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The Political Economy of Digital Inequality and the Right to Education in Kenya and Indonesia

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Abstract:
This study examines the impact of digital inequality on the right to higher education in Kenya and Indonesia through a comparative political economy perspective. Digital transformation has expanded opportunities for learning, but it has also exposed unequal access to technology, internet connectivity, digital devices, and digital literacy among students and institutions. Using a qualitative comparative approach, this study relies on secondary data, policy documents, institutional reports, and relevant academic literature to analyze how structural disparities shape access to digital higher education in both countries. The findings show that Indonesia has made broader progress in expanding digital infrastructure and online learning systems, yet it continues to face significant regional gaps, particularly between urban and remote areas. Kenya, by contrast, demonstrates stronger digital innovation and a dynamic technology ecosystem, but affordability, unstable connectivity, and uneven institutional capacity remain major barriers. In both contexts, digital inequality is not merely a technical problem, but a structural issue shaped by socioeconomic status, geography, market access, and policy implementation. These inequalities limit the realization of the right to higher education and risk reproducing existing social exclusion. The novelty of this study lies in integrating rights-based analysis with political economy to compare digital inequality across two Global South contexts. The study recommends stronger regulation, affordable connectivity, inclusive digital infrastructure, and equity-oriented higher education policies.

Keyword: Digital Inequality, Right to Education, Higher Education

INTRODUCTION

The rapid expansion of digital technologies has significantly transformed higher education systems worldwide, reshaping how knowledge is accessed, delivered, and consumed. In countries such as Kenya and Indonesia, the adoption of online learning

platforms has accelerated due to globalisation, educational reforms, and the increasing demand for flexible and remote learning environments. While digital transformation has improved educational accessibility and flexibility, it has also exposed persistent inequalities in access to technology, internet connectivity, and digital literacy (Khiatani et al., 2025). These inequalities have become increasingly significant as higher education institutions rely more heavily on digital systems, raising concerns regarding equality, inclusion, and the realisation of education as a fundamental right (Tan et al., 2021).

Digital inequality in higher education reflects broader structural inequalities shaped by socioeconomic conditions, infrastructure disparities, and policy limitations. In both Kenya and Indonesia, efforts to expand digital education have been accompanied by uneven access across regions and social groups, particularly between urban and rural populations (Qin & Liu, 2025). Indonesia has experienced broader digital infrastructure expansion but continues to face regional disparities due to geographical fragmentation, whereas Kenya demonstrates growing digital innovation alongside persistent affordability and internet access challenges. As a result, unequal participation in digital learning environments risks reinforcing existing educational exclusion and limiting equal opportunities for academic engagement (Raunaq et al., 2025).

Recent scholarship has increasingly examined digital inequality, online learning, and digital literacy in higher education. However, most previous studies focus primarily on technological access, pedagogical effectiveness, or institutional readiness, often treating digital inequality as a technical or educational issue rather than a structural political and economic problem. Existing studies rarely investigate how governance systems, market forces, neoliberal policy orientations, and private technology providers shape educational access and inequality. Furthermore, comparative studies examining digital inequality between Kenya and Indonesia remain limited, particularly those analysing its implications for the right to education through a political economy perspective. This represents a significant gap in the literature(Raza & Huang, 2026).

To address this gap, this study adopts a comparative political economy framework to examine how digital inequality affects the realisation of the right to education in higher education settings in Kenya and Indonesia(Kusumaningrum et al., 2024). The novelty of this study lies in integrating a rights-based perspective with political economy analysis to compare two Global South contexts with distinct institutional, socioeconomic, and technological conditions. Unlike previous studies that focus narrowly on technical barriers, this research critically examines how policy frameworks, institutional governance, market dynamics, and global technological trends shape educational inclusion and exclusion in digital higher education (Yin et al., 2026).

