, to understand why Kenya’s position has caught the attention of the two competing superpowers.

Notably, Kenya has been able to adopt a balancing policy between the two rivals by maintaining strong relations with both. Relations with Washington focus on the security realm, although recently they have also strengthened commercially. Nairobi benefits from American support in combating jihadist terrorism at its borders, particularly in Somalia. In the former Italian colony, Kenya and the United States fight against the terrorist group Al Shabaab, the 2012 Somali branch of al-Qaeda, which represents a threat to common security. Defined by the U.S. Africa Command (AFRICOM) in 2022 as “the largest and most dangerous al-Qaeda-affiliated group,” it has been responsible for the killing of hundreds of Kenyans with rapid attacks in the border area between the two countries. After 15 years of counterinsurgency activities, Al Shabaab still represents a concrete danger to countries in East Africa, which firmly support Washington in countering the jihadist organization⁴⁴.

With China, on the other hand, relations are purely economic. Chinese financing for the construction of large infrastructure projects in the country is a valid motivation for developing deep economic relations with Beijing.

Furthermore, Kenya’s geographical position has also attracted the interests of Gulf countries engaged in a strategy to expand their sphere of influence in the region. Particularly prominent in this regard is the role played by the United Arab Emirates, which have significantly focused on digital partnerships to strengthen

⁴¹ M. Graham and L. Mann *Imagining a Silicon Savannah? Technological and Conceptual Connectivity in Kenya’s BPO and Software Development Sectors* *Electronic Journal of Information Systems in developing Countries* (Vol.56, Iss. 1 pages 1-17 (2013)

⁴² B. J. Cannon e S. Mogaka, *Kenya, and the Indo-Pacific: The rationale for an outlook and why Kenya (and East Africa) matters*, Institute for Security and Development Policy, 4/2023

⁴³ B. J. Cannon e S. Mogaka, *op. cit.*

⁴⁴ L. P. Blanchard, *Al Shabaab*, Congressional Research Service, 2/2023

their relations with Kenya. Relations between Nairobi and Abu Dhabi also constitute a significant example of how Kenya moves on the international stage to benefit from the political and economic penetration in the region by various state actors. Kenya's digital strategy must be placed within a broader trend on the continent and a progressive acquisition of **agency** by African states in their relations with external powers.

4. How Kenya exploits geopolitical competition for its purposes

To overcome its infrastructural deficiencies and develop its digital sector, Kenya has pursued a policy of equidistance between the two superpowers, leveraging competitive dynamics between them. While Nairobi started numerous partnerships with China for infrastructure development, the country simultaneously hosts the largest U.S. diplomatic mission in sub-Saharan Africa and has attracted significant investments from American tech giants. Kenya, as a leading country in East Africa and a gateway to the Indo-Pacific, capitalizes on its geographical position, with the port of Mombasa being one of the most important commercial hubs in the area, as well as a key centre for digital development. Furthermore, its comparatively stable political context has fostered an economic system that stimulates entrepreneurship, making Kenya an attractive destination for Foreign Direct Investment (FDI). This balancing policy between major powers has not prevented Kenya from forging important relationships with middle-sized powers too, such as the United Arab Emirates, which considers the Horn of Africa a geographic space belonging to its near abroad, with geopolitical balances impacting the security and stability of the Arabian Peninsula. The triangulation between the United States, China, and other middle powers such as the United Arab Emirates highlights the existence of Kenyan subjectivism: a true agenda, a national interest of the state of the Horn of Africa, for which the country exploits these competitive dynamics. The development of Kenya's digital sector represents one of the fields of application of this growing agency.

