



# The Political Economy of Digital Economy in Nigeria and the Challenge of Underserved and Marginalised Communities: Interrogating the Prospects for Diversity, Equity, and Inclusion (DEI).

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## ABSTRACT

A defining feature of contemporary global economic development is the digital economy, which emerged in reshaping production systems, labour markets, governance practices, and social relations (World Bank, 2023). While digitalisation is frequently framed as an inclusive growth pathway, empirical evidence from developing economies suggests that its benefits could be unevenly distributed and often reinforce existing inequalities. This paper critically examines the challenges faced by underserved and marginalised communities in Nigeria's digital economy using a qualitative political economy framework. Drawing on secondary data from peer-reviewed journals, policy documents, and multilateral development reports, the study demonstrates that Nigeria's digital transformation reproduces long-standing exclusions rooted in geography, gender, class, education, and institutional capacity. The findings reveal a persistent gap between inclusive digital policy rhetoric and exclusionary implementation outcomes. The paper argues that embedding Diversity, Equity, and Inclusion (DEI) into digital governance is not only a normative imperative but a strategic condition for sustainable digital development. Evidence-based policy recommendations are being advanced to reposition Nigeria's digital economy as inclusive, participatory, and development-oriented.

**Keywords:** Digital economy; Political economy; Digital divide; Diversity, Equity and Inclusion (DEI); Socio-Economic Inequalities; Marginalisation.

## INTRODUCTION

The digital economy has emerged as a defining feature of contemporary economic transformation, reshaping production systems, service delivery, governance processes, and social interactions across the globe (World Bank, 2023). It is driven by the integration of digital technologies, such as broadband connectivity, mobile platforms, data analytics, artificial intelligence, and digital financial systems, into virtually all sectors of the economy (Castells, 2010). For developing countries like Nigeria, the digital economy presents a strategic opportunity to accelerate economic diversification, enhance productivity, improve public service delivery, and promote inclusive growth beyond traditional resource-dependent models (Ogunsola, 2023). The digital age represents a structural shift in the organisation of capitalism, characterised by the centrality of data, digital infrastructures, and platform-mediated interactions in economic and social life (Castells, 2010; OECD, 2024). Across advanced economies, digital technologies now underpin productivity growth, innovation ecosystems, and public service delivery, contributing between 8 and 15 per cent of GDP in the United States and the European Union (OECD, 2024). In Asia, particularly China, South Korea, and India, state-led investments in digital public infrastructure have facilitated large-scale inclusion through digital identity systems, payment platforms, and e-government services (Mazzucato & Kattel, 2023).

In Africa, digitalisation is widely framed as a development shortcut, with mobile technologies and fintech innovations are celebrated as tools for leapfrogging structural constraints (UNCTAD, 2023). Yet critical political economy analyses reveal that African digital economies remain shaped by infrastructural deficits, skills shortages, regulatory fragility, and dependence on global technology platforms that extract value while offering limited local spillovers (Foster, Graham, & Mann, 2022). Nigeria, as Africa's largest economy and most populous nation, seems to epitomise this contradiction.



Nigeria has made notable progress in articulating a national vision for digital transformation through policy instruments such as the National Digital Economy Policy and Strategy (NDEPS), which seeks to position the country as a leading digital economy in Africa (FMCIDE, 2023). However, despite these policy aspirations, the benefits of digitalisation remain unevenly distributed across social groups and geographic regions (Ogundeji, 2022). Underserved and marginalised communities, including rural populations, women, persons with disabilities, internally displaced persons, and low-income households, continue to face systemic barriers that limit their effective participation in the digital economy.

However, a growing body of literature challenges the assumption that digitalisation is inherently inclusive. Scholars argue that digital technologies often mirror and amplify existing socio-economic inequalities unless deliberately governed for equity (van Dijk, 2020; Heeks, 2022). Even in highly connected societies, digital divides persist along lines of income, race, gender, disability, and age, raising concerns about digital exclusion within advanced economies themselves (Robinson et al., 2020). These disparities raise critical concerns for Diversity, Equity, and Inclusion (DEI), as unequal digital access and capabilities risk reinforcing existing socio-economic inequalities rather than alleviating them. When significant segments of the population are excluded from digital opportunities, the digital economy may inadvertently deepen poverty, social exclusion, and regional disparities (Okunola et al., 2024). This paper, therefore, examines the structural challenges facing underserved and marginalised communities in Nigeria's digital economy, analyses their implications for DEI, and explores the prospects for building a more inclusive and equitable digital ecosystem that supports sustainable national development.

