ARTIFICAL INTELLIGENCE AND TECHNOLOGY IN INTERNATIONAL POLITICAL ECONOMY

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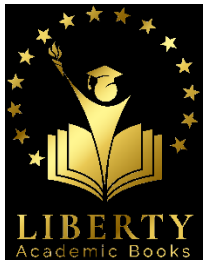

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PREFACE

Artificial intelligence and technological transformation have become the new foundational axis upon which the architecture of the contemporary global political economy rests. Much like energy resources, technology now serves as a dynamic force that reinforces state power, transforms military strategies, redraws the boundaries of economic competition, and deepens the divide between development and inequality. Data hegemony, digital sovereignty, and algorithmic governance processes directly impact the security, justice, and sustainability of the international system. This edited volume, *Artificial Intelligence and Technology in International Political Economy*, brings together leading scholars to examine technology as a multidimensional field located at the intersection of geopolitical rivalry, ethical governance, and digital transformation.

Throughout history, the control of raw materials and energy resources has dictated the global balance of power; however, in the third decade of the 21st century, this struggle has shifted from physical territory to digital space. The security of data flows, the establishment of AI standards, and the quest for technological leadership have modernized classical geopolitical theories, creating a new strategic terrain. Technology is no longer merely a technical advancement but a matter of national security and a central pillar of economic sovereignty.

The book opens with **Chapter 1**, authored by Prof. Dr. Arzu AL and Osman BİLGİÇ, which explores the artificial intelligence of algorithms through the lens of digital sovereignty wars and data hegemony within global transport corridors. The chapter reveals how transport infrastructures are being digitized and embedded within geopolitical rivalries.

In **Chapter 2**, Prof. Dr. Sunil Kumar AGRAWAL offers an analysis of digital geopolitics and techno-strategic competition, examining these as the new frontiers of international political economy. Agrawal's work highlights the strategic maneuvers of major powers in their search for technological dominance.

Chapter 3, contributed by Isaac OLAKUNLE, Jamiu Adeniyi YUSUF, and Lord ANDOH, investigates AI regulation, business power, and global inequality from a comparative political economy perspective.

In **Chapter 4**, Tihan Eusebiu JEAN addresses the delicate balance between rights and security in global data governance, proposing a normative framework for reconciling data protection with national security imperatives.

Chapter 5, by Fredrick GITHUI, focuses on algorithmic sovereignty and data dependency in Sub-Saharan Africa, discussing the position of the Global South within the digital order and the structural barriers it encounters.

In **Chapter 6**, Zahiduzzaman ZAHID analyzes the role of AI in Islamic Fintech, providing a unique perspective centered on ethical governance and digital geopolitics.

Finally, **Chapter 7**, by Dr. Adebayo John BADEJI and Dr. Stella Motunrayo OMOTUNWASE, examines the impact of algorithmic curation on the digital stage, using Nigeria as a case study to analyze how theatrical power is reconfigured by technology.

Together, these chapters present a holistic, interdisciplinary exploration of technology as a pivotal driver of political and economic change. By revealing how technological debates intersect with broader questions of digital justice, data sovereignty, and technological polarization, this book aims not only to advance scholarly understanding but also to inform policy debates and inspire a more equitable digital future.

We extend our deepest gratitude to all the contributors for their intellectual rigor and dedication. It is our hope that this book will serve as a primary resource for scholars, students, and policymakers alike in navigating the complex dynamics of the digital age.

Prof. Dr. Arzu AL
April 10, 2026 - Türkiye

CHAPTER 1
ARTIFICIAL INTELLIGENCE OF ALGORITHMS: DIGITAL SOVEREIGNTY WARS AND DATA HEGEMONY IN GLOBAL TRANSPORT CORRIDORS

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INTRODUCTION

The struggle for dominance over global transportation corridors in the 21st century is shaped not only through the control of physical infrastructure, but also through the data and predictive capacity produced by the artificial intelligence algorithms that manage this infrastructure. With digitalization, transportation systems have evolved beyond being merely technical networks that enable the circulation of goods, becoming structures that continuously generate data and influence economic and political decision-making processes through this data. The capacity of artificial intelligence–based algorithms to process and direct this flow of data transforms transportation corridors, beyond classical geopolitical approaches, into a new domain of power and sovereignty. Within this framework, dominance over corridors is established not so much through geographic location or the ownership of physical infrastructure, but rather through the digital platforms and algorithmic decision-making mechanisms that govern this infrastructure.

Transportation corridors are characterized in their definitional processes not by a single and standard conceptual framework, but by references possessing numerous distinguishing features. On the physical plane, these corridors not only constitute a transportation infrastructure line, but also function as spaces along which economic activities take place and where resident populations are positioned. When considered from a commercial perspective, corridors assume the role of connecting centers of economic importance. Structurally, corridors are composed of the transportation networks of adjacent countries, encompass multiple national borders, and are generally operated through multimodal transportation systems. Moreover, these systems are typologically differentiated according to their functions. Local corridors that target domestic trade, external corridors that transport export and import goods to international ports or borders, and transit corridors, which pass through other countries and are of particular vital importance for landlocked states, form the basis of this classification (UN Habitat, 2015). This multi-layered structure directly influences the framework within which international freight transportation is organized and managed.

Freight transportation in international corridors is carried out through multimodal transport systems in accordance with the principle of minimum cost, whereby the route with the lowest cost is preferred. In line with the dynamics of globalization, countries aiming to maximize economic gains increase connectivity by ensuring integration with existing transportation corridors. This process depends on the effective positioning and management of logistics systems along these corridors. In addition, regulatory arrangements are implemented to harmonize the transportation systems of the countries operating along the corridor route. These arrangements also include the application of technological innovations to the systems along the route. In this way, while the integration of global transportation systems is realized, an integrated transportation infrastructure is constructed at the international level (Makarova, 2019). Beyond these institutional and infrastructural arrangements, there are also broader-scale dynamics that shape the performance of transportation corridors.

The formation and performance of transportation corridors are determined by the complex interaction of various internal and external factors. Among these factors are changing global trade patterns, institutional structures and developments, geopolitical elements such as military conflict environments, as well as technological revolutions. These factors may increase the efficiency and impact of a corridor, but they may also exert a distinctly reducing effect. These dynamics not only directly influence the economies of the countries located along the corridor route; they also shape the entire infrastructure systems of the corridor, logistics operations, and the various financial services provided. In particular, new technological advancements play a decisive role in the competitiveness and sustainability of corridors (Ng et al., 2018).

A large number of technological developments that have emerged in parallel with the process of globalization are directly transforming transportation system technologies. This situation brings about significant innovations not only in the vehicle inventory operating along transportation corridors, but also in all components of the system, including the automated and intelligent transportation systems within which these vehicles are integrated and operate (Candemir, 2005).

As a result of advancing technological developments, the integration of Artificial Intelligence (AI) into intelligent transportation systems is also being realized. This integration plays a critical role in the optimization of operational processes and simultaneously provides a process advantage that enhances the level of security. The integration of Artificial Intelligence systems is being expanded across vehicle and infrastructure systems in different modes of transportation such as road, rail, maritime, and air transport (Macit, 2024).

The effective management of transportation corridors not only contributes to the development of transportation systems; it also supports the advancement and improvement of the quality of logistics services, while enabling the development of infrastructure facilities along the corridor route (Quium, 2019). This infrastructural and managerial development ground also opens the way for a more comprehensive use of digital and autonomous technologies in logistics processes. Artificial intelligence is positioned in logistics processes not only as a decision support tool, but also as a direct operational component. The effective use of various machine learning and deep learning methods in different application areas, such as demand and inventory forecasting, customer behavior analysis, supplier evaluation processes, vehicle route generation, in-warehouse operation planning, product recognition and tracking, robotic order picking, and equipment maintenance prediction, significantly increases the level of automation in logistics activities. Such applications produce concrete benefits particularly in terms of cost optimization, delivery continuity, inventory accuracy, and process efficiency, and constitute the technical foundation of the Logistics 4.0 transformation (Aylak et al., 2021).

Artificial intelligence, which constitutes a critical component of technological advancements in the globalizing system, is increasingly being utilized across numerous fields through the integration of applications developed with various algorithms into existing systems. This development affects the nature of international relations and particularly leads to a transformation in the security perceptions of states. Artificial intelligence possesses the capacity to provide countries with various forms of information across three main categories: analytical, predictive, and operational.

This situation is directly related to the integration of AI technologies into different domains such as information collection, analysis, logistics, and information operations (Meleouni & Efthymiou, 2023). Furthermore, the presence of artificial intelligence in international relations alters the balance of power within the global system by increasing states' security-related concerns. The analytical outputs produced by AI-integrated systems not only contribute to encouraging states to invest in this field, but also create the conditions for the emergence of a competitive system across military, political, and socio-economic domains (Özdemir & Aslan, 2024). One of the areas where this transformation is observed in the most concrete and strategic manner is transportation corridors, which constitute the circulation infrastructure of global trade.

The digital and autonomous transformation experienced by transportation corridors should not be interpreted merely as an operational increase in efficiency or as the integration of Logistics 4.0. While traditional geopolitical approaches generally analyze transportation corridors through the control of physical chokepoints such as straits, ports, or border crossings, the current technological reality is altering the dimensions of power competition. Software systems that control not only the routes of ships, but also the movements of cross-border truck convoys, the cargo data of railway wagons, and the visibility of the entire supply chain have now become a more strategic element of power than the ownership of physical infrastructure. Consequently, the struggle for dominance over corridors is shifting toward the control of the information structure, namely the systems that process and manage data. Based on this observation, the primary objective of this study is to reveal how artificial intelligence and digital platforms used in global transportation corridors transform power balances within the international political economy and generate a new form of hegemony. The study argues that the struggle over transportation corridors is no longer solely a matter of geographical dominance; rather, it has evolved into a form of data hegemony and a contest over digital sovereignty that directly threatens or strengthens the sovereignty capacities of states.

In this context, it is asserted that actors who construct corridors or provide their digital infrastructure do not merely offer a commercial service; they also acquire structural power by establishing the operating system of global trade. In order to analyze this transformation, the study adopts an eclectic theoretical framework drawn from the discipline of International Political Economy. First, through Susan Strange's theory of structural power and particularly the concept of the knowledge structure, the study examines how AI algorithms function as invisible mechanisms that determine who knows what and how actors move within global trade. Second, by employing Robert Cox's historical materialist approach to hegemony, the study discusses how major actors such as China, the United States, and the European Union attempt to transform their own digital standards and data regimes into global norms. This theoretical foundation is supported by concrete case analyses, such as the LOGINK platform within the framework of the Digital Silk Road, which constitutes a component of China's Belt and Road Initiative, thereby elaborating the transformation of transportation corridors in terms of algorithmic geopolitics.

1. KNOWLEDGE STRUCTURE AND HEGEMONY

Significant steps were taken to restructure the global system following the Second World War. A concrete example of these steps was the emergence of the Bretton Woods system. Through the Bretton Woods system, institutions such as the World Bank (WB), the International Monetary Fund (IMF), and the General Agreement on Tariffs and Trade (GATT), which assumed leading roles in the reconstruction of the international economy, were established, and this structure made notable contributions to the recovery of Western economies until the 1970s. However, factors such as the Oil Crisis triggered by the Arab–Israeli War, the rapid recovery of economies such as Germany and Japan, and the demands of Global South countries to gain a greater voice within the new economic structure brought about the end of this system. The system was formally terminated in 1973 by U.S. President Nixon. During the same period in which these developments occurred, the discipline of International Political Economy (IPE) also began to take shape.

One of the pioneering works in this field was Susan Strange's study in the 1970s titled "International Economics and International Relations: A Case of Mutual Neglect," which argued that policymakers had neglected market dynamics, while economists interpreted economic science within a framework detached from political processes.

Strange emphasized that this mutual neglect generated a number of theoretical and practical challenges (Kutlay, 2021). This historical rupture revealed the necessity of analyzing power not only through material indicators, but also through deeper structures that shape economic and political processes.

Two main analytical schools have fundamentally shaped the development of International Political Economy (IPE). These appear as the American School and the British School. The American School proceeds from the assumption that the primary actor in the global system is the state and emphasizes the constitutive role of the state in ensuring market efficiency; within this framework, it posits the existence of a strong and stable political environment as a prerequisite for economic stability. Prominent representatives of this school include figures such as Robert Gilpin, Robert Keohane, and Joseph Nye. In contrast, Susan Strange, the most significant representative of the British School, offers a broader and structural perspective by analyzing the concept of power through multidimensional factors such as the economy, regionalism, population, armed forces, and the environment (Al & Katıtaş, 2020). Between these two approaches, Susan Strange's conceptualization of structural power provides a more comprehensive analytical framework for understanding how power is produced within the global system.

Susan Strange conceptualizes the phenomenon of power in two different dimensions. The first is relational power, defined as the capacity of one actor to induce another to undertake an action that it would not normally perform. The second, and more encompassing, is structural power, defined as the ability to influence outcomes without forcing other actors to act according to one's own preferences. Structural power is embodied in four fundamental sources. These are the security structure, which represents the physical capacity of the state; the production structure, which determines economic decisions such as the location, form and purpose of production; the financial structure, which controls the conditions of lending, currency, and financial flows and

finally the knowledge structure, which encompasses technology, communication networks, and cultural flows (Strange, 1987). Among these structures, the knowledge structure occupies a privileged position, particularly in today's global system where technological developments have accelerated, due to its capacity to transform all other structures.

The knowledge structure, which constitutes one of the components of structural power, has become a fundamental element of the modern post-industrial economy and possesses the capacity to directly influence other structural elements. The knowledge structure transforms into power by encompassing both technological knowledge and social knowledge. Within the framework of social knowledge, it includes the ideas, expectations, and norms concerning the functioning of a society or institution; this, in turn, signifies the ability to determine the accepted rules and norms of the international system. An example of this can be seen in the fact that international trade is based on the idea of free trade. In this context, the accumulation and control of technical knowledge and technology are of vital importance, as competence in this field directly contributes to increasing influence over production processes and dominance within the global economic structure. Indeed, such dominance achieved in the technological sphere makes it possible to gain economic power over countries with lower levels of technological capacity, while also supporting the acquisition of structural power in line with one's own interests (Strange, 1984). Today, the most advanced and functional form of this knowledge structure is manifested through artificial intelligence–based algorithmic systems that process large datasets and generate predictive insights.

Advancements in technology have enabled artificial intelligence to find a significant field of application in the transportation sector today. This use is not limited solely to transportation systems, which constitute one of the building blocks of corridors, but also extends to infrastructure projects within the corridor itself. In the construction processes of highways and railways, traffic flows are modeled through AI in order to achieve more effective traffic management and to optimize the network.

In addition, in order to evaluate the operational effectiveness of a corridor, different macroeconomic variables—such as countries' population growth, trade volumes, and regional connectivity indices—are brought together, thereby contributing to more accurate economic analyses. Similarly, AI-supported programs integrated into port systems play an active role in efficiency enhancement processes by optimizing the flow of goods, which directly contributes to operational processes such as the reduction of cargo handling time and the decrease in port waiting times (Akbar, 2024).

In the 21st century, developments in artificial intelligence are being implemented in the road transportation mode in the form of autonomous truck systems. The integration of these systems into major corridors, such as the China–Pakistan Economic Corridor (CPEC) and the Belt and Road Initiative (BRI), is of great importance in terms of profitability. These systems lead to a significant reduction of up to 20% in fuel costs and provide a structure that directly affects trade efficiency. Such technological advancements reduce logistics costs and bring the competitiveness of corridors to the forefront. In this context, these types of applications required for infrastructure not only generate economic gains but also give rise to the need for the establishment of regulatory statuses at the international level, thereby shaping the determination of global regulatory harmonization (Naseer et al., 2024).

The integration of artificial intelligence enables warehouse processes, one of the critical building blocks of corridors, to gain a significant quality in terms of operational efficiency. In parallel with this increase in operational efficiency, the analysis of accurate data enables disruptions within the supply chain to attain a predictable status. As a result of this situation, it is expected that cost advantages will be achieved and overall efficiency will increase. In addition, by using blockchain technology, negative processes such as fraud, transfer delays, and similar issues can be brought under control (Bakırcı & Takım, 2024). The technological capabilities and operational efficiency gains listed for integration into the systems that constitute transportation corridors extend beyond being merely commercial advantages and constitute the material capacities of hegemony construction.

Hegemony is often expressed within a narrow framework as the dominance of a single state over other states. In Cox's more comprehensive approach, however, it is conceptualized not merely as a form of material power but as a world order established through ideas and institutions, a civil society of states, and a set of universal norms in which a particular mode of production prevails. Cox draws attention to two fundamental concepts in the functioning of hegemony: consent and universal interest. Here, consent emphasizes that the subordination of subordinate classes or nations to the dominant order should occur voluntarily. Universal interest, on the other hand, is associated with the hegemonic class or power presenting its own particular interests as if they were the general interests of the entire society or the global order (Cox, 1983).

Cox emphasizes three fundamental building blocks that interact with one another in the process of constructing hegemony. These are material capabilities, ideas, and institutions. These three elements constitute the main forces that shape social forces, forms of state, and world orders. Among them, material capability is expressed through two primary components. The first component encompasses all technological and economic capacities that form the economic foundation and wealth of a society; this appears as accumulated productive power that enables superiority in trade, production, and finance. The second component represents the military capacity of states; it refers to accumulated destructive power that includes the ability to provide deterrence, technologies of destruction, and military organizational capability. A particular configuration of material capabilities determines the range of actions and the shape of institutions. World hegemony is understood through the interrelation of social structure, economic structure, and political structure, while the economic structure reflects the capacity of economic power to dominate the global system of production, trade, and finance. Indeed, material capability constitutes the most important condition for hegemonic leadership, after which a process of legitimization is carried out through ideas and institutions (Cox, 1981).

The establishment of an uninterrupted supply model that supports the distribution of manufactured goods is one of the decisive factors enabling states to attain a hegemonic power position.

This model necessitates the maintenance of a high degree of fluidity across trade routes within the global system, both in terms of the export of final products and the import of inputs required for production. In this respect, the existence and operational effectiveness of transportation corridors are regarded as critical factors supporting the hegemonic power status of states (Özalp, 2024). In today's global competitive environment, the sustainability of such operational effectiveness has become dependent on the extent to which physical infrastructure is integrated into processes of technological transformation. With the onset of the Fourth Industrial Revolution, developments in digital transformation have brought the concept of smart corridors to the forefront of infrastructure design.

This system, created through the integration of physical infrastructure with artificial intelligence, aims to establish a sustainable ecosystem. Within this framework, systems such as logistics centers, highways, and railways, key components of transportation corridors, are interconnected, thereby providing cost-efficient opportunities for all stakeholders, including governments, logistics providers, and businesses. Through the harmonization of transportation policies, customs procedures, and digital platforms, the expansion of international cooperation is facilitated (Irfan & Ahmad, 2024). Indeed, another critical pillar of becoming a hegemonic power is establishing dominance over technological innovations. The decisive role secured in the field of production through technological superiority functions as a fundamental lever that elevates the respective power to a leading position in international trade (Çaşkurlu, 2022). In this context, the integration of physical infrastructure with digital technologies not only increases commercial efficiency but also fundamentally alters the parameters of global power competition. Within this new architecture of logistics networks, hegemonic superiority has become dependent not merely on the physical control of geographical routes, but rather on the possession of the data flows and algorithmic decision-making mechanisms that govern these routes.

2. ARTIFICIAL INTELLIGENCE AND ALGORITHMIC GOVERNANCE

Algorithmic governance is increasingly being applied across various social and institutional domains as technological developments accelerate. In this process, data and statistical outputs produced through digital technologies are interpreted within specific frameworks of meaning, thereby contributing to the shaping of social structures. Algorithmic governance is based on coordination among actors. However, this coordination is carried out through the information and calculations generated by algorithms and complex computer-based systems. In this respect, algorithmic governance emerges as a new form of regulation and guidance used in the establishment and maintenance of social order (Katzenbach & Ulbricht, 2019). The effectiveness of this form of governance is shaped by the increasing integration of algorithms with artificial intelligence–based systems.

Algorithms are increasingly being associated with artificial intelligence today, and through this association they are able to generate meaningful outputs in problem-solving processes. In this context, AI-based systems make it possible to perform a specific task by utilizing both input data and output data. This situation assumes a function that supports decision-making processes for decision-makers. The operations carried out by artificial intelligence generate recommendations or decisions in line with the objectives determined by actors. These processes operate on the basis of mathematical inputs. Within this framework, AI-based applications developed in this manner also reveal the potential to be utilized by states (Fernandez, 2023). The materialization of this potential in the political sphere becomes possible through the incorporation of algorithmic capacity into the decision-making and regulatory practices of states.

Algorithmic governance enables states to restructure the functioning of international politics by regulating political interaction and global information flows, thereby leading to a transformation in the understanding of state-centered politics. This transformation occurs through processes of knowledge production, the distribution of authority, and the relationships between the state and the private sector. Through algorithms, states determine the value of information by deciding which information is necessary or insignificant.

This situation enables the modification and direction of behaviors. In the context of the relationships established by states with the private sector, technology companies assume a significant role. The primary reason for this is that these companies possess the capacity to collect data on a global scale and to process these data through algorithms, thereby exerting influence over the behavior of states. This process leads states to become increasingly dependent on corporate algorithms in areas such as security, counterterrorism, and border control (Srivastava, 2023). This relationship of dependence demonstrates that the effects of algorithmic governance are not limited to the national level, but also generate new power asymmetries on a global scale.

Artificial intelligence and algorithmic governance bring about a process of structural transformation on a global scale.

In this process, countries and companies possessing high levels of capital accumulation, advanced technological infrastructure, and access to large datasets gain a significant advantage. In contrast, countries with limited access to these capacities are pushed into more fragile and dependent positions within the global system. In this context, big data and algorithmic processing capacity function as an economic and political power resource. This situation also reveals the strategic importance of algorithmic capacity. Countries with limited access to these capacities become increasingly dependent on artificial intelligence and algorithmic systems within this structure shaped by digital technologies. These developments generate not only economic but also geoeconomic and geopolitical consequences for states. From this perspective, China and the United States emerge as the principal actors that effectively utilize this capacity within the global system and whose competition takes the form of a great power struggle (Rebolledo, 2025). In this framework, algorithmic governance and artificial intelligence have become not merely elements of technical capacity in today's international system, but also decisive instruments of geoeconomic and geopolitical competition.

3. DIGITAL SOVEREIGNTY STRATEGIES IN GLOBAL TRANSPORTATION CORRIDORS

The concepts of "knowledge structure" and "material capabilities," whose theoretical framework was outlined in the previous sections of this study, are reflected in practice as concrete strategies within today's global power competition. States transform the digital tools and artificial intelligence technologies discussed at the theoretical level into active foreign policy instruments in order to reinforce their dominance over transportation corridors or to weaken the influence of their rivals. In this context, the study examines the strategies developed by the People's Republic of China, the United States, and the European Union—among the principal actors in the hegemonic struggle within global transportation networks—particularly through transportation corridors and digital infrastructures shaped within the framework of China's Belt and Road Initiative (BRI) and the Digital Silk Road.

The Belt and Road Initiative, announced by Xi Jinping in 2013 and transformed into China's most strategic foreign policy instrument, holds critical importance in terms of both economic expansion and diplomatic influence. Within this framework, the project is structured along two main routes: land and maritime. The land component of the project constitutes a transportation corridor extending from China through Central Asia into the interior of Europe, while the maritime route encompasses a vast network beginning in the South China Sea and reaching the coasts of Africa and Europe through the Indian Ocean (Aoyama, 2016).

The Belt and Road Initiative represents more than a mere infrastructure investment for China; it functions as a strategic instrument for the sustainability of national economic growth. The opportunities for trade liberalization offered within the framework of the initiative directly contribute to China's projected increases in Gross Domestic Product (GDP), while simultaneously providing domestic firms with a broad range of markets for the export of manufactured goods. Through the BRI, China aims to access the energy and raw material inputs required for its production processes through routes that are both more secure and lower in cost. The project strengthens domestic connectivity by enabling China's inland regions—whose access to the sea is limited—to integrate into global networks.

Parallel to these infrastructural initiatives, improvements in logistics processes—such as the optimization of transport times and the acceleration of customs procedures—create a cost-based competitive advantage in the European and Asian markets. This transportation corridor not only enhances China's economic capacity but also enables it to rise to the position of a central actor that shapes and manages global trade routes (Zhang et al., 2017).

For China, this initiative represents not only an effort to generate economic gains but also a strategic instrument through which the country demonstrates its influence within the global system. This process is materialized through transportation corridors and the advanced infrastructure systems that constitute their integrated components. Through these instruments, China consolidates not only its economic capacity but also its political hegemony.

This hegemonic structure is constructed through elements such as people-to-people interaction, tourism, and regional economic development (Salim & Shah, 2023). Through the Belt and Road Initiative, China implements a doctrine of peaceful development based on the principle of "mutual gain." In essence, the initiative constitutes a structural alternative developed in response to the U.S.-centered Bretton Woods order. As a response to the strategy pursued by the United States during the Cold War, which involved consolidating Western and Asian coastal lines and confining actors such as China and the Soviet Union to continental depth, China formulated a Eurasia-oriented geostrategy rather than expanding through the Pacific. This strategic orientation forms the basis of legitimacy for the BRI transportation routes. In parallel with this, the interest observed in Europe toward these transportation networks reflects, in part, a tendency emerging alongside the relative weakening of the United States' hegemonic influence in the region (Bail, 2019).

Applications aimed at increasing China's geopolitical influence are integrated into the structure of the Belt and Road Initiative simultaneously with technological developments. In this context, integration achieved through digital systems such as artificial intelligence, the Internet of Things, big data analytics, and blockchain provides the foundation for the formation of an integrated development model.

Within this model, artificial intelligence assumes fundamental functions such as supporting decision-making processes, developing forecasting mechanisms, conducting optimization activities, and enabling automation. In this regard, artificial intelligence is positioned as a support mechanism that produces operational outputs through the processing and interpretation of data. From the perspective of infrastructure systems, applications such as intelligent transportation systems, smart ports, and smart energy and communication networks come to the forefront. The holistic implementation of these elements contributes to the enhancement of operational efficiency and the support of development processes. At the same time, this structure, by enabling the reduction of costs, also plays a functional role in improving processes and preventing operational errors. These developments further contribute to increasing customer satisfaction through the improvement of service quality (Tsymbal et al., 2023).

One of the fundamental components of the Belt and Road Initiative is the Digital Silk Road, which emerges as a critical element within this framework. In this context, technological components such as artificial intelligence, the digital economy, smart ports, and telecommunications are offered to countries within the scope of the BRI through technology transfer. This technology transfer not only creates an area of economic interaction for China, but also reveals a tendency to construct a digital order that enables it to establish influence and effectiveness within the global system. One of the notable investments carried out within this framework is the smart ports initiative. Under China's leadership, a process is underway to construct and digitalize port infrastructures along the maritime routes of countries located on the BRI transportation corridor. The analysis of the big data generated from these smart ports through artificial intelligence methods, and the use of these analyses by the Chinese government through the BRI big data center as well as in the commercial decision-making processes of major Chinese companies, constitutes an important dimension of this process. This situation provides China not only with an economic competitive advantage but also with the potential to obtain strategic superiority.

Beyond commercial data, the processing of these large datasets through AI-based analytical techniques also raises the possibility that the resulting outputs could be used in the decision-making processes of the Chinese navy. In this context, these data are considered to possess a capacity that may contribute to intelligence, surveillance, reconnaissance, and command-and-control processes (Hlongwa, 2021).

China's infrastructure activities in countries within the scope of the Belt and Road Initiative are not limited solely to the maritime domain; rather, they expand across multiple sectors within a multidimensional structure. In this context, China constructs telecommunications infrastructures in various countries through Huawei. In addition, high-technology infrastructure projects are implemented through smart city applications and rail transportation systems. This process demonstrates that the Chinese government is pursuing a strategy of technology-based influence in its foreign policy.

One example in this regard is the memorandum of cooperation signed with the United Arab Emirates in 2019 in the field of artificial intelligence. Furthermore, through the China–Central and Eastern Europe Innovation Cooperation Conference held annually, the promotion of new technological cooperation projects is targeted. Within the framework of these initiatives, collaborations in the fields of artificial intelligence, big data, and digital technologies are negotiated and institutionalized. This situation enables China to employ technology-based cooperation as an effective foreign policy instrument in advancing both its economic and diplomatic interests. All these processes are carried out within a multi-layered structure through central state institutions, local administrations, and non-state actors defined as private companies (Zhang et al., 2022). This multilayered and technology-based foreign policy strategy finds one of its most concrete and institutionalized manifestations on transportation corridors in the form of the LOGINK digital logistics platform developed by China.

LOGINK: The Digital Intersection of Material Capacity and Knowledge Structure

LOGINK (National China Transportation Logistics Information Platform), which reflects China's process of digital transformation in the logistics sector, was first launched in 2007 as a regional platform. From 2014 onward, the platform was integrated at the national level and, over time, its scope was expanded to an international dimension. LOGINK brings different modes of transportation together within a single digital structure, enabling cargo tracking and route planning, while also functioning as a comprehensive system that includes access to regulatory and credit information, data sharing related to logistics infrastructure, and the management of electronic documents and bills of lading. The platform processes a vast volume of data covering approximately 1.35 trillion dollars in annual cargo movement. In addition, with the inclusion of the International Port Community Systems Association (IPCSA) into LOGINK in 2022, access to data from 70 ports and 10 airports has been made possible (Drozdova & Udalova, 2023).

LOGINK enables China to conduct strategic activities aimed at transitioning from physical infrastructure to digital infrastructure, while expanding its commercial integration with countries within the scope of the Belt and Road Initiative and implementing a model of becoming an effective state in the transportation sector on a global scale. This process facilitates the access of Chinese-origin firms to global markets and enables China to become a more influential actor in geoeconomic terms. At the same time, the platform possesses the potential to create certain structural advantages in favor of China. In this context, the widespread global diffusion of Chinese technical standards is facilitated through data formats and logistics standards. However, these developments also bring various risks from the perspective of the United States. The ability of Chinese firms to obtain market advantages through global trade data collected via LOGINK, the possibility that U.S. logistics companies may face unfair competitive pressure, and the potential for these data to be used by China as an instrument of economic leverage and direction all carry the capacity to generate consequences that may affect the economic structure.

From the perspective of U.S. military and security risks, the possibility that LOGINK could provide indirect visibility into U.S. military logistics activities, the potential tracking of military cargo transported through ports, and the likelihood that control over such data could create a strategic vulnerability during crises or conflict situations are particularly noteworthy. Indeed, the capacity of China to process these data as massive datasets through advanced data analysis techniques may enhance its ability to generate forecasts and scenarios, thereby enabling the development of scenario analyses aimed at anticipating geopolitical and economic crises in advance. These risks demonstrate that LOGINK can generate indirect security and data sensitivity concerns not only for rival actors but also for the allies of the United States. In fact, the establishment of cooperation with Israel, an ally of the United States, through the bill of lading system at the Port of Haifa indicates the extent to which LOGINK's strategic data access sphere can expand (USCC, 2022). In this context, the processing of large-scale data collected through LOGINK by means of advanced data analytics provides the basis for AI-based analysis and predictive capacity to become a strategic advantage for China.