4.1 The geoeconomic framework of balancing policy

Kenya's exponential economic growth over the past 20 years is geopolitically linked to the balancing between China and the United States. For example, Chinese direct investments have been instrumental in Kenya's GDP growth since at least 2008, but at the same time, American currency deposits have made this growth sustainable.⁴⁵

In addition to the common security commitment outlined above, the United States and Kenya maintained significant relations on the commercial front. The framework of trade and economic partnership between the United States and the African continent is constituted by the African Growth Opportunity Act (AGOA) which provides market access for selected sub-Saharan African countries to the U.S. market duty-free. Within the framework outlined by AGOA, Kenya plays a privileged role in Washington's plans. Although agriculture remains dominant within Kenya's economic system, manufacturing and real estate also support growth; moreover, the services sector constitutes an important source of employment, with an

⁴⁵ Kenya Institute of Economic Affairs "Comparative Study of Kenya US, EU And China Trade and Investment Relations" 2016

influx of increasingly skilled labour into the job market. In this regard, Nairobi's digital industry, particularly home banking services, is extremely advanced. The United States and Kenya initiated negotiations for a comprehensive bilateral free trade agreement in 2020, during the Trump and Kenyatta administrations. The following American administration has not proceeded with the negotiations, but it has nevertheless laid the groundwork for the implementation of a Strategic Partnership for Trade and Investment between the two countries in July 2022.⁴⁶ Nevertheless, it is worth noting that Nairobi's first economic-commercial partner remains China, which has become the most influential external actor in Kenya's economy over the past 20 years. Finally, to underscore Kenya's importance in the plans of extra-African actors, it is worth mentioning the recent free trade agreement signed with the European Union, which provides for a progressive and complete opening of trade flows between the 27 and Nairobi.

Despite excellent relations with the USA, the pursuit of Kenyan national interests has led Nairobi to expand its partnerships with China. Specifically, Sino-Kenyan relations have seen significant growth during Kenya's "Looking East" policy in the mid-2000s. Although the relationship between the two countries extends to various sectors such as trade, agriculture, and defence, Chinese investments are more significant in the infrastructure sector. Indeed, Kenya is the home of several "megaprojects" financed and developed by Beijing. It is enough to mention the Mombasa-Nairobi Standard Gauge Railway (SGR), which exceeds 500 km in length, built by the China Road and Bridge Corporation (CRBC), for which Kenya received a \$3.2 billion loan from the China Exim Bank, one of the largest components of the country's foreign debt. The railway continues to be partially operated by the Chinese contractor AfriStar, owned by CRBC. The importance of China as the primary actor in economic relations with Kenya is also the subject of public debate. For example, an Afrobarometer survey between 2019 and 2021 shows that a large part of Kenyans perceive Beijing as an economically and politically "influential" actor; moreover, more than half of the respondents have a generally positive perception of China's role in the country. However, the preferred political-economic development model remains American, compared to that proposed by Beijing (42% of respondents in favour of the American model compared to 23% in favour of the Chinese one).⁴⁷ It is, therefore, worth noting that Chinese influence, although recognized as positive, is losing lustre in the eyes of the Kenyan public. Between 2014 and 2021, the indicator of the perception of the quality of Chinese influence in Kenya has indeed seen a decrease of 11 percentage points. Similarly, another opinion poll conducted by Ipsos in 2018 found that 25% of respondents believe that the country should maintain good relations with Beijing, but at the same time, an equal number of interviewees see China as the main threat to the political and economic development of the African country.⁴⁸

From a financial perspective, according to data from the Economist Intelligence Unit, Kenya's debt to Beijing amounts to about \$6.6 billion, a figure that has decreased compared to previous years but remains significant. Some scholars describe Chinese investments in the infrastructure sector as potential "debt traps" for African countries. This interpretation is often present in media reports on relations between China and Africa and in the political discourse of these countries. Supporters of the debt trap view emphasize the unequal nature of relations between China and African partners, highlighting the hypothesis that Beijing grants loans to countries that will not be able to repay them. According to this framework, the power imbalance is intentionally determined by aggressive Chinese investments, as China

⁴⁶ L. Wong e L.P. Blanchard, *U.S.-Kenya Trade Negotiations*, Congressional Research Service, 8/2023

⁴⁷ K. Eickhoff, *Chinese Megaprojects in Kenya: Public Controversies around Infrastructure and Debt in East's Africa Regional Hub*, Megatrends Afrika, 5/2022

⁴⁸ *Ibidem*

aims to dominate African markets, exert political influence, and exploit the continent's resources. Consequently, African countries risk losing control of critical infrastructure to China or even their economic sovereignty overall if they fail to meet debt service obligations. Kenya's foreign debt has seen a considerable increase between 2013 and 2020, rising from \$10.2 billion to \$34.8 billion, according to data released by the Central Bank of Nairobi.⁴⁹