Table 1. Comparative Dimensions of Digital Inequality in Higher Education in Kenya and Indonesia

No.	Dimension of Comparison	Kenya	Indonesia	Implication for the Right to Higher Education
1	Digital infrastructure	Growing digital innovation, but internet coverage remains uneven across regions	Broader infrastructure expansion, but constrained by geographical fragmentation	Unequal infrastructure limits students' ability to access digital learning platforms

No.	Dimension of Comparison	Kenya	Indonesia	Implication for the Right to Higher Education
2	Internet affordability	Connectivity costs remain a major barrier for students from low-income groups	Internet access is increasingly available, but affordability varies across regions and social classes	High costs reduce inclusive participation in online higher education
3	Regional disparity	Rural and marginalized areas face weaker connectivity and institutional support	Remote, island, and peripheral regions experience persistent digital gaps	Spatial inequality reinforces unequal educational opportunities
4	Digital literacy	Digital skills vary significantly among students and institutions	Digital literacy remains uneven between urban and rural learners	Limited digital skills weaken effective participation in online learning
5	Policy and governance	Digital education is shaped by innovation policy, market dynamics, and affordability challenges	Digital education policy emphasizes infrastructure expansion, but equity gaps persist	Weak equity-oriented governance risks turning digital education into a source of exclusion
6	Political economy issue	Private technology actors and market-based access influence educational inclusion	Infrastructure, state capacity, and market access shape unequal digital participation	Digital inequality reflects structural power relations, not merely technical limitations

Source: Author, 2026

This study therefore seeks to analyse the political and economic dimensions of digital inequality and identify the differences and similarities between Kenya and Indonesia in addressing digital access challenges. By doing so, it contributes to broader debates on educational equity, digital governance, and social justice while generating policy implications for more inclusive higher education systems. The findings are expected to inform policymakers and educational institutions that reducing digital inequality requires not only technological investment but also stronger regulatory frameworks, equitable resource distribution, affordable digital access, and policies that prioritise education as a public right rather than a market commodity (Brännström, 2012).

The table shows that digital inequality in higher education in Kenya and Indonesia cannot be understood merely as a problem of access to technology. Instead, it reflects a broader structural condition shaped by infrastructure distribution, socioeconomic capacity, digital literacy, and governance arrangements. Kenya demonstrates stronger digital innovation and a more dynamic technology ecosystem, yet affordability and uneven connectivity continue to restrict equal participation in digital higher education.

Indonesia, on the other hand, has achieved wider infrastructure expansion, but its archipelagic geography and regional development gaps continue to produce unequal access between urban centers and peripheral regions. These conditions indicate that digital transformation does not automatically guarantee educational inclusion when structural inequalities remain unresolved.

From a comparative political economy perspective, digital inequality is closely related to the role of the state, market, and institutional governance in shaping educational access. When digital higher education depends heavily on private connectivity, personal devices, and individual purchasing power, students from lower socioeconomic backgrounds become more vulnerable to exclusion. Therefore, the right to higher education cannot be fulfilled only through the expansion of online platforms or digital infrastructure. It also requires stronger regulatory frameworks, affordable internet access, equitable resource distribution, institutional support, and policies that treat higher education as a public right rather than a market commodity. In this sense, Kenya and Indonesia both demonstrate that digital transformation must be accompanied by social justice-oriented governance to prevent the reproduction of existing inequalities.

RESEARCH METHOD

This study employed a qualitative comparative research design with a descriptive and interpretive approach to examine how digital inequality affects the realisation of the right to education in higher education contexts in Kenya and Indonesia. The study adopted a political economy perspective to analyse how state policies, institutional governance, socioeconomic conditions, and technological infrastructure influence access to digital higher education. A qualitative approach was considered appropriate because the study sought to understand structural patterns, policy dynamics, and contextual inequalities rather than measure statistical relationships (Gwagwa & Mollema, 2024).

The study relied exclusively on secondary data sources collected from academic databases, government policy documents, institutional reports, and international organisations. The data included higher education policies, national digital transformation strategies, reports from ministries of education and communication, publications from international institutions such as the United Nations Educational, Scientific and Cultural Organization and the World Bank, university digital learning reports, peer-reviewed journal articles, and scholarly publications related to digital inequality, educational access, political economy, and online learning. To ensure contextual relevance, the period of analysis focused on literature and policy documents published between 2015 and 2025, reflecting the expansion of digital higher education and post-pandemic digital transformation trends (Osinubi et al., 2025).