Despite Israel's strategic alliance with the United States, the transfer of operating rights for the northern terminal of Haifa Port to the China-based Shanghai International Port Group (SIPG) in 2018 was seen as a development that could affect the sensitive nature of security-based cooperation between the two countries. This arrangement created the conditions for China to expand its economic presence within Israel's commercial infrastructure. From the perspective of the United States in particular, the fact that the Port of Haifa serves as an important logistical and operational stop for the U.S. Navy's Sixth Fleet rendered the transfer controversial in terms of security implications. The operation of the port by a Chinese company raised concerns regarding the potential monitoring of military vessel movements and the flow of strategically sensitive information (Yellinek, 2018). This situation creates a basis for port activities to be monitored in an integrated manner through digital logistics platforms such as LOGINK.

LOGINK's monopolistic position in a market with a large share in global production and trade transforms the platform into a data-based structural power resource.

Logistics data centralized at this scale make it possible to generate advanced forecasts regarding goods flows, timing, and pricing dynamics through machine learning and artificial intelligence–based analyses. When combined with state support, this situation strengthens LOGINK's network effects and creates the conditions for establishing a lasting competitive advantage over rival platforms (Collins & Bianchi, 2023). In this context, data becomes one of the fundamental components of geoeconomic power through AI-supported decision-making processes.

The United States, in response to the potential risks created by the LOGINK platform, adopted a strategic measure through the Department of Defense by prohibiting the conclusion of contracts with ports that use this China-origin transportation platform under Section 825 of the National Defense Authorization Act (NDAA). Within the framework of this regulation, the Department of Defense aimed to eliminate the tracking risks that military units and logistical cargo might face during maritime transport and to establish a proactive protective shield against threats to the strategic interests of the United States (Mayerbrown, 2024).

The integration of smart containers into supply chain processes on a global scale constitutes an additional security vulnerability for the United States. In particular, the traceability of critical data—such as location, temperature values, and container contents—enabled through these technologies creates the risk that both economic and military intelligence could fall into the hands of unauthorized actors, thereby threatening national security. In this context, the implementation of the Maritime Transportation Data Initiative (MTDS) proposals is of strategic importance for the United States in order to minimize these risks (Bentzel, 2023).

The United States develops initiatives aimed at regulating maritime data flows in accordance with its economic development objectives and various national strategies and, in this context, carries out various activities to minimize potential risks that may arise from digital domains such as big data and artificial intelligence (Yu & Wang, 2025).

LOGINK can be evaluated as a digital mechanism that connects material capacity with the knowledge structure in transportation corridors.

While the centralization of data generated from physical logistics infrastructure contributes to the strengthening of material capacity, the processing of these data through advanced data analytics and artificial intelligence–based methods enables the control of the knowledge structure. This situation produces a structural advantage in decision-making processes by making it possible to anticipate patterns and trends related to transportation networks.

Data-Based Artificial Intelligence Systems and the European Union's Digital Sovereignty Approach

Technological developments today and the resulting increase in data production have made it important, particularly for obtaining accurate and consistent results, that these data be transformed into meaningful outputs through artificial intelligence algorithms. AI systems are able to perform fundamental functions such as generalization and prediction more effectively through data-based learning processes. In this context, the use of datasets that are comprehensive and continuously updated constitutes one of the key factors that enhance the reliability of artificial intelligence systems (Whang et al., 2022).

The storage of data alone is not sufficient to produce meaningful results; at this point, artificial intelligence systems assume a decisive role. With the integration of artificial intelligence, the activation of mechanisms such as machine learning, algorithmic analysis, and automated decision-support systems makes it possible to interpret data, and this process is becoming increasingly significant for the security policies of states (Kiggins, 2025).

The growing strategic importance of data has enabled states to develop more effective and institutionalized policies in the field of data protection. In this context, the European Union has enacted the General Data Protection Regulation (GDPR), a comprehensive regulation aimed at protecting personal data. Through this regulation, the protection of individuals' fundamental rights has been secured, while a clear and predictable legal framework has been established for companies and public institutions within the digital single market.

Moreover, through the rules set forth, it is intended that commercial activities be carried out in a more orderly and efficient manner through the digital single market system (European Commision, n.d.). This framework can be evaluated as part of the European Union's effort to establish sovereignty over digital infrastructures and data flows.

The Digital Silk Road initiative constitutes the digital dimension of the Belt and Road Initiative. In this context, digital infrastructure investments carried out in Europe give rise to significant areas of concern for the countries involved. The influence of Chinese-origin companies over critical elements such as fiber optic cables, data centers, and telecommunications infrastructures leads to security-based concerns for European states (Gunter & Arcesati, 2024).

It is observed that data of strategic importance for European states, together with the transformation occurring in artificial intelligence systems, produce not only technological outcomes but also geopolitical and economic effects. In line with this process, the Central and Eastern Europe Digital Coalition has been established, including Poland, Bulgaria, Croatia, the Czech Republic, Estonia, Lithuania, Latvia, Romania, Slovakia, Slovenia, and Hungary located in the Three Seas region of Europe. This initiative aims to strengthen participation in the digital sphere and to enhance artificial intelligence capacity, which stands out as one of the priority areas within the security strategies of the European Union.

In this context, China's efforts to extend its influence over the European Union through artificial intelligence, 5G, and digital infrastructures within the framework of the Belt and Road Initiative are regarded as a problematic area in terms of digital sovereignty principles (Grochmalski et al., 2021).

The efforts to establish digital infrastructure aimed at connecting countries within the scope of the Belt and Road Initiative through the Digital Silk Road are met by the policies developed by the European Union in the fields of data and artificial intelligence. The initiatives carried out in this direction enable the European Union to develop a balancing policy against China. Nevertheless, despite these initiatives, the digital corridor of the Belt and Road Initiative has achieved notable progress within the borders of the European Union (Silva, 2025).

The relatively low-cost technological solutions offered within the framework of the Digital Silk Road give rise to various concerns in the West regarding surveillance and data security. At the same time, the diffusion of these technologies, particularly through infrastructure projects carried out in coastal regions such as Africa, creates an effect that limits the capacity of Western firms to compete in these markets (Williams, 2024).

The market access obtained by Chinese-origin companies such as Huawei, China Mobile, Alibaba, and Tencent within the framework of the Belt and Road Initiative enables these firms to expand into telecommunications and infrastructure sectors in Europe. In particular, entry into the European market is achieved through projects developed within the framework of smart city applications and through 5G contracts; in the later stages of this process, a deeper integration through AI-based applications is expected. As emphasized above, these developments point to the emergence of structural mechanisms that challenge the European Union's understanding of digital sovereignty (Triolo et al., 2020).

The Digital Silk Road is an initiative that brings together material capacity and the data- and artificial intelligence–based knowledge structure on the same strategic plane through digital infrastructures. This integration increases the capacity to generate economic and technological influence, thereby laying the groundwork for the reshaping of power and hegemony relations in the digital domain.

CONCLUSION

Approached from the perspective of the discipline of International Political Economy, this study has analyzed the structural transformation experienced by global transportation corridors and the effects of this transformation on the struggle for hegemony. The findings reveal that, in the 21st century, transportation corridors have ceased to be merely geographical lines that enable the physical transfer of goods; instead, they have evolved into cyber-physical domains of sovereignty where data are produced, processed, and directed in ways that generate political outcomes.

One of the principal findings of the study is that the center of gravity in the global power struggle has shifted from the ownership of physical infrastructures to the control of the algorithmic capacity that governs these infrastructures. Although large datasets are widely regarded as the strategic raw material of the digital age, this study argues that data alone do not constitute an instrument of hegemony. The decisive source of power lies in the ownership and use of artificial intelligence–based algorithms that process these complex masses of data, transform them into meaningful insights, and guide decision-making processes. In line with Susan Strange's conceptualization of the "knowledge structure," artificial intelligence in this context moves beyond being merely a technical tool of optimization and becomes a structural mechanism of power that determines "who knows what and when to act".

Evaluations conducted through Robert Cox's historical materialist approach demonstrate that artificial intelligence redefines the relationship between material capabilities and the production of consent. The technological promises offered by China's LOGINK platform or its Western counterparts, such as speed, efficiency, and cost advantages, create an environment of algorithmic consent that leads states to voluntarily integrate their own logistics and data sovereignty into these platforms. However, in the long term, this process of integration renders user states dependent on the digital standards and data regimes of the actors providing the technology; thus, artificial intelligence functions as an invisible mechanism of regulation and control within modern transportation corridors.

Within the framework of the strategies examined, it is observed that the global system is increasingly evolving toward a pronounced digital divide. China's effort to reinforce the Belt and Road Initiative through the Digital Silk Road by establishing an offensive network for data collection and processing, contrasted with the attempts of the United States and its allies to balance this expansion through security-driven restrictions and "clean network" initiatives, indicates a power struggle based on algorithmic capacity. In this competitive environment, the European Union seeks to construct a regulatory domain of digital sovereignty in the fields of artificial intelligence and data by leveraging its normative power.

This situation transforms transportation corridors from areas of commercial cooperation into techno-political fronts where algorithms and digital standards collide.

Consequently, this study offers a critical projection regarding the future of logistics and geopolitics. In the world of the future, dominance over transportation corridors will be measured not by the quality of asphalt or the depth of ports, but by the control of artificial intelligence–based algorithms and digital platforms that govern this infrastructure. States that do not possess their own artificial intelligence ecosystems, data-processing capacities, and instruments of algorithmic governance will increasingly find it difficult to establish absolute sovereignty even over corridors that physically pass through their own territories. In this context, "Data Hegemony" and "Algorithmic Sovereignty" have emerged as central concepts for understanding the power, security, and survival strategies of nation-states in the 21st century.

REFERENCES

Akbar, D. (2024). Modeling The Impact of the Development Road Project on Regional Countries Using Artificial Intelligence Methods and Potential Outcomes". Ulaştırma ve Altyapı, 1(1), 190-207.

Al, A., Katıtaş, G. (2020). UPE: Var Olanın Fark Edilişi. Al, A., Balcı, M., Kanlı, İ., B. (Ed.), *Uluslararası Politik Ekonomi*, Ankara: Savaş Yayınevi: 3-46.

Aoyama, R. (2016). "One Belt, One Road": China's New Global Strategy. Journal of Contemporary East Asia Studies, 5(2), 3-22. http://dx.doi.org/10.1080/24761028.2016.11869094

Aylak, B. L, Oral, O., Yazıcı, K. (2021). Yapay Zeka ve Makine Öğrenmesi Tekniklerinin Lojistik Sektöründe Kullanımı. El-Cezerî Fen ve Mühendislik Dergisi, 8(1), 74-93.

Baik, J. (2019). "One Belt One Road" And The Geopolitics Of Empire. InterAsia Cultural Studies, 20(3), 358-376. DOI: 10.1080/14649373.2019.1649013

Bakırcı, F., Takım, A. (2024). 2050'li Yıllar: Ekonomi, Dış Ticaret ve Lojistiğin Geleceğine Genel Bir Bakış. Dikmen, A.,T. (Ed.), *Zengezur Koridoru: Türkiye-Azerbaycan-Nahcivan Ekonomik, Dış Ticaret ve Lojistik Bağlantıları*, İstanbul: Efe Akademik Yayıncılık: 15-42.

Bentzel, C., W. (2023). Recommendations on the Maritime Transportation Data System Requirements, Federal Maritime Commission. Washington DC.

Candemir, Y. (2005). Küreselleşme, Teknolojik Gelişme ve Ulaştırmada Yenilikler: Dünya ve Türkiye. TMMOB İnşaat Mühendisleri Odası VI. Ulaştırma Kongresi 23-25 Mayıs 2005: 13-29, İstanbul.

Collins, G., Bianchi, J. (2023, 25 April). China's LOGINK Logistics Platform and Its Strategic Potential for Economic, Political, and Military Power Projection. Baker Institute, https://www.bakerinstitute.org/research/chinas-logink-logistics-platform-and-its-strategic-potential-economic-political-and

Cox, R. W. (1981). Social Forces, States and World Orders: Beyond International Relations Theory. Millennium: Journal of International Studies, 10(2), 126-155. https://doi.org/10.1177/03058298810100020501

Cox, R. W. (1983). Gramsci, Hegemony and International Relations : An Essay in Method. Millennium: Journal of International Studies, 12(2), 162-175. https://doi.org/10.1177/03058298830120020701

Çaşkurlu, S. (2022). Küresel Ekonomik Düzen Değişirken Yeni Kuralları Belirleme Yarışı: Çin'in Hegemon Olma Denemesi. Fiscaoeconomia, 6(3), 1389-1418. https://doi.org/10.25295/fsecon.1124486

Drozdova, M., Udalova, D. (2023). Digital logistics platforms as a current trend to ensure the transport competitiveness of the state on the example of China's LOGINK platform. E3S Web Conference, 431, 1-5. https://doi.org/10.1051/e3sconf/202343108010

European Commision (N.D.). Legal Framework Of EU Data Protection, https://commission.europa.eu/law/law-topic/data-protection/legal-framework-eu-data-protection_en

Fernandez, J.V. (2023). Artificial Intelligence in Government: Risks and Challenges of Algorithmic Governance in the Administrative State. Indiana Journal of Global Legal Studies, 30(1), 65-96.

Grochmalski, P.,Lewandowski, P., Paszak., P. (2021). Three Seas Project (3SI) and the Belt and Road Initiative (BRI): The Security Dimension. European Research Studies Journal, 24(1), 1230-1239.

Gunter, J., Arcesati, R. (2024, March). The Digital Silk Road: A Growing Priority For Beijing As İts Tech Champions Expand Overseas. Merics, https://merics.org/en/tracker/digital-silk-road-growing-priority-beijing-its-tech-champions-expand-overseas

Hlongwa, L., N. (2021). Artificial Intelligence and Big Data in the Maritime Silk Road Initiative: The Road Towards Sea Power 2.0. Scientia Militaria: South African Journal of Military Studies, 49(2), 113-131. doi: 10.5787/49-2-1329

Irfan, M., & Ahmad, H. (2024). Reimagining Regional Infrastructure: Smart Corridors for Sustainable Economic Integration. Journal of Regional Connectivity and Development, 3(2), 1-7.

Katzenbach, C., Ulbricht, L. (2019). Algorithmic governance. Internet Policy Review, 8(4), 1-19. https://doi.org/10.14763/2019.4.1424

Kiggins, R.D. (2025). Big Data, Artificial Intelligence, and Autonomous Policy Decision-Making: A Crisis in International Relations Theory?. David Kiggins, R. (eds) *The Political Economy of Robots. International Political Economy Series*. Palgrave Macmillan, Cham: 297-327. https://doi.org/10.1007/978-3-031-95171-8_13

Kutlay M. (2021), Uluslararası Politik Ekonomi. Özen, R. (Ed.), *Uluslararası İlişkiler Teorileri*, İstanbul: İletişim Yayınları: 265-292

Macit, A. (2024). Ulaştırma Modlarının Geleceği: Yapay Zekânın Akıllı Ulaşım Sistemlerine Entegrasyonu. Ege Üniversitesi Ulaştırma Yönetimi Araştırmaları Dergisi, 1(1), 60-76.

Makarova, I., Buyvol, P., Gabsalikhova, L., Shubenkova, K., Mavrin, V., Mukhametdinov, E. (2019). International Trasnport Corridors: Impact on Territorial Development. Advances in Economics, Business and Management Research*,* 131, 654-662.

Meleouni, C., Efthymiou, I. (2023). Artificial Intelligence (AI) and its Impact in International Relations. Journal of Politics and Ethics in New Technologies and AI, 2(1), 1-13. https://doi.org/10.12681/jpentai.35803

Naseer, F., Addas, A., Khalid, U. (2024). Harnessing Industrial Revolution Using Artificial Intelligence for Robust Economic Corridors and Sustainable Development. Journal of Artificial Intelligence and Computing. 2(2), 1-5. https://doi.org/10.57041/0g1syp46

Ng AKY, Jiang C, Larson P, Prentice B, Duval D. (2018). Transport Networks and Impacts on Transport Nodes. Transport Nodal System. 9–28. doi.org/10.1016/B978-0-12-811067-6.00002-X

Özalp, M. (2024). Uluslararası İlişkiler Karmaşasında Koridorlar Savaşı. Anadolu Strateji Dergisi. 6(2), 129-154.

Özdemir, G., Yanık Aslan, S. (2024). Artificial Intelligence Applications and Diplomacy in International Relations. Euroasıa Journal Of Socıal Scıences & Humanıtıes, 11(41), 1–9. https://doi.org/10.5281/zenodo.14599409

Rebolledo, V., G. (2025). Impact Of The Artificial Intelligence On International Relations: Towards A Global Algorıthms Governance. Revista UNISCI, 67, 9-51.

Quium, Abdul A., S., M. (2019). Transport Corridors for Wider Socio–Economic Development. Sustainability, 11(19), 1-23.

Salim, M., Shah, N. (2023). China's One Belt One Road (OBOR) Initiative and Its Ambitions for Global Hegemony. Journal of Asian Development Studies, 12(4), 1088-1096. https://doi.org/10.62345/jads.2023.12.4.87

Silva, F. (2025). The Digital Silk Road in Europe: China's Soft Power Maneuvers at Euro 2024. Canadian Journal of European and Russian Studies. 18(1), 77–96. https://doi.org/10.22215/cjers.v18i1.4952

Srivastava, S. (2023). Algorithmic Governance and the International Politics of Big Tech. Perspectives on Politics. 21(3), 989–1000. doi:10.1017/S1537592721003145

Strange, S. (1984). The Global Political Economy, 1959–1984. International Journal: Canada's Journal of Global Policy Analysis, 39(2), 267-283. doi.org/10.1177/002070208403900203

Strange, S. (1987). The Persistent Myth Of Lost Hegemony. International Organization, 41, 551-574. doi:10.1017/S0020818300027600

Mayer Brown. (2024, January 11). The US National Defense Authorization Act for Fiscal Year 2024: Important Changes to Procurement Laws and Policy. https://www.mayerbrown.com/en/insights/publications/2024/01/the-us-national-defense-authorization-act-for-fiscal-year-2024-important-changes-to-procurement-laws-and-policy

Triola, P., Allison, K., Brown, C., Broderick, K. (2020, 8 April). The Digital Silk Road: Expanding China's Digital Footprint. Eurasiagroup, https://www.eurasiagroup.net/live-post/digital-silk-road-expanding-china-digital-footprint

Tsymbal, L., Natsvlishvili, T., Verdenhofa, O. (2023). One Belt, One Road Project: The Impact Of Smart Technologıes On Infrastructure And Logıstıcs. Baltic Journal of Economic Studies, 9(3), 214-221. doi: 10.30525/2256-0742/2023-9-3-214-221

UN Habitat (2015). The Role of Transport and Transit Corridors in Fostering International Cooperation for Sustainable Development: Issues and Recommendations, https://unhabitat.org/the-role-of-transport-and-

transit-corridors-in-fostering-international-cooperation-for-sustainable-development-issues-and-recommendations

USSC. (2022). LOGINK: Risks from China's Promotion of a Global Logistics Management Platform. https://www.uscc.gov/research/logink-risks-chinas-promotion-global-logistics-management-platform

Whang, S. E., Roh, Y., Song, H., Lee, J. G. (2023). Data Collection And Quality Challenges In Deep Learning: A Data-Centric Ai Perspective. The VLDB Journal, 32(4), 791-813.

Williams, E. (2024, May 09). China's Digital Silk Road taking its shot at the global stage. Eastasiaforum, https://eastasiaforum.org/2024/05/09/chinas-digital-silk-road-taking-its-shot-at-the-global-stage/

Yellinek, R. (2018, 27 November). The Israel-China-U.S. Triangle and the Haifa Port Project. Middle East Institute, https://www.mei.edu/publications/israel-china-us-triangle-and-haifa-port-project

Yu, M., Wang, L. (2025). China's cross-border maritime data flow governance: progress, challenges, and prospects. Front. Mar. Sci, 12, 1-11. https://doi.org/10.3389/fmars.2025.1600050

Zhang, L., Luo, M., Yang, D., Li, K. (2017). Impacts of trade liberalization on Chinese economy with Belt and Road Initiative, Maritime Policy & Management, DOI: 10.1080/03088839.2017.1396504.

Zhang, C., Zhang, M., Xiao, C. (2022). From traditional infrastructure to new infrastructure: a new focus of China's Belt and Road Initiative diplomacy?. Eurasian Geography and Economics, 63(3), 424-443, DOI: 10.1080/15387216.2022.2039740.

CHAPTER 2
DIGITAL GEOPOLITICS AND TECHNO-STRATEGIC COMPETITION: THE NEW FRONTIER OF INTERNATIONAL POLITICAL ECONOMY

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INTRODUCTION

The world isn't playing by the same rules anymore. In the last century, power meant controlling land, sea routes, and oil. Now, it's all about who holds the keys to the digital stack. AI and the tech that supports it aren't just tools for making money—they've become the real levers of global influence. This chapter digs into digital geopolitics, where International Political Economy (IPE) has broken out of its old box. It's not just about trade deals or moving money around. Now, it's about who controls data, who builds the smartest algorithms, and who owns the backbone of our digital world.

We're living through a shift as huge as the one that came with the Industrial Revolution. The old world ran on oil and coal. The new one runs on silicon, code, and ever-faster chips. The globalization of the 1990s, that wild era of open markets and borderless tech, is fading. In its place, techno-nationalism is taking over. Countries are drawing new lines—sometimes invisible, sometimes not—fighting for control of chips, data, and the future of AI. The "splinternet," "chip wars," and the rush for Artificial General Intelligence aren't just business rivalries. They're battles for the very shape of tomorrow's world order.

Not long ago, borders were all about lines on maps. Now? Digital sovereignty matters just as much. It's about whether a country can set its own rules online, guard its people's data, and build enough tech muscle to resist outside pressure. The stakes are huge—basically, whoever wins this fight gets to decide how the next century runs.

Right now, we're in the middle of a new kind of tech competition. Farrell and Newman called it "weaponized interdependence" back in 2019. Think about it: things like semiconductor plants or undersea cables aren't just infrastructure—they're leverage. Countries are using them to gain a geopolitical edge. For the US, China, and the EU, this is do-or-die stuff. Whoever controls the AI "frontier" ends up with the best military intelligence, supercharged economies, and the power to shape what the world sees and believes—just by tweaking the algorithms. And it's not just governments anymore. Giant tech companies are starting to act like mini-states, controlling information and digital identities in ways that challenge old-fashioned national power.

AI is mixing things up in the global economy, too. We've entered what some call a "NAVI" world—Nonlinear, Accelerated, Volatile, Interconnected. By 2026, the line between military and civilian tech has all but vanished. AI tools are running everything from stock market predictions to autonomous drones. This chapter digs into how AI is rewriting the playbook for global power, how big players are maneuvering, and why we desperately need new international rules. The bottom line? The code behind our technology is starting to matter more than old laws or treaties—so much so that we need to rethink almost everything we thought we knew about international political economy. In this new era, computational power isn't just important. It's the real currency of global influence.

1. THE THEORETICAL EVOLUTION OF TECHNO-STRATEGIC COMPETITION

The theoretical evolution of techno-strategic competition has shifted from a focus on neoliberal globalization, where tech was a neutral tool for open markets, to a model of techno-nationalism, where digital infrastructure is a primary instrument of state power. Modern frameworks now emphasize "securitization," treating breakthroughs in AI and semiconductors as zero-sum assets that define national sovereignty and the global balance of power. This evolution reflects a transition from seeing technology as a shared economic driver to viewing it as the decisive frontier of geopolitical rivalry.

From Neoliberalism to Techno-Nationalism

For a long time, most International Political Economy theories leaned on the idea that technology would bring the world closer together. After the Cold War, the story went something like this: as data, money, and ideas zipped around the planet without friction, old-school rivalries would fade away. Borders would matter less. Some even called it the "End of History." But look at where we are now, heading through 2026, and the mood has completely flipped. Instead of seeing tech as a bridge, countries are treating it like a fortress. Every new leap in quantum computing or generative AI feels like a direct threat to somebody else's national security or economy.

Now, national interest and technological innovation are tangled up tight. States aren't just chasing the next big thing for bragging rights—they're blocking each other from getting there first. People call this "de-risking" or "strategic decoupling," but really, it's an old tune with new instruments. It's mercantilism for the digital era. Governments aren't standing back and letting the market take the wheel. They're jumping in, backing homegrown firms in sectors like AI, biotech, and clean energy, and making sure outsiders stay out. Efficiency used to be the name of the game, with global supply chains stretching everywhere. Now? Security comes first. The world isn't a shared lab anymore. It's more like a patchwork battlefield, with technology at the center—sometimes the weapon, sometimes the prize.

The Concept of Computational Power as Sovereignty

These days, AI is changing the old idea of Westphalian sovereignty. It's not just about borders and governments anymore—now, there's this new layer: "computational power." And that's not just raw computing muscle. It's a mix of three things working together: high-performance computers, huge high-quality datasets, and top-tier talent. As AI keeps taking over more of the heavy lifting in both the economy and military, countries see controlling these three elements at home as essential for real independence. If a country can't process its own data or train its own language models, it falls behind. Worse, it becomes dependent on someone else's technology, stuck using systems built and owned by other nations. Basically, they risk becoming digital vassals, where outside algorithms end up shaping everything from their politics to their culture.

This anxiety is fueling a worldwide race for "AI Sovereignty." Just look at what's happened in 2025 and 2026: governments are pouring money into this like never before. France is pushing a "European AI Cloud" so they don't have to rely on American tech giants. Saudi Arabia and India are spending billions on local computing infrastructure. These aren't just tech projects—they're statements of intent. By building and controlling their own computing power, these countries want to make sure their values and interests are built into the AI systems of the future. In this new world, computational capacity isn't just a nerdy stat. It's the key to real power.

2. THE HARDWARE FRONTIER: SEMICONDUCTORS AND CHOKEPOINTS

Modern geopolitical power is increasingly defined by the hardware frontier, where the design and manufacturing of advanced semiconductors act as the ultimate strategic bottleneck. Because the global supply chain relies on a few "choke points"—such as specialized lithography machines and high-end foundries—nations use export controls to restrict rivals' access to the physical computing power necessary for AI and military supremacy. This shift has turned the semiconductor industry from a globalized commercial sector into the front line of a high-stakes techno-nationalist rivalry.

Weaponized Interdependence in the Silicon Supply Chain

Weaponized interdependence isn't just an academic buzzword anymore—it's right at the heart of how countries plan their global strategies now. For years, people saw tangled global supply chains as a good thing, almost like insurance against conflict. The logic was simple: if everyone's economy is tied together, nobody wants to pull the plug and lose access to what they need. But in today's world, those same tangled networks have turned into powerful weapons.

Take semiconductors. The industry is probably the clearest example of how this works. Making cutting-edge chips is insanely complicated and split up between a few places and companies. That means there are certain points in the chain—real chokepoints—where someone with control can stop a rival in their tracks, whether that's in industry or the military.

Right now, the US has a lock on the "soft" side of things: the software and intellectual property that chipmakers can't live without. The "hard" side, the actual machines and manufacturing, is split between ASML in the Netherlands—since they're the only ones who make the extreme ultraviolet lithography gear—and TSMC in Taiwan, which builds the world's most advanced chips. By late 2025 and into 2026, the US Department of Commerce is using the Foreign Direct Product Rule to clamp down on exports, not just of finished chips but also the machines and equipment you need to make them. By cutting off access to EUV systems and top-tier GPUs, the US and its allies can slow down or even stall a competitor's progress in AI.

This isn't just a spat over trade. It's a deliberate move—a way to make sure the technological backbone of the future stays in the hands of democracies. Rivals are left with a tough choice: either start from zero, which could easily take decades, or accept falling behind.

The Geopolitical Risk of the "Silicon Shield"

Right now, about 90% of the world's most advanced chips—the sub-7-nanometer kind—are made in Taiwan. That's why people talk about the "Silicon Shield." The idea is pretty simple: Taiwan is so important to the digital economy that nobody wants to risk a war there. If something happened to TSMC's factories, the fallout would be massive. We're talking about a global "Digital Depression" and something like $10 trillion in losses. Neither China nor the US wants that kind of disaster.

But, honestly, by 2026, this so-called shield isn't looking so protective anymore. Instead of keeping things peaceful, it's turned the Taiwan Strait into a powder keg. The place feels less like a shield and more like the world's riskiest tech hotspot.

So, what are the big players doing? The US and China are both scrambling to "de-risk" their tech supply chains. Washington passed the CHIPS and Science Act and pumped more than $52 billion into bringing chip production home. TSMC and Intel are now building high-tech fabs in Arizona and Ohio. Meanwhile, China's gone all-in with its "Big Fund" Phase III, pouring nearly $50 billion into making sure it can produce its own chips—especially the older, reliable ones. They're pushing new packaging tricks to get around Western restrictions on the latest chipmaking gear.

This isn't just about where chips get made. It's a whole new playbook for global economics. Countries are ditching the old "just-in-time" model—where everything arrives right when you need it—in favor of "just-in-case" resilience. They'd rather pay more and deal with a messier supply chain than risk getting cut off. The outcome? The global hardware market is splintering. It's getting pricier, more complicated, and a lot more vulnerable. Now, supply chain security matters more than the price tag on the final chip.

3. THE SINO-AMERICAN RIVALRY: A BIFURCATED GLOBAL ORDER

The Digital Silk Road and Global Influence

By 2026, China's "Digital Silk Road" isn't just about cables and cell towers anymore. What started back in 2015 as the tech push for the Belt and Road Initiative has turned into something way bigger—and sharper. The new phase, people call it "DSR 2.0," is all about exporting full-blown digital ecosystems, not just hardware. Instead of just wiring up the Global South, China's handing out everything from surveillance systems to e-commerce platforms and data centers. And there's a catch: these aren't just tools. They come bundled with China's own flavor of "techno-authoritarian" control.

Once a country's government offices, banks, and security forces run on Chinese systems, switching to anything else gets expensive and messy fast. So, these countries end up stuck, orbiting around China's digital sphere, whether they like it or not.

By early 2026, you can see the DSR's fingerprints all over global tech standards. This is the new battleground in international politics. China's got its experts sitting in the big seats at places like the International Telecommunication Union, steering the rules on how the digital world works. More and more, emerging economies are signing on to Chinese-made rules about data privacy and internet control—rules that put the state first, not the individual. That's a big shift from the open internet vision the West has been pushing for years.

For a lot of countries in Africa and Southeast Asia, the DSR is a tempting offer. It's quick, it's cheap, and it doesn't come with the usual lectures about democracy you get from Western investors. But it also means the world's splitting into two different digital realities, depending on which system you buy into. And once you're in, getting out isn't easy.

The Race for AGI and the New "Sputnik Moment"

In both Washington and Beijing, the race to build Artificial General Intelligence—the kind of AI that matches or beats humans at pretty much everything—feels a lot like a modern Manhattan Project. By 2026, the hype has hit a breaking point.