International financial institutions have expressed concern about the potential unsustainability of Kenya's debt, also due to the shift from concessional to commercial loans in the last decade. Although the African Development Bank assessed Kenya's debt situation in February 2022 as sustainable, it also noted that risks to Nairobi's debt had increased. In this context, Chinese loans for Kenya's flagship infrastructure projects have contributed to increasing the debt burden. Furthermore, Chinese creditors have been reluctant to negotiate debt service suspension. The Chinese share of Kenya's total debt is estimated at 10.6%. In 2022, Chinese loans to Kenya decreased significantly again, as China began to scale back large infrastructure investments in Africa compared to previous years due to worsening domestic economic conditions. Kenyan media have recently reported that Japan has surpassed China as the main bilateral creditor to Kenya in terms of new financial commitments, while the World Bank has displaced China as the main external financier of Kenya.⁵⁰ In short, although Beijing remains Nairobi's main economic and financial partner, relations appear to be on a downward trend, also considering the modest loan (the lowest since 2008) granted to Nairobi by the Central Bank of China.⁵¹

This downsizing of economic relations between China and Kenya appears to be due to three factors: first, the negative economic situation experienced by China, which is affected by pandemic containment policies, the domestic real estate market crisis, and difficulties in the global economic cycle. Secondly, China is adopting a more cautious approach towards African economies due to the debt capacity limits reached by some countries on the continent. Finally, China grew increasingly impatient with some anti-Chinese statements made by President Ruto during the 2022 presidential campaign. In this regard, the Ruto administration, which took office in September 2022, has committed to reducing the debt rate, with foreign loans for the new budget decreasing to \$2.3 billion from the current \$2.4 billion. Under President Kenyatta's presidency (from 2013 to 2022), Kenya's debt more than quadrupled, reaching \$63.6 billion and according to the International Monetary Fund, the surge in debt obligations has created a high risk of financial crisis for the country.

The need to pursue a geopolitical and geoeconomic balance between the two superpowers and to avoid a liquidity contraction due to the partial revision of economic relations with Beijing on one hand and the limited propensity of the USA to invest in the country the same amount of funding has laid the groundwork for the opening to Gulf powers, with the Emirates at the forefront. In this sense, to make the balancing system outlined above more profitable, Nairobi has incorporated within this strategy the growing assertiveness of Gulf countries that aim to transform their economies from purely based on energy rents to regional players in the field of port infrastructure and logistics. In the context of this thalassocrat vocation, Gulf countries are focusing on digitalization to achieve goals not dissimilar from those of African

⁴⁹ **Kenya faces a potential debt repayment crunch in 2024**, The Economist Intelligence Unit, 3/2023

⁵⁰ K. Eickhoff, *op. cit.*

⁵¹ The East African "China gives Kenya smallest loan since 2008 in new shift" (2023) <https://www.theeastafrican.co.ke/tea/business/china-gives-kenya-lowest-loan-in-16-years-4221420>

states, including raising the level of internal incomes, creating private sector jobs commensurate with the new skilled workforce, and diversifying their economies broadly.

4.2 The Great Game of Submarine Cables

Kenya's ambitions for the digital economy had to face with a clear infrastructural deficit in terms of connectivity. In this context, the country has found itself grappling with limited financial resources, or at least insufficient ones, for the implementation of connectivity and infrastructure projects. The development of submarine cables represents a fitting example of the deficiencies plaguing the country's development plan and how geopolitical competition between medium and major powers can be used to address these gaps. With the development of fiber optic communication technologies in the 1960s, the international communication system entered a new era. In 1988, the first transoceanic submarine cable between the United States and Europe was completed. Since the 2000s, submarine cables have formed a global cross-network, upon which over 80% of global communication traffic and 99% of intercontinental communication services depend. The clear supremacy of the cable system, more efficient and economical than satellite communications, reflects its ability to transmit large amounts of information in the form of data securely and economically. For example, the SWIFT system provides a financial data transmission service between more than 200 countries, with an estimated value of \$5 trillion in daily transactions. A disruption in transmissions, even if brief, would have a significant financial impact globally. Therefore, the protection of these infrastructures has assumed a priority that it did not previously have, especially due to the increasing human presence on the high seas. Indeed, the last two decades have seen an increase in maritime transportation, hydrocarbon exploration and extraction activities, and fishing activities in the so-called high sea.⁵² The significant dependence of the global economy and the international socio-cultural system on the submarine cable system thus makes it a strategic infrastructure.