Document selection followed purposive sampling criteria to ensure relevance and analytical consistency. Sources were included if they: (1) discussed digital inequality, higher education, digital literacy, online learning, or educational access; (2) focused on Kenya, Indonesia, or comparative Global South contexts; (3) addressed political, economic, governance, or policy dimensions of digital education; and (4) were produced by credible academic institutions, government agencies, or peer-reviewed publications. Documents lacking relevance, empirical grounding, institutional credibility, or sufficient contextual information were excluded from the analysis (Osinubi et al., 2025).

Data collection was conducted through systematic document analysis involving four stages: identification, screening, categorisation, and extraction. First, relevant documents were identified through academic databases and institutional repositories.

Second, documents were screened based on relevance, publication quality, and alignment with research objectives. Third, selected materials were categorised according to themes such as digital infrastructure, internet accessibility, socioeconomic inequality, digital literacy, governance, market influence, and educational policy. Finally, key findings, policy positions, and comparative evidence from both countries were extracted and organised for interpretation (He & Leszczynski, 2026).

The study applied thematic analysis to interpret patterns and recurring issues within the selected documents. The analytical process involved five stages: (1) familiarisation with the data through repeated reading of documents; (2) initial coding of recurring concepts related to digital inequality and educational access; (3) grouping codes into broader themes such as digital access, policy frameworks, market influence, and educational inequality; (4) comparative interpretation between Kenya and Indonesia to identify similarities, differences, and structural patterns; and (5) synthesis of findings using a political economy lens to explain how governance, resource distribution, and institutional arrangements shape digital education outcomes (David et al., 2025).

Figure 1: Digital Inequality in Higher Education: Kenya and Indonesia
Source: Author, 2026

To strengthen validity and methodological rigour, source triangulation was used by cross-checking findings across policy documents, institutional reports, academic literature, and international datasets. The researcher also ensured credibility by evaluating the reliability, recency, and institutional legitimacy of each source. Since this study relied solely on publicly accessible secondary materials and did not involve human participants, ethical considerations focused on transparency, accurate citation, academic integrity, and responsible interpretation of data. Through this systematic methodological approach, the study provides a transparent and theoretically grounded analysis of digital inequality and educational rights in higher education contexts (Ouko et al., 2020).

RESULT AND DICUSSION

1. Digital Access and Infrastructure Inequality

The results show that in both Kenya and Indonesia, there are notable differences in access to digital infrastructure between urban and rural areas. Institutions in rural or marginalised areas continue to struggle with limited access to dependable internet, insufficient technological resources, and poor digital facilities, whereas big universities in urban centres benefit from consistent internet connectivity and cutting-edge digital

platforms. Students' participation in online learning settings is directly impacted by this unequal infrastructure distribution (Ananta & Cabral, 2026). These inequalities became more visible following the expansion of digital learning in higher education systems. In Indonesia, the national internet penetration rate reached approximately 81.7% in 2026, equivalent to more than 235 million users; however, access remains uneven across regions and between urban and rural communities, reflecting persistent infrastructural disparities (Fundi et al., 2024a).

Table 2. Digital Access and Infrastructure Inequality in Kenya and Indonesia

Factor	Urban Areas (Kenya & Indonesia)	Rural Areas (Kenya & Indonesia)	Impact on Students
Internet Connectivity	High-speed, stable internet access	Limited, unstable, or no internet access	Unequal participation in online learning
Technological Resources	Advanced digital tools and institutional platforms	Lack of devices and outdated infrastructure	Reduced learning effectiveness
Digital Literacy	Higher exposure and training opportunities	Limited digital skills and training	Difficulty navigating online platforms
Socioeconomic Status	Higher-income students with personal devices	Lower-income students lacking devices and subscriptions	Restricted access to digital education
Institutional Support	Strong technical and administrative support	Weak or insufficient support systems	Increased academic challenges

Source: Author, 2026

Digital access is significantly influenced by socioeconomic factors in addition to geographic differences. Students from lower-income families sometimes lack digital literacy skills, personal gadgets, and reliable internet subscriptions. These restrictions undermine the idea of equal access by limiting their ability to participate in digital education (Unis et al., 2025). The results imply that more general patterns of social and economic inequality are intricately linked to digital inequality. The findings are consistent with previous studies on the digital divide, which highlight the fact that access to technology is a social and economic problem in addition to a technological one. From the standpoint of political economy, these differences show how opportunities and resources are distributed unevenly, perpetuating structural injustices in higher education systems (Stacey et al., 2025).