U.S. politicians call it their "Sputnik Moment," warning that whoever gets there first could end up with overwhelming military and economic power. People talk about automating science itself, breaking any code, and running battles with swarms of autonomous machines. This belief has kicked off a wild funding spree: between the government and tech giants, the U.S. is pouring hundreds of billions into massive supercomputers.

But the U.S. and China aren't playing the same game. America still bets big on frontier research—pushing for larger, more creative language models and chasing the dream of true AGI. China, on the other hand, shifted gears. They're all-in on "embodied AI"—think robots on factory floors and real-world applications. By 2026, China's manufacturing sector is packed with over 2 million robots, leaving Western factories in the dust. Their focus is on real economic gains right now and military tools that make decisions faster, while Western companies are still obsessed with building ever-wiser chatbots.

This split has hardened into two competing systems. In the West, you get the "Open AI" model: private companies driving innovation, arguments out in the open, debates in Congress. In China, it's all about state control—military and industry working together, pushing AI into every corner of their economy. As both sides sprint toward AGI, there's no agreement on how to manage the risks. That gap just makes a dangerous misstep more likely in this high-stakes race.

4. THE RISE OF PLATFORM SOVEREIGNTY

Platform sovereignty represents the shift where digital giants, rather than nation-states, exercise primary control over the rules, data, and social interactions within their massive digital ecosystems. By governing everything from economic transactions to free speech through proprietary algorithms, these platforms function as de facto governments that challenge traditional state authority. This rise forces countries to either regulate these "digital nations" or compete with them to maintain influence over their own national interests.

Tech Giants as Geopolitical Actors

For almost four hundred years, the Westphalian system kept things pretty simple: countries ruled the land inside their borders, and that was that. But now, "Platform Sovereignty" is turning all of that on its head. By 2026, global tech giants like Microsoft, Alphabet, Meta, and SpaceX aren't just businesses anymore—they look a lot more like private governments. Instead of just selling products, they write their own rules through terms of service, settle disputes with automated moderation, and hand out penalties like demonetizing creators or banning people from their platforms.

It gets even more real when you realize these companies control the backbone of the digital world—cloud computing, satellite networks, AI models. With that power, they've built a kind of borderless, algorithm-driven authority that skips right over most national laws.

You could really see their influence during the 2025–2026 crises in Eurasia and the Middle East. SpaceX's Starlink made headlines when it turned out that just one private company—and honestly, one person—could decide if a whole country's military stayed online or not. In early 2026, as protests broke out across Iran, tens of thousands of smuggled Starlink terminals, some with their fees quietly waived, popped up everywhere. This underground network let people dodge the government's internet blackouts and talk to the outside world. Suddenly, stuff that used to be core government business—like controlling communication during unrest—depended on the choices and politics of a handful of tech executives.

So now, sovereignty isn't some fixed, absolute thing. It's up for grabs, shaped every day by negotiations between old-school governments and these digital powerhouses that run the infrastructure of our era.

Algorithmic Power and Ideological Formation

AI algorithms basically run the show now—they decide what we see online and, in a lot of ways, how we talk about the world. Platforms use insanely detailed personal data to build little digital bubbles around each of us. This isn't just about showing you an ad for sneakers you googled last week. By 2026, these systems have moved way past marketing. Now, it's about "cognitive warfare." The goal? Mess with how whole groups think and act.

It's sneaky stuff. Platforms can nudge election results, stir up division, or even push certain groups to vote—all without anyone laying a finger on you. Just by shifting search results, boosting angry posts, or targeting messages, they can reshape what a country believes and how it votes.

Other countries have caught on. They're using these tricks to throw rival societies into what experts call "epistemic chaos." In 2025, for example, "Operation Overload" flooded the internet with deepfakes and fake news, making it almost impossible to tell what's real anymore. By 2026, researchers found that just tweaking search rankings could swing undecided voters by 20%, and most people didn't even notice it was happening.

Since these platforms care more about keeping us scrolling than telling us the truth, they end up feeding the most extreme and polarizing stuff. What used to be a space for open debate has turned into a battlefield for controlling what people imagine is real. The scary part? Most of this power sits in the hands of private companies running secretive algorithms that shape how we see the world—often without us even realizing it.

5. REGULATORY MODELS AND THE BRUSSELS EFFECT

The Brussels Effect describes how the European Union's stringent digital laws, like the AI Act, become the default global standard because tech giants find it easier to adopt one high bar than to manage a patchwork of rules. By leveraging its massive consumer market, the EU forces international firms to export European protections—such as privacy and safety audits—to the rest of the world. This regulatory model allows the EU to project power globally, shaping the "rules of the road" for the digital age without needing its own Silicon Valley.

The EU AI Act as a Global Standard

The US chases innovation. China leans into state control. Meanwhile, the European Union has found its own lane as the world's "Regulatory Superpower." The EU AI Act is the first big, all-encompassing law for AI. It sorts technologies by how risky they are. Here's the thing: the European market is huge, so companies worldwide usually just stick to EU rules from the start. People call this the "Brussels Effect."

It means the EU can spread its values—privacy, human rights, transparency—around the world, even though it doesn't have a tech giant of its own.

The following table highlights the distinct approaches to AI governance that currently define the international political economy:

Table 1: Comparative Analysis of Global AI Governance Models

Model	Primary Driver	Key Legislation	Focus
Brussels (EU)	Rights & Safety	AI Act, GDPR	Protecting digital sovereignty and human rights through strict regulation.
Washington (US)	Market & Innovation	Executive Orders, NIST Framework	Fostering private-sector growth and maintaining a competitive tech edge.
Beijing (China)	State & Stability	Algorithmic Recommendation Rules	Ensuring AI development aligns with social stability and state interests.

Source: Adapted from Roberts, H., Cowls, J., Morley, J., Taddeo, M., Wang, V., & Floridi, L. (2021).

6. THE GLOBAL SOUTH AND THE THREAT OF DIGITAL COLONIALISM

Digital colonialism occurs when powerful tech nations extract data from the Global South as a raw resource while selling back proprietary algorithms, creating a new cycle of economic dependency. This dynamic threatens to trap developing nations in a "value-added" gap, forcing them to rely on foreign platforms that lack local contextual relevance and hinder digital sovereignty.

Avoiding Dependency and "Data Extraction"

By 2026, you can really hear the Global South pushing back against what they call "digital colonialism." It's a new kind of extraction—this time, it's not gold or spices, but data. Companies in places like Silicon Valley or Shenzhen scoop up oceans of behavioral, linguistic, and environmental data from countries on the periphery. They use it to sharpen their AI models, then turn around and sell the results—now wrapped up in pricey, proprietary software—right back to those very countries. Critics say it's the old colonial playbook, just updated for the digital age. The resource is different, but the pattern feels way too familiar: take from the margins, profit at the center.

Some countries aren't just complaining—they're doing something about it. Brazil and Kenya, for example, are betting big on "Digital Public Infrastructure" and "Sovereign AI." Brazil's latest AI plan, "AI for the Good of All," along with its "ClimateStack" proposal at COP30, shows just how serious they are. They're pouring almost 23 billion reais—about $4 billion—into national data centers and powerful computing clusters. Basically, they want to stop leaning so heavily on American tech giants.

Kenya's got a similar idea. Their National AI Strategy focuses on making sure the government leads the way, so everyone can benefit—not just a handful of big players. And they're dead set on making sure local data stays local. Both countries are building what they call "digital rails"—open, public systems for identity, payments, and data exchange. The idea is to give local startups a real shot, instead of letting foreign tech monopolies swallow up the market.

At the end of the day, this is about flipping the script. They want to move from being just buyers of AI to actually making their own—AI that gets their languages, their economies, their lives. It's a move toward tech that doesn't just arrive from somewhere else, but actually grows up at home.

The Prospect of Digital Non-Alignment

Back in the Cold War, a lot of countries tried to find a "Third Way" so they wouldn't get squeezed between the big powers. Fast forward to 2026, and now you've got nations chasing what people call "Digital Non-Alignment."

The idea? Mix and match tech from the West and China, pick what works, and don't get stuck with just one supplier or ecosystem. But let's be real—the global tech world's splitting apart.

The U.S. and China both have their own rules, their own standards, and they don't really line up, whether we're talking about data privacy or how chips are built. Neutrality isn't cheap anymore. If you want a "hybrid" setup that plays nice with both sides, you need serious tech talent and deep pockets.

India's right in the middle of all this. At the IndiaAI Impact Summit 2026, they pushed hard for "Democratizing AI Resources." With things like the India Stack and Digital India Bhashini (which supports 22 Indian languages, open source), India wants to show the rest of the Global South how to build tech that's ethical, affordable, and actually works for them. They're aiming to be a "Vishwa-guru"—the global teacher. It's a way for countries to modernize on their own terms, without giving up their identity or security.

Still, smaller countries feel the squeeze. The pressure to pick a side is huge. The main options? The U.S. "platform-led" approach or China's "state-integrated" model. So, digital non-alignment in 2026 isn't just sitting on the sidelines. It's a tough, costly, and complicated balancing act—a way for countries to keep their own vision alive in a world where machines and algorithms are starting to call the shots.

CONCLUSION

AI and international political economy have crashed together, and honestly, things have never been more tangled. Digital geopolitics isn't just some side issue now—it's right at the heart of global power. Countries aren't just racing to build the best tech; they're using it to redraw the lines of sovereignty, turn economic ties into leverage, and split the world into new camps.

If we want to make sense of all this, sticking with old-school thinking won't cut it. We have to see that the "code" shaping our digital lives is just as powerful as any treaty shaping borders. The real question is, can we build fair, open rules for this new world—rules that stop techno-nationalism from turning into a digital Cold War?

If we get this wrong, a handful of tech giants will grab all the benefits. But if we get it right, AI's promise could actually reach everyone, not just the so-called "computational superpowers."

REFERENCES

Acemoglu, D., & Johnson, S. (2023). Power and progress: Our thousand-year struggle over technology and prosperity. PublicAffairs.

Allison, G. T. (2024). The great tech rivalry: China vs. the United States. Oxford University Press.

Bratton, B. H. (2015). The stack: On software and sovereignty. MIT Press.

Bremmer, I. (2022). The technopolar moment: How digital powers will shape the new world order. Foreign Affairs, 101(6), 112–129.

Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. International Security, 44(1), 42–79. doi.org

Fukuyama, F. (1992). The end of history and the last man. Free Press.

Kliem, F. (2025). Techno-nationalism and the future of global trade. Routledge.

Kwet, M. (2021, March 4). Digital colonialism: US empire and the new imperialism in the Global South. Transnational Institute. www.tni.org

Miller, C. (2022). Chip war: The fight for the world's most critical technology. Scribner.

Ministry of Science, Technology and Innovation. (2024, July 30). Plano Brasileiro de Inteligência Artificial (PBIA) 2024–2028: Inteligência Artificial para o Bem de Todos [Brazilian Artificial Intelligence Plan 2024–2028: AI for the Good of All]. Government of Brazil. www.gov.br

Nasiri, H., et al. (2025). The evolution of disinformation from fake news propaganda to AI-generated deepfakes. SSOAR. www.ssoar.info

Roberts, H., et al. (2023). The geopolitics of AI: An analysis of state strategies. International Journal of Political Economy, 52(2), 145–168.

Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power. PublicAffairs.

CHAPTER 3
ARTIFICIAL INTELLIGENCE REGULATION, BUSINESS POWER, AND GLOBAL INEQUALITY: A COMPARATIVE POLITICAL ECONOMY PERSPECTIVE

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INTRODUCTION

This chapter examines AI regulatory frameworks in the European Union (EU), the United States (US), and China, analyzing how these models shape economic and political power at a global scale. Drawing on Structural Power Theory, Regulatory Capitalism, and the Varieties of Capitalism framework, it demonstrates how regulation interacts with business power to reinforce the dominance of multinational technology firms, shape market structures, and indirectly affect emerging economies, particularly in Africa. These regulatory divergences determine who benefits economically and politically, influence global competition, and reinforce patterns of inequality in the digital economy. By linking AI governance, corporate influence, and international inequality, the chapter contributes to digital political economy scholarship through a comprehensive analytical framework.

Artificial Intelligence (AI) has emerged as a transformative force in the global economy by driving innovation across multiple sectors and transforming traditional business practices. AI is reshaping economic structures and organizational operations, marking a significant shift in contemporary industries (Ranjan, 2024). From finance and healthcare to manufacturing and digital services, AI technologies enhance productivity, enable automation, and create new forms of value. By processing vast datasets and supporting advanced decision-making, AI allows firms to operate at unprecedented speed and scale, positioning it as a strategic asset for both economic growth and competitive advantage.

Despite its growing importance in the global political economy, AI adoption remains uneven. According to Microsoft (2026), adoption in the Global North has increased at nearly twice the rate of the Global South, widening the gap from 9.8 to 10.6 percentage points. Advanced economies, including the United States, European Union member states, and China, dominate AI research, development, and deployment, benefiting from substantial investments in infrastructure, access to large-scale datasets, and highly skilled labor pools. In contrast, according to the Tony Blair Institute for Global Change (2025), many emerging economies struggle to integrate AI into their economic systems due to resource constraints, technological gaps, limited institutional capacity, and underdeveloped regulatory frameworks.

These disparities reinforce existing inequalities in technological capabilities, economic power, and global competitiveness, highlighting the structural challenges facing the Global South in the digital economy.

Beyond technological adoption, AI shapes labor markets, governance, and international trade. Automation and algorithmic decision-making create efficiencies but can displace jobs, embed algorithmic biases, and concentrate market power within a few dominant firms. These dynamics illustrate that AI is not merely a technical innovation but a structural force influencing the distribution of economic power, social outcomes, and global inequality. In 2025, the open-source AI platform DeepSeek lowered financial and technical barriers, gaining traction in China, Russia, and parts of Africa. Its adoption highlights the strategic rivalry between the US and China, with differing regulations shaping how these technologies are deployed and leveraged globally.

Understanding AI in the global economy therefore requires attention to both the diffusion of technology and the political-economic structures that govern its use (Zekos, 2022). How AI is developed, deployed, and regulated determines who captures value, who sets standards, and which economies remain dependent on foreign technologies and expertise. This perspective situates AI at the intersection of technology, corporate power, and global economic inequality. Regulation is a critical mechanism through which markets and power are structured in the AI digital economy (Spulbar, 2025). This involves Policies governing data governance, algorithmic accountability, intellectual property, and ethical compliance shape which firms can compete, how resources are allocated, and the barriers faced by new entrants. In this way, regulatory frameworks influence not only market outcomes but also the concentration of economic and political power globally.

Different regulatory approaches have distinct implications for corporate dominance and international competition. In 2024, the European Union formally adopted the Artificial Intelligence Act, which entered into force on 1 August 2024, with key obligations being phased in through 2025–2027, making it the first comprehensive AI regulatory law in the world (Council of the European Union, 2024).

China, pursuing a state-led approach, issued its first set of national AI guidelines in 2023 to align AI development with strategic industrial priorities and national competitiveness (Sentinella, 2024). Similarly, aiming to become a leading AI powerhouse, South Korea passed its Basic AI Act, with phased implementation beginning in 2026 (Shim, 2026). Brazil's Senate also progressed the Brazilian AI Bill. More broadly, over 37 countries have proposed AI-related legal frameworks (Tony Blair Institute for Global Change, 2025).

These diverse approaches reflect different policy priorities and governance logics. The European Union emphasizes a precautionary, rights-based framework focused on risk mitigation and accountability, the United States follows a market-driven, innovation-oriented model, and China pursues a state-led regulatory approach that aligns AI development with national strategic goals. Such variations influence not only domestic markets but also the ability of emerging economies to engage meaningfully in the global AI ecosystem, often reinforcing the structural advantages of dominant firms and leading states.

2. CONCEPTUAL AND THEORETICAL FRAMEWORK

This section presents the conceptual and theoretical foundations that underpin the study. It clarifies the key constructs and theoretical perspectives used to explain the relationship between artificial intelligence and the global digital economy.

Artificial Intelligence and the Global Digital Economy

Artificial Intelligence (AI) has emerged as a transformative engine in the global digital economy, reshaping production processes, consumption patterns, and governance structures across sectors. AI technologies enable firms to automate complex operations, generate actionable insights from large-scale data, and deliver novel services in areas such as finance, healthcare, logistics, and e-commerce. The proliferation of AI across digital platforms has intensified network effects, concentrated market power, and created new avenues for value capture, disproportionately benefiting leading technology firms with the resources to leverage these capabilities.

The global digital economy is marked by stark asymmetries in technological infrastructure, access to data, and financial capacity, reinforcing unequal patterns of value creation and capture between advanced and emerging economies (UNCTAD, 2021; Shukla et al., 2023). Economies equipped with advanced AI research and development ecosystems dominate innovation trajectories, set global standards, and influence cross-border technology flows. In contrast, many emerging economies rely on imported technologies and external expertise, limiting their ability to influence market rules, capture economic rents, or steer technological trajectories. This uneven distribution situates AI at the intersection of technology, economic power, and global inequality, framing it as both an economic catalyst and a strategic instrument of influence in the contemporary political economy.

Structural Power Theory and Global Market Control

Structural Power Theory, as articulated by Susan Strange, emphasizes the capacity of states and corporations to shape the rules, norms, and structures governing global markets. This includes the ability to determine the structures of the global political economy within which other states, political institutions, economic enterprises, and professional actors, including scientists and technologists, operate (Haggard et al., 2019). Strange (1988) argues that power does not emanate from a single source but from four key structures, none of which is necessarily a priori more important than the others. These include security, referring to the ability to provide or deny physical protection; production, which concerns control over what is produced, by whom, and for whom; finance, defined by the capacity to create money and regulate access to credit; and knowledge, which involves determining what counts as legitimate knowledge and who can create, disseminate, and use it.

In the context of artificial intelligence, structural power is expressed through the ability of dominant firms and advanced economies to shape technological standards, control critical digital infrastructure, and influence regulatory frameworks. This enables these actors to entrench market dominance, shape competitive conditions, and indirectly constrain the policy options of emerging economies.

Consequently, AI development can be understood not only as a technological process but also as a strategic arena of political and economic power within global markets.

Regulatory Capitalism and Business Influence

Regulatory capitalism refers to a social, political, and economic order marked by the simultaneous expansion of markets and the proliferation of state and non-state efforts to regulate business conduct (Parker & Nielsen, 2008). Central to this perspective is the role of regulatory institutions as instruments through which business interests are advanced and market hierarchies reinforced (Braithwaite, 2008; Rahanjam, 2025). Within the context of AI governance, regulatory frameworks are not neutral; they shape access to critical resources such as data, computing infrastructure, and intellectual property, impose uneven compliance costs, and delineate competitive advantages among firms (Walter, 2024; Alex-Omiogbemi et al., 2024). Although regulatory transformation appears as a global governance trend, its implementation varies significantly across sectors and national contexts, producing uneven outcomes and power asymmetries (Rahanjam, 2025).

From this standpoint, AI regulation operates dually as a mechanism for societal risk management and as a strategic tool for reinforcing global economic hierarchies. Regulatory instruments—including data protection laws, AI ethics guidelines, intellectual property regimes, and algorithmic accountability standards—particularly those originating in leading economies, shape market dynamics well beyond their jurisdictions. However, High compliance costs associated with transparency, accountability, and risk management tend to privilege firms with substantial legal, financial, and technical capacities, thereby reinforcing incumbent dominance in AI markets. This dynamic enables powerful states and firms to export regulatory standards globally, advantaging actors with the institutional capacity to comply with, influence, or shape these rules (Farrell & Newman, 2019). Regulatory capitalism thus offers a critical lens for understanding AI regulation not merely as a governance mechanism, but as a vector of economic power and structural inequality in the global digital economy.

Varieties of Capitalism and Cross-National Regulatory Models

The Varieties of Capitalism (VoC) approach is grounded in a rich body of comparative case studies and offers a widely used framework for examining how national institutional arrangements shape economic coordination, innovation processes, and regulatory strategies (Hall & Soskice, 2001; Hall & Gingerich, 2009). Rather than providing rigid classifications, VoC conceptualizes different modes of coordination as ideal types that illustrate systematic differences in how firms, states, and other actors interact within capitalist economies (Hall & Soskice, 2001; Wood, 2025). This perspective is useful for understanding why regulatory responses to emerging technologies, including artificial intelligence, vary across institutional and regulatory contexts.

In practice, approaches to AI governance reflect diverse institutional traditions and policy priorities. Some systems rely more heavily on competition and firm-led innovation, while others emphasize coordination, precaution, and public oversight through structured regulatory frameworks. In certain contexts, technological development is closely aligned with strategic planning and regulatory oversight. These institutional variations shape domestic outcomes, influence the global diffusion of AI technologies, and affect the formation of international standards and patterns of competitive advantage, illustrating how regulatory models are deeply intertwined with the political economy of AI technologies.

Synthesis: Integrating Theory for AI Regulation Analysis

Integrating Structural Power Theory, Regulatory Capitalism, and the Varieties of Capitalism (VoC) framework provides a comprehensive analytical lens for understanding the political economy of AI regulation. Structural Power Theory highlights how leading firms and powerful states strategically shape technological standards and exert control over emerging AI markets. Regulatory Capitalism emphasizes that regulatory frameworks both manage societal and technological risks and reproduce existing market hierarchies. VoC contextualizes cross-national differences, illustrating how institutional arrangements influence regulatory priorities, compliance mechanisms, and innovation incentives.

In practice, AI regulatory approaches differ across countries. Market-oriented systems, such as the United States, tend to emphasize competition and firm-led innovation. Coordinated approaches, exemplified by the European Union, prioritize structured oversight, precaution, and ethical compliance. In contrast, state-led economies like China integrate AI development with strategic industrial planning and regulatory oversight aligned with national competitiveness and socio-political objectives. These institutional variations shape domestic outcomes, influence the global diffusion of AI technologies, and affect market concentration and corporate power, offering a robust lens to examine the intersections of technology, governance, and global inequality.

3. AI REGULATORY MODELS IN COMPARATIVE PERSPECTIVE

This section examines the major regulatory approaches to artificial intelligence across leading global economies. It provides a comparative analysis of how different governance models shape innovation, risk management, and economic outcomes.

European Union: Precautionary Governance and the EU AI Act

The EU Artificial Intelligence Act (Regulation (EU) 2024/1689) classifies AI systems into four risk categories: unacceptable, high, transparency, and minimal or no risk (European Commission, 2024) (see Figure 1). Systems deemed unacceptable, including those that manipulate behavior, exploit vulnerabilities, engage in social scoring, conduct individual criminal risk assessments, or perform unsafeguarded biometric categorization, are prohibited entirely, with guidance issued to support stakeholders' compliance. High-risk AI systems, such as those used in critical infrastructure, education, employment, law enforcement, and access to essential services, are subject to stringent requirements, including comprehensive risk assessments, high-quality datasets, traceability, detailed documentation, human oversight, and robust cybersecurity standards, with phased enforcement extending from 2026 to 2027.

Transparency-risk AI systems require users to be informed when interacting with AI and include obligations for labeling AI-generated content, particularly generative outputs or deepfakes affecting public information, with these provisions taking effect in 2026. Minimal or no-risk systems, which constitute the majority of current AI applications such as video games or spam filters, are largely exempt from regulatory obligations. However, Mahmutovic (2025) argues that although the Act introduces proactive tools such as regulatory sandboxes and data governance frameworks, achieving the right balance between innovation and ethical oversight remains challenging.

The Act's phased implementation allows regulators and firms to adapt progressively to requirements, particularly for high-risk and general-purpose systems. Enforcement mechanisms, including substantial administrative fines for non-compliance, reinforce the importance of adherence to risk-based obligations (European Commission, 2024). By imposing extensive responsibilities on developers, deployers, and users of AI, the EU's regulatory strategy emphasizes ethical compliance, the protection of fundamental rights, and the prevention of harm. At the same time, these requirements generate uneven effects across firms, as smaller enterprises may face higher relative costs while larger, well-resourced organizations can more readily meet regulatory obligations. This illustrates the dual function of regulation: it safeguards society while shaping the structure of markets, consistent with the theoretical principles of Regulatory Capitalism and Structural Power Theory. While the EU has developed a comprehensive AI governance framework grounded in a strategic vision, its implementation reveals several imbalances that reflect underlying structural tensions between regulatory governance and the dynamics of technological innovation (Chuanying, 2025).

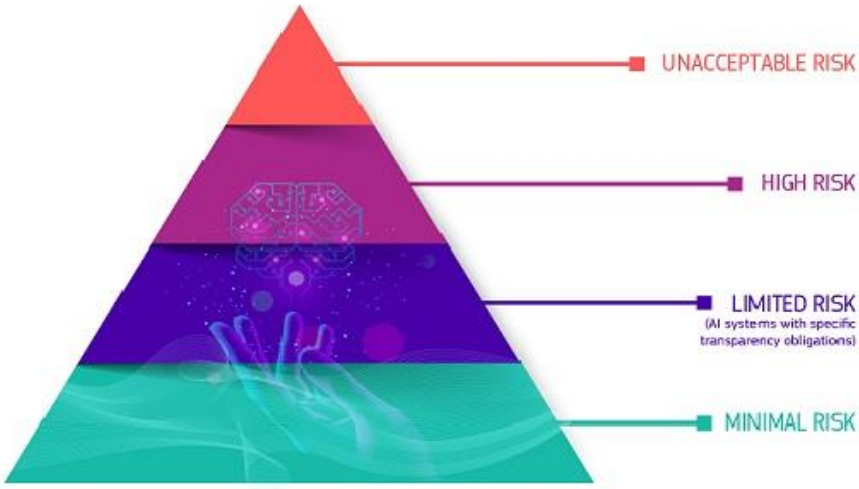

Figure 1. Pyramid of AI risk levels under the European Union Artificial Intelligence Act (Regulation (EU) 2024/1689).
Source: European Commission, 2024.

United States: Innovation-Driven, Market-Oriented

Unlike the European Union, the United States does not have a single national AI regulatory law covering all AI applications. At the same time, states are introducing their own AI regulations, creating a fragmented landscape alongside federal guidance (Sanchez, 2025). AI governance in the U.S. remains decentralized, shaped by federal agencies, executive policy directives, and a growing number of state-level initiatives. Federal bodies such as the Federal Trade Commission (FTC) and the National Institute of Standards and Technology (NIST) issue guidance and best practices on fairness, transparency, risk management, and consumer protection (White & Case, 2025). While these instruments provide recommendations for responsible AI development and deployment, no comprehensive federal statute has been enacted, leaving much of the framework voluntary and dependent on industry compliance (FTC and NIST guidance). Executive orders issued between 2023 and 2025 reflect federal priorities aimed at balancing innovation, economic competitiveness, and national security, without creating uniform obligations across sectors.

In 2025, the federal approach shifted noticeably from restrictive oversight toward promoting innovation and competitiveness, emphasizing a market-oriented framework for AI development (Sanchez, 2025).

At the state level, legislatures have enacted their own AI laws to address emerging risks and gaps in federal oversight. For example, California's Transparency in Frontier Artificial Intelligence Act (SB 53) requires frontier AI developers to ensure transparency, safety, and accountability, including publishing frameworks, reporting critical incidents, and protecting whistleblowers. The law also promotes innovation and responsiveness through public research initiatives and annual updates based on technological and stakeholder developments (California Governor's Office, 2025).

At the state level, U.S. legislatures have enacted AI laws to address emerging risks and gaps in federal oversight. For example, California's Transparency in Frontier Artificial Intelligence Act (SB 53) requires frontier AI developers to ensure transparency, safety, and accountability by publishing frameworks, reporting critical incidents, and protecting whistleblowers, while also promoting innovation through public research initiatives and periodic updates (California Governor's Office, 2025). Other states have introduced statutes targeting AI-related risks such as bias, accountability, and transparency. Colorado's AI Act mandates impact assessments and disclosure for high-risk AI systems to prevent discriminatory outcomes, while Tennessee's ELVIS Act regulates unauthorized AI voice cloning to protect individuals' likenesses (multi-state legislative summaries). This fragmented, decentralized regulatory environment emphasizes flexibility and technological leadership but creates compliance complexity for firms. From a regulatory perspective, these features illustrate how the U.S. approach aligns with Regulatory Capitalism and Structural Power Theory, shaping market dynamics, mediating access to resources, and advantaging firms capable of navigating or influencing the regulatory landscape.

China: State-Led Strategic Regulation

China's AI regulatory model is characterized by state-led oversight that integrates sector-specific administrative rules with strategic industrial policies (Xuan & Xing, 2025).

Unlike the EU's single, comprehensive AI law, China employs a suite of administrative measures addressing content supervision, data security, algorithm registration, and operational compliance for AI services. In July 2023, the government introduced the Interim Measures for the Management of Generative Artificial Intelligence Services, which took effect on 15 August 2023. These rules require providers of public-facing generative AI systems to ensure lawful training data, register algorithms, conduct security and safety assessments, and monitor content for legality and ethical compliance. This regulatory framework combines overarching legal, institutional, and technological components into a unified governance system, emphasizing social stability, public discourse oversight, and coordinated technological development aligned with national priorities (Gacek, 2025).

China's AI governance is further reinforced by foundational national laws, including the Cybersecurity Law (CSL), Data Security Law (DSL), and Personal Information Protection Law (PIPL), which collectively govern network security, data protection, and cross-border data transfers. Earlier provisions on algorithmic recommendation systems, enacted in 2022, require filing and oversight for algorithms that influence public opinion or information delivery. Together, these layered measures create a complex compliance environment where both domestic and foreign firms must navigate multiple sectoral rules, administrative obligations, and oversight mechanisms related to data governance, algorithm registration, content moderation, and cybersecurity. This approach balances rapid AI deployment with regulatory oversight, ensuring that technological innovation aligns with legal requirements and the state's strategic objectives.

Comparative Analysis: Divergences and Convergences

The regulatory frameworks in the EU, United States, and China reflect distinct political economies and institutional priorities. The EU emphasizes ethical oversight, detailed risk classification, and comprehensive compliance mechanisms enforced through harmonized EU structures. The United States prioritizes innovation and competitive leadership, relying on federal guidance and a fragmented patchwork of state laws rather than a unified national statute.

China combines regulatory control with strategic state objectives, prioritizing coordinated governance and alignment with broader socio-economic goals. Despite these differences, all three systems recognize AI's strategic importance for economic growth, national competitiveness, and societal outcomes, shaping both domestic markets and global technological landscapes.

Regulatory design also affects business power, market access, and extraterritorial consequences for international compliance. EU standards often set global expectations due to the size and regulatory rigor of its market, while the U.S. model sustains technological leadership and investment incentives. China's coordinated system reinforces domestic capabilities and regional influence. Comparing these approaches highlights how regulatory strategies influence the distribution of power and the international diffusion of AI standards. As China and the United States identify artificial intelligence as a central arena of technological competition, the AI Action Summit demonstrates the European Union's determination to play an active role in the global AI race rather than remain a bystander (Chuanying, 2025).

To clarify these distinctions, a comparative table is included to summarize key differences and similarities in structure, enforcement, regulatory priorities, and market impact, providing a foundation for analyzing the interplay between regulation, corporate power, and global inequalities in AI governance.