### **The Development of Nigeria's Digital Economy: Digital Growth Without Social Inclusion**

The central problem addressed in this study is the coexistence of rapid digital sector expansion with the persistent marginalisation of underserved communities. While Nigeria's digital economy is celebrated for innovation and entrepreneurship, its growth model prioritises market efficiency, private capital accumulation, and platform scalability over social equity and redistribution (Heeks, 2022).

From a political economy perspective, digital exclusion in Nigeria reflects deeper structural dynamics. These include historical patterns of uneven development, neoliberal policy orientations, weak social protection systems, and limited participatory governance mechanisms (Rodrik, 2018). Marginalised communities are largely positioned as consumers of digital services and sources of data rather than as producers of digital value or participants in digital governance, thereby reinforcing dependency and exclusion (Coudry and Mejias, 2019).

Digital exclusion refers to the extent to which individuals and communities are unable to access, afford, or effectively use digital technologies to participate meaningfully in economic, social, and political life (Richard, 2020). It encompasses three interrelated dimensions: (i) access to reliable digital infrastructure and connectivity, (ii) digital literacy and skills, and (iii) the institutional and socio-cultural environment that enables productive digital engagement. Scholars argue that the digital divide is not merely a technological deficiency but a manifestation of broader socio-economic and structural inequalities (Ogwuegbu & Ajobiwe, 2025). Factors such as income inequality, educational attainment, gender norms, geographic isolation, and policy neglect intersect to shape who benefits from digital transformation and who is left behind (Van Dijk, 2020). In this sense, digital exclusion mirrors and amplifies existing patterns of marginalisation.

In the Nigerian context, rapid growth in mobile telephony, fintech innovation, and online services coexists with stark inequalities in digital access and usage. Urban centres benefit disproportionately from infrastructure investment, skilled labour, and innovation ecosystems, while rural and marginalised communities remain on the periphery of digital development. Despite government commitments to inclusive digital growth under frameworks such as NDEPS and the Universal Service Provision Fund (USPF), implementation gaps persist, limiting the transformative potential of digital technologies for inclusive development (IARJEDI, 2025).

### **Aim and Objectives of the Paper**

The paper aims to critically interrogate the challenges faced by underserved and marginalised communities in Nigeria's digital economy and to highlight Diversity, Equity, and Inclusion (DEI) oriented policy pathways for sustainable digital development.



## Objectives:

- i. To trace the evolution of Nigeria's digital economy within the broader national political economy.
- ii. To examine the causes and manifestations of digital marginalisation across social groups.
- iii. To propose evidence-based policy options that advance inclusive, equitable, and sustainable digital transformation.

## Conceptual Clarifications

### Digital Economy

The digital economy refers to economic activities enabled by digital technologies, including data-driven production, platform-based services, digital labour, and digitally mediated governance (Bukht & Heeks, 2018). In developing contexts, it encompasses both formal and informal activities, intersecting with employment, education, and state capacity (UNCTAD, 2023).

### Diversity, Equity, and Inclusion (DEI)

DEI denotes intentional strategies to ensure representation, fairness, and meaningful participation in economic systems. In digital economies, DEI extends beyond connectivity to include skills acquisition, content creation, decision-making power, and digital rights (Eubanks, 2018; Noble, 2018).

### Underserved and Marginalised Communities

Underserved and marginalised communities are groups systematically excluded from opportunities due to structural barriers related to gender, geography, class, disability, age, or conflict exposure. Digital marginalisation compounds existing vulnerabilities and limits social mobility (van Dijk, 2020). Digital exclusion constrains market expansion, weakens innovation ecosystems, and undermines social cohesion. Marginalised populations represent untapped sources of labour, creativity, and demand. Their exclusion limits the scale, resilience, and legitimacy of Nigeria's digital economy (Heeks, 2022). Moreover, exclusion risks entrenching digital colonialism, whereby value generated from Nigerian data and labour accrues disproportionately to foreign platforms, undermining national digital sovereignty (Couldry & Mejias, 2019; UNCTAD, 2023).