A country that aims to be competitive in the digital field cannot therefore make it without access to this type of infrastructure, and for this reason, a part of Kenya's international partnerships has focused on the implementation of submarine connectivity, both through direct investments and through public-private partnerships (PPP), and it is within this framework that Kenya's case is particularly peculiar. This policy fits within a broader African economic and geopolitical agenda. It is worth briefly focusing on the cost of internet connection in the country. Despite the transition to cable connection instead of satellite, the costs for accessing the network are still quite high. In 2023, the average cost of one gigabyte of data connection in sub-Saharan African countries was \$4.03, compared to \$2.08 in Western Europe, \$3.74 in South America, and \$1.10 in Asia.⁵³ A substantial reduction in connection prices would constitute an important development indicator; indeed, there is a known correlation between internet access and growth in wages and national GDP, as indicated by the UN International Telecommunication Union.⁵⁴ The importance of promoting internet access is underlined by the high growth potential of the African digital economy, estimated at \$712 billion by 2050. In recent years, at least two significant initiatives have been introduced in this direction: firstly, the reduction of value-added tax to 16% on mobile phones, which has led to a 200% increase in device sales. This measure has also encouraged Kenyan providers to expand network

⁵² L. Carter e R. Burnett, *Subsea Telecommunication*, Routledge Handbook of Ocean Resources and Management, 10/2015, pp. 349-365.

⁵³ Worldwide mobile data pricing: The cost of 1GB of mobile data in 237 countries, Cable.co.uk, giugno - settembre 2023, <https://www.cable.co.uk/mobiles/worldwide-data-pricing/>

⁵⁴ Hruby, A., *Critical Connectivity: Reducing the price of data in African markets*, Atlantic Council, 2023.

coverage and lower subscription prices. Secondly, the launch by the local operator Safaricom of a reduced payment program for Google smartphone data connection in 2020: the **Lipa Mdogo Mdogo** campaign ("pay a small amount" in Swahili), which has led to the sale of over 250,000 cell phones in the first 8 months.⁵⁵ Accessibility to connection represents a central point of digital geopolitics; the existence of infrastructure does not necessarily presuppose that it will be exploited, and in particular, that the stakeholders involved will be able to derive maximum benefit from it. In this context, it is noteworthy how African countries have significantly expanded internet connections in the last decade: since 2010, in fact, connectivity through the continent's submarine cables has increased almost tenfold.⁵⁶

From the Kenyan perspective, improving connectivity is functional to the enhancement of the services sector that Nairobi uses as a soft power tool at the regional level. As highlighted by the Digital Economy Blueprint itself, the enhancement of connectivity infrastructure is also aimed at facilitating internet connection in landlocked countries in the region. In simple terms, Nairobi exploits its geographical position to position itself at the centre of a connectivity network towards landlocked countries. As such, the Kenyan digital network implicitly becomes a network of influence.⁵⁷ In this sense, the strategy of submarine cables can be seen as a natural continuation of Nairobi's port strategy, which over the last decades has made the country the preferred commercial terminal for landlocked countries in East Africa.⁵⁸