Table 2.1: Comparative Table of AI Regulatory Models: EU, US, and China

Dimension	European Union	United States	China
Core Approach	Single, horizontal, risk-based AI law	Decentralized, sector-specific regulation and guidance	State-led, coordinated, sectoral governance
Legal Framework	EU AI Act (Regulation (EU) 2024/1689) with phased implementation; emerging General-Purpose AI codes of practice	No comprehensive federal AI statute; agency guidance (FTC, NIST, SEC, EEOC) and state-level laws (e.g. California's SB 53, Colorado AI Act)	Interim Measures for Generative AI Services (2023), Algorithmic Recommendation Provisions, and national technical standards
Risk Classification / Oversight	Four-tier risk system (unacceptable, high, limited, minimal); high-risk AI subject to conformity assessments, documentation, and human oversight	No unified risk taxonomy; sector-based oversight and state transparency or bias-mitigation requirements	Oversight based on application and service type; generative AI systems require algorithm registration, content labelling, and security assessments
Enforcement Mechanisms	National authorities coordinated via EU AI Office; fines up to €35 million or 7% of global turnover	Fragmented enforcement across agencies and states; compliance varies by sector and jurisdiction	Multi-agency supervision led by CAC; enforcement through filings, audits, and compliance with technical standards
Scope / Extraterritoriality	Applies to AI systems placed on or affecting the EU market regardless of provider location	Primarily domestic; state-level laws create regulatory fragmentation for global firms	Applies to AI services operating in China; foreign firms must localize compliance and adhere to content controls

Dimension	European Union	United States	China
Regulatory Emphasis / Priorities	Fundamental rights protection, risk prevention, transparency, and public safety	Innovation, market flexibility, economic competitiveness, and experimentation	National security, social stability, industrial strategy, and political alignment
Business & Market Implications	High compliance costs Favor large incumbents; startups face entry barriers; EU norms become de facto global standards	Low entry barriers encourage rapid innovation; regulatory uncertainty Favors large firms with compliance capacity	State-aligned domestic firms benefit; foreign firms face operational constraints and regulatory dependence
Global Influence / Competition	Strong extraterritorial influence shaping global AI governance norms	Supports US technological leadership and firm-driven global expansion	Regional norm-setting through platform scale and policy coordination, particularly in Asia

Source: Author's comparative synthesis of AI regulatory models across the European Union, United States, and China, drawing on regulatory texts and policy analyses to highlight differences in governance orientation, market implications, and global competitive effects.

4. ECONOMIC AND POLITICAL IMPLICATIONS

This section examines how AI governance influences corporate dominance, global standards, emerging economies, and inequality.

Reinforcing Market Dominance of Big Tech Firms

AI regulatory frameworks, particularly those in the EU and the U.S., have significant implications for the market dominance of leading technology companies. In the EU, the **Artificial Intelligence Act** imposes stringent obligations on high-risk AI systems, including detailed documentation, human oversight, and transparency requirements (European Commission, 2024).

While these measures aim to protect public interest and mitigate societal harms, they also create barriers to entry for smaller firms and startups that often lack the financial, legal, and institutional resources to comply. Larger technology firms, by contrast, can absorb these compliance costs more efficiently, consolidating their market positions and reinforcing their competitive advantage.

Unlike the EU's comprehensive, centralized approach, the United States relies on a decentralized, market-led and industry-driven regulatory model without a unified federal AI law, where existing laws, voluntary standards and agency guidance shape AI governance (He & Zhang, 2025; Davtyan 2025). In the United States, the decentralized regulatory model might benefit established corporations. Minimal federal oversight combined with reliance on voluntary industry guidance allows dominant firms to leverage their data access, research capabilities, and network effects, sustaining technological leadership in AI development.

In China, state-led regulations align domestic firms with national priorities, granting preferential access to infrastructure, government-supported research, and critical data resources, which can accelerate the growth and market reach of leading firms Across all three jurisdictions, AI regulation tends to reinforce existing hierarchies, favoring firms with pre-existing technological, financial, and institutional capacity, and contributing to the concentration of global AI capability among a small number of multinational corporations, thereby enhancing their structural power in the digital economy.

Shaping Global Competition and Standards

Regulatory models shape not only domestic market dynamics but also global competition and the establishment of international standards (Walter, 2024). The European Union's precautionary, rights-based AI framework carries extraterritorial reach, obliging non-EU firms to comply with its AI Act when offering products or services in EU markets (European Commission, 2024). This has prompted multinational corporations to adjust their offerings worldwide to align with EU requirements, effectively exporting regulatory norms beyond the Union.

In contrast, the United States emphasizes innovation, experimentation, and market-driven governance, supporting rapid technology deployment and strengthening the global competitiveness of American AI firms. However, the absence of a uniform federal AI statute can create inconsistencies and compliance risks for companies operating internationally, necessitating strategic adaptation to navigate divergent rules across markets.

China's state-led regulatory approach provides domestic firms with competitive advantages, while simultaneously shaping global AI ecosystems through regional partnerships, technology exports, and participation in standards-setting initiatives. Chinese AI companies increasingly engage in international collaborations, influencing regulatory and operational practices in emerging economies. Taken together, these variations illustrate how AI regulation operates as a mechanism of structural advantage: countries capable of enforcing sophisticated regulatory frameworks can shape global standards, while firms in technologically advanced economies consolidate market power and competitive leverage.

Implications for Emerging Economies: Africa in Comparative Perspective

In contrast with the European Union's comprehensive AI Act, the United States decentralized, innovation-driven governance, and China's state-led regulatory strategy, African countries generally lack formal, standalone AI laws comparable to those in major global economies. Across the continent, regulatory development is still emerging, with many countries focusing on national AI strategies and policy frameworks that outline goals for AI adoption, ethical principles, and capacity building rather than enforceable legal obligations. As of 2025, Twelve African countries, including Mauritius, Egypt, Algeria, Ghana, Senegal, Benin, Rwanda, South Africa, Mauritania, Ethiopia, Kenya, and Nigeria, have developed national AI strategies to guide policy formulation and set national priorities (Gregkawere, 2024).

Additionally, seven other countries, including Zambia, Tunisia, Morocco, Namibia, Seychelles, Tanzania, and Botswana, are engaging in multi-stakeholder consultations to establish national AI regulations, representing early efforts to build governance frameworks that incorporate a range of perspectives and expertise (Gregkawere, 2024).

These national strategies vary in scope and approach. Kenya's National AI Strategy 2025–2030 promotes responsible AI innovation and data governance but lacks a dedicated AI law. South Africa relies on existing legislation, notably the Protection of Personal Information Act, alongside a draft AI policy framework. Ghana's National AI Strategy emphasizes ethical and transparent AI use, including oversight proposals, without establishing binding regulation. Nigeria similarly adopts a national AI strategy focused on responsible and inclusive AI development, while governance remains anchored in existing data protection laws. Together, these cases reflect early efforts to guide AI adoption without comprehensive, legally binding frameworks.

The African Union adopted a Continental Artificial Intelligence Strategy in 2024, which was formalized through a High-Level Policy Dialogue in 2025. This dialogue urged member states to develop AI laws, strategies, and regulations tailored to national contexts, while promoting collaboration, risk assessment, and inclusive governance (African Union, 2024). This development occurs within a broader global landscape in which major powers are actively shaping AI policy and influence. The European Union has implemented a comprehensive regulatory framework for AI and is investing heavily to strengthen technological sovereignty in response to competition from the United States and China, both of which are engaged in a strategic race to lead in AI innovation, infrastructure, and market adoption. For emerging economies in Africa, this global AI competition carries significant implications, including pressures to align national governance with international standards, opportunities for partnerships and investment, and risks of dependence on foreign technology ecosystems and standards that may not reflect local development priorities and capacities.

Implications for Global Inequality

AI regulation, market power, and global competition intersect in ways that can intensify inequalities at multiple levels. At the corporate level, leading technology firms consolidate resources, data, and market influence, creating concentrated advantages in AI development and deployment. At the national level, countries with advanced regulatory frameworks—such as the EU, US, and China—can export norms, shape standards, and influence AI adoption globally, reinforcing the technological and economic dominance of developed economies.

Emerging economies, on the other hand, face higher compliance costs, reliance on foreign technologies, and limited regulatory autonomy, which can slow domestic AI adoption and deepen the global digital divide. In this context, AI regulation functions not only as a tool to mitigate societal risks but also as a mechanism that structures global economic and technological power. Understanding these dynamics is crucial for policymakers seeking to foster equitable AI adoption and for scholars analyzing the political economy of digital technologies.

5. DISCUSSION AND SYNTHESIS

This section integrates the key findings from the comparative analysis of artificial intelligence regulatory frameworks. It synthesizes the insights to highlight patterns, divergences, and their implications for the global digital economy.

Integration and Synthesis of Insights

The comparative analysis of AI regulatory frameworks in the European Union, United States, and China reveals both distinct approaches and underlying common patterns that can be interpreted through the theoretical frameworks introduced earlier. The EU's precautionary, rights-based approach emphasizes risk management, ethical oversight, and societal protection, while the US model prioritizes innovation, flexibility, and market leadership, and China combines state-directed guidance with strategic industrial priorities.

Connecting these differences to theory, Structural Power Theory explains why the EU's extraterritorial AI Act and the US innovation ecosystem reinforce the influence of dominant firms on global markets, while China's state-led model demonstrates how government coordination consolidates both corporate and national power. Regulatory Capitalism highlights how regulatory design itself becomes a tool of advantage: EU compliance requirements favor firms with resources to meet obligations, US sectoral guidance promotes rapid scaling for well-capitalized firms, and China's regulatory filings and infrastructure access align domestic firms with national strategy. Varieties of Capitalism further clarifies that these approaches reflect broader institutional logics: the EU as a coordinated market economy, the US as a liberal market economy, and China as a state-directed capitalist system.

By synthesizing these perspectives, it becomes clear that AI regulation does more than govern technology: it shapes participation in the AI economy, determines competitive advantage, and indirectly reinforces global inequality. While each model has unique priorities—ethical protection, innovation, or strategic alignment—they collectively demonstrate that regulation is a mechanism of power, influencing the distribution of economic and technological opportunities worldwide.

Summary of Key Findings

This study demonstrates that AI regulation in the EU, US, and China reflects distinct institutional logics and strategic priorities. The European Union emphasizes ethical oversight, risk management, and precautionary governance, creating a framework that protects societal interests but imposes high compliance costs. The United States prioritizes innovation, market dynamism, and entrepreneurial freedom, enabling rapid technological development while leaving gaps in societal safeguards. China adopts a state-led, strategic approach, aligning AI development with national competitiveness, data governance, and social stability.

Across all three contexts, regulation shapes global market structures, reinforces the dominance of large technology firms, and indirectly constrains the policy space of emerging economies.

Emerging economies, particularly in Africa, remain in the early stages of AI governance, with few national AI strategies and no continent-wide enforceable laws. This illustrates that AI regulation reproduces and amplifies existing economic and geopolitical hierarchies.

Policy and Business Implications

Market Power and Competition: The comparative analysis reveals that AI regulation shapes competitive dynamics in profound ways. EU regulations, with strict compliance requirements and extraterritorial reach, advantage multinational corporations capable of absorbing high costs, potentially widening the gap between large firms and smaller entrants. The United States decentralized, innovation-focused system encourages rapid experimentation and entrepreneurial activity but also concentrates benefits among dominant technology firms. In China, the state-led framework accelerates domestic adoption and aligns firms with national strategic priorities, reinforcing corporate and national advantages simultaneously. These patterns illustrate how regulation itself can serve as a mechanism to structure market power.

Global Standard-Setting: AI regulatory frameworks in these leading economies extend their influence beyond borders. The EU's precautionary approach establishes norms that guide international compliance practices and product development, effectively exporting regulatory expectations worldwide. US innovation-centric governance shapes technological norms, market strategies, and competitive behavior globally, often prioritizing speed of deployment over precaution. Meanwhile, China's coordinated state approach influences regional AI ecosystems and encourages strategic international partnerships, demonstrating how regulation can act as a tool of both domestic and geopolitical power.

Strategic Business Planning: For firms operating across borders, understanding regulatory differences is crucial for strategic planning. Compliance, risk management, and market entry decisions must account for variations in obligations, enforcement, and ethical expectations. Integrating regulatory considerations into AI development and deployment strategies is essential to avoid reputational risks, market exclusion, or legal penalties.

The interplay between regulatory frameworks and business planning demonstrates that AI governance not only protects societal interests but also structures global market power, determining which firms and nations are positioned to benefit from technological transformation.

Contribution to Digital Political Economy

By linking comparative regulatory analysis to Structural Power Theory, Regulatory Capitalism, and Varieties of Capitalism, this study contributes to digital political economy by showing that AI governance mediates the distribution of economic power, shapes global competition, and influences inequality. The integration of African contexts highlights both opportunities and vulnerabilities for emerging markets, emphasizing that AI regulation is a transnational force affecting investment, standards adoption, and innovation pathways in the global economy.

Final Reflections on Regulation, Business Power, and Inequality

AI regulation serves dual roles: ensuring safety, fairness, and accountability while also functioning as a mechanism of economic and strategic power. Dominant firms and advanced economies disproportionately benefit from compliance capacities, access to data, and the ability to influence regulatory design. Emerging economies face structural constraints in adapting or shaping frameworks, limiting technological autonomy and competitive positioning.

The findings highlight the importance of international coordination, capacity building, and strategic policymaking to ensure AI governance supports both innovation and equitable access. For Africa and other emerging markets, this entails developing national AI strategies with enforceable regulations, investing in digital infrastructure and AI skills, and participating in global standard-setting processes to reduce dependence on foreign regulatory models. Understanding AI regulation through a political economy lens reveals the interdependence of law, technology, and power, emphasizing the need for governance frameworks that are both protective and empowering across the global digital ecosystem.

CONCLUSION

This study demonstrates that artificial intelligence regulation is a critical determinant of economic power and global inequalities. The comparative analysis of the European Union, the United States, and China reveals distinct regulatory philosophies that shape technological innovation and the distribution of economic and political influence. The EU emphasizes ethical oversight, precautionary governance, and standardized regulation, balancing innovation with social responsibility. The US relies on a decentralized, market-driven approach, promoting rapid innovation. China's state-coordinated model integrates AI governance into national development strategies, advancing technological leadership and strategic economic objectives. In Africa, the Continental AI Strategy provides a framework for national adaptation and regional collaboration, yet dependence on foreign technologies and global pressures risks reinforcing existing inequalities.

From a comparative political economy perspective, AI regulation is not merely about ethics or safety but determines who gains access to markets, technology, and economic power. Regulatory design has significant implications for global competitiveness, innovation ecosystems, and social equity. Policymakers must consider both strategic economic positioning and inclusive development when shaping AI governance. Future research should explore how emerging economies, particularly in Africa, can leverage regional strategies to reduce dependency, enhance technological sovereignty, and foster sustainable AI-driven growth.

REFERENCES

African Union. (2024). *Continental artificial intelligence strategy*. https://au.int/en/documents/20240809/continental-artificial-intelligence-strategy?

Alex-Omiogbemi, A. A., R Sule, A. K., Omowole, B. M., & Owoade, S. J. (2024). Conceptual framework for advancing regulatory compliance and risk management in emerging markets through digital innovation. *World Journal of Advanced Research and Reviews*, *24*(3), 1155-1162. https://doi.org/10.30574/wjarr.2024.24.3.3752

Braithwaite, J. (2008). Neoliberalism or regulatory capitalism? *Regulatory Capitalism*. https://doi.org/10.4337/9781848441262.00006

California Governor's Office. (2025, September 29). *Governor Newsom signs SB 53, advancing California's world-leading artificial intelligence industry*. https://www.gov.ca.gov/2025/09/29/governor-newsom-signs-sb-53-advancing-californias-world-leading-artificial-intelligence-industry/

Chuanying L. (2025). EU AI Strategy and Prospects for China-EU Cooperation on AI Governance. *CHINA WATCH*, *4*(35), 1-12. https://china-cee.eu/wp-content/uploads/2025/09/China_Watch_Lu-Chuanying_2025_35.pdf

Council of the European Union. (2024, May 21). *Artificial intelligence (AI) act: Council gives final green light to the first worldwide rules on AI*. https://www.consilium.europa.eu/en/press/press-releases/2024/05/21/artificial-intelligence-ai-act-council-gives-final-green-light-to-the-first-worldwide-rules-on-ai/

Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. *International Security*, *44*(1), 42-79. https://doi.org/10.1162/isec_a_00351

Gacek, Ł. (2025). The logic of China's AI regulation and its implications for the European Union. https://doi.org/10.31175/eh4s.a6f4

Gregkawere. (2024, August 24). *Comparing Africa's AI regulations by country*. Povo News. https://povonews.com/comparing-africas-artificial-intelligence-legislation-regulation-policy-by-country/

Haggart, B., Henne, K., & Tusikov, N. (2019). Introduction. Technology and Control in a Changing World. *International Political Economy Series*, 1-22. https://doi.org/10.1007/978-3-030-14540-8_1

Hall, P. A., & Gingerich, D. W. (2009). Varieties of capitalism and institutional Complementarities in the political economy: An empirical analysis. *British Journal of Political Science*, *39*(3), 449-482. https://doi.org/10.1017/s0007123409000672

He, J., & Zhang, Z. (2025). Algorithm power and legal boundaries: Rights conflicts and governance responses in the era of artificial intelligence. *Laws*, *14*(4), 54. https://doi.org/10.3390/laws14040054

Mahmutovic, A. (2025). The EU AI act: A proactive framework for comprehensive AI regulation. *International Journal of Law And Information Technology*, *33*. https://doi.org/10.1093/ijlit/eaaf028

Microsoft. (2026, January 8). *Global AI Adoption in 2025—A Widening Digital Divide*. Microsoft's AI Diffusion Report . https://www.microsoft.com/en-us/corporate-responsibility/topics/AI-Economy-Institute/reports/Global-AI-Adoption-2025/

Parker, C., & Nielsen, V. L. (2008). Empirical research on business compliance in regulatory capitalism: How can researchers measure compliance. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1120812

Rahanjam S. (2025). Governing for Sustainability in Regulatory Capitalism era: balancing business-centred and government-oriented Approaches in Interactive Regulatory Networks. *City Research Online*. https://openaccess.city.ac.uk/id/eprint/34466/

Ranjan, A. J. (2024). The Transformative Effect of Artificial Intelligence on Economic Structures and Business Models. *Journal of Recent Trends in Computer Science and Engineering*, *12*(1), 10-15. https://jrtcse.com/index.php/home/article/view/JRTCSE.2024.1.3

Sanchez, J. (2025, August 28). *AI laws in the US (2025): Federal & state regulations explained*. Leanware. https://www.leanware.co/insights/ai-laws-in-the-us-overview?

Sentinella, R. (2024). *Tracking evolving policy paradigms in a Hallmark year for AI governance*. IAPP.org. https://iapp.org/news/a/tracking-evolving-policy-paradigms-in-a-hallmark-year-for-ai-governance?

Shim, K. S. (2026). *South Korea launches landmark laws to regulate AI, startups warn of compliance burdens*. reuters.com. https://www.reuters.com/world/asia-pacific/south-korea-launches-landmark-laws-regulate-ai-startups-warn-compliance-burdens-2026-01-22/

Shukla, S., Bisht, K., Tiwari, K., & Bashir, S. (2023). Comparative study of the global data economy. *Data-Intensive Research*, 63-86. https://doi.org/10.1007/978-981-99-7677-5_4

Spulbar, L. F. (2025). Legal frameworks for AI-driven markets and their challenges and opportunities in the digital economy. *Revista de Științe Politice. Revue des Sciences Politiques*, *86*(1), 288-304.

Tony Blair Institute for Global Change (TBI). (2025, February 6). *How leaders in the Global South can devise AI regulation that enables innovation*. https://institute.global/insights/tech-and-digitalisation/how-leaders-in-the-global-south-can-devise-ai-regulation-that-enables-innovation?utm

UNCTAD. (2021). *Digital economy report 2021*. UN Trade and Development (UNCTAD). https://unctad.org/page/digital-economy-report-2021

Walter, Y. (2024). Managing the race to the moon: Global policy and governance in artificial intelligence regulation—A contemporary overview and an analysis of socioeconomic consequences. *Discover Artificial Intelligence*, *4*(1). https://doi.org/10.1007/s44163-024-00109-4

White & Case. (2025). *AI watch: Global regulatory tracker*. White & Case LLP International Law Firm, Global Law Practice. https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-united-states?

Wood, J. D. (2025). *States of Innovation: Driving the American Economy in the 21st Century*. Policy Press. 10.2307/jj.25968911

Xuan, L. B., & Xing L. (2025). Regulating AI in a Fragmented World: The Diverging Paths of the EU and China and Their Impact on Global Governance. *Innovation and Development Policy*, *7*, 27-47. https://doi.org/10.20046/j.cnki.2096-5141.2025.0002

Zekos, G. I. (2022). *Political, economic and legal effects of artificial intelligence: Governance, digital economy and society*. Springer Nature. https://link.springer.com/book/10.1007/978-3-030-94736-1

CHAPTER 4
BALANCING RIGHTS AND SECURITY IN GLOBAL DATA GOVERNANCE

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INTRODUCTION

The rapid evolution of technology, marked by the ascent of artificial intelligence (AI) and pervasive digitalization, has fundamentally reconfigured the dynamics of the international political economy. Massive data flows, algorithmic platforms, and cyber infrastructures have emerged as strategic resources, redefining traditional notions of sovereignty, power, and security. In this new landscape, Global Data Governance and Information Security represent critical domains where the national security imperatives of states intersect with the fundamental rights and liberties of citizens. This intersection generates foundational tensions: the state's necessity to collect, analyze, and utilize data to prevent threats to national security often collides with the requirement to protect privacy, freedom of expression, and other essential civil liberties in a democratic society. The contemporary challenge is thus to navigate a path that does not force a false choice between security and freedom but seeks their symbiotic reinforcement within a robust legal and ethical framework.

This chapter aims to analyze this persistent tension through a conceptual framework that dialogues the imperative of national security with the guarantee of fundamental rights. Starting from the Romanian normative framework—illustrated by Law No. 51/1991 on national security and related legislation—the article explores how intelligence activities, as the core of national security defense, are regulated to balance security action with rights compliance. The analysis then extends to the challenges posed by the digital age, where the scale of data collection, the analytical capabilities of AI, and the transnational nature of threats (terrorism, organized crime, disinformation campaigns) amplify both risks and the temptation for excessive surveillance. The central thesis argues that in the era of big data and AI, the classic democratic principles of legality, necessity, proportionality, and oversight are not obsolete but require urgent and sophisticated adaptation to remain effective. The legitimacy and long-term efficacy of national security itself depend on its unwavering commitment to these principles.

1. THE CONCEPTUAL FRAMEWORK: NATIONAL SECURITY AND FUNDAMENTAL RIGHTS IN A DEMOCRATIC STATE

The relationship between national security and fundamental rights represents one of the most delicate balancing acts in democratic governance. While the state bears the primary responsibility to protect its citizens from threats that could undermine the constitutional order, it must simultaneously uphold the very liberties that define a democratic society. This foundational tension requires a clear conceptual understanding of both domains before examining how they intersect in practice.

Definition and Scope of National Security

National security represents, in the Romanian conception and that of most democratic states, a state of social, economic, and political equilibrium and stability, guaranteed by the state to ensure its existence, sovereignty, and development, as well as the unhindered exercise of the fundamental rights and liberties provided by the Constitution (Law No. 51/1991, Art. 1);(Parlamentul României, 1991). This definition inherently integrates a fundamental paradox: security is an instrument for guaranteeing liberties, yet the actions undertaken in its name may entail temporary restrictions of those very liberties. In the digital age, the domain of national security has expanded dramatically, now encompassing cybersecurity, the protection of computerized critical infrastructures, the fight against algorithmic disinformation, and the security of global technology-dependent supply chains. This expansion, often termed the "securitization" of new domains, risks broadening the state's prerogatives unless carefully counterbalanced by equally evolved legal safeguards and oversight mechanisms.

The Legal Basis for Restricting Rights in the Interest of Security

The constitutions of democratic states, including Romania's (Art. 53), provide for the possibility of temporary restriction of certain fundamental rights (such as the right to privacy, inviolability of the home, or secrecy of correspondence) in strictly defined situations, among which the defense of national security is paramount (Parlamentul României, 2003).

This constitutional framework is developed through special legislation. Romania's Law No. 51/1991 establishes that the methods of achieving national security—knowing, preventing, and removing threats—are materialized through intelligence activity. However, it emphasizes that legislative policy takes into account the achievement of security under conditions of full respect for fundamental rights and liberties, and the restriction of their exercise may occur only in wholly exceptional cases, strictly regulated by law (Parlamentul României, 1991).

This principle of exceptionality and proportionality is essential. The Romanian legislator expressly specified that provisions regarding threats to national security cannot be used to restrict the right to protest, freely express political or religious opinions, or defend a legitimate cause (Parlamentul României, 1991). Therefore, the normative framework clearly delimits the sphere of security action from the sphere of democratic rights, prohibiting the instrumentalization of the former to suppress the latter.

The Delicate Balance Between Security Measures and Democratic Guarantee

Finding the equilibrium between these two imperatives represents a structural challenge for any democracy. On one hand, an intelligence service lacking effective powers and the capacity to act in secret within certain limits will be ineffective against complex threats. On the other hand, an intelligence service vested with unlimited powers and without adequate controls will inevitably become an instrument of abuse, eroding citizens' rights and public trust—elements essential for social cohesion and state legitimacy. The solution, as shown by the experience of consolidated democracies, lies in a triple system of checks and balances: a precise legal framework defining mandates and limits; a clear separation of functions between domestic, foreign intelligence agencies, and law enforcement; and robust mechanisms of executive, legislative, and judicial oversight. This system ensures that security activities are legal, necessary, and proportionate.

Legislative Challenges in the Field of Security Assurance

The security and safety of social structures, and later of state structures, has been, since antiquity, one of the most important, if not the primary, concerns of leaders within these states. Consequently, from the beginning, a coherent system was developed to ensure territorial, political, social, and institutional security and safety. However, with the establishment of this organizational framework, an urgent need arose to structure an adequate and coherent normative framework which, on one hand, would provide stability, precision, and predictability to the institutional structures tasked with ensuring national security and safety, and on the other hand, would create a well-defined legal framework allowing for the direct control of leaders and authorities over these operations to maintain national security (Popa, 2020).

As human society evolved, so did the methods of collecting classified, secret, or sensitive data and information, necessitating that the institutional and legislative framework keep pace with the evolution of surveillance tools, information gathering, data verification, and dissemination. This constituted a complex operational and legal system falling under the expression "national security" (Constantin-Claudiu Ulariu et al., 2025).

As the legal means of verifying and controlling masses of people developed, driven by the need to preserve national security, and the tools provided by institutions and organizations specialized in territorial defense and the protection of public order, as well as the safety of state institutions and the population, the necessity to correlate the imperative of protecting social security with the protection of the individual's private life, the right to free expression, assembly, and personal liberty became increasingly discussed, especially after the Second World War (Geneva Centre for the Democratic Control of Armed Forces, 2002).

Thus, the problem arose of finding ideological, moral, conceptual, and organizational methods, extrapolated into adequate and timely legislative mechanisms, through which, on one hand, the security and integrity of the state are protected, and on the other, the guarantee and protection of the essential rights and liberties of individuals are ensured, particularly after the adoption of the European Convention on Human Rights.

In this context, the concept emerged of maintaining a just balance from a legislative perspective and, especially regarding practical applicability, between the right to assert, guarantee, defend, preserve, and consolidate the national security of all democratic states worldwide, and, on the other hand, the imperative to respect the essential prerogatives related to the personality of each individual, whether viewed in singularity or as part of an organized and emergent group (Tihan, 2006).

2. THE ARCHITECTURE OF INTELLIGENCE ACTIVITY IN SUPPORT OF NATIONAL SECURITY

The effectiveness of intelligence activity in safeguarding national security depends fundamentally on a well-structured organizational framework. Democratic states have developed specific institutional architectures designed to maximize operational efficiency while embedding mechanisms of accountability and legal constraint. Understanding this architecture begins with examining how intelligence services are organized and, crucially, how they are separated according to function and jurisdiction.

Organization and Separation of Intelligence Services

Democratic states organize intelligence activities based on a critical functional and juridical separation between domestic and foreign services. This separation is justified by fundamental differences in mission, legal context, and methods.

Domestic intelligence services have the mission of protecting the internal security of the state against threats such as terrorism, espionage, sabotage, transnational organized crime, and subversion. They operate on national territory and are fully subject to domestic laws, including those on data protection. Their activities, which may involve surveillance of citizens, require high-level judicial or executive approvals to protect civil rights. Under no circumstances, according to democratic doctrine, should these services become involved in domestic political activities or target legitimate dissent.

Foreign intelligence services focus on collecting information abroad regarding the intentions, capabilities, and activities of states, organizations, or groups that represent potential threats.

Their operations take place in other jurisdictions, where submission to local laws is often impracticable, especially in non-democratic states. Therefore, they are guided by strict political directives from the highest level of government, defining what is permissible in each specific context. Separation from domestic services is vital to prevent the conflation of domestic surveillance with foreign espionage activities, thereby protecting citizens from abuse.

The Role of Counterintelligence and Military Intelligence

Counterintelligence represents the defensive component of the system, aiming to identify, neutralize, and prevent the activities of hostile foreign intelligence services and externally supported subversive groups. Unlike offensive collection services, counterintelligence is largely reactive. Its effectiveness depends on close coordination between domestic and foreign services because hybrid threats (for example, a terrorist group planning abroad to act domestically) artificially cross this separation. A centralized counterintelligence program, directed by a committee at the governmental level, is essential to ensure information exchange, define common standards, and resolve jurisdictional conflicts.(Geneva Centre for the Democratic Control of Armed Forces, 2002).

Military intelligence services constitute a third specialized segment, focused on assessing the military capabilities of other states, defense technologies, and strategic threats. Although specialized, their information is vital for both defensive planning and security diplomacy (monitoring arms control treaties). Integrating this information into a single national assessment, alongside that from civilian sources, is crucial for a coherent overall picture.

The Necessity of Secrecy and Its Limits

The effectiveness of intelligence services intrinsically depends on the ability to operate in secrecy in certain key areas: protecting the identity of human sources, methods and techniques of collection, data received confidentially from allies, and operational personnel. Disclosure of these elements would compromise not only current operations but also future collection capacity, and human sources could be exposed to danger.

However, in a democracy, secrecy is not absolute and does not apply to all aspects of activity. General principles, budgets, the legal framework, and oversight mechanisms must be public and transparent. Secrecy must be justified by specific operational needs and subjected to strict classification and declassification procedures. Overly extensive secrecy erodes public trust and jeopardizes democratic control.

3. MECHANISMS OF DEMOCRATIC OVERSIGHT OVER INTELLIGENCE ACTIVITIES

Effective oversight constitutes the essential safeguard against the potential abuse of power inherent in intelligence activities. Democratic states have developed a multi-layered system of controls that involves all branches of government—executive, legislative, and judicial—each contributing distinct mechanisms to ensure accountability. The first and most direct level of control resides within the executive branch itself.