## Methodology and Analytical Framework

This study adopts a qualitative research design grounded in a political economy framework. Data were collected from peer-reviewed journals, academic books, Nigerian policy documents, and reports from multilateral institutions such as the World Bank, the International Telecommunication Union, and UN agencies. The political economy approach enables analysis of how power relations, institutional arrangements, and capital accumulation processes shape digital inclusion and exclusion (Mosco, 2009). Rather than treating digital divides as technical gaps, this framework situates them within the context of alienation in broader socio-economic and governance structures. However, the reliance on largely secondary data (which may reflect publication biases), the absence of primary qualitative data from the marginalised communities, to some extent, tends to limit the credibility of the paper, but reaffirms the need for future research to provide stronger community voices.

The development of Nigeria's digital economy has given the country an edge because it has become a regional digital hub, driven by rapid growth in telecommunications, fintech, digital media, and software services. The digital sector, made up largely of telecommunications, fintech, and e-commerce, contributes an estimated 18 per cent to national Gross Domestic Product (GDP), reflecting its increasing centrality to economic growth (National Bureau of Statistics, 2024). Government initiatives such as National Digital Economy Strategies (NDEPS), broadband expansion plans, and data protection regulations signal a formal commitment to digital transformation. Yet the spatial and social distribution of these gains remains deeply uneven. Digital innovation ecosystems are concentrated in urban centres such as Lagos and Abuja, while rural and peri-urban areas experience limited connectivity, high data costs, and weak digital skills pipelines (Adeleke & Aminu, 2023).



Women, Persons with Disabilities (PWDs), informal sector workers, older adults, and conflict-affected populations remain structurally excluded from high-value digital opportunities, echoing patterns observed across the Global South (Gillwald, Mothobi, & Rademan, 2019). This unevenness raises critical questions about the developmental character of Nigeria's digital economy and its capacity to deliver inclusive growth.

### **Findings on the character of the Digital Economy in Nigeria**

1. **Institutional and Policy Frameworks:** Nigeria's digital policy architecture reflects global best practices in design but struggles in implementation. National strategies articulate inclusion goals, yet weak inter-agency coordination, limited funding, and regulatory capacity constraints undermine outcomes (Adeleke & Aminu, 2023). Digital policymaking remains top-down, with limited participation from marginalised communities.
2. **Education, Training, and Capacity Building:** Digital skills development in Nigeria is uneven and exclusionary. Programmes are concentrated in urban centres and elite institutions, leaving rural schools and informal learners behind. This skills gap reinforces labour market stratification and excludes marginalised groups from high-value digital employment (Okunola et al., 2024; World Bank, 2023).
3. **Professional and Entrepreneurial Participation:** Nigeria's digital entrepreneurship ecosystem is vibrant but socially narrow. Access to finance, mentorship, and networks remains gendered and class-biased, limiting diversity within innovation spaces (Aker & Mbiti, 2021).
4. **The Digital Divide in Nigeria:** Nigeria's digital divide is multidimensional, encompassing gender disparities, urban-rural gaps, generational inequalities, and occupational exclusion. These divides intersect, producing a cumulative disadvantage that constrains inclusive growth (Gillwald et al., 2019).

### **The Challenge of Underserved and Marginalised Communities to Sustainable Development of Nigeria's Digital Economy.**

Underserved and marginalised communities in Nigeria's digital economy primarily include rural populations, women, Persons With Disabilities (PWDs), low-income urban youth, internally displaced persons, and the elderly (Ogundeji, T. O., 2022). These groups face significant barriers related to infrastructure, affordability, literacy, and socio-cultural factors. Indeed, the characteristic features of underserved and marginalised communities include, but are not limited to, the following:

- a. **Rural/Isolated Populations:** A stark digital divide exists between urban and rural areas. A significant majority of Nigerians in rural areas lack mobile internet access due to inadequate infrastructure, such as limited fibre optic networks and unreliable power supply, making it difficult for them to participate in the digital economy.
- a. **Women:** Women are overrepresented in the offline population and face a significant gender gap in digital access and skills. Barriers include lower literacy rates, cultural stereotypes that discourage tech careers, and security concerns when travelling to access services or work. Only 45% of women, compared to 62% of men, are aware of mobile internet, and many lack access to devices.
- b. **Persons With Disabilities (PWDs):** This group faces significant inequalities in employment access and education, with many schools and workplaces unequipped to be inclusive.
- c. **Marginalised Urban Youth:** Despite the presence of tech hubs in cities like Lagos and Abuja, many young people from low-income families and informal settlements face financial constraints, limited access to technology, and a lack of awareness of online learning platforms and job search tools.
- d. **Internally Displaced Persons (IDPs):** Communities in conflict-ridden states, such as Borno, Adamawa, and Yobe, face extreme marginalisation, with insecurity hindering basic education and access to digital tools.
- e. **Older Individuals:** Older populations tend to have lower levels of education and digital literacy, contributing to their exclusion from the digital economy.



f. Individuals with Low Literacy/Education Levels: One-third of Nigeria's populace lacks basic literacy, a major barrier to using ICTs effectively, regardless of age or location.