A prime example of the Kenyan **modus operandi** to exploit geopolitical competition from external actors to the benefit of its digital sector is the East African Marine System (TEAMS). The TEAMS submarine cable connects the Emirates, from the port of Fujairah to Kenya, at the port of Mombasa. From a strictly geopolitical point of view, TEAMS represents a case study of Kenyan exploitation of the interests of major and medium powers. Stretching 4900 km, TEAMS is 85% owned by the Kenyan TEAMS Ltd. and 15% by the Emirati Etisalat, both publicly owned companies. It is one of the first infrastructures to have connected Kenya to the global internet network, substantially extending the country's internet access capacity and that of the entire Horn of Africa. Before TEAMS, the area depended on satellite internet connection, which was much slower and more expensive. Until 2009, this dependence on satellite infrastructure had severely affected business, the efficiency of public administration as well as the country's access to the internet in general. The strategic importance of TEAMS is therefore unquestionable; much less so is its geopolitical importance, and in this case, reference can be made to Haushofer's vision when he indicates that states do not necessarily have to clash for reasons related to geographical aspects. On the contrary, nations cooperate to generate mutual benefits, and this aspect can be seen in the cooperation between Kenya and the Emirates for the operation of the submarine cable system.

It is therefore worth noting that in the face of competition (and coordination) between major powers in the current multipolar geopolitical context, the cooperative relations between medium powers play a prominent role. The success of the Emirati-Kenyan partnership is also confirmed by the construction of EASSy, the submarine cable that connects the entire East African coast from South Africa to Sudan which sees the participation of Etisalat and Telkom Kenya. What is interesting to note about EASSy is the different ownership layers that constitute it. The infrastructure was built by the Franco-American company

⁵⁵ Hruby, A., *Ibid*

⁵⁶ *Ivi*, p. 10.

⁵⁷ Kenya Ministry of Information, Communication and Digital Economy, *Ibidem*

⁵⁸ Concerning this dynamic see M. Humphreys, A. Stokenberga, M. H.Dappe, O. Hartmann, and A. Iimi **Port Development and Competition in East and Southern Africa: Prospects and Challenges** World Bank Group (2019)

Alcatel-Lucent, later acquired by Nokia. In short, it is a Western technology, owned by Emirati and Kenyan companies, for the benefit of Nairobi's digital development goals.

The same power dynamics are at play regarding another submarine cable, SEACOM, financed with American capital and currently owned by South Africa. Since 2009, the cable has had a landing point in the bay of the port of Mombasa, increasing the strategic relevance of the infrastructure and, above all, demonstrating Nairobi's ability to exploit balancing politics to push American companies to invest in Kenyan connectivity. Further demonstration are the cases of LION and LION2, the submarine cables built by the French company Orange that connect the Kenyan network to that of Madagascar.

Another example of the Kenyan agency is the DARE1 project, the new network of cables that will connect Mombasa to Somalia and Djibouti, entirely financed by Kenya. DARE1 demonstrates how Nairobi aims to autonomously exploit the know-how acquired in the construction of submarine cables to implement its network of influence in the Horn of Africa. DARE1, promoted by Kenyan Telkom, would represent the first entirely African submarine cable in the region, and in Nairobi's plans, it should confirm Kenya's digital supremacy in its neighbouring countries, to the disadvantage of other regional heavyweights, such as Ethiopia. Through the combination of cable networks and the penetration of Kenyan companies into foreign markets (as in the case of Safaricom, the telecommunications operator that recently entered the Ethiopian market), Kenya is increasingly close to consolidating its regional primacy in the digital domain.

Finally, as a further demonstration of the basic assumptions of this work, it must be mentioned the case of the PEACE submarine cable project. China is not indeed excluded from the great game of cables that is being played along the coasts of Kenya and more generally in East Africa, and PEACE represents its key to access in this competition. The PEACE project is entirely funded by Beijing and connects Singapore to France crossing the Red Sea, where it has a landing point in Mombasa. Built by the Chinese fibre giant Hengtong, PEACE has an important value both symbolic and strategic for Beijing. This cable project is indeed a key project of the Belt and Road Initiative in the digital sphere. Even in the case of PEACE, therefore, Kenyan subjectivity has managed to exploit the interests of a superpower to satisfy its own.

In summary, Kenya has leveraged its geographical positioning and the competition between major and medium powers in the Horn of Africa to connect itself to six different submarine cables, benefiting from improved connectivity and the opportunities that the great game of cables offers in terms of soft power and economic development. It is an approach that Nairobi does not intend to abandon, on the contrary, it aims to replicate it in other areas.