Executive Oversight: The Primary Responsibility of Governance

In a democratic state, intelligence services are an instrument of the government, not a state within a state. Executive oversight represents the first and most direct level of control. The President, Prime Minister, or a National Security Council have the supreme political responsibility to direct the services, approve major objectives, and authorize sensitive operations (for example, through the signature of the responsible minister). This authorization must consider the criteria of necessity (whether the action is essential to achieve a legitimate objective) and proportionality (whether the measure is adequate and not excessive relative to the threat). Executive mechanisms also include specialized committees or advisors (inspectors, controllers) who periodically audit service activities and report directly to executive chiefs, ensuring independent internal verification.

Legislative Oversight: The Role of Parliament and Specialized Committees

Parliamentary oversight is the backbone of democratic control. It is realized primarily through specialized committees, whose members have access to classified information. The role of these committees is multifaceted: budgetary control, examination of general policies, investigation of abuse allegations, and evaluation of service performance (Geneva Centre for the Democratic Control of Armed Forces, 2002). To be effective, these committees must enjoy the trust of both the services and the public. Their members must be independent, non-partisan, and demonstrate the highest integrity, avoiding becoming either uncritical advocates of the services or systematic adversaries. International experience shows that a strong, well-informed, and discreet committee can prevent abuses without compromising sensitive operations. The services have an obligation to periodically inform the committee of significant activities and, especially, to immediately report any incident of illegality or impropriety.

Judicial Oversight: The Supreme Guarantor of Legality

Judicial oversight ensures that intelligence activities are conducted within the law. In many democracies, certain intrusive measures (searches, communication interceptions) require prior judicial authorization, issued by an independent judge who verifies whether there is probable cause and whether the measure is proportionate. This constitutes a fundamental guarantee against abuses. Furthermore, prosecutors general or ombudspersons may receive and analyze complaints regarding service activities, investigate legal violations, and report to executive or parliamentary authorities. The law must stipulate that all information collected through these special measures be used strictly for the authorized purpose and destroyed when no longer necessary, thereby protecting the privacy of innocent citizens.

4. THREAT FACTORS TO NATIONAL SECURITY

These factors are eclectic in nature, and their mode of immersion into the mechanism affecting the state security regime depends on a series of realities and national particularities.

However, their specificity lies in presenting a generic potential to affect every state globally. Therefore, these circumstances with fulminant potential in the modern era necessitate global attention and present themselves as extremely acute and unremitting, denoting their extreme dangerousness for the world legal order (Constantin-Claudiu Ulariu et al., 2025).

One of the most significant threats to the security of states worldwide, especially Western democracies, is terrorism. Its transnational, networked, and ideologically fluid nature makes it a paramount challenge for both domestic and foreign intelligence. Other critical threat factors include (Constantin-Claudiu Ulariu et al., 2025):

- *Hybrid Threats:* Combining conventional, irregular, and cyber means, along with disinformation, to destabilize societies.
- *Cyber Attacks:* Targeting critical infrastructure, government networks, and private sector data, often blurring the line between criminal acts and state-sponsored aggression.
- *Foreign Interference:* Efforts to influence elections, polarize public debate, and undermine trust in democratic institutions through covert means.
- *Transnational Organized Crime:* Facilitated by digital tools, it corrodes state institutions, economies, and social fabric.
- *Proliferation of Weapons of Mass Destruction (WMD):* The illicit transfer of nuclear, chemical, or biological weapons and related materials.

These threats share a common characteristic: they exploit the openness, interconnectivity, and technological vulnerabilities of modern democracies. Combating them effectively requires intelligence capabilities that can operate in the digital domain, yet doing so without replicating the oppressive surveillance apparatus of authoritarian regimes is the central democratic dilemma of our time.

5. CHALLENGES OF THE DIGITAL ERA: GLOBAL DATA GOVERNANCE AND HYBRID THREATS

The digital revolution has profoundly transformed both the nature of threats to national security and the means available to address them. Traditional intelligence methods, once centered on human sources and signals interception, now operate alongside—and increasingly alongside—vast datasets generated by everyday digital interactions. Understanding this transformation requires examining how the shift toward big data and artificial intelligence has fundamentally altered the landscape in which security and liberty must be balanced.

The Paradigm Shift: From Human Intelligence to Big Data and AI

Traditionally, intelligence activity relied on human sources (HUMINT) and signals (SIGINT). Today, the predominant source has become big data passively generated by citizens through digital activity: location, communications, searches, financial transactions, social media interactions. Artificial intelligence, through predictive analysis, data mining, and pattern recognition, can process immense volumes of data to identify potential threats, influence networks, or abnormal behaviors. This capability provides security services with an instrument of unprecedented power. However, it fundamentally changes the nature of the security-liberty balance. Collection is passive, continuous, and aggregated, affecting not only targeted individuals but the entire population. The risk of mass surveillance and the creation of predictive profiles that stigmatize individuals based on algorithms increases exponentially.

Hybrid Threats and Cyberspace: The Need for Transnational Cooperation

Modern threats are hybrid in nature: disinformation campaigns orchestrated by states that exploit social platforms to polarize democratic societies; cyberattacks against critical infrastructure; organized crime networks operating in digital space; terrorism that recruits and funds itself online. (Constantin-Claudiu Ulariu et al., 2025).

These threats are transnational by excellence, exceeding the unilateral action capacity of any state. Combating them requires international cooperation among intelligence services and law enforcement authorities. But precisely the secret nature of intelligence activity and distrust between states complicates this exchange. Furthermore, different data regulation models (such as the EU's GDPR versus the more permissive approach of other states) create frictions and jurisdictional "oases" that malicious actors can exploit.

Global Data Governance: Towards a Common Framework?

The central challenge of the 21st century is building a global data governance framework that reconciles three pillars: national security (the need for states to access data to prevent threats), fundamental rights (the protection of privacy and personal autonomy), and economic innovation (the free flow of data for growth). Initiatives like the EU AI Act and the Digital Services Act attempt to establish ethical and transparency standards for high-impact technologies, including clauses for human oversight and the right to explanation (Parlamentul European & Consiliul Uniunii Europene, 2021; Consiliul Uniunii Europene & Parlamentul European, 2022). However, these are regional regulations. Global dialogues are needed to establish common principles regarding:

- *Extraterritoriality and Reciprocity:* How do data protection laws apply when citizens' data is stored or processed in another country? How can services cooperate in cases of serious threats while mutually respecting protection standards?
- *Minimum Standards of Transparency and Control:* What minimum information must governments provide about the use of surveillance technologies? What independent authorization and audit mechanisms must exist?
- *Secure Interoperability:* How can secure channels be created for information exchange among democratic states, with strong safeguards for citizens' data?

State Visions on Global Data Governance & Information Security

The international landscape regarding Global Data Governance is fragmented, reflecting divergent political philosophies and strategic interests. (Constantin-Claudiu Ulariu et al., 2025).

- *The European Union's Rights-Based Model:* The EU, through the GDPR and the proposed AI Act, champions a model prioritizing fundamental rights, particularly privacy and data protection, as non-negotiable values. Its approach is regulatory, precautionary, and aims to set a global standard ("the Brussels Effect"). Security measures must operate within this stringent framework, requiring high thresholds for justification and robust oversight.
- *The United States' Sectoral and Market-Oriented Model:* The US adopts a more decentralized, sector-specific approach, with a stronger emphasis on innovation, economic growth, and national security prerogatives. Cooperation between tech companies and intelligence agencies under frameworks like the Cloud Act is more streamlined, but often criticized for lacking a comprehensive federal privacy law. The US vision leans towards a multi-stakeholder model of internet governance.
- *China's Sovereign Control Model:* China advocates for strict cyber sovereignty, where national borders apply in cyberspace, and the state maintains ultimate control over data within its jurisdiction. Its governance model prioritizes social stability, national security, and state control over individual privacy, employing extensive surveillance and data localization laws. This model is attractive to some authoritarian regimes.
- *The "Swing States" and Global South*: Many other nations navigate between these poles, seeking to harness economic benefits of data flows while protecting their own security and nascent digital industries. They are key battlegrounds for normative influence between the major models.

For a country like Turkey, positioned at the crossroads of Europe and Asia, the challenge is to formulate a national strategy that engages with these competing visions. It must balance its geopolitical alliances, economic aspirations, security needs, and the democratic expectations of its society within the evolving architecture of global data governance.

6. ILLUSTRATIVE CASE STUDY: CLASSIFIED INFORMATION AND COMMENTED JUDICIAL PRACTICE

The tension between secrecy and the right to a fair trial is a classic dilemma in security law. A pertinent example from Romanian jurisprudence illustrates how courts navigate classified evidence. In a case concerning a national security measure against an individual, the court analyzed classified documents.

"Following the analysis of classified documents, the court held that the data and information contained in the classified documents, classification level strictly secret, which were submitted for study to the Classified Information Compartment of the court, fully prove that there are indications that the respondent presents a danger to public order and national security and that his activities fall under the provisions of Art. 3 of Law No. 51/1991 on the national security of Romania. It was also noted that the national legislator did not impose as a condition for adopting the contested measure in the case the prior making, by the competent authority, of a proposal to declare the applicant undesirable and for his removal from the territory of Romania. Also, the circumstance that the applicant benefits from the right of temporary residence in Romania does not present legal relevance in the case" (adapted from a synthesis of Romanian judicial practice as discussed in Constantin-Claudiu Ulariu et al., 2025).

This case highlights several key points:

1. *Special Procedures:* The existence of a "Classified Information Compartment" within the court allows for the examination of sensitive material without public disclosure.
2. *Judicial Review:* The court independently assesses the probative value of the classified information, asserting its authority over the executive's security claim.

3. *Separation of Measures:* The court distinguishes the national security measure from immigration procedures, underscoring that security law operates under its own specific logic and legal tests.
4. *Limited Rights:* The individual's rights (here, residence) are subordinated to the national security assessment based on classified evidence, demonstrating the weight given to the state's security argument.

This practice underscores that while secrecy is maintained, it is not immune to judicial scrutiny. The mechanism allows the state to protect its sources and methods while providing a (limited) form of due process, representing a practical attempt to balance the two imperatives within a rule-of-law framework.

CONCLUSIONS AND RECOMMENDATIONS FOR A BALANCED POLICY

Navigating the intersection of citizen rights and national security in the era of global data governance requires a reaffirmation and adaptation of classic democratic principles to new technological realities. This paper has highlighted that, despite the radical changes brought by technology, the fundamental principles underpinning the balance between security and liberty in a democracy remain valid: legality, necessity, proportionality, separation of powers, and democratic control. However, applying these principles in the digital domain demands specific normative and institutional adjustments.

First, ex-ante transparency of the legal framework and technological capabilities becomes an imperative. Citizens and parliamentarians must understand the types of data collection and analysis technologies used by services, as well as the attendant procedural guarantees. This does not mean disclosing operational secrets but the public definition of technology categories, purposes for which they may be used, and required authorization levels. A special law, periodically updated, explicitly regulating intelligence activities in cyberspace and referencing ethical standards for AI use, is essential.

Second, independent oversight must become more technically competent.

Parliamentary committees and executive audit bodies must have access to independent experts in technology, cryptography, and artificial intelligence, who can assess whether used systems respect data minimization and proportionality principles. An "algorithmic advocate" or an ombudsperson for security technologies could play a role in analyzing the impact of these systems on citizens' rights.

Third, international cooperation must be anchored in common rights protection standards. Democratic states should initiate negotiations for a "Framework Agreement on Cooperation in Cybersecurity and Data," establishing minimum conditions for privacy and human rights protection in the exchange of information to combat transnational threats. Such a framework could include safeguard clauses prohibiting data transfer to countries that do not respect these minimum standards, thus preventing a "race to the bottom" in surveillance.

Fourth, rejecting the excessive securitization of digital domains is crucial. Not all data is a national security issue. The abusive expansion of the "national security" label to justify intrusive data collection for social control or political repression purposes must be combated through strong judicial and parliamentary control mechanisms. The role of a vigilant constitutional judiciary in interpreting the notion of "national security" in a digital context is vital.

In conclusion, the challenge is not to choose between security and liberty, but to design a system in which authentic security, which protects democracy and fundamental rights, is achieved through methods that themselves respect and strengthen those rights. The Romanian framework, with its clear provisions in Law No. 51/1991 subordinating intelligence activity to the respect for rights, provides a solid foundation. This base must now be fortified and adapted for the digital age through precise laws, technically competent oversight, and international cooperation based on shared values. Only in this way can we ensure that emerging technologies, from AI to big data analytics, will serve citizens and democracy, not undermine them.

REFERENCES

Constantin-Claudiu Ulariu, C.-C., Muraru, A., & Ababei, A. I. (2025). National security and contemporary challenges: A legal analysis [Securitatea națională și provocările contemporane: O analiză juridică]. *Revista de Drept Public*, *86*(1), 15–34.

Consiliul Uniunii Europene & Parlamentul European. (2022). *Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act)* (L 277). Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R2065

Geneva Centre for the Democratic Control of Armed Forces. (2002). *Intelligence services and democracy: A handbook*. DCAF.

Guvernul României. (1999). *Government Emergency Ordinance No. 1/1999 on the regime of the state of siege and the state of emergency* [Ordonanța de urgență a Guvernului nr. 1/1999 privind regimul stării de asediu și al stării de urgență] (Republicată). Monitorul Oficial al României, Partea I, Nr. 22.

Parlamentul European & Consiliul Uniunii Europene. (2021). *Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts* (COM/2021/206 final). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0206

Parlamentul României. (1991). *Law No. 51/1991 on the national security of Romania* [Legea nr. 51/1991 privind securitatea națională a României]. Monitorul Oficial al României, Partea I, Nr. 190.

Parlamentul României. (2003). *Constitution of Romania* [Constituția României] (Republicată). Monitorul Oficial al României, Partea I, Nr. 767.

Parlamentul României. (2004). *Law No. 535/2004 on the prevention and combating of terrorism* [Legea nr. 535/2004 privind prevenirea și combaterea terorismului]. Monitorul Oficial al României, Partea I, Nr. 1176.

Popa, A.-N. (2020). The state of emergency for national security reasons [Starea de urgență pentru rațiuni de securitate națională]. *Revista de Drept Constituțional*, *2*, 45–62.

Tihan, E. (2006). Intelligence services and democracy. In V. Georgescu (Ed.), *Socio-human sciences and their role in the current security environment* [Științe socio-umane și rolul lor în actualul mediu de securitate] (pp. 176–190). ANI Publishing House.

CHAPTER 5
ALGORITHMIC SOVEREIGNTY AND DATA DEPENDENCY IN SUB-SAHARAN AFRICA

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INTRODUCTION

The emergence of artificial intelligence (AI) and digital technologies at an extremely fast pace is significantly changing the international political economy (IPE). Digitalization has, for the most part, influenced production, trade, finance, and governance in a major way over the last twenty years, and AI has increasingly become a key factor of global economic and political power. AI has been used as a tool basically in all (if not most) of the domains involved in generating, dividing, and distributing wealth, authority, and influence. For example, it supports algorithmic trading, predicts the outcomes of analytics in the logistics, security, and border control industries, etc. Because of competing to make use of AI, the economic dependencies, geopolitical rivalries, and regulatory fragmentation that used to co, exist have given way to the new forms of them thus global power relations have been redefined. There are many instances when AI is said to be the 'brain' of the economy while the remaining sectors are its 'arms and legs.' The major platform companies, namely Google, Amazon, Microsoft, Meta, and Alibaba, employ AI to improve supply chains, extract revenue from data, regulate digital infrastructures, and strengthen their market domination. These realities are causing discussions on digital capitalism, the decline of the power of the state, and the rise of the corporate power that is beyond the control of any individual country, to be taken more seriously, as they are considered to be the factors that are both perpetuating and exacerbating structural inequalities in the global political economy.

Technology has often been considered by classical IPE scholars as almost like a tool that helps or a factor that comes from outside and kept separate from systems of change in the structure of the world (Gereffi, 2018). The oldest models and theories, the traditional ones, are centered around trade, finance, production networks, and institutions. These models assume the development of technology is somewhat independent from political power. AI's emergence blatantly disobeys this rule, resulting in the restructuring of markets, the redefinition of state capacity and the tripartite relationship of capital, labor, and governance (Pistor, 2019; Fuchs, 2020).

One of the differences between AI and the earlier inventions is that the development and operation of AI rely significantly on data extraction, computational power, and proprietary algorithms, distribution of which varies greatly among states and firms. Hence, this gathering of high, tech capability gives rise to forms of dependency that are mostly political and local in both nature and place. The automation of work processes and tasks are only part of the changes that AI systems bring. The political choices, ideological assumptions, and social hierarchies are now embedded in the very structures of algorithms that run these systems (Noble, 2018; Beer, 2017). The decisions about data collection, processing and usage purpose have always been a reflection of the power relations between the state, corporations and individuals. Therefore, AI is the source of a new political economy and not just technological advancement. The global system, governance, authority, and power structures get shaped and changed by AI as a political institution. (Polanyi, 1944; Fuchs, 2020).

The political and economic significance of AI centers largely around data, which is frequently described as the new oil of the digital economy. As a strategic resource, data remains essential to AI development, gaining a competitive edge, and wielding geopolitical influence. However, unlike natural resources, data is produced through social interaction and digital participation, which makes its extraction universal and uneven. Technology corporations that operate on transnational levels, most of which are located in the Global North, are the ones that extract a great deal of data from users in the Global South. At the same time, they turn the local activities into global economic value, which is reminiscent of the historical cases of resource dependency. The idea of algorithmic sovereignty shows that the extent of control over AI systems, data infrastructures, and digital standards is a major factor for the autonomy and development of a state. This term indicates a government's power to legally control and direct algorithmic systems to align with the domestic priorities. However, in reality, algorithmic sovereignty is quite an uneven power: technologically advanced countries that have strong technological and regulatory frameworks determine the global AI governance, while developing countries are left as mere rule, takers and thus have very limited influence on technological standards and policy frameworks.

Data lies at the very core of AI's political and economic importance, it is frequently labelled as the new oil of the digital economy. Essentially, it is a strategic asset that propels AI innovation, competitive edge, and geopolitical clout. In contrast to natural resources, data is the by, product of social communication, buying habits, and being part of digital platforms, thus its gathering is both omnipresent and unbalanced. Giant multinational tech companies, most of them headquartered in the Global North, are the ones who extract huge quantities of data from users in the Global South and thus, they turn local activities into global economic value, a scenario that calls to mind the past resource dependency. The notion of algorithmic sovereignty provides a conceptual tool for the analysis of how the command over AI systems, data infrastructures, and digital standards determines state independence and development. It refers to a state's capability to control and steer algorithmic systems in line with national goals. On the ground, algorithmic sovereignty is far from being equal: the richest nations with robust technological and regulatory frameworks dictate the global AI governance, whereas the poorer ones are more or less the rule, takers who have at most a marginal say in the setting of technological and policy standards.

Sub Saharan Africa is a very marginalized part of the world in terms of AI, driven governance and market structures. The region has significantly increased access to digital devices, mobile technologies, and data generation, nevertheless, it is still largely reliant on foreign, owned platforms, cloud services, and AI systems (UNCTAD, 2021). Moreover, African economies are at the forefront of data production but are not getting a fair share of the value created by AI applications (Couldry & Mejias, 2019). This imbalance not only deepens the technological dependency of the region but also hampers local innovation and diminishes policy autonomy in such areas as data protection, taxation, labor regulation, and industrial policy. From the viewpoint of dependency theory, the AI, driven digital capitalism is a new stage of unequal exchange where the core is steadily gaining value at the expense of the periphery through data extraction and algorithmic control (Frank, 1967; Amin, 1976). Before, the materials and manufacturing were the main tools of dependency, but nowadays, it is through the digital infrastructures that behavioral data, attention, and social interaction are being monetized.

Joining the digital economy doesn't necessarily mean that developing states will experience technological upgrading or structural transformation (Gereffi, 2018; UNCTAD, 2021).

Artificial intelligence has also turned into a significant source of geopolitical rivalry between the leading world powers. The U.S., China, and the EU are each spearheading the development of differing AI governance frameworks that basically reflect their opposing political ideologies, government styles, and strategic interests (Bradford, 2020; Kania, 2019). These competing models of governance not only determine the global norms on issues such as data privacy, surveillance, cybersecurity, and platform regulation but also tend to marginalize the voices of the developing regions. Consequently, there is still no unified global AI governance, which is a big issue for global inequality and the sovereignty of states. The chapter analyzes how AI is affecting the international political economy by examining algorithmic sovereignty, data dependency, and the asymmetric positioning of Sub, Saharan African economies. It explains that AI is one of the strategic resources that powers the global economy and at the same time, it is reinforcing power hierarchies and creating new sites of conflict among states, corporations, and international institutions. The chapter places AI in the context of dependency, digital capitalism, and global governance, thus it refutes techno, optimistic accounts that see AI as a neutral or inherently developmental technology.

Methodologically, the chapter takes a qualitative and analytical route and relies on secondary literature of political economy, science and technology studies, international relations, and development studies. Besides, it touches upon policy documents, international organization reports, and emerging regulatory frameworks to represent changing AI governance. Such an interdisciplinary method results in a well, balanced perception of AI as a technological advancement as well as a political, economic issue. The chapter offers three main contributions to the IPE field of study. Firstly, it unpacks the idea of algorithmic sovereignty as a means to analyze digital inequality and state power in the AI era. Secondly, it applies dependency theory to the digital realm by showing how data harvesting and platform control continue to be a way of exploitation of structural inequalities between the Global North and the Global South.

Thirdly, it sees Sub, Saharan Africa as an important yet neglected area in the global AI discussions, pointing out the region's vital role as a source of data and as a potential field of alternative digital development strategies.

Finally, the chapter points out a clear demand for global AI and data governance frameworks to be inclusive, open, and fair. If no conscious steps are taken, AI, powered capitalism may lead to more severe global inequalities, the weakening of state sovereignty, and the continuation of technological dependency. For African countries in the Sub, Saharan region, the AI revolution presents a twofold challenge: they have to embrace the technology and, at the same time, enact a strategic governance that gives priority to local value creation, institutional capacity, and regional cooperation. Therefore, viewing AI through the light of international political economy is a must for a proper assessment of its long, term effects on global development, power, and justice.

1. THEORETICAL FOUNDATIONS: TECHNOLOGY AND INTERNATIONAL POLITICAL ECONOMY

International Political Economy (IPE) focuses on how states, markets and institutions influence one another and, in the end,, how power and resources are distributed at the global level (Gilpin, 2001). Along this line of inquiry, technology has been regarded for the most part as kind of an exogenous variable simply a neutral factor of efficiency and comparative advantage whose innovations and benefits naturally spread through markets with a minimal role for the state (Gilpin, 2001). Nevertheless, modern digital technologies, and especially artificial intelligence (AI), really go against this idea as they blur the borders between economic activities, political authority and technological systems (Fuchs, 2020; Zuboff, 2019). AI, therefore, is not just an instrument but a socio, political system that at the same time mirrors and influences power relations. Hence, there is a need to include technology as a main variable in the traditional IPE theories if we want to understand its upheaving effects.

Critical and structural theories offer a powerful perspective to view this integration. By utilizing the Marxist, neo, Gramscian, and dependency theory lines of thought, these perspectives underline that technological systems are deeply rooted in capitalist production relations and are being used to continually globalize existing hierarchies (Cox, 1987; Fuchs, 2020).

AI is not neutral; rather, it is a socio, technical system that exhibits the features of the dominant actors. By controlling data, algorithms, and digital infrastructure, big firms and states become capable of wielding what Susan Strange termed structural power, the power to determine the very rules that govern interactions among states, firms, and individuals (Strange, 1996). Today, AI, through the mechanisms of data control, cloud computing, platform standards, and algorithmic governance, which are often outside the reach of national regulators, indicates the reign of these powerful conglomerates (Srnicek, 2017). This limits the freedom of policy, making in less, developed economies and leads to the perpetuation of global inequalities.

Gramscian theory, Neo, is one of the frameworks that most effectively help to understand the ideological dimensions of power in this context. Through the concept of hegemony, Cox illustrated that the dominant global order is one which is sustained through the combination of material capabilities, ideas, and institutions (Cox, 1987). Thus, the argument implies that AI technology is both a kind of physical infrastructure and an ideological instrument. They make certain logics usual e.g. data commodification, market, driven governance, and surveillance and deeply embedding them into social and economic practices. This sets up a kind of "common sense" of digital capitalism, which lays down the issues and answers in a way that keeps the power structures on which it depends intact (Fuchs, 2020). Hence, the AI systems not only reflect the values and priorities of the advanced economies and corporations that have designed them, but also propagate them, placing at the top of their agenda, scalability and profit, often at the expense of equity and democratic accountability (Noble, 2018).

Dependency theory is another framework that identifies changes at the heart of relationships between core and periphery as its primary concern. Initially, the theorists developed the idea that underdevelopment is a result of the integration of the peripheral economies into a core, dominated global system, which leads to the unequal exchange and technological dependence of the peripheral (Frank, 1967; Amin, 1976). Dependency in the digital world is a replication of the old one.

Developing economies accumulate huge volumes of data as a result of platform usage, but they are unable to transform such raw material into domestic value, innovation, or strategic leverage (Couldry & Mejias, 2019; UNCTAD, 2021). It is thus, a novel kind of digital dependency in which being part of the global digital economy tends to strengthen a lower position rather than a structural change.

Although critical perspectives point to power and inequality, liberal institutionalism reveals the governance problems resulting from borderless digital technologies. It holds that international cooperation, multilateral agreements, and soft, law mechanisms must provide a framework for the management of AI externalities, such as privacy, security, and ethical standards (Keohane, 1984; Bradford, 2020). However, OECD, UNESCO, and the EU initiatives are largely in line with the agenda of the developed countries and developing countries are given very little substantive voice (UNESCO, 2022). This governance asymmetry means that the global frameworks that are well, intentioned can unintentionally institutionalize the existing power imbalances so that the peripheral states are the ones who have to take the rules made by others.

Realist viewpoints regard AI, above all, as a strategic weapon in the struggle for geopolitical dominance. Achieving military, economic, and diplomatic leverage is being equated with gaining technological superiority (Mearsheimer, 2001; Kania, 2019). To illustrate, the struggle between the U.S. and China over the control of the AI research, semiconductors, and digital standards, each of the two trying to get technological supremacy. As a result, the competition characterized by these major powers divides the world regulatory environment into opposing technological blocs, thereby making smaller and developing countries be strategically aligned in ways that further curtail their autonomy and deepen their dependence on the external world (Farrell & Newman, 2019).

Bringing together these viewpoints, AI represents an economic resource on the one hand and a political tool on the other that is deeply intertwined with the structures of global power.

This mixture of concepts forms the basis of algorithmic sovereignty, which is essentially the capacity of states to be in control of, regulate, and derive benefits from AI systems in a manner that is aligned with the domestic priorities and developmental goals of the nation. Algorithmic sovereignty is a very unequal concept as it reflects the disparity in technological capability, institutional development, and geopolitical power. Many developing countries, especially those in Sub Saharan Africa, are deprived of controlling the very basic infrastructures of the digital era, data, algorithms, and computation that not only limit their policy autonomy but also increase their dependence on foreign platforms and governance arrangements (UNCTAD, 2021). Adopting AI into this comprehensive IPE framework provides the intellectual tools to assess how these new technologies reshape global inequality, the sovereignty of states, and the development process in the 21st century.

2. ALGORITHMIC POWER AND PLATFORM CAPITALISM

One of the major political, economic consequences of technology like artificial intelligence (AI) could be the emergence of platform capitalism, a sort of mechanized capitalism, where accumulation, governance and social coordination are carried out by algorithmic infrastructures (Srnicek, 2017; Zuboff, 2019). It isn't based on the traditional capitalist production of goods but rather on the extraction and monetization of data. AI is at the core of the strategies of digital platforms like Google, Meta, and Alibaba in their quest to collect large quantities of behavioral data, which they then use to gain insights into the activities of society and to offer personalized services (Couldry & Mejias, 2019). Data in this context becomes another type of capital that, if managed properly, can give extraordinary power to companies.

Algorithmic power, defined as the capacity of AI systems to influence economic outcomes, social behavior, and knowledge through automated decision, making, lies at the heart of this model (Beer, 2017). This power manifests itself in various fields such as price, setting, information curation, governance automation, and surveillance.

It is particularly significant that, more often than not, it is beyond the reach of national authorities because the algorithms are kept secret and data infrastructures span several countries (Fuchs, 2020). IPE theory regards the platform capitalism as a factor that deepens global inequalities. On the one hand, developing nations provide raw data and digital labor. On the other hand, value, profits, and intellectual property get accumulated in the advanced economies where the tech giants have their headquarters (UNCTAD, 2021). Hence, core, periphery relations get re, enacted except that here, extraction is digital rather than physical.

Moreover, platform capitalism intrudes into politics and ideology as well. The algorithms that determine content moderation and recommendation systems influence how people engage with public discourse, elections, and the development of ideologies (Gillespie, 2018). Private companies therefore act as if they are government bodies by taking on the task of regulating information flows and social norms, which in turn challenges traditional state sovereignty and democratic accountability (Zuboff, 2019). From the geopolitical viewpoint, this capability is heavily concentrated in the U.S., China, and the EU, thus these areas have a disproportionate say in the global digital ecosystems (Bradford, 2020). On the other hand, most developing regions, such as Sub, Saharan Africa, depend on imported platforms which undermines their technological and regulatory sovereignty.

Critical political economy is helping to understand how this algorithmic power serves as a tool of hegemony. Neo, Gramscian theory sees these infrastructures as the mechanisms that implant the norms and logics of dominant actors thus, market rationalities, surveillance, and data commodification become common sense or the ordinary way of life in the digital world (Cox, 1987; Fuchs, 2020). By defining the limits of what is acceptable, these systems concentrate power in ways that are, structurally speaking, very difficult to challenge. Through Amazon Mechanical Turk, which has broken down work into tiny tasks that are then outsourced to a global, highly vulnerable workforce, often in less affluent countries, algorithmic power is changing the nature of labor (Srnicek, 2017).

In the case of Sub, Saharan Africa, it is actually data colonialism in which platforms are privately extracting value from user data and digital labor without providing local value capture or development in equal measures (Couldry & Mejias, 2019). On top of that, AI systems have the power to confer epistemic authority, so they decide what data is useful and what knowledge gets produced, thus excluding other viewpoints and continuing the Global North's predominance in research and policy (Beer, 2017).

Contestation and Negotiated Dependency

However, the portrayal of Sub, Saharan Africa as only the passive victim is too simplistic. Negotiated dependency would be a better description, where the actors at the periphery have the ability to make a pact, to deny, and to cleverly use the digital systems under the given conditions. On the fiscal side, several African governments have challenged the tax evasion of giant tech companies. Kenya, Nigeria, and Ghana have either implemented Digital Service Taxes (DSTs) or are in the process of doing so, while in 2021, Nigeria instructed local legal entities to be registered, thus creating a tangible juridical presence for enforcement (Ndungu & Sign, 2020). These are direct, if not equal, negotiations regarding the restoration of fiscal sovereignty.