The primary barriers to the inclusion of these communities are driven by a combination of factors, including inadequate infrastructure, affordability, socio-cultural factors and biases, and a lack of foundational digital identification protocols. The lack of robust and reliable broadband infrastructure, coupled with unstable electricity supply, is a primary barrier. Inadequate digital infrastructure remains one of the most significant obstacles to inclusive digital participation in Nigeria. While metropolitan areas such as Lagos, Abuja, and Port Harcourt enjoy relatively high levels of broadband penetration and mobile network coverage, rural and remote communities experience limited or unreliable connectivity. Data from the Nigerian Communications Commission reveal a pronounced urban–rural divide, with urban internet penetration estimated at approximately 57% compared to about 23% in rural areas (Guardian, 2025; ThisDayLive, 2025).

These disparities are driven by multiple factors, including weak power supply, poor road networks, challenging terrains, and low commercial incentives for private telecom operators to invest in sparsely populated or low-income areas. As a result, millions of Nigerians are effectively excluded from online education, digital health services, e-government platforms, and digital marketplaces (Richard, 2021). The absence of robust connectivity undermines not only economic inclusion but also civic participation and access to essential public services.

Beyond infrastructure availability, affordability constitutes a major barrier to digital inclusion. High costs of internet data, smartphones, computers, and related digital services disproportionately affect low-income households and marginalised populations. In many rural communities, data expenses consume a substantial share of household income, making sustained internet use economically unviable (Guardian, 2025). This affordability challenge limits the ability of marginalised groups to participate in critical aspects of the digital economy, including e-commerce, digital banking, online skills training, and remote work opportunities. Consequently, the digital economy risks becoming an elite space dominated by urban and middle-income users, rather than a broad-based platform for inclusive growth.

The high cost of internet services, data, and digital devices (laptops, smartphones) makes them unaffordable for low-income populations. Digital access alone does not guarantee meaningful participation in the digital economy. A lack of digital literacy and relevant skills prevents individuals from effectively using available technology, even if they have access to it. Effective engagement requires a minimum level of digital literacy, including the ability to navigate online platforms, evaluate digital information, and use digital tools for productive purposes. In Nigeria, digital skills deficits remain widespread, particularly among rural populations and marginalised youth.

Empirical evidence suggests that only about 38% of Nigerian youth possess basic digital skills, with rural youth significantly underrepresented (Okocha & Edefowotu, 2023). This skills gap constrains access to digital employment opportunities, limits entrepreneurship in the digital space, and reduces the capacity of individuals to benefit from online education and innovation ecosystems. Without targeted interventions, digital skills inequalities may further entrench socio-economic disparities.

There is also the challenge of socio-cultural factors and biases. Systemic biases, cultural stereotypes, and language barriers (lack of local content) limit the participation of women and specific ethnic/geographic groups. Gender-based disparities represent a critical dimension of digital exclusion in Nigeria. Women, especially those in rural and marginalised communities, face intersecting barriers arising from socio-cultural norms, limited access to financial resources, lower educational attainment, and time burdens associated with unpaid care work. These constraints reduce women's access to digital devices, internet connectivity, and digital skills training. Studies indicate that many rural women rely on male relatives for access to smartphones or internet services, limiting their autonomy and ability to leverage digital tools for economic empowerment (Independent Newspaper Nigeria, 2024). This gender digital divide has broader implications for inclusive development, as women's exclusion from the digital economy undermines household welfare, productivity, and national growth. Efforts to bridge these gaps involve government initiatives like the Universal Service Provision Fund (USPF) and partnerships with NGOs and the private sector to expand connectivity and provide digital skills training. Mention should also include lack of foundational identification protocols. A significant



portion of people lack an official, verifiable identification, which is integral to accessing financial and other digital services.

Mitigating digital marginalisation requires a shift from market-centric to inclusion-centred digital governance. Community-based broadband investment, inclusive digital education reform, gender-responsive policies, and participatory digital governance mechanisms are critical (Mazzucato & Kattel, 2023). Effective mitigation would expand digital labour participation, reduce inequality, strengthen domestic innovation ecosystems, and enhance democratic legitimacy in digital policymaking.