2. Policy Frameworks and Governance Challenges

Kenya and Indonesia have both implemented legislation to increase access to online learning and support digital education(Habibi et al., 2026). Investments in digital infrastructure, collaborations with IT companies, and the incorporation of e-learning into higher education systems are some of these projects. The results, however, show that policy implementation is still uneven and that there are discrepancies between the objectives of the program and its actual results (Mwaisaka et al., 2025).

National governments have highlighted digital transformation as a strategic objective in both situations, especially in reaction to the worldwide trend toward online education. Innovation, accessibility, and modernisation of higher education systems are frequently highlighted in policy frameworks (Harjatanaya et al., 2025). However, unequal resource distribution and institutional capabilities often hinder these aspirations. Because of this, even if policy documents outline an inclusive digital education vision, their actual implementation frequently fails to produce equal results (Maket & Naibei, 2025).

Effective implementation is hampered by issues including inadequate finance, ineffective bureaucracy, and a lack of cooperation among stakeholders, even in the presence of supportive policies. Sometimes local factors are not sufficiently taken into account when designing policies, which results in uneven effects across institutions and geographical areas. The top-down approach to policy formulation is another major drawback. Many national efforts for digital education are created without sufficiently taking into account feedback from academic institutions, teachers, and students. This mismatch leads to policies that might not reflect reality on the ground, especially in institutions with little funding. As a result, targeted improvements fail to reach the most vulnerable people and implementation becomes dispersed (Oluoch et al., 2025a).

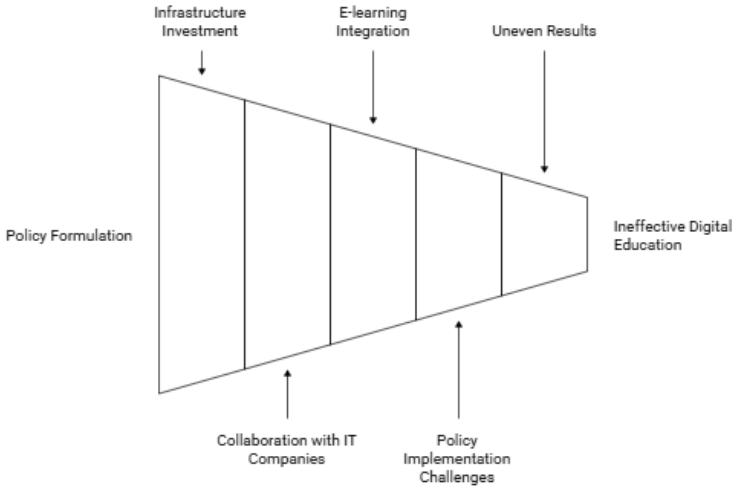

Figure 2. Digital Education Policy Implementation Funnel
Source: Author, 2026

Furthermore, the speed at which technology is developing exacerbates governance issues. As digital tools and platforms evolve, policymakers frequently find it difficult to keep regulatory frameworks current. This leads to oversight deficiencies, especially in the areas of online education quality assurance, platform accountability, and data governance. Digital education systems run the risk of becoming uneven and unfair in the absence of transparent and flexible regulatory frameworks (Cody et al., 2025). These results demonstrate how crucial governance is in determining educational achievements. They bolster the claim that institutional capacity and the efficacy of policy frameworks play a role in determining access to digital education in addition to technology availability. In contrast to earlier research, this study highlights the importance of closely evaluating both the presence and performance of policies (Ahuja et al., 2025).

3. Market Forces and the Role of Private Technology Providers.

According to the survey, private technology firms are becoming more and more important in Kenyan and Indonesian digital higher education. Rapid digitisation is made

possible by universities' reliance on commercial platforms for instruction, evaluation, and communication. However, this dependency results in a long-term dependence on outside sources and diminishes institutional autonomy. Additionally, it results in standardised learning programs that do not accurately represent regional educational requirements (Ramos de Oliveira et al., 2025). Concerns around affordability, data ownership, and the commodification of education are brought up by the expanding power of private providers. Access to cutting-edge digital technologies is frequently difficult for students and institutions with low funding, exacerbating already-existing disparities. Additionally, there are concerns associated with data control and privacy when using commercial platforms (Maina et al., 2025).