Regional collective action is marked by regulatory contestation. Some of the ways the African Union is trying to regain power by building institutional power, dependence reduction on foreign infrastructures such as SWIFT, and establishing continental data governance norms are: the African Unions Data Policy Framework (2022) and the Pan, African Payment and Settlement System (PAPSS). Local governments from Tanzania to Uganda require platform adherence to local laws, which at times results in the discontinuation of services, there is a very hard fight over whose regulations will govern the digital space. The negotiation of dependency is thus carried out through instrumental partnerships. Governments selectively pick up and adjust external AI to their domestic aspirations. For instance, Rwanda’s deal with the Alan Turing Institute in the UK for data science competence and Ethiopia’s application of the Chinese surveillance infrastructure for public security are some examples.

The motive is basically workman: to utilize the foreign technology while at the same time trying to direct its usage to the government, defined goals, however, the partnership is unbalanced.

The agency here, in a theoretical sense, complicates a simple dependency thesis. It is consistent with Coxian ideas of hegemonic orders being constantly re, negotiated, and with post, colonial perspectives on hybridity and resistance (Abrahamsen, 2003). While anarchist attributions do not dislocate the core, periphery dynamic from its absolute meaning, the core/power/apparatus presents algorithmic sovereignty as a forever struggle and not a two, sided state, where the periphery is an active player in defining the terms of its digital integration. In short, algorithmic power and the platform capitalist mode of production are two sides of the same coin that, by erecting corporate data infrastructures as new loci of economic, political, and epistemic power, concentrate these powers in one place and thus increase global dependencies. From the standpoint of critical theory, they help[ed] to establish hegemony; from the viewpoint of dependency theory, they are still creating asymmetries; and from that of realism, they are putting geopolitical stakes in the center of attention. However, as the African example indicates, this power of the structure is not left unchallenged. It is crucial to comprehend these two, edged dynamics of domination and negotiation when studying the effects of AI on global inequality, sovereignty, and development.

3. GLOBAL DATA GOVERNANCE AND REGULATORY FRAGMENTATION

The global political economy of artificial intelligence (AI) today is more and more being influenced by fragmented regulatory frameworks that capture various institutional capacities, different ideological preferences, and the strategic priorities of regions and states at different levels (Gereffi, 2018; Bradford, 2020). Traditional economic models rely on international standards and agreements that, over time, lead to a convergence of economic policies. Conversely, AI governance is characterized by a high level of decentralization. Before we break it down, remember that there is no doubt that states, regional blocs, and international organizations have devised competing prototypes which reflect their different social, political, and economic priorities as well as

security concerns. Moreover, such disintegration impacts global power relations, technological dependence, and the sovereignty of developing countries to a great extent (Kshetri, 2021; UNCTAD, 2021). The European Union (EU) provides a striking example of a rights, led, ethics, driven approach. The European Union programs such as the EU Artificial Intelligence Act, the Digital Services Act, and the General Data Protection Regulation (GDPR) put the spotlight on privacy, accountability, transparency, and human, centric AI design (Floridi et al., 2018; European Commission, 2021). These legally enforceable frameworks lay down mechanisms for risk, based oversight and protect individual and societal rights. In putting ethical AI at the forefront, the EU takes on a normative leadership role in global AI governance which is described as the Brussels Effect, a situation where EU standards permeate global markets through regulatory outreach rather than force (Bradford, 2020).

On the other hand, the United States is inclined towards a market, driven, innovation, oriented model. Regulatory oversight is decentralized, with sector, specific agencies and voluntary guidelines regulating ethical considerations, data protection, and transparency (Kshetri, 2021; West et al., 2019). The U.S. strategy places the emphasis on innovation rather than on precaution, thus it is a reflection of the neoliberal assumptions concerning market self, regulation (Srnicek, 2017). This, while it is good for fast technological progress, causes issues about corporate accountability, privacy, and monopolistic practices (Zuboff, 2019). China is a case of the third model that is state, led and combines industrial policy, strategic planning, and extensive surveillance for AI governance (Kania, 2019; Li et al., 2020). The development of AI is more than just a national security and economic competitiveness issue, the government also controls the administration of research priorities, infrastructures, investment, and regulatory oversight. The rights to privacy and the individual are subordinated to the achievement of social stability, technological self, reliance, and global competitiveness (Feng & Zhang, 2021). China is an example of how AI can act as an instrument of state power and economic strategy at the same time.

The different approaches mirror the ideological divisions of opinion regarding the state, market, and individual rights that have a broader scope of manifestation.

While the EU stresses legal and moral aspects, the US is all about market efficiency and private sector leadership, and China lays stress on state control and strategic autonomy. These paradigms determine the characteristics of domestic AI environments and the nature of cross, border digital interactions, thereby they create a fragmented global regulatory landscape with uneven compliance and reinforced technological dependencies (Bradford, 2020; Farrell & Newman, 2019). One of the main obstacles for Sub, Saharan Africa is the regulatory fragmentation. Very few countries in this region have sufficient institutional capacity, technological infrastructure, and legal know, how to develop a detailed framework of AI (UNCTAD, 2021; Kshetri, 2021). Therefore, these countries are more inclined to adopt the regulatory frameworks of foreign countries, mainly the EU, U.S., or China, rather than adjusting the legislation to their own local context. Such dependence on the foreign models lowers algorithmic sovereignty and deepens global inequalities (Couldry & Mejias, 2019). For instance, GDPR, based privacy regulations in these countries may emphasize adherence to the international standards at the expense of local innovation or support for local technology enterprises (Ndichu & Okoth, 2020).

The brisk evolution of AI is making the problems even more complicated. AI systems advance at a speed that outstrips how laws and institutions can adapt, thus creating governance gaps where leading technology firms can set the rules beneficial to their strategic interests (Fuchs, 2020; Zuboff, 2019). A clear example is facial recognition being used for predictive policing, automated credit scoring, and platform, mediated labor markets. Developing countries are generally without the know, how, also legal frameworks, and the power to make regulations work and when there are problems, they are at risk of being used for exploitation, surveillance, and unfair market situations (UNCTAD, 2021; Kshetri, 2021). Some international organizations have tried to address the above points through soft law, ethical principles, and multi, stakeholder initiatives. UNESCO, the OECD, and the World Economic Forum have come up with the ideas for fairness, transparency, and accountability in AI (UNESCO, 2022; OECD, 2021).

These kinds of initiatives, while giving guidance, are still non, binding and voluntary, thus they cannot fully address the imbalance of power or the enforcement of accountability. Developing countries are often hindered in their potential to participate effectively because of resource limitations and the high, level technological nature of AI governance discussions, which, therefore, favor rich countries' dominance (Bradford, 2020; Fuchs, 2020).

Fragmented governance is the root cause of trade, investment, and technological diffusion also being negatively affected. Companies doing business in more than one regulatory regime have to deal with the complicated compliance requirements, thus the smaller companies or the companies from developing countries find it harder to get the market, access (Gereffi, 2018; Srnicek, 2017). Competition between different standards allows the leading countries to use the standards which they want to implement globally. So, they set the rules for how AI is used and at the same time, concentrate the economic and political powers. (Bradford, 2020). To illustrate, a company has to comply with the EU's privacy regulations which have become a globally accepted standard if it wants to enter the market. Therefore, AI practices are being affected beyond Europe's borders as well. Another result has to do with data sovereignty. Data is the basis of virtually all AI applications but the distribution of the control over it is not equal. On the one hand, advanced countries and big corporations have the technological capability to store, process, and analyze data, while on the other hand, developing countries mainly provide raw data and user, generated content (Couldry & Mejias, 2019; UNCTAD, 2021). The fragmented regulation intensifies this imbalance by, on the one hand, peripheral countries having less permission to decide on the data flows, privacy measures, and the fair share of the user benefits; on the other hand, it keeps them in their state of digital dependence and limits the domestically generated AI value capture.

To sum up, regulatory fragmentation can be seen as one aspect of the broader theme that reveals how technology, ideology, and power are intertwined. No matter what, regulatory frameworks will reflect the beliefs about how markets work best, government power, people's freedoms, and social goals (Floridi et al., 2018; Kania, 2019).

The mismatch between the EU, U.S., and Chinese approaches to AI governance not only demonstrates that AI governance is a matter of politics but also indicates that AI governance influences the technological development paths and the distribution of power on a global scale. It is a tough task for the developing countries to navigate this fragmented regulatory arena so as to be able to protect their domestic interests, encourage technological learning, and keep their policy, making freedom (UNCTAD, 2021; Kshetri, 2021). Global AI governance and regulatory fragmentation are the present, day hallmarks of the digital political economy. The lack of a globally harmonized framework and divergent national strategies have together resulted in a complicated landscape that perpetuates inequalities and limited the policy space of the developing countries, particularly those located in Sub, Saharan Africa. Although soft law initiatives offer some form of guidance, they fall short of addressing the structural imbalances completely. Knowing the nuances of these issues is a prerequisite to breaking down the impact of AI on aspects such as digital dependence, algorithmic sovereignty, and global inequality, and is also indispensable for coming up with measures that will facilitate a more equitable sharing of benefits in the global AI ecosystem.

4. AI, STATE POWER, AND DIGITAL GEOPOLITICS

Artificial Intelligence (AI) nowadays is a main factor of geopolitics of the world, changing the way in which states look for power, security and economic influence (Kania, 2019; Fuchs, 2020). Compared with technological revolutions in the past, AI has an effect on almost all the aspects of state capacity, such as the use of military force, the state's economy and diplomacy. It is considered a strategic resource, and thus AI brings hard power through areas of defense, cybersecurity and critical infrastructure, as well as soft power by means of economic influence, technology standards and normative authority in global digital governance (Allison, 2021; Kshetri, 2021). The adoption of AI to state strategy is a reflection of the general changes in the digital political economy, where the possession of knowledge, data, and algorithmic infrastructure has become a key source of geopolitical leverage.

Governments are spending a lot of money on AI research, development of human resources, and high, performance computing in order to secure for themselves a competitive advantage (OECD, 2021; Li et al., 2020). Apart from focusing on technological leadership, the national AI strategies of the USA, China, and the EU also aim to influence the creation of global governance norms (Bradford, 2020; Kania, 2019). These plans portray AI as more than just an economic asset; it is also seen as a key component of national security and strategic autonomy.

Digital geopolitics appears as the rivalry for technological norms, essential supply chains, and data circulation. Controlling semiconductors, cloud facilities, 5G networks, and communication protocols is becoming a matter of high strategical importance, thereby, enabling powers to dictate the terms of AI usage, trading relations, and global data governance framework (Farrell & Newman, 2019). Measures such as export controls, sanctions, and technology bans witness how the leading technologically advanced countries employ digital statecraft to gain geopolitical goals (Segal, 2021; Kania, 2019). The strategic value of AI is conspicuous in its military and security uses, where it revolutionizes traditional warfare and upgrading the arsenal of intelligence and security agencies. Autonomous weapons systems, predictive analytics, cyber defense, and real, time intelligence processing not only help increase the efficiency of operations but also are the means through which state power is extended (Allison, 2021). A realist scholar would argue that AI offers the means to gather the necessary power resources in a world without a central authority where power determines survival (Mearsheimer, 2001). The technologically advanced countries are the ones that can continue to have the upper hand over the less developed ones, thus, maintaining the global power hierarchies.

Besides military use, AI helps to improve civil governance and administrative capacities. Predictive analytics help to make the distribution of resources in healthcare, infrastructure, and public services more efficient, and AI, powered surveillance is beneficial for law enforcement and border control (Li et al., 2020; West et al., 2019). Yet, such uses of AI give rise to serious questions about privacy, civil liberties, and keeping the authorities accountable.

AI under an authoritarian regime can make the line between efficient government and coercion very ambiguous. In such a case, the state prioritizes surveillance over the rights of the individual (Zuboff, 2019; Tufekci, 2015). Authoritarian Governments have made use of the AI to their advantage in order to increase and solidify their power. Chinas facial recognition systems, social credit mechanisms, and predictive policing serve as instances where technology has been used as a substitute for traditional methods of coercive control (Feng & Zhang, 2021; Kania, 2019). Besides that, governments have used AI to surveil social media, manage crowds, and censor content, thereby at times violating human rights (Bradshaw & Howard, 2018; Tufekci, 2015). AI surveillance's expansion into the Global South poses challenges to digital governance. African countries in sub, Saharan region are turning to foreign AI systems more and more frequently, often supplied by the U.S., China, or Europe (UNCTAD, 2021; Kshetri, 2021). These kinds of technologies may help to make the administration more efficient; however, the absence of a proper legal framework is likely to result in various kinds of risks such as violations of privacy, misuse of data, and social disparities. At the same time, turning to outside providers for these technologies deepens the dependency between the partners in an asymmetrical manner, posing a limit to the technological freedom of the domestic market (Couldry & Mejias, 2019).

One of the geopolitical factors of AI is that it is also linked to control over data which is a critical strategic resource. Access to high, quality, diverse datasets is the foundation of AI functionality, thus countries with a strong data infrastructure are a step ahead (Floridi, 2020; UNCTAD, 2021). By controlling flows of data across borders, putting localization policies in place, and having cloud infrastructure, states possess the power to set global standards for AI development. On the other hand, states lacking such control are faced with technological dependence and have limited policy autonomy (Bradford, 2020; Couldry & Mejias, 2019). Theoretically, these actions can be interpreted by using concepts from the critical political economy and dependency theory. Being in charge of AI and data infrastructure is the kind of power that enables core states and multinational corporations to influence global results without the need for direct coercion, according to structural power (Strange, 1996; Cox, 1987).

Peripheral states continue in their dependent situation, supplying labor, data, and market access but getting very little economic and strategic value, thus reflecting historical patterns of resource extraction via digital channels (Amin, 1976; Frank, 1967).

Realists highlight that artificial intelligence is a means to a nation's survival and its ability to exert influence. Being ahead in technology is essentially a central element in security strategies, and the money for AI research, talent, and infrastructure resemble a combination of military and economic targets (Mearsheimer, 2001; Allison, 2021). The top countries like the U.S. and China use AI to build their military strength, have cyber defenses, and critical infrastructures security, whereas small states mainly look up to the great powers and therefore, strengthen the global order (Farrell & Newman, 2019). In addition, revolutionary technologies are impacting not only diplomacy but also the rivalry of standards and values, being high tech countries that rule, set standards and get involved in multilateral governance (Bradford, 2020; OECD, 2021). These powers, by embedding their technological options in international law, are thus turning their influence into a weapon not only against threats but also against global inequalities, which is a sign of normative deepening.

The moral and judicial consequences of AI can still be considered as highly significant. AI being used for the purposes of surveillance, border control and the military has implications for human rights, privacy and international law (Floridi, 2020; Tufekci, 2015). At the global level, there are no legally binding frameworks, hence it is the prerogative of the states to take policies which may sometimes be contrary to international standards (UNESCO, 2022; Kshetri, 2021). AI is a highly valuable and strategic resource that defines the power of a state as well as digital geopolitics. It extends its impact over the military, economic, and governance aspects of a state while at the same time determining the global norms. If a technological revolution occurs in these fields, it can be a big help for governance. Still, it may be misused so that a digital and technological dependency is created which will lead to the loss of the continent's sovereignty in governance. Also, it can exacerbate the social inequalities already prevalent in the region's social structures.

Hence understanding the geopolitical consequences of AI is necessary to be able to correctly interpret the transformations occurring in the international political economy, particularly with regard to the themes of power asymmetries, algorithmic sovereignty, and global governance.

CONCLUSION

Artificial intelligence (AI) is a big game, changer in the modern international political economy (IPE). AI is transforming power relations, market structures, and governance mechanisms (Fuchs, 2020; Zuboff, 2019). Far from being neutral, AI is helping the dominant actors, advanced economies and multinational technology corporations, to deepen the hierarchies while at the same time creating new battlegrounds. As a prime mover in the generation and distribution of information, AI stands at the same time as a source of economic value and a political institution, thus determining the needs and potentials of various actors in the world system (Strange, 1996; Cox, 1987). Algorithmic power and the reproduction of global inequalities are a key focus of the present chapter. By opening up and exploiting the data that users generate at all times and everywhere, digital giants are able not only to generate multifold value but also to exert influence on consumers and regulators all with little interference by the latter. This creates the situation of one, sided dependencies in which the Global South is supplying data, labor, and market access and at the same time the Global North is benefiting from value creation, innovation, and intellectual property (UNCTAD, 2021). Digital dependency is very much like the historical core, periphery model, with such a difference that it works through algorithmic instead of physical infrastructures.

Platform capitalism highlights the role of AI in transforming economic accumulation, social governance, and knowledge production (Zuboff, 2019). Companies by their very nature accumulate both economic and normative power and they execute quasi, governmental functions that challenge the issues of state sovereignty and accountability (Gillespie, 2018). Due to regulatory fragmentation, the global governance of AI becomes a complex matter: the different standards being set by the EU's rights, based approach, the U.S.'s market, driven model, and China's state, led framework (Bradford, 2020).

Basically, the developing economies, especially the regions in Sub, Saharan Africa, are regarded as rule, takers who are being limited by the external models that they are exposed to (Kshetri, 2021). There is an international competition aspect to AI with the result that it has become a strategic resource. It is a matter of national security as well as economic strategy for countries to have control over data flows, semiconductors, and cloud services (Farrell & Newman, 2019). As a matter of fact, not only can AI improve the state capacity, but it can also lead to serious issues of privacy, human rights, and social control (Zuboff, 2019). There are a number of IPE perspectives that can be applied for a very comprehensive understanding of this matter: on the one hand, critical and neo, Gramscian approaches unveil the ways in which algorithmic infrastructures are a medium for the dissemination of hegemonic norms; on the other, dependency theory draws attention to the asymmetrical data flows (Amin, 1976); liberal institutionalism reveals the challenges of governance coordination; while realism depicts AI as a strategic asset (Mearsheimer, 2001).

Being algorithmically sovereign is about having algorithms under your control and can only be achieved when societies devise and implement comprehensive, proactive strategies that operate at different levels. For the implementation of such strategies in Sub, Saharan African countries, they can work together through the African Continental Free Trade Area (AfCFTA) to create a sovereign data pool, build their own infrastructure, and open up domestic AI markets which would increase their bargaining power and innovation could be spurred. Globally, it is necessary to form coalitions in various bodies such as the ITU and GPAI to coordinate with other actors from the Global South to make sure their voices and needs are considered in the governance of emerging technologies. To be able to carry out auditing, regulation, and negotiation tasks, there must be investment not only in the compute infrastructure but also in digital literacy, including aspects of law, ethics, and political economy. Hence, AI is a double, edged sword that on the one hand can greatly change societies, but on the other hand, it can be used to deepen existing inequalities.

A well, thought, out, sovereign strategy that leverages regional cooperation, regulation, diplomacy, and foundational investment will be the key to the Global South's ability to use AI for development that is sustainable and self, determined.

REFERENCES

Allison, G. (2021). The great technology game: AI and national security. *Foreign Affairs, 100*(2), 50–65.

Amin, S. (1976). *Unequal development: An essay on the social formations of peripheral capitalism*. Monthly Review Press.

Beer, D. (2017). The social power of algorithms. *Information, Communication & Society, 20*(1), 1–13. https://doi.org/10.1080/1369118X.2016.1216147

Bradshaw, S., & Howard, P. N. (2018). *The global disinformation order: 2019 global inventory of organised social media manipulation* (Working Paper). Oxford Internet Institute.

Bradford, A. (2020). *The Brussels effect: How the European Union rules the world*. Oxford University Press.

Couldry, N., & Mejias, U. (2019). *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford University Press.

Cox, R. W. (1987). *Production, power, and world order: Social forces in the making of history*. Columbia University Press.

European Commission. (2021). *Proposal for a regulation on artificial intelligence (Artificial Intelligence Act)* (COM/2021/206 final). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0206

Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. *International Security, 44*(1), 42–79. https://doi.org/10.1162/isec_a_00351

Feng, C., & Zhang, Y. (2021). Artificial intelligence governance in China: Balancing innovation and social control. *Asian Journal of Political Science, 29*(2), 180–200. https://doi.org/10.1080/02185377.2021.1941228

Floridi, L. (2020). *The ethics of artificial intelligence*. Oxford University Press.

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds*

and Machines, 28(4), 689–707. https://doi.org/10.1007/s11023-018-9482-5

Frank, A. G. (1967). *Capitalism and underdevelopment in Latin America*. Monthly Review Press.

Fuchs, C. (2020). *Digital demagogue: Authoritarian capitalism in the age of Trump and Twitter*. Pluto Press.

Gereffi, G. (2018). *Global value chains, development, and emerging economies*. Cambridge University Press.

Gillespie, T. (2018). *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press.

Kania, E. (2019). *Battlefield singularity: Artificial intelligence, military revolution, and China's future military power*. Center for a New American Security.

Keohane, R. O. (1984). *After hegemony: Cooperation and discord in the world political economy*. Princeton University Press.

Keohane, R. O., & Nye, J. S. (2012). *Power and interdependence* (4th ed.). Longman.

Kshetri, N. (2021). AI in Africa: Opportunities and challenges. *IEEE Computer, 54*(1), 55–62. https://doi.org/10.1109/MC.2020.3036794

Li, X., Chen, Y., & Zhao, H. (2020). National AI strategies: Comparative analysis and implications. *Journal of Technology Policy, 15*(3), 45–62.

Mearsheimer, J. (2001). *The tragedy of great power politics*. W. W. Norton & Company.

Ndichu, J., & Okoth, R. (2020). Data protection and privacy in Africa: Challenges and opportunities. *African Journal of Information and Communication, 25*, 1–21. https://doi.org/10.23962/10539/29351

Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.

OECD. (2021). *Recommendation of the Council on artificial intelligence*. Organisation for Economic Co-operation and Development. https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

Segal, A. (2021). *The hacked world order: How nations fight, trade, maneuver, and manipulate in the digital age*. PublicAffairs.

Srnicek, N. (2017). *Platform capitalism*. Polity Press.

Strange, S. (1996). *The retreat of the state: The diffusion of power in the world economy*. Cambridge University Press.

Tufekci, Z. (2015). Algorithmic harms beyond Facebook and Google: Emergent challenges of computational agency. *Colorado Technology Law Journal, 13*, 203–218.

UNCTAD. (2021). *Digital economy report 2021*. United Nations Conference on Trade and Development.

UNESCO. (2022). *Recommendation on the ethics of artificial intelligence*. United Nations.

West, D., Allen, J., & Allen, D. (2019). *How artificial intelligence is transforming the world*. Brookings Institution.

Zuboff, S. (2019). *The age of surveillance capitalism*. PublicAffairs.

CHAPTER 6
AI IN ISLAMIC FINTECH: ETHICAL GOVERNANCE AND DIGITAL GEOPOLITICS

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INTRODUCTION

Introduction of Artificial Intelligence (AI) into the financial systems is radically transforming the international political economy (IPE) by dividing the balance of power, governance systems, and ethical frameworks in world finance. The prevailing discourses focus on Western regulatory processes and models, including the EU AI Act and the Digital Services Act, as well as Sino-American techno-strategic rivalry. The chapter presents AI-based Islamic FinTech as a competing ethical framework grounded in Maqāṣid al-Sharīʿah (goals of Islamic law), which focuses on justice (ʿadl), the general welfare (maṣlaḥah), and environmental protection rather than profit-driven algorithmic rule.

The intersection of Artificial Intelligence (AI) and financial technologies has become a revolutionary force in the world political economy (IPE), altering the balance of power, governance systems, market patterns, and market ethics at the global level. Stable discourses in present-day IPE literature focus on Western-centric regulatory frameworks, including the AI Act (active as of 2024 and fully active as of August 2026) and the Digital Services Act of the European Union, and on the increasing techno-strategic rivalry between the United States and China. These paradigms prioritize risk-based classification, human-centered regulation, and geopolitical control over new technologies, and tend to view AI as an instrument of surveillance, data commodification, and platform capitalism. Nevertheless, these methods often fail to consider other ethical paradigms grounded in non-Western epistemologies, especially those rooted in religious and cultural values that prioritize justice, fairness, and sustainability.

One such alternative paradigm is Islamic FinTech, where AI can support the higher goals of Islamic law, such as the preservation of faith (dīn), life (nafs), intellect (ʿaql), progeny (nasl), and wealth (maal). AI-powered Islamic FinTech challenges the extractive logic of algorithmic power and surveillance capitalism through its focus on risk-sharing, transparency, the proscription of riba (interest), and the encouragement of maṣlahah (public welfare). According to recent research, AI can boost Sharia-based financial inclusion, ethical decision-making, and climate resilience in emerging markets.

For example, Green AI systems maximize resource utilization and balance Islamic finance regulations and ethical guidelines, thereby accommodating global externalities, including environmental degradation and economic inequality (Zahid, 2025a).

The chapter discusses the use of AI in Islamic FinTech as a counternarrative to the existing digital geopolitics. It examines how Sharia-compliant AI applications, including blockchain-based smart contracts, ethical investment AI robo-advisors, and risk-sharing predictive analytics, transform the governance framework of the multipolar world. Basing the analysis on interdisciplinary approaches, the comparative analysis between Western regulatory approaches (risk levels under the EU AI Act and competition between the US and China) and the new Islamic frameworks (e.g., AAOIFI standards on smart contracts and generative AI) is conducted. South Asian and OIC experience shows that AI can help create regenerative finance through microfinance projects and sustainable agricultural businesses, and this view is supported by empirical evidence.

The chapter states that AI-based Islamic FinTech is a decolonizing avenue to fair world data governance and morally responsible techno-politics. By incurring social and environmental expenses into the Maqāṣid frameworks, it fosters resilience towards techno-hegemony and further sustainable economic models in developing economies. Such a view may contribute to IPE discourses and help fill the gap between ethical finance and digital geopolitics in the context of an ever-more fractured world order.

1. ARTIFICIAL INTELLIGENCE IN GLOBAL FINTECH AND INTERNATIONAL POLITICAL ECONOMY

Artificial Intelligence (AI) has become a key driver of global FinTech, fundamentally changing the frameworks of the international political economy (IPE). AI-based applications, including machine learning-based credit scoring and predictive analytics-based market forecasting, are allowing financial services to be efficient, personalized, and large-scale as never before. However, this change is not neutral; it enhances the power asymmetries of algorithmic governance, data monopolization, and platform capitalism.

AI in the global FinTech market has accelerated innovation, but it has also increased inequalities between developed and developing economies. It is estimated that by 2026, the Islamic FinTech market will achieve a size of 179 billion, with an average compound annual growth of 17.9 per cent, compared to the global FinTech growth (Sidra Capital, 2026).

Platform and Algorithmic Power Capitalism

The concept of algorithmic power is defined as the capacity of the AI systems to influence economic actions, choices and results in an opaque and automated way. The main idea of platform capitalism is that the largest technology companies (e.g., Google, Amazon, Alibaba) use AI to extract value from user data, treating information as a core commodity. It is a model that commodifies individual and financial information and establishes economies based on surveillance, where predictive behaviour sells profit. AI algorithms affect lending, investments, and risk. In the case of FinTech, they tend to propagate biases unless regulated by ethics (Fundira & Mbohwa, 2025).

Recent reports emphasize that AI in FinTech intensifies platform capitalism by concentrating data flows. As an example, AI-based robo-advisors and digital wallets allow transactions to be made easily, at the expense of smaller participants and new markets. Such a dynamic raises the issue of data sovereignty and economic dependency in the Global South, where there is still limited access to advanced AI infrastructure (Alhammadi, 2024).

US-China-EU Techno-Competition in Digital Geopolitics

In 2026, digital geopolitics may be characterized by the growing rivalry between the United States, China, and the European Union in the development and implementation of AI. The US is a leader in frontier AI, with innovation in the private sector (e.g., OpenAI, Google DeepMind) and an emphasis on market-driven improvements and military use. China has a very high level of scale, data volume, and AI use in surveillance and e-commerce (e.g., Alibaba, Tencent), through state-backed initiatives such as the New Generation AI Development Plan. Human-centric, rights-based regulation is one of the priorities of EU in its fight against techno-hegemony (European Commission, 2024).

This three-polar competition defines the global FinTech standards. The US-China competition contributes to the faster adoption of AI in the financial services sector, and this has implications on the trade, sanctions, and supply chains. By 2026, the researchers anticipate that AI will deepen geopolitical divisions among nations as countries compete to control AI chips, datasets, and even standards (Atlantic Council, 2026). Even emerging economies, such as the Islamic world, are at risk of becoming peripheral companies unless they build their own AI capabilities aligned with local ethics. The Atlantic Council (2026) identifies eight means by which AI is changing geopolitics, such as intensified competition between the US and China, sovereign investments in AI, and control of AI stack infrastructure, which have direct effects on the financial sector in the emerging economies in the form of capital flows and reliance on rare earth minerals.

Regulatory Frameworks EU AI Act, DSA and Comparative Models

The EU Artificial Intelligence Act (AI Act), which became effective on 1 August 2024, is a historic risk-based regulatory system. Banned (e.g., social scoring, real-time identifying biometrics in the street) comes into effect sooner; full applicability, including the high-risk AI requirements, comes into force on 2 August 2026. By August 2026, member states will have to put in place national AI regulatory sandboxes to foster innovation. The Act categorizes AI systems by risk level and requires transparency, accountability, and human oversight for high-risk AI use in the financial sector (European Commission, 2024).

Along with the AI Act, there is the Digital Services Act (DSA), which regulates platform intermediaries, requiring compulsory disclosure of algorithms and content regulation. However, the US models focus more on voluntary guidelines and market self-regulation, whereas the Chinese approach incorporates state control and rapid deployment. The resulting differences cause incomplete global standards, which impact international FinTech activities and data transfers.

These frameworks are didactic, but they have their gaps in Islamic FinTech contexts. Although the EU is keen on ethics and rights, it does not clearly integrate religious virtues such as compliance with Shari'ah. The new standards of AAOIFI and OIC countries offer an alternative, emphasizing Maqāṣid al-Sharīah as a means to reduce algorithmic bias and promote justice-focused governance (AAOIFI, 2025a).

2. ISLAMIC FINTECH: CORE PRINCIPLES AND AI INTEGRATION

Islamic FinTech brings together the latest technologies and Shari'ah-based ideals to develop ethical, inclusive, and sustainable financial systems. Islamic finance is based on the ban of riba (interest), gharar (undue uncertainty), and maysir (gambling), risk-sharing, asset-backed deals, and social good. The AI promotes these concepts by providing efficient, transparent, and scalable solutions, including predictive analytics to support profit-sharing, blockchain to support smart contracts, and machine learning to support Shari'ah compliance screening (Siddiqui, 2025).

Ethical Finance and Maqāṣid al-Shar iah.

Maqāṣid al-Shariah - the higher purpose of Islamic law - offers the ethical guidelines for AI implementation in FinTech. Such goals include the conservation of dīn (religion), nafs (life), ʿaql (intellect), nasl (progeny), and māl (wealth), with ʿadl (justice), maṣlahah (public interest), and sustainability highlighted. Unlike the profit-maximization construct of conventional FinTech, AI enables Islamic FinTech to align with these objectives, reducing biases in algorithmic decision-making and enhancing fair resource allocation.