Although Nigeria has established policy mechanisms aimed at expanding digital inclusion, structural and institutional challenges continue to impede progress. For example, the Universal Service Provision Fund (USPF), established in August 2006 by the Federal Government of Nigeria, aims to facilitate the achievement of national policy goals for universal access and universal service to information and communication (ICTs) in rural, unserved, and underserved areas in Nigeria. However, although this initiative has recorded incremental successes but remains insufficient relative to the scale of unmet demand. Regulatory frameworks often lack enforceable universal service obligations, while incentives for private sector investment in low-profit rural areas remain weak (BusinessDay NG, 2025). Furthermore, marginalised groups such as persons with disabilities frequently encounter accessibility barriers in digital platforms and discrimination in digital labour markets. The absence of inclusive design standards and targeted policy interventions limits their participation in digital economic activities, undermining broader Diversity, Equity and Inclusion (DEI) objectives.

### **Prospects for Diversity, Equity, and Inclusion (DEI) policy pathways for Sustainable Digital Development in Nigeria.**

Despite persistent challenges, Nigeria's digital economy presents significant opportunities to advance diversity, equity, and inclusion if deliberate and coordinated strategies are adopted.

#### **Policy and Regulatory Reform**

Strengthening digital governance frameworks is essential for inclusive digital development. Enforceable universal access obligations, targeted subsidies for rural connectivity, and incentives for public-private partnerships can accelerate infrastructure deployment in underserved areas. To this end, the Nigerian Communications Commission should revise universal service obligations to include enforceable coverage targets for rural areas, with financial penalties for non-compliance. International development cooperation and blended financing models can further support investments in inclusive digital infrastructure (Africa Press, 2025).

#### **Targeted Digital Literacy and Skills Development**

Investments in digital skills training tailored to marginalised communities can enhance their capacity to participate meaningfully in the digital economy. Furthermore, to raise the digital literacy and skills development, there is a need to establish a Rural Connectivity Fund financed through a 1% levy on telecom operator revenues. This could fund community-based digital learning centres, achieve integration of digital skills into formal education curricula, and upscale gender-responsive training programmes. Additionally, it would be imperative to design SMART success indicators, e.g., a certain percentage of rural communities with broadband access, measured annually through NCC surveys, which would then benefit these public investments in scaling up digital inclusive measures. Evidence suggests that initiatives focusing on girls and women significantly improve economic inclusion and social empowerment (COL Publication, 2025).

#### **Inclusive Digital Public Infrastructure (DPI)**

Digital public infrastructure can serve as a powerful tool for inclusion when designed with equity in mind. Platforms that support local languages, accessibility features for persons with disabilities, and offline functionality can broaden access. Inclusive digital financial services, linked to local markets and micro-enterprises, can empower rural entrepreneurs and small-scale businesses (News Agency of Nigeria, 2025).



## Private Sector and Civil Society Engagement

Multi-stakeholder collaboration is vital for addressing the complex dimensions of digital exclusion. The private sector, civil society organisations, and community groups can co-create localised solutions, such as community digital hubs, subsidised devices, and public Wi-Fi initiatives. Such partnerships enhance sustainability and ensure that interventions respond to local needs (BDIC, 2025).

## CONCLUSION AND RECOMMENDATIONS

The study finds that Nigeria's digital economy is characterised by structural unevenness rooted in political economy dynamics. Digital growth without inclusion risks reinforcing inequality and dependency. Inclusive digital transformation requires deliberate integration of DEI across infrastructure, education, labour, and governance systems.

Indeed, Nigeria's digital economy holds transformative potential, but its sustainability depends on inclusion. Embedding DEI metrics into digital policy evaluation, decentralising infrastructure investment, reforming education systems, and institutionalising participatory governance are essential. Inclusive digital development is not only a moral imperative but a strategic necessity for Nigeria's long-term economic resilience. Persistent inequalities in connectivity, affordability, digital skills, and socio-cultural norms continue to marginalise large segments of the population, undermining diversity, equity, and inclusion. A holistic and inclusive approach—combining policy reform, infrastructure investment, targeted capacity building, and multi-stakeholder collaboration—is essential to bridge the digital divide.

By prioritising the digital inclusion of underserved and marginalised communities, Nigeria can harness the digital economy as a catalyst for equitable growth, enhanced productivity, and sustainable national development. An inclusive digital future is not only a matter of technological advancement but a fundamental requirement for social justice and long-term economic resilience.

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