These results are consistent with larger issues in political economy, where neoliberal policies encourage the commercialisation of education. Consequently, education becomes a commodity rather than a public good, which may compromise the right to education. Therefore, to guarantee that digital transformation promotes justice rather than exacerbates inequality, more regulation and balanced governance are required (Wainaina et al., 2025). Moreover, long-term structural imbalances in higher education systems may result from reliance on private technology providers. Lack of finance makes universities more dependent on other platforms, which restricts their capacity to create autonomous digital infrastructures. This reliance could impair institutional capacity and limit the adaptability required to provide learning solutions tailored to a unique context(Han et al., 2026).

The unequal bargaining power between big tech businesses and educational institutions is another issue. Universities have little control over how digital education is delivered since private suppliers frequently set terms of service, pricing structures, and platform features. This disparity has the potential to marginalise public interests and put profit-driven goals ahead of educational equity and quality (Bjorvatn et al., 2026).

Lastly, significant concerns regarding the state's future role in education are brought up by the growth of EdTech. Governments run the risk of abdicating their obligation to guarantee equal access to education as private players gain power. Policymakers must make sure that digital education continues to be a public priority and is backed by strict laws that safeguard access, affordability, and the fundamental right to education in order to avoid this.

4. The Right to Education in the Digital Context

The results show that in both Kenya and Indonesia, the implementation of the right to education is severely hampered by digital inequality. Digital platforms have increased learning opportunities, yet many students are unable to fully benefit from them due to unequal access. The digital revolution in higher education frequently perpetuates existing disadvantages rather than eradicating them. While underrepresented groups encounter additional obstacles, students who already have economic and technological advantages are better positioned to succeed in digital contexts(Prasetiyo et al., 2026). These findings are in line with a larger body of research on inequality and education that contends that structural inequalities cannot be resolved by technology alone. From a political standpoint, the results support the notion that equity in opportunities and results is just as important to the right to education as access.

Furthermore, many students lack the access and competency that digital learning settings frequently presume. Platforms are usually made for people who have personal gadgets, reliable internet, and previous digital experience. Because of this, students from underprivileged backgrounds are at a structural disadvantage when compared to their

peers because they have to put in more effort just to fulfil fundamental participation criteria (Purnomo et al., 2026).

Furthermore, these differences are exacerbated by institutional injustices. While underfunded universities find it difficult to provide even the most basic digital infrastructure, well-funded universities are able to invest in cutting-edge technologies, training programs, and support services. As a result, the quality of digital learning is unevenly distributed in a stratified higher education system that reflects current hierarchies (Fundi et al., 2024b). Lastly, the continued existence of these disparities draws attention to the shortcomings of technological fixes that ignore structural factors. Digital transformation has the potential to strengthen inequality rather than lessen it in the absence of focused interventions, such as inclusive legislation, financial support systems, and capacity-building programs. Therefore, ensuring the right to education necessitates a conscious focus on fairness, addressing both technical access and the larger institutional and social variables that influence educational attainment.

5. Comparative Insights: Kenya and Indonesia

Similar trends of digital inequality, such as inequalities in infrastructure, socioeconomic differences, and difficulties implementing policies, are seen in both nations. These parallels imply that developing nations going through fast technological change share a problem with digital inequality. Rural-urban disparities continue to be a significant barrier to equal digital access in both Kenya and Indonesia. Remote students have less access to digital tools, fewer institutional resources, and poor connectivity. Furthermore, socioeconomic disparities in both situations limit students' access to devices and the internet, which perpetuates their exclusion from online learning environments.

The discrepancy between the goals of policies and their actual execution is another common issue. Despite the fact that both governments have launched programs to support digital education, their efficacy is hampered by institutional constraints and unequal resource distribution. This is indicative of a larger trend in developing nations where governing capacity is outpaced by technical innovation (Oluoch et al., 2025b). Despite these parallels, the degree and kind of digital inequality in each nation are influenced by variations in educational systems, economic potential, and governance frameworks. Kenya exhibits more quick innovation in several digital education efforts, while Indonesia has comparatively stronger policy frameworks. However, disparities continue to exist in both situations (Kamalu & Wan Ibrahim, 2024).