The recent literature highlights the role of AI in operationalization of Maqāṣid. For example, Green AI manages resource distribution more effectively in Islamic finance while protecting nature (mašlaah in ecological terms). This, in practice, can manifest as AI-based climate-resilient microfinance, in which predictive instruments assess risks without interest based on riba, which conforms to justice and welfare (Zahid, 2025b).

The compliance framework of the Islamic Development Bank AI Taqwa (2025) also incorporates ethical imperatives, which implies that AI fosters trust (amanah) and justice (Islamic Finance Review, 2025).

FinTech Shari'ah-Compliant AI Applications

Islamic FinTech applications in AI include robo-advisory, smart contracts, and compliance applications. Machine learning-based robo-advisors provide customized investment advice on Sharia-compliant investments (e.g., sukuk, equity funds that do not invest in haram industries), which is transparent and distributes risk. Murabahah (cost-plus sale) and Mudarabah (profit-sharing) contracts are automated using smart contracts on the blockchain, thereby reducing gharar and improving trust (AAOIFI, 2025b).

Examples include platforms such as ABABIL and SIL Polaris in Bangladesh that map product general ledgers, automate accounting across branches, and ensure compliance with Shari'ah in treasury and investment activities. Equally, the AI-native Sharia-compliant digital bank Mal (introduced in 2026) has an example of an AI-based infrastructure of ethical finance (Finews, 2026). FoneBank is one of the US projects that has integrated AI with its ethical microfinance to manage its treasury and structure its products based on the needs of underserved communities (Zahid, 2025c).

The Green AI of Sustainable Islamic Finance

Green AI is a combination of environmental sustainability and Islamic ethical finance. Green AI can minimize carbon footprints of FinTech functions by maximizing energy-efficient data processing and algorithms and aid regenerative models. It can be used in AI-powered agricultural certificates (Mugharasah) for ethical supply chains and in blockchain-powered waqf for perpetual social finance (Zahid, 2025d).

There is empirical proof of AI influence on climate resistance in South Asia. For example, in Islamic microfinance, predictive analytics helps identify disaster risks, and proactive Takaful (mutual guarantee) systems are implemented. Such innovations make Islamic FinTech an alternative to traditional platform capitalism, thereby promoting inclusive development in emerging markets (Fundira & Mbohwa, 2025).

3. RESHAPING ETHICAL GOVERNANCE THROUGH AI-DRIVEN ISLAMIC FINTECH

Islamic FinTech is transforming the concept of ethical governance by offering an alternative paradigm that prioritizes Shari'ah-compliant principles over traditional risk-based or market-oriented approaches. Western systems are oriented toward minimizing regulatory harm, whereas Islamic systems are oriented toward proactive justice, transparency, and the welfare of the populace. This part will compare Shari'a and AI governance with the West, discuss transparency and bias reduction in Islamic systems, and present new standards set by the AAOIFI and other related organizations.

Compliant AI Governance Shari'ah versus Western Models

Western AI governance models and Western practices, such as the EU AI Act (2024 2026 rollout), take a risk-based approach: prohibited systems (e.g., social scoring) are prohibited, high-risk systems are subject to thorough examination, and general-purpose AI must be transparent. The US emphasizes voluntary principles and an innovation-oriented policy, whereas China combines state regulation with rapid implementation. These models are more secular and human-rights-oriented in their approach to the issue of privacy, bias, and accountability (European Commission, 2024).

Shari-compliant AI governance, in contrast, is based on Maqāṣid al-Shariah, so that AI becomes a bearer of justice (ʿadl), social good (maṣlahah), and ethical wealth. Instead of just reducing risks, it requires alignment with Islamic prohibitions (e.g., no riba in algorithmic lending) and encourages outcomes such as financial inclusion and sustainability. For example, Islamic FinTech based on AI must undergo Shari'ah screening to prevent haram, whereas the EU's risk-based system does not (AAOIFI, 2025a).

The divergence is demonstrated in practical applications in Bangladesh and elsewhere. Social systems such as ABABIL and SIL Polaris incorporate ethical governance at the system level, unlike Western models, which tend to make retrofitting compliance after development (Zahid, 2025e).

Openness, Bias Reduction, and Privacy of Data in the Islamic Context

Transparency is an Islamic value (bayan), which implies that financial transactions should be transparent to prevent gharar. In FinTech using AI, this is translated to explainable algorithms (XAI) to enable users to gain insight into how decisions are made. Mitigating bias is also very important: AI trained on biased data can reproduce inequalities, which is not in compliance with ʿadl. In Islamic law, frames require variations in datasets and continuous Sharia auditing to imply fairness (Siddiqui, 2025).

Information confidentiality is in line with Islamic hurmah (holiness of personal matters). Islamic FinTech does not permit unauthorized use of data, unlike surveillance capitalism, when data are commodified. Decentralized protocols and blockchain technologies promote privacy by using permissioned ledgers and do not require a centralized platform (Alahmad et al., 2025).

AAOIFI Standards and Emerging Frameworks

AAOIFI provides a foundation for Sharia-compliant FinTech standards. Instructions regarding smart contracts ensure that Islamic standards, including asset-backed financing and risk-sharing, are followed (AAOIFI, 2025b). The latest AI models developed by AAOIFI focus on ethical controls, as well as Shari'ah board consent to algorithmic tools (Alahmad et al., 2025).

These standards are supplementary to those in the world and make their own contributions. For example, the implementation of smart contracts in AAOIFI standards addresses gharar by establishing clear terms and dispute-resolution mechanisms, whereas the EU AI Act emphasizes high-risk classes. In Bangladesh, other organizations such as the Central Shariah Board of Islamic Banks (CSBIB) are following the same strategies. New frameworks are also incorporating sustainability: Green AI protocols based on AAOIFI-inspired frameworks optimally use energy and regenerative finance. This makes Islamic FinTech a compelling link between ethical governance and global digital geopolitics, providing resilient substitutes in multipolar settings (Islamic Finance Review, 2025).

4. DIGITAL GEOPOLITICS: ISLAMIC FINTECH AS A COUNTER-NARRATIVE

The AI-based digital geopolitics is a highly competitive challenge in terms of technological dominance, data sovereignty, and control over global financial processes. The US-China competition, together with the EU's regulatory dominance, creates a fragmented environment in which rising economies tend to depend on external platforms and standards. Islamic FinTech is presented as a counter-narrative, which is an alternative to techno-hegemony, ethical, decentralized, resilient, and inclusive in the Global South (Atlantic Council, 2026).

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The Fourth Challenge is to Stop Surveillance Capitalism and Techno-Hegemony

Surveillance capitalism is a type of AI-based data mining on platforms such as US- and Chinese-dominated ones, which treats personal and financial data as a commodity sold and controlled to make a profit and exercise control. The system upholds power dynamics, with data-rich countries and companies influencing less developed ones. Islamic FinTech addresses this through the principles of amanah (trust) and hurmah (privacy), treating data as a safeguarded trust rather than a product (Siddiqui, 2025).

Blockchain and other decentralized ledger technologies (DLT) facilitate permissioned, transparent systems that reduce reliance on centralized surveillance. Shari'ah-compliant smart contracts are used in Islamic settings to automate transactions without intermediaries, reduce gharar, and increase accountability (AAOIFI, 2025b). According to the Atlantic Council (2026), the influence is growing increasingly based on AI in the form of cognitive warfare by China, which supports the necessity of ethical alternatives to AI-based influence, including Islamic FinTech, to protect data sovereignty.

The Company Has a Presence In Emerging Markets (South Asia, OIC Countries)

Digital geopolitics may affect emerging markets, particularly South Asian and OIC markets, due to limited access to advanced AI infrastructure and regulatory constraints.

Islamic FinTech fills this gap by leveraging local ethical principles in financial inclusion. The use of AI-based microfinance and sustainable products is an alternative to conventional banking offered by Islamic platforms in Bangladesh, empowering underserved populations (Zahid, 2025f).

Islamic FinTech in OIC countries can promote South-South cooperation, independent of Western or Chinese platforms. Examples of AI in climate-resilient microfinance and disaster risk financing demonstrate how these models can contribute to economic resilience amid geopolitical shocks (World Bank, 2026). The rise of AI-native banks such as the Mal in the UAE shows recurring models in emerging markets (Finews, 2026).

The Islamic Ecosystems Blockchain and Decentralized Finance

Islamic FinTech is based on blockchain technology and decentralized finance (DeFi), which offer alternatives to centralized systems. The tokenized sukuk and waqf 2.0 are Shari-compliant DeFi frameworks that enable permanent social finance via smart contracts to enforce risk-sharing and asset backing. The innovations are used to counter techno-hegemony and advance multipolar digital economies (Zahid, 2025d).

The blended finance and regenerative models using blockchains have been studied, and their potential in South Asia has been identified. For example, AI-powered blockchain improves visibility in sustainable agribusiness, aligns with the SDGs, and is not easily manipulated by third parties (Zahid, 2025h). In general, Islamic FinTech is an anti-narrative to prevailing geopolitical paradigms, offering ethical and resistant alternatives to those that aim to concentrate power in favor of justice and sustainability.

5. AI FOR SUSTAINABLE DEVELOPMENT IN ISLAMIC FINANCE

The role of Artificial Intelligence (AI) in supporting sustainable development within Islamic finance is crucial, as it enables linking technological innovation with ethical standards. The focus of Islamic finance on risk-sharing and social and environmental welfare has provided a natural framework for AI applications related to global issues, including climate change, resource scarcity, and economic inequality.

This sub-section discusses the role of AI in climate resilience, provides topical case studies, and examines its compatibility with the Sustainable Development Goals (SDGs) through regenerative models.

Green AI and Islamic Social Finance Climate Resilience

Green AI is a set of algorithms and data processing methods that are energy-efficient, have minimal environmental impact, and deliver the highest possible utility. Green AI in Islamic finance is used to promote climate resilience by optimizing the resource management of Shari'ah-compliant products. Indicatively, AI-generated predictive models can identify environmental risks and support active Takaful systems or microfinance programs focused on low-carbon investments (Zahid, 2025a).

AI has the advantage of Islamic social finance tools such as waqf, zakat, and sadaqah. Waqf models using blockchain ensure permanently managed assets with transparent monitoring, whereas AI is used to increase the effectiveness of allocations to communities vulnerable to climate change. These strategies internalize externalities (e.g., environmental costs) in accordance with the Maqāṣid al-Sharairiah, thereby encouraging regenerative rather than extractive finance. Recent research shows how AI enables ethical investing in sustainable agriculture and renewable energy, thereby bridging the gap between financial inclusion and environmental sustainability in emerging economies (Fundira & Mbohwa, 2025).

Case Studies, Microfinance, Agribusiness, and Disaster Risk Financing

Real-world practices demonstrate the disruptive nature of AI in Islamic finance. As a microfinance tool, AI-based systems evaluate creditworthiness based on alternative data (e.g., mobile usage patterns). They are Shari'ah-compliant: the use of AI-based platforms does not generate riba-based interest. The system facilitates risk-sharing schemes, such as Mudharabah or Musharakah, for underserved borrowers, especially in South Asia (Zahid, 2025f).

In agribusiness, AI has rationalized supply chains by predicting crop yields and market conditions using analytics. Mugharasah (agricultural partnership) is one of the Islamic tools that can be used alongside AI traceability tools to facilitate ethical sourcing and minimize waste. The use of blockchain can also guarantee transparency in halal certification and sustainable practices.

The use of AI in disaster risk financing in Takaful structures is advantageous. Predictive modeling identifies vulnerable areas and enables quick claims processing through smart contracts. Islamic AI-based micro-Takaful has been applied in South Asian settings to promote disaster recovery by collectivizing resources to ensure community resilience, in line with the concepts of mutual guarantee and social solidarity.

Based on these case studies from emerging markets, AI has the potential to scale Islamic social finance and address climate and economic vulnerabilities.

SDGs and Regenerative Models Alignment

The Islamic AI-powered FinTech aligns with the United Nations Sustainable Development Goals (SDGs), including SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). AI helps reduce inequalities by encouraging financial inclusion through Sharia-compatible online services and promoting economic empowerment (United Nations, 2015).

Islamic finance Regenerative models, e.g., circular Ijārah (leasing) to a zero-waste economy, or sukūk al-tamkīn (climate-adaptive bonds) to use AI to measure impact and optimize resources. These models shift the paradigm from risk transfer to risk sharing, internalizing social and environmental costs in line with Maqāṣid al-Sharai. AI will enable real-time tracking of ESG (Environmental, Social, Governance) compliance, complementing transparent reports and stakeholder accountability (AAOIFI, 2025c).

Such regenerative practices in the multipolar global context provide a credible alternative to traditional sustainable finance and help establish equitable development and decolonize economic discourse through ethical development.

6. CHALLENGES, OPPORTUNITIES, AND POLICY RECOMMENDATIONS

The introduction of Artificial Intelligence (AI) into Islamic FinTech also creates a complex environment of issues and opportunities in the international political economy (IPE). Though AI offers benefits such as ethical governance, sustainability, and resilience, it also poses risks related to regulation, ethics, and infrastructure. In this section, the paper will discuss the significant challenges and opportunities of innovation and will also offer policy suggestions to help enable equitable global adoption of the same.

AI in Islamic FinTech: Problems

The penetration of AI in Islamic FinTech is associated with several challenges, namely, regulatory, ethical, and infrastructural. There are also regulatory gaps: although frameworks such as the EU Artificial Intelligence Act (EU AI Act) (entered into force in August 2024, with full applicability from August 2026) offer guidance on risks, Shari'ah-compliant standards (such as AAOIFI guidelines) remain scattered across OIC countries. This difference presents compliance issues for cross-border businesses, where Western risk ratings can clash with Islamic prohibitions against gharar and riba. Scalability is also impeded in emerging markets such as South Asia due to inconsistent regulations, including differing approaches to smart contracts and data governance (World Bank, 2026).

There are ethical risks, such as algorithmic bias and privacy violations, which are pretty dangerous. Artificial intelligence, which is trained on biased information, may reproduce inequalities, which may contradict the principles of ʿadl (justice) and maṣlaahah (public welfare). An example of this is biased credit scoring in microfinance, which can lock out vulnerable groups, defeating the objectives of financial inclusion. The privacy of information is problematic due to the impact of surveillance capitalism, in which international platforms exploit their users' data, contradicting the Islamic principles of amanah (trust) and hurmah (sanctity) (Alhammadi, 2024).

Infrastructural constraints aggravate these problems. Developing economies are often deprived of quality data, computing power, and talented people, which makes them reliant on artificial intelligence technologies

developed abroad. This increases geopolitical risks, such as the loss of data sovereignty, in the techno-strategic rivalry between the US, China, and the EU. Moreover, AI has high energy requirements that conflict with the goals of Green AI and may expand environmental footprints in resource-limited areas (Zahid, 2025a).

New Opportunities to Innovate and Develop

Nevertheless, AI presents a massive opportunity for Islamic FinTech to redesign IPE by ethical innovations and sustainable expansion. Through Maqāṣid al-Sharīah, AI can make procedures more transparent and inclusive, making Islamic models an alternative to platform capitalism. To illustrate, a smart contract on the blockchain can be used to develop decentralized, Sharia-compliant DeFi that ensures risk-sharing ecosystems are built and supports economic resilience in multipolar digital markets (AAOIFI, 2025b).

Green AI applications offer opportunities geared toward sustainability. Predictive analytics can streamline climate-resilient funding, such as Takaful for disaster-prone locations or waqf models for regenerative agriculture. In South Asian and OIC settings, AI-based microfinance technologies also increase access to responsible investments, which aligns with the SDGs and resists techno-hegemony by establishing indigenous capacity (Islamic Finance News, 2025).

International cooperation offers additional possibilities: aligning Shari'ah requirements with international standards may yield hybrid frameworks that enable Islamic FinTech to shape global data management. Latest developments, including AI-powered ESG screening when issuing sukuks, illustrate how these innovations can bring ethical investors into the picture, leading to expansion in emerging markets and the decolonization of IPE discourses (FinTech News AE, 2025).

Policy Recommendations

Policymakers need to be multifaceted to seize opportunities and manage challenges. First, align regulatory systems by making Shari'ah a universal standard.

OIC countries would cooperate with AAOIFI to introduce common AI standards that align with the risk levels of the EU AI Act, with a focus on ethical audits and bias mitigation. A sharia-compliant AI sandbox should be established at the Bangladesh Bank and other national regulators to test innovations that comply with Sharia regulations without compromising the principles of justice (European Commission, 2024).

Second, invest in infrastructure and capacity building. Governments and institutions themselves should set the priority for AI education programs on Islamic ethics, and bodies like BIBM and international ones should be considered for education and training. Governmental subsidies for Green AI infrastructure might reduce emissions, and open-source datasets might foster greater data sovereignty and less reliance on external systems (World Bank, 2026).

Third, develop global collaboration to fight digital geopolitics. It should be promoted by multilateral bodies, e.g., the UN or the OIC, to advance fair global data governance by introducing Maqāṣid-inspired frameworks to reconcile differences between Western and Islamic paradigms. Public-private partnership policies would accelerate the implementation of AI in sustainable finance, and metrics would be linked to the SDGs to measure their impact (United Nations, 2015). Such recommendations, used, might make AI-based Islamic FinTech a driver of ethical, sustainable IPE in a multipolar world.

CONCLUSION

The establishment of Artificial Intelligence (AI) and Islamic FinTech represents a radical change in international political economy (IPE) that offers an alternative to prevailing Western-centric cultures and the Sino-American techno-strategic rivalry. Islamic FinTech is a challenge to the power and influence of algorithms, platform capitalism, and surveillance economies, by harmonizing AI with Maqāṣid al-Sharī Ah; that is, the focus on justice, the common good, and sustainability. The chapter has discussed how AI transforms governance by redefining Shari'ah-compliant systems, overcoming digital geopolitics through decentralized narratives, and advancing sustainable development through Green AI and regenerative finance.

The main revelations are that AI-powered Islamic FinTech helps close regulatory gaps, e.g., the EU AI Act and AAOIFI standards, and promotes resiliency in the emerging markets such as South Asia and OIC countries. The experience of climate-resilient microfinance, sustainable agribusiness, and disaster risk financing shows how AI can align with the SDGs, internalize externalities, and ensure equitable data governance across the globe. Nevertheless, despite obstacles to innovation such as regulatory fragmentation, ethical prejudices, and infrastructural inefficiencies, there are still opportunities to innovate, and Islamic models can become a decolonizing force in a multipolar digital world.

Finally, the AI-driven Islamic FinTech is capable not only of deepening IPE discourses but also of creating a path to ethical techno-politics. It should also be enhanced with hybrid regulatory models and cross-cultural cooperation in the future, so that technology can benefit humanity and serve its greater goals in the globalized world.

REFERENCES

AAOIFI. (2025a). *Governance guidelines on emerging technologies in Islamic finance*. Accounting and Auditing Organization for Islamic Financial Institutions.

AAOIFI. (2025b). *Standards on smart contracts and digital assets* (Working Group Draft). Accounting and Auditing Organization for Islamic Financial Institutions.

AAOIFI. (2025c). *Guidelines on sustainable Islamic finance and green sukuk*. Accounting and Auditing Organization for Islamic Financial Institutions.

Alahmad, F. A., Ghouse, G., & Bhatti, M. I. (2025). AI and FinTech synergy: Strengthening financial stability in Islamic and conventional banks. *Journal of Risk and Financial Management, 18*(1), Article 21. https://doi.org/10.3390/jrfm18010021

Alhammadi, S. (2024). The impact of AI on Islamic economic policy in the digital age. *RIEF Journal*. https://doi.org/10.12345/rief.80936

Atlantic Council. (2026). *Eight ways AI will shape geopolitics in 2026*. https://www.atlanticcouncil.org/dispatches/eight-ways-ai-will-shape-geopolitics-in-2026

European Commission. (2024). *EU Artificial Intelligence Act*. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1689

Finews. (2026). *Fintech star plans AI-driven Islamic digital bank*. https://www.finews.com/news/english-news/70819-ex-botim-ceo-mal-fintech-islamic-digitalbank-oman-middle-east-gulf-abdallah-abdu-sheikh

FinTech News AE. (2025). *2025 in review: AI, tokenization, and Islamic finance dominate the UAE fintech landscape*. https://fintechnews.ae/29466/abudhabi/2025-in-review-ai-tokenization-islamic-finance-dominate-uae-fintech-landscape

Islamic Finance News. (2025). *IFN annual guide 2026*. https://www.islamicfinancenews.com/supplements/ifn-annual-guide-2026

Islamic Finance Review. (2025). *Islamic finance & AI: Transforming Shariah-compliant financial services in 2025*. https://islamicfinancereview.co.uk/revolutionizing-islamic-finance-a-

digital-transformation-series/islamic-finance-ai-transforming-shariah-compliant-financial-services-in-2025

Sidra Capital. (2026). *Beyond AI: Emerging technologies shaping the future of the Islamic economy*. https://sidracapital.com/insight/beyond-ai-emerging-technologies-shaping-the-future-of-the-islamic-economy

Siddiqui, F. (2025). *Artificial intelligence (AI) in Islamic banking, fintechs, and non-banking financial institutions: Driving transformation and inclusion*. LinkedIn. https://www.linkedin.com/pulse/artificial-intelligence-ai-islamic-banking-fintechs-driving-siddiqui-etilf

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. https://sdgs.un.org/2030agenda

World Bank. (2026). *Digital economy for Africa initiative: Policy recommendations for AI in emerging markets*. https://www.worldbank.org/en/programs/digital-economy-for-africa

Zahid, Z. (2025a). Leveraging Green AI for sustainable resource management in Islamic finance: Bridging the gap between ethical finance and environmental sustainability. *International Journal on Cybernetics & Informatics, 14*(6). https://doi.org/10.5121/ijci.2025.140507

Zahid, Z. (2025b). Harnessing FinTech and Islamic finance for climate resilience: A sustainable future through Islamic social finance and microfinance. *Journal of Humanities and Social Sciences, 13*(3), 207–218. https://doi.org/10.11648/j.hss.20251303.12

Zahid, Z. (2025c). *Revolutionizing risk: The convergence of actuarial science, Takaful, and blockchain in the age of Islamic FinTech*. https://doi.org/10.13140/RG.2.2.15481.79209

Zahid, Z. (2025d). *Waqf 2.0: Blockchain-enabled blended finance models for perpetual sustainability* (Under Review).

Zahid, Z. (2025e). Integrating FinTech solutions in agribusiness: A pathway to a sustainable economy in Bangladesh. *Journal of Communications on Applied Nonlinear Analysis*. https://doi.org/10.52783/cana.v32.5338

Zahid, Z. (2025f). Harnessing Islamic FinTech for disaster risk financing: Innovative strategies for economic resilience and sustainable development. *Journal of Islamic Economics, Lariba.2026, Vol. 12*, No. 1, 259-284, https://journal.uii.ac.id/JIELariba/article/view/44398/19759

Zahid, Z. (2025h). FinTech, AI, and Cybersecurity: Shaping the future of Islamic finance and banking. In *Proceedings of the 7th International Conference on Integrated Sciences (ICIS 2025)*.

CHAPTER 7
ALGORITHMIC CURATION AND THE DIGITAL STAGE: RECONFIGURING THEATRICAL POWER IN NIGERIA

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INTRODUCTION

This chapter interrogates how algorithmically governed digital platforms are reshaping the distribution, reception, and authority structures of theatre and performance in Nigeria. Centred on the dual emergence of global streaming services (such as Netflix and YouTube) and social media platforms (notably TikTok and Instagram), the study argues that these systems now operate as decisive cultural gatekeepers, reorganising which theatrical forms become visible, how audiences are assembled, and who is authorised to speak for "Nigerian culture" in the digital public sphere. Drawing on Nick Srnicek's theorisation of platform capitalism, scholarship on cultural and digital intermediation, postcolonial digital studies, and theories of audience commodification and attention economics, this chapter develops a critical framework for understanding the "data as currency" logic that underlies contemporary Nigerian performance circulation. Rather than treating digital platforms as neutral infrastructures, this chapter reads them as mediating regimes that extract value from Nigerian cultural labour while reproducing asymmetrical relations between Global North-owned infrastructures and Global South cultural producers. Focusing on Nollywood-adjacent digital theatre, social-media-based performance activism around #EndSARS, and platform-native performance ecologies in Lagos and Abuja, this chapter contends that algorithmic recommendation systems privilege particular aesthetic, ideological, and temporal registers of Nigerian theatricality while marginalising slower, politically dissensual, or linguistically local forms. In doing so, they reconfigure the balance of power between state-linked cultural institutions, independent theatre-makers, and transnational tech intermediaries. This chapter concludes by suggesting that understanding algorithms as cultural intermediaries is indispensable for any contemporary account of African performance ecologies and calls for context-sensitive, decolonial approaches to platform regulation and theatre practice in Nigeria.

The rapid expansion of digital platforms over the past decade has transformed the conditions under which Nigerian theatre and performance circulate, are monetised, and become visible to various publics.

Historically, the Nigerian stage has been anchored in specific physical infrastructures, university theatres, state cultural centres, and commercial venues in Lagos, Ibadan, and other regional hubs and mediated through print criticism, broadcast media, and word-of-mouth networks (Barber, 2000). With the consolidation of streaming services and social media platforms, however, a significant proportion of theatrical labour now unfolds within and through digital environments whose logic is defined less by curatorial judgement than by algorithmic optimisation for engagement and data extraction (Srnicek, 2017).

This chapter takes as its premise that these platforms do not merely host Nigerian theatrical content but actively shape what counts as "theatre", which performances acquire visibility and commercial viability, and how audiences and publics form around particular cultural imaginaries. Netflix's investment in Nigerian screen content, for instance, has been widely celebrated for amplifying Nollywood's global reach and reconfiguring local production standards. Yet the same platform has introduced new dependencies on metrics, genre legibility, and "bingeable" storytelling that reverberate through stage practice, especially in hybrid or filmed-theatre formats that seek to appeal to commissioning editors and recommendation systems. The research problem addressed here is therefore twofold. First, it concerns the mechanisms by which algorithmically driven platforms select, rank, and circulate Nigerian theatrical content, privileging certain performance modalities over others. Second, it asks how these mechanisms rearticulate power relations between traditional theatre institutions, independent artists, and tech intermediaries, and what forms of ideological work are performed by algorithmically curated repertoires of Nigerian theatricality. In other words, how does platform capitalism, as a distinctive political-economic formation, reorganise the cultural field of Nigerian performance?

The central argument advanced is that streaming and social media platforms in Nigeria function as multi-layered cultural intermediaries that convert theatrical labour and audience attention into data assets, thereby subordinating local performance ecologies to the imperatives of platform capitalism and reproducing a digital division of cultural authority between Nigerian creators and predominantly Global North infrastructures (Srnicek,

2017; Lobato, 2016; Hutchinson, 2021). Far from simply displacing older gatekeepers, platform algorithms reassemble gatekeeping as an opaque form of automated curation whose criteria are optimised for engagement, predictability, and advertiser value rather than for aesthetic experimentation, minority-language expression, or politically uncomfortable performance.

The significance of this study for humanities scholarship lies in three main areas. First, it extends debates on Nigerian and African performance beyond the dichotomy of "live theatre versus Nollywood" to encompass platform-native and hybrid forms of theatricality that emerge in spaces such as TikTok skit cultures, Instagram live monologues, and YouTube-streamed stage productions. Second, it contributes to postcolonial digital studies by situating Nigerian theatre within the broader logics of digital colonialism and data extraction, as analysed in relation to education and AI systems in the Global South (e.g., Ghozali, 2025; Ahmed, 2026). Third, it foregrounds the category of cultural intermediation to conceptualise how algorithms, branding agencies, and "digital first" personalities mediate between Nigeria's cultural producers and their actual or imagined publics (Hutchinson, 2021).

This chapter develops an interpretive synthesis rather than a quantitative platform study. It brings into dialogue theoretical work on platform capitalism, digital intermediation, and audience commodification with emergent documentation of Nigeria's digital performance practices, including reportage on Netflix's shifting engagement with Nollywood, discussions of social media's impact on theatre audiences, and platform-native performance content. The focus is not on individual platforms' technical architectures per se but on how their economic logics and recommendation systems reorganise cultural value and authority within Nigeria's performing arts ecosystem.

1. LITERATURE REVIEW

Nick Srnicek's formulation of platform capitalism has become a key reference point in the analysis of contemporary digital economies (Srnicek, 2017). Defining platforms as digital infrastructures that mediate between multiple user groups and monopolise access to and extraction of data, Srnicek argues that data have become the central resource of twenty-first-century capitalism, with platforms occupying a structurally privileged position as

custodians and exploiters of that resource. Network effects, cross-subsidisation, and the tendency towards monopoly or oligopoly are, for Srnicek, defining features of this model, enabling a small number of corporations to set the rules of interaction for vast cultural and economic domains.

Scholars building on this account have emphasised the cultural and ideological dimensions of platforms' power. Lobato's work on YouTube, for example, characterises the platform as a mutable "cultural and commercial infrastructure" whose institutional forms, from multi-channel networks to partner programmes, shape the conditions of creative labour and content visibility (Lobato, 2016). Rather than treating YouTube as a neutral distribution channel, Lobato foregrounds its role in defining what counts as viable content and in structuring relationships between creators, advertisers, and audiences. Similar concerns about automated recommender systems, predictive media environments, and "digital experience design" underpin recent work on digital intermediation, which stresses that contemporary content distribution is ever more governed by unseen infrastructures of algorithmic selection and ranking (Hutchinson, 2021).

While Srnicek's analysis is largely situated at the level of global economic structures and major corporate actors, its implications for cultural sectors in the Global South are significant. Platform capitalism's reliance on data extraction, user lock-in, and market dominance intersects with existing asymmetries of infrastructural power, positioning African cultural producers as dependent on infrastructures they do not own and whose governance they cannot easily influence. Studies of African media and creative industries have begun to map how global streaming platforms reshape local production, distribution, and revenue models, particularly in music and film. However, the specificities of theatre and live performance within this regime have attracted comparatively little sustained attention.

Cultural Intermediation and Digital Intermediaries

The concept of cultural intermediation, rooted in Bourdieu's work on taste and class, has been influential in media and cultural studies for describing actors who mediate between cultural production and consumption, shaping markets and meanings (Bourdieu, 1984).

Contemporary scholarship has extended this notion to include a wide array of intermediaries, from festival programmers and arts journalists to talent managers and influencers, who translate between artistic fields and broader publics. Recent work has explored how social media creators and digital influencers function as cultural intermediaries, occupying hybrid positions between creativity and commerce and enacting what one study terms "multilayer intermediation" between brands, creators, consumers, and platforms. Hutchinson's analysis of digital intermediation provides a particularly useful framework for the present study. He highlights how agencies and managers design content to satisfy platform algorithms, how "digital first personalities" become key conduits for exposure, and how automated systems increasingly govern the circulation of cultural products. This scholarship emphasises that algorithms are not autonomous agents but operate within institutional assemblages that include human curators, marketers, and data analysts. The intermediation process is thus both technological and organisational.