4.3 AI, Smart Cities, and Other Applications of the "Kenyan Method"

Other than subsea cables, Kenya aims to take advantage of great powers' competition in other segments of the digital sector as well, such as 5G connectivity or Smart Cities.

The primary beneficiary of this dynamic has been China, with Huawei leading a comprehensive campaign of digital development in the country, starting with the installation of its 4G and 5G networks. Even before the development of these networks, it is important to note how Kenya played a crucial role as a testing ground to produce the first Chinese smartphones. The country played a fundamental role as a testing ground for phones produced by companies like TECNO, which conducted surveys and research to design

their phones based on the needs of African consumers, subsequently selling them in global markets.⁵⁹ Relevant is also China's commitment to digital surveillance and training of public administration personnel in the ICT sector, from which Kenya has benefited significantly.

A particularly significant factor in the context of digital competition is how it becomes a catalyst for the installation of next-generation technologies such as 5G networks, and more recently, data centres and various initiatives for the development of artificial intelligence (AI). China started from a position of advantage compared to other actors in the country, and it is precisely this advantage, whether real or perceived, that has prompted the rival superpower, the United States, to ramp up its own initiatives in the country. Over the past decade, the Big Five American tech companies have launched a particularly aggressive campaign against Chinese rivals for dominance in African markets, including the strategic Kenyan market for digital development on the continent.

This competition has had three positive effects in Kenya. Firstly, it has attracted a remarkable flow of foreign direct investments (FDI). In the period between 2021 and 2023, total investments made by Amazon, Microsoft, and Google in the Kenyan digital economy have passed one billion dollars. Secondly, there was job creation for highly skilled labour. Thirdly, superpowers' advanced technologies were installed within the country.

This latter aspect forms the basis of the phenomenon of the new **smart cities**, as exemplified by the project for the new urban agglomeration of Konza, located 64 km south of Nairobi. In this context, Chinese company Huawei has played a fundamental role in the development of data centres and the surveillance system for the Kenyan smart city. Despite Huawei's presence, the country's authorities have not refrained from seeking other partners for the development of the technology hub, including South Korea, which will finance the project with 230 million dollars. In this sense, it is evident that even in the case of **smart cities**, the country seeks to exploit the interest of antagonistic geopolitical actors to advance its own agenda. Kenya also aims to implement this tried-and-tested mechanism to prepare for the significant leap in the AI sector, taking advantage of foreign funding and technologies to increase data centres in the country and develop applied research in the field.⁶⁰

⁵⁹ S. M. Qumer e G. Singh "TECNO Mobile's Growth Strategies in Africa", China-Focused Cases Springer 2019 pp. 81-103

⁶⁰ Jackline Akello "Artificial Intelligence in Kenya" Paradigm Initiative (2022)

5. Conclusion

This research has demonstrated how Kenya is leveraging the competition between major and medium powers in digital geopolitics to its advantage. By capitalizing on its strategic geographical location for access to East Africa, the country has adopted a balancing policy towards China and the United States to attract resources and technologies functional to achieving its own economic and geopolitical aims in the digital sector. As illustrated above, when the competitive dynamic between the two superpowers is not sufficient to achieve such goals, Kenya once again exploited its strategic location to attract resources from medium powers with significant financial or technological capabilities, as in the case of the Emirati support in the context of submarine cable construction.

The study of connectivity development, in addition to bridging the technological and financial gap with other entities, becomes functional to a free rider approach by the African country, which uses other players' resources to increase its regional influence, as seen in the case of the LION2 submarine cable. The exploitation of such competitive dynamics for its own purposes is also used in other areas of digital development, such as the construction of 4G and 5G networks or the development of digital surveillance and smart cities. All indications suggest that this posture will be confirmed soon for what concerns the race for the development of Artificial Intelligence.

From a theoretical perspective, the Kenyan case study demonstrates how countries in the so-called Global South can no longer be considered passive subjects of international relations in the geopolitical arena. The Kenya case study also underscores the need to consider new fields of application in the study of digital geopolitics to better assess how the development of this sector can influence other areas of the globe. In the future, greater attention will also need to be paid to the ability of emerging countries to exploit the competitive dynamics of major and medium powers to their advantage.

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