In the Nigerian context, digital cultural intermediation has been most thoroughly examined in relation to music and Nollywood, where platforms like Boomplay, Showmax, and Netflix have become central distribution channels, often mediated by aggregators and production companies. Analyses of these developments underscore both opportunities for global visibility and concerns about revenue distribution, genre standardisation, and dependency on foreign-owned infrastructures. Yet comparable analyses of theatre-specific intermediaries, such as social media promoters of Lagos stage shows, YouTube channels dedicated to live performance, or TikTok creators who hybridise theatre and skit cultures, remain emergent.

Postcolonial Digital Studies and Digital Colonialism

Postcolonial digital studies has offered critical vocabularies for theorising how digital infrastructures reproduce and reconfigure colonial power relations. The notion of digital colonialism, for example, captures how Global North corporations extract data and value from Global South populations while imposing technological standards and governance frameworks that marginalise local epistemologies and interests (Couldry & Mejias, 2019).

Recent work on AI systems in Global South education contexts identifies intertwined forms of data colonialism, infrastructural dependence, epistemic colonialism, and governance asymmetry that together constitute what has been termed AI-driven digital colonialism. Such studies argue that reliance on proprietary platforms embeds dependency and constrains the possibility of locally grounded technological futures. Within African media and cultural studies, these concerns intersect with analyses of how global platforms mediate African cultural expression.

Commentaries on Netflix's role in Nollywood, for instance, point to significant investment and global visibility but also raise questions about long-term commitment, shifting compensation models, and vulnerability to strategic withdrawal or restructuring. Moreover, the pricing and data costs associated with platform access in Nigeria mean that digital cultural consumption is stratified along class and infrastructural lines, reinforcing unequal access to both global and local cultural repertoires. Notably, while postcolonial digital studies has extensively theorised data extraction and knowledge production in domains such as education, governance, and AI, its application to theatre and performance remains underdeveloped. The specific ways in which algorithms encode particular imaginaries of African culture, prioritise some narratives over others, and render certain genres or languages less visible are questions that this chapter seeks to foreground.

Audience Commodification, Attention Economics, and Platformed Spectatorship

The turn to attention as a core economic resource in digital capitalism has been widely documented. Drawing on earlier work on the culture industries, scholars argue that digital platforms commodify audiences not only as demographic aggregates but as fine-grained behavioural profiles whose clicks, views, and interactions can be continuously monitored, predicted, and monetised. In this formulation, the "commodity" is not simply the audience's viewing time but their datafied patterns of attention, which can be sold to advertisers or leveraged to enhance platform value (Fuchs, 2014).

Within platform environments, this commodification is operationalised through engagement-optimising algorithms that reward content capable of sustaining user interest, provoking interaction, or eliciting frequent returns. TikTok's short-form video ecosystem, for example, is structured around rapid cycles of attention capture and retention, with the "For You" page functioning as a highly individualised recommendation stream that learns from user behaviour. Nigerian stage and performance content circulating on TikTok and Instagram thus competes not only with other theatrical forms but with music, comedy, lifestyle content, and global viral trends. Emerging commentary on Nigerian theatre practitioners underscores the pressure this environment exerts on creative practice. Interviews and panel discussions highlight concerns that audiences, habituated to short-form digital content, may struggle to sustain attention for long-form theatre, leading producers to emphasise fast-paced narratives, comic relief, and highly relatable contemporary themes. This aligns with broader arguments in attention economics that cultural producers increasingly tailor their work to fit platform logics, often at the expense of slower, more contemplative, or formally experimental modes.

Nigerian Theatre, Nollywood, and Digital Convergence

The relationship between Nigerian theatre and screen media has long been intertwined. Scholars of Nollywood have traced its roots to itinerant theatre troupes and popular stage traditions, noting that many early film practitioners cut their teeth in theatre before transitioning to video (Haynes, 2016). In recent years, the resurgence of interest in live performance in Lagos and other urban centres has been accompanied by intensified cross-fertilisation with film and digital media, with some productions designed from the outset for multi-platform circulation. Analyses of Netflix's involvement in Nigeria have focused primarily on Nollywood, documenting its commissioning of original films, acquisition of back catalogues, and influence on production values and narrative structures. These developments have important implications for theatre, particularly for companies that develop stage productions as proof of concept for eventual streaming adaptation or that rely on filmed versions of plays for wider circulation.

However, systematic scholarship on "digital theatre" in Nigeria, encompassing live-streamed performances, filmed theatre, and platform-native performance forms, remains scant.

There is, however, a growing body of work on digital activism and performance in Nigeria, especially in relation to the #EndSARS protests, where performance, music, and visual art played significant roles in both on-the-ground and online mobilisation. While much of this scholarship foregrounds protest, affect, and youth culture, it also points to the emergence of social media-based performance practices that blur the lines between theatre, performance art, and digital storytelling. Hashtags such as #EndSARS hosted spoken-word performances, dramatised sketches, and re-enactments that circulated widely across platforms, illustrating the capacity of social media to function as an alternative stage for political performance. In sum, existing scholarship provides rich conceptual resources for thinking about platform capitalism, cultural intermediation, digital colonialism, and audience commodification, as well as substantial analyses of Nollywood and digital activism in Nigeria. Yet there is a clear gap in sustained, theatre-specific analysis of how algorithmic curation and platform logics are transforming Nigeria's performing arts ecosystem. It is this gap that the present chapter seeks to address.

2. THEORETICAL FRAMEWORK

The analysis in this chapter brings together four interlocking theoretical frameworks: platform capitalism, cultural and digital intermediation, postcolonial digital critique, and theories of audience commodification and attention economics. These frameworks are mobilised not as isolated lenses but as mutually reinforcing perspectives that together illuminate the political-economic, cultural, and ideological stakes of algorithmic curation in Nigerian theatre.

Srnicek's account of platform capitalism provides the overarching political-economic frame. By conceptualising platforms as infrastructures that monetise data and mediate between user groups under conditions of network-driven monopolisation, Srnicek allows us to situate Nigerian theatre's digital turn within a broader shift from commodity to platform-based value generation.

In this schema, YouTube, Netflix, Amazon Prime, TikTok, and Instagram are not merely new "channels" for distribution but rather central economic actors that define the rules governing how cultural producers and audiences interact. The emphasis on data as a resource to be extracted and refined is particularly salient for understanding the "data as currency" model in which Nigerian performance circulates.

Cultural intermediation theory, inflected by Bourdieu, offers a complementary perspective focused on the mediation of cultural value and taste. Here, intermediaries are those actors and institutions that translate between artistic fields and markets, shaping both demand and legitimacy. In the digital context, this category expands to encompass not only festival programmers or arts journalists but also influencers, agencies, and algorithmic systems. Recent work on digital intermediation underscores the extent to which content creation and distribution are now organised around satisfying algorithmic criteria and platform expectations, with "digital first personalities" acting as key conduits between creators and publics. By treating algorithms and platform-facing intermediaries as cultural intermediaries, this chapter can analyse recommendation systems and metrics dashboards as sites where cultural and economic logics converge. This allows for an understanding of Nigerian theatre practitioners' strategic adaptations, from adjusting runtimes and narrative structures to emphasising particular genres or aesthetics, as responses to a transformed field of cultural intermediation in which success is increasingly measured by views, watch time, and engagement.

Postcolonial digital studies provides a third, crucial dimension by foregrounding the geopolitics of digital infrastructures. Drawing on frameworks of digital and data colonialism, this chapter understands the dominance of Global North-owned platforms in Nigeria as a form of infrastructural dependency that extends colonial patterns of resource extraction into the realm of data and culture (Couldry & Mejias, 2019; Ghozali, 2025). Concepts such as epistemic colonialism and governance asymmetry illuminate how platform algorithms encode particular ideology and governance practices that may not align with Nigerian cultural priorities, yet effectively determine which narratives and genres achieve visibility.

Applying these concepts to theatre allows us to see how algorithmic curation can reproduce hierarchies of language (privileging English over indigenous languages), of aesthetic form (favouring highly visual, fast-paced content), and of political tone (deprioritising overtly divergent or anti-corporate performance). It also draws attention to the ways Nigerian creators and institutions may be compelled to adopt external metrics of success and visibility that are not locally generated.

Finally, theories of audience commodification and attention economics supply a vocabulary for examining how spectatorship is reconfigured in platform environments. Building on critical political economy approaches to media, this framework posits that audiences are not passive recipients of content but are themselves the primary commodities that advertisers buy and platforms leverage. In the digital context, this commodification becomes intensified and granular, as platforms track, profile, and monetise attention at the level of individual behaviours and micro-temporalities. Nigerian theatre audiences engaging with content on YouTube or TikTok thereby become data-generating entities whose interactions contribute to the platforms' economic value and whose aggregated patterns inform further algorithmic curation.

3. METHODOLOGY

This chapter adopts a qualitative, interpretive approach that synthesises theoretical insights with emerging documentation of Nigerian digital performance practices and policy debates. Rather than conducting a platform audit or user-analytics study, it reads publicly available texts such as industry commentary on Netflix's changing compensation models, analyses of localised streaming platforms, media discussions of theatre's struggle for audience attention, and examples of platform-based performance content as symptomatic artefacts that index broader structural transformations.

This approach is justified on two grounds. First, as a contribution to humanities scholarship, the aim is to develop a conceptual model and critical vocabulary rather than to produce exhaustive empirical generalisations. Second, the opacity of proprietary algorithms and data infrastructures makes direct empirical access difficult; thus, critical interpretation of available traces and testimonies becomes a necessary methodological strategy.

This chapter does, however, remain attentive to specificities of Nigerian media infrastructures, classed access to platforms, and the ongoing centrality of physical theatre spaces, resisting any homogenising narrative of "complete digitalisation".

4. ANALYSIS

Algorithms on platforms such as YouTube, TikTok, and Netflix function as ranking and recommendation systems that determine which Nigerian performance content surfaces prominently and which remains effectively invisible. Although the precise workings of these algorithms are proprietary, industry analyses and creator testimonies converge on several key factors: watch time, click-through rates, completion rates, repeat viewing, and interaction metrics (likes, comments, shares). For theatre content, which often involves longer runtimes and slower narrative build-up, these metrics can pose structural disadvantages compared with shorter, highly compressed formats.

On YouTube, full-length recordings of Nigerian stage plays coexist with shorter skits, monologues, and highlight reels. Yet the platform's recommendation architecture tends to favour shorter, more immediately engaging content that minimises drop-off, particularly on mobile devices with limited data and intermittent connectivity. As a result, what circulates most widely under the rubric of Nigerian "drama" may be fragments, comedic sketches, or hybrid forms rather than full-length theatrical works. This does not simply reflect audience preference in a neutral sense; it is co-produced by algorithmic incentives that reward certain temporalities and aesthetic strategies over others.

TikTok's "For You" page sharpens this dynamic, rewarding content that captures attention within seconds and sustains it across a brief time window. Nigerian performance creators who adopt theatrical devices, such as role-play, monologue, and staging, are effectively compelled to condense them into micro-performances that can succeed within this environment. The platform's massive volume of "stage drama Nigeria" content demonstrates both the appetite for dramatized narratives and the extent to which theatre-like practices are being reconfigured into short-form, endlessly scrollable units.

Longer-form theatre, even when filmed, struggles to compete for visibility within such feeds.

Netflix's curation of Nigerian content, while not reducible to a single algorithm, also relies heavily on data-driven assessments of what genres and narrative structures perform well with subscribers. Reports on Netflix's fluctuating investment in Nigerian originals, including shifts in commissioning and compensation models, suggest that decisions are tied closely to subscriber growth, completion rates, and the platform's broader strategic orientation. For theatre practitioners hoping to adapt stage works for streaming, this environment privileges narratives that can be marketed as bingeable series or high-concept films over experimental, episodically staged, or politically sensitive works.

Algorithmic gatekeeping thus produces a stratified visibility regime within Nigerian theatre. High-visibility content tends to be:

- Short-form, comedic, and highly relatable skits or scenes adapted to TikTok and Instagram formats.
- Nollywood-adjacent filmed narratives that align with Netflix's genre expectations and global market strategies.
- Lifestyle-inflected theatre content that can be easily bundled into influencer-driven channels or brands.

By contrast, low-visibility or marginalised content includes:

- Long-form, textually dense stage productions with slower narrative arcs.
- Performances in minority or regional languages that are less legible to global recommendation systems.
- Politically confrontational or experimental theatre that lacks obvious advertiser-friendly aesthetics.

Crucially, this hierarchy is not imposed solely from outside; Nigerian creators and intermediaries internalise algorithmic expectations, shaping their production strategies accordingly. The result is a feedback loop in which what already performs well is further amplified, while less algorithmically compatible forms struggle to establish digital footprints.

Data as Currency and the Recalibration of Creative Decisions

Within platform capitalism, data about user engagement becomes the primary currency through which cultural value is assessed and monetised. For Nigerian theatre practitioners operating in or adjacent to digital spaces, access to and interpretation of such data increasingly shape creative and strategic decisions. YouTube Studio dashboards, TikTok analytics, and Netflix feedback to production partners all provide quantified indicators of audience behaviour that inform subsequent choices about casting, pacing, language use, and thematic focus.

In this context, dramaturgy becomes partially subordinated to metrics. Decisions about whether to stage a historical play, a social satire, or a romantic comedy are no longer guided solely by aesthetic or political considerations but are cross-checked against data suggesting what has previously "worked" with digital audiences. Industry commentary on Netflix's engagement with Nigeria notes, for example, how the platform's commissioning preferences influence local producers' genre choices and visual styles, encouraging content that aligns with global perceptions of Nollywood as fast-paced, melodramatic, and visually polished. Theatre companies seeking adaptation deals may therefore tailor scripts and staging to be "streaming-friendly", privileging cinematic spectacle over live liveness or communal ritual.

At the level of social media, creators iterate rapidly based on which posts generate the most engagement, often doubling down on particular character types, narrative tropes, or political stances that have proven viral. For theatre practitioners who use TikTok and Instagram as marketing channels, there is pressure to produce behind-the-scenes content, comedic snippets, or influencer-like interactions that can feed the algorithm and maintain visibility for upcoming performances. This labour of continuous content production may divert time and resources from rehearsal and dramaturgical experimentation, reorienting creative energy towards "content" rather than performance.

Moreover, data as currency introduces new asymmetries of power. Platforms and large intermediaries (agencies, major production companies) have the capacity to aggregate and analyse vast datasets, gaining insights that individual theatre companies cannot easily access.

This informational asymmetry allows platforms to dictate terms, adjust compensation models, or shift promotional emphasis with limited transparency. Nigerian creators, in turn, may experience sudden changes in visibility or income streams without a clear explanation, underscoring their dependence on platforms' opaque metrics.

At a more ideological level, the valorisation of data-driven decision-making can marginalise forms of theatre that aim precisely to resist predictable outcomes, politically dissensual work that may provoke discomfort rather than comfort, or formally experimental pieces that demand sustained attention without obvious payoff. If success is defined by measurable engagement, then the slow, the ambiguous, and the difficult risk is coded as failure. This dynamic resonates with postcolonial critiques of digital governance, which warn that externally imposed metrics often fail to capture local cultural priorities and can distort institutional agendas.

Reconfiguring Power: Institutions, Independents, and Tech Intermediaries

The rise of platforms has reconfigured power relations within Nigeria's performing arts ecosystem, altering the balance between state-linked cultural institutions, independent artists, and new tech intermediaries. Traditional institutions, such as national theatres, universities, and state arts councils, historically held significant authority in setting repertoires, training artists, and conferring cultural legitimacy. Their power was anchored in control over physical infrastructure, funding, and access to mainstream media.

In the platform era, some of this authority has been displaced onto digital intermediaries. Social media promoters, YouTube channel operators, MCNs (multi-channel networks), and digital marketing agencies now play prominent roles in determining which productions reach large audiences. A Lagos theatre production's success may depend as much on its ability to capture the interest of influential TikTok or Instagram accounts who can amplify trailers and reviews as on traditional newspaper criticism or state endorsement. These intermediaries operate within platform logics, translating theatre into "content" that can circulate effectively within feeds and recommendation systems.

Independent artists and small theatre companies, long marginal within state-dominated infrastructures, sometimes appear to benefit from this shift. Platforms ostensibly offer direct access to audiences, bypassing institutional gatekeepers and enabling self-publishing of performance content. Examples of platform-native theatrical forms, such as episodic Instagram dramas, YouTube series developed by theatre-trained performers, or TikTok-based storytelling experiments, illustrate the creative possibilities opened by these infrastructures.

However, the apparent democratisation coexists with new forms of precarity and dependency. Independent creators are subject to volatile algorithmic visibility, shifting monetisation policies, and the need to constantly produce content to maintain audience attention. Their relationship with platforms is contractual and asymmetrical; they possess little leverage in negotiations over revenue sharing or content moderation. Meanwhile, large institutions and well-resourced production companies can enlist professional digital marketers and data analysts, reinforcing inequalities within the sector.

Transnational tech intermediaries, notably global streaming services, occupy a particularly powerful position. Netflix's documented investments in Nigerian content have reshaped expectations about production budgets, distribution windows, and international recognition. Yet the same platform has signalled possible retrenchment in original Nigerian commissions, raising concerns about the sustainability of this model and its long-term impact on local industries. For theatre practitioners whose strategies have become entwined with the prospect of streaming adaptation, such volatility underscores the fragility of dependence on external corporate agendas.

From a postcolonial digital perspective, these dynamics amount to a partial re-colonisation of cultural authority, whereby the capacity to amplify or mute Nigerian theatrical narratives is concentrated in platforms headquartered outside the country. Local institutions and artists must negotiate visibility within frameworks they did not design, while their creative outputs generate data and value that accrue primarily to foreign corporations. This does not erase local agency Nigerian practitioners actively appropriate and subvert platforms, but it does delimit the conditions under which that agency operates.

5. DISCUSSION OF FINDINGS

A prominent counterargument to the critical account developed here emphasises the democratising potential of digital platforms. Proponents of this view argue that streaming and social media platforms have dramatically expanded access to Nigerian cultural content, allowing previously marginalised voices to reach national and transnational audiences without the mediation of state institutions or commercial broadcasters. They point to success stories of independent creators whose work, shared via YouTube or TikTok, has garnered mass followings and led to opportunities in film, television, or international touring. The proliferation of platform-native performance forms, from Instagram dramas to TikTok monologues, is cast as evidence of a vibrant, experimental scene unconstrained by the physical and financial limits of traditional theatre venues.

This perspective further suggests that algorithmic recommendation systems can counteract existing cultural hierarchies by surfacing niche content to users whose viewing patterns align with it. According to this argument, a young Nigerian in a regional town without access to formal theatre infrastructure can nonetheless encounter and even participate in performance cultures through platforms, thereby diversifying the audience base and fostering new forms of community. Moreover, social media activism around movements such as #EndSARS demonstrates how digital platforms can function as stages for politically charged performances that challenge state narratives and mobilise publics.

While these claims capture important dimensions of digital cultural life in Nigeria, they require critical qualification. First, the visibility gains associated with platforms are unevenly distributed. The infrastructural requirements for participation, reliable internet access, smartphones, and data plans are themselves stratified, limiting the extent to which rural or low-income populations can engage fully with digital theatre. The apparent openness of platforms must therefore be set against the material realities of access and the persistence of digital divides.

Second, algorithmic recommendation is not a neutral mechanism for connecting niche content with receptive audiences; it is driven by engagement-maximising logics that tend to favour already popular or highly "sticky" content. While serendipitous discovery does occur, the overall ecology remains skewed towards content types that align with platform priorities and advertiser interests. Niche or experimental Nigerian theatre may find small, dedicated audiences online, but the structural incentives of platforms do little to ensure their long-term sustainability or to contest existing hierarchies of visibility.

Third, the argument that platforms displace traditional gatekeepers often underestimates the extent to which new intermediary influencers, agencies, and algorithmic systems emerge in their place. These actors may be less formally institutionalised than state theatres or broadcasters, but they wield significant power in shaping which productions are promoted, branded, and legitimized as "must-watch" cultural events. Their decisions are informed as much by commercial and algorithmic considerations as by aesthetic judgement, raising questions about the kinds of theatricality that are privileged. The case of Netflix's engagement with Nollywood further complicates democratic narratives. While the platform has undeniably expanded the global reach of Nigerian screen content, its strategies have also influenced local production norms, privileging certain genres and aesthetics over others and rendering producers vulnerable to shifts in corporate policy. These dynamics mirror, in the cultural domain, broader concerns about digital colonialism and infrastructural dependency identified in postcolonial digital scholarship.

Finally, the creative experimentation evident in platform-native performance forms should not be romanticised as inherently emancipatory. Many such practices entail significant self-exploitation, as creators are compelled to produce a constant stream of content to maintain algorithmic visibility and audience engagement. The boundary between artistic expression and unpaid promotional labour becomes blurred, particularly for theatre practitioners who must juggle live performance schedules with social media obligations.

The argument advanced in this chapter does not deny that platforms have opened new spaces for Nigerian theatrical expression or that artists exercise agency in navigating these spaces.

Rather, it insists that such agency is situated within a political-economic order that systematically extracts value from cultural labour, reproduces infrastructural dependencies, and encodes particular ideological formations of Nigerian culture. Where the democratisation thesis tends to treat platforms as neutral tools whose outcomes depend on user choices, the platform capitalism framework foregrounds their structural role as actors with their own economic imperatives and governance regimes (Srnicek, 2017). Similarly, while enthusiasm about digital visibility often assumes that more exposure is unambiguously positive, postcolonial digital critique cautions that visibility under extractive conditions can reinforce rather than dismantle power imbalances.

Against this backdrop, this chapter's argument remains that algorithmic curation in Nigeria's performing arts ecosystem must be understood not simply as an opportunity for expanded reach but as a crucial site where cultural authority, economic value, and postcolonial power are being renegotiated. Attention to the specificities of theatre, its temporalities, its collective liveness, and its often dissensual politics reveals both the possibilities and constraints of platform-mediated performance in ways that broader narratives about Nigerian digital creativity may overlook.

CONCLUSION

This chapter has examined how streaming and social media platforms, governed by algorithmic curation and data-driven business models, are reshaping the distribution, audience formation, and cultural authority of theatre and performance in Nigeria. It has been argued that these platforms function as powerful cultural intermediaries within a wider regime of platform capitalism, converting theatrical labour and audience attention into data assets while imposing visibility hierarchies that privilege certain forms of Nigerian theatricality over others.

By bringing Srnicek's theorisation of platform capitalism into conversation with scholarship on cultural and digital intermediation, postcolonial digital studies, and audience commodification, the analysis has demonstrated that platform algorithms not only reflect audience preferences but also actively produce them.

Recommendation systems on YouTube, TikTok, Netflix, and Instagram configure what counts as desirable or viable Nigerian theatre by rewarding short-form, visually arresting, and affectively immediate content, often to the detriment of slower, linguistically diverse, or politically confrontational performance. In this process, they recalibrate creative decisions, as theatre practitioners and intermediaries adjust dramaturgy, genre, and promotional strategies to align with platform metrics and expectations.

This chapter has further shown that the rise of platforms reconfigures institutional power within Nigeria's performing arts ecosystem. Traditional state and university theatres now share or cede authority to tech intermediaries and digital influencers who operate at the intersection of culture, branding, and algorithmic optimisation. While this shift can enable new entrants and decentralise some gatekeeping functions, it also introduces novel dependencies on infrastructures and governance regimes located outside Nigeria. In this sense, algorithmic curation participates in broader patterns of digital colonialism, extending asymmetries of infrastructural and epistemic power into the realm of theatre.

Against more celebratory narratives that frame platforms as straightforwardly democratising, this chapter has argued that expanded visibility under conditions of platform capitalism must be critically assessed in light of who owns and governs the infrastructures that mediate Nigerian cultural expression. The transformative potential of digital theatre and platform-native performance forms is real but unevenly distributed and often constrained by engagement-maximising logics that commodify performers and audiences alike.

For humanities scholarship, these findings underscore the necessity of integrating platform analysis into the study of African theatre and performance. Future research might pursue empirical investigations of specific platform ecologies around Nigerian theatre, ethnographic studies of practitioners' negotiations with algorithms, or comparative analyses across African contexts. There is also a pressing need for interdisciplinary dialogues between theatre studies, media policy, and digital rights advocacy to explore regulatory and organisational interventions that could mitigate extractive dynamics and support more equitable, locally grounded forms of digital cultural

infrastructure. Ultimately, any contemporary account of Nigeria's performing arts ecosystem must reckon with the digital stage, a terrain where algorithms, data, and infrastructures of platform capitalism now play decisive roles in shaping what is seen, who is heard, and how cultural authority is claimed and contested.

REFERENCES

Ahmed, S. A. (2026). *Algorithmic dependence and digital colonialism: a conceptual framework for artificial intelligence in education and knowledge systems of the Global South*. Frontiers in Education, 11. https://doi.org/10.3389/feduc.2026.1720563

Barber, K. (2000). *The generation of plays: Yoruba popular life in theatre*. Indiana University Press.

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste* (R. Nice, Trans.). Harvard University Press.

Couldry, N., & Mejias, U. A. (2019). *The costs of connection: How data is colonising human life and appropriating it for capitalism*. Stanford University Press.

Edet, E. (2025, January 10). *Revolutionizing Entertainment with Technology: A Global, African, and Nigerian Perspective.* Heckerbella Limited. https://heckerbella.com/revolutionizing-entertainment-with-technology-a-global-african-and-nigerian-perspective/

Fuchs, C. (2014). *Digital labour and Karl Marx*. Routledge.

Ghozali, I. F. (2025). *Artificial intelligence bias and digital colonialism in Global South contexts*. Nawala: Jurnal Pendidikan dan Kebudayaan, 2(1), 45–63.

Haynes, J. (2016). *Nollywood: The creation of Nigerian film genres*. University of Chicago Press.

Hutchinson, J. (2021). *Digital intermediation: Unseen infrastructure for cultural production*. Routledge.

Ifeoluwa, T. (2025, September 30). *Streaming platforms and African artists: Who really benefits? Showcase Africa*. https://www.showcaseafricaonline.com/posts/streaming-platforms-and-african-artists-who-really-benefits

Intelpoint. (2025, March 21). *Netflix's impact on Nigeria's entertainment industry*. Intelpoint. https://intelpoint.co/blogs/netflixs-impact-on-nigerias-entertainment-industry/

Lobato, R. (2016). The cultural logic of digital intermediaries: YouTube multichannel networks. Convergence, 22(4), 348–360.

News Central TV. (2025, April 19). *Performing arts in Nigeria: Is the stage losing its shine*? (Video). YouTube.

Rosa, G. (2023). *Review of the book Platform capitalism*, by N. Srnicek. Annali di Studi del Dipartimento di Metodi e Modelli per l'Economia, il Territorio e la Finanza, 24, 201–204.

Siciliano, M. L. (2023). The case of YouTube "creators" and MCNs in the U.S.: Cultural production and digital infrastructures. Poetics, 96, Article 101743.

Srnicek, N. (2017). *Platform capitalism*. Polity.

UKRI. (2024). *Cultural intermediation: Connecting communities in the creative economy*. ttps://gtr.ukri.org/projects?ref=AH%2FJ005320%2F1

Wasko, J., & Meehan, E. R. (Eds.). (2013). *Critical political economy of the media: An introduction*. Routledge.

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Arzu AL was born in 1980 in Sivas, Türkiye. She received her undergraduate degree from the Department of Political Science and International Relations at Yeditepe University. She subsequently pursued her graduate studies at the Institute for Middle Eastern Studies at Marmara University, where she completed her master's degree in 2008 with a thesis entitled "The Repercussions of Government Coups in Iraq Between 1958 and 1979 on Türkiye." Immediately after graduation, she commenced her doctoral studies in the Accounting and Finance Program at Marmara University's Institute of Social Sciences. Her Ph.D. dissertation, titled "The Effects of the Financial Crisis on the Accounting Systems of Businesses," offered a comprehensive analysis of financial crises both in Türkiye and globally.

Prof. AL has contributed extensively to the academic literature through numerous international book chapters and peer-reviewed articles. Among the notable publications she has authored or edited are: Turkish Foreign Policy 1918–1980; International Political Economy I; International Political Economy: Economic Crises and Türkiye; Contemporary Studies in International Relations I–II; and Eurasia in International Political Economy, among others.

Throughout her academic career, she has actively participated in international conferences across various countries, delivering papers on a diverse range of topics including international political economy, Industry 4.0 and artificial intelligence, cybersecurity, energy and energy security, the dynamics of new globalization, political risk, the interrelationship between political stability and economic development, the Balkans, international trade and production, Cyprus, the Black Sea and regionalism, security, and global governance. Prof. AL has played a leading role in organizing numerous national and international congresses, workshops, panels, and academic events, facilitating collaboration among scholars and researchers both in Türkiye and abroad.

She has also supervised, and continues to supervise, numerous postgraduate theses, primarily in the field of International Political Economy. In 2015, she was appointed Head of the Department of International Political Economy at Marmara University. In 2017, she assumed the role of Vice Chair of the Department of International Relations. The following year, she was named Vice Dean of the Faculty of Political Sciences. In 2019, she earned the academic title of Associate Professor. From 2020 to 2023, she served as a member of the Faculty Board of the Faculty of Political Sciences. In February 2025, she was promoted to the rank of Full Professor in recognition of her academic contributions.

Contributing to the first volume of Political and Economic Crises in International Political Economy was both an enriching and intellectually stimulating experience. The publication process, under the thoughtful coordination of Prof. Dr. Arzu AL, provided a platform for rigorous scholarly exchange and meaningful engagement with diverse perspectives. Collaborating alongside esteemed colleagues deepened my appreciation for the multidimensional nature of political and economic crises and strengthened the academic value of the volume. The constructive feedback and editorial guidance enhanced the clarity and impact of my work, making the process truly rewarding. Being part of this collective effort not only expanded my research horizons but also reinforced the importance of interdisciplinary dialogue in understanding global challenges. I am honored to have contributed to such a significant publication and look forward to the insights that the second volume will bring.

Jamiu Adeniyi YUSUF

Artificial Intelligence and Technology in International Political Economy by Prof. D. Arzu AL offers a clear yet profound examination of the ways in which artificial intelligence is altering global economic systems and power dynamics. The author emphasizes that technological progress is fundamentally political, intricately linked to state policies, worldwide competition, and the allocation of economic authority. One of the book's key strengths is its interdisciplinary approach, connecting international political economy with technology and governance issues such as data management and digital sovereignty. Prof. AL demonstrates how these factors are already transforming global markets and frameworks of institutions. This book holds particular importance in the current landscape, where AI is pivotal to economic competitiveness and geopolitical strategies, making it an essential resource for grasping the ongoing changes in the international arena.

Asst Prof. Dr. Ekaterine LOMIA

I am honored to have contributed to the previous volume edited by Prof. Dr. Arzu AL. The experience was both intellectually enriching and professionally rewarding, as it allowed me to explore important issues alongside distinguished scholars. The collaborative process was particularly valuable, fostering insightful discussions and expanding my academic perspective. I also greatly appreciated the structured and supportive editorial process, which ensured the quality and coherence of the publication. This contribution has further strengthened my interest in interdisciplinary research, especially in the evolving landscape of international political economy. Overall, it was a meaningful and fulfilling experience that I am grateful to have been part of.

Syed Agung Afandi

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