Table 3. Comparative Analysis of Digital Inequality in Kenya and Indonesia

Comparative Indicator	Kenya	Indonesia	Comparative Insight
Digital Infrastructure	Internet expansion has improved through broadband, mobile connectivity, and nation al ICT investments, but major rural–urban inequalities persist. Rural access remains weaker than in urban areas, with	Indonesia has significantly expanded internet access and digital infrastructure, reaching high national internet penetration, yet disparities remain	Both countries face geographic inequality, though Indonesia benefits from relatively broader national infrastructure due to larger-scale public investment,

Comparative Indicator	Kenya	Indonesia	Comparative Insight
	earlier estimates showing substantial connectivity gaps between rural and urban populations. Universities also face infrastructure bottlenecks, including weak campus networks and limited institutional bandwidth.	between urban areas and remote islands, particularly in eastern provinces and rural communities.	while Kenya demonstrates faster mobile-driven adaptation.
Higher Education Policy Framework	Kenya has established formal digital education governance through the 2021 ICT in Education and Training Policy, emphasising equitable ICT access, digital literacy, research, and online learning integration. National initiatives also support virtual university education and broadband expansion.	Indonesia has integrated digitalisation through higher education reforms, including digital learning systems and the *Merdeka Belajar–Kampus Merdeka* framework, encouraging hybrid learning, institutional flexibility, and technology adoption.	Indonesia exhibits comparatively stronger policy centralisation, while Kenya emphasises institutional adaptation supported by national frameworks. Both, however, face implementation gaps.
Funding Capacity and Institutional Readiness	Financial constraints remain a major challenge, particularly in public universities, where ICT adoption is slowed by inadequate infrastructure financing, weak institutional capacity, and limited campus connectivity. KENET reports identify campus Wi-Fi expansion and equipment upgrades as major priorities.	Indonesia's larger economy enables comparatively greater investment in digital infrastructure, university digital systems, and connectivity programs; however, disparities persist between better-funded urban institutions and peripheral universities.	Economic capacity influences implementation outcomes: Indonesia generally has stronger fiscal ability for scaling digital programs, while Kenya often relies on targeted investments and institutional partnerships.
Digital Literacy and Skills	Kenya's policy frameworks emphasise digital competencies, but	Studies in Indonesian universities show	Both countries recognize digital literacy as

Comparative Indicator	Kenya	Indonesia	Comparative Insight
	unequal access to devices, training, and institutional support limits digital readiness, especially among disadvantaged students and rural institutions.	that digital access strongly shapes digital literacy and educational outcomes, with students in better-connected institutions showing higher digital competencies.	essential, but socioeconomic inequality continues to shape students' technological preparedness.
Private Sector Involvement	Kenya has strong private-sector engagement through telecommunications, ICT innovation ecosystems, university partnerships, and projects such as broadband expansion, digital training, and educational technology support. Nairobi's innovation ecosystem contributes significantly to experimentation and institutional flexibility.	Indonesia increasingly collaborates with technology companies and digital training initiatives, including partnerships involving universities and digital upskilling programs coordinated through ministries and technology providers.	Kenya's approach tends to be more decentralized and innovation-driven, whereas Indonesia relies more on state-coordinated partnerships and nationally guided implementation.
Protection of the Right to Education	Kenya's constitutional and ICT education frameworks frame digital access as part of equitable educational participation, yet affordability and infrastructure inequalities limit realization in practice.	Indonesia constitutionally protects access to education and promotes digital inclusion through national educational transformation programs, though regional disparities still hinder equal participation.	In both countries, the right to education is formally recognised, but digital inequality constrains substantive equality in educational access.

Source: Author, 2026

More coordinated national initiatives are made possible by Indonesia's centralised governmental approach, especially when it comes to developing digital infrastructure and incorporating technology into education. Kenya, on the other hand, frequently takes a more innovative and decentralised approach, with various digital solutions being used by

different institutions. This encourages adaptability and creativity, but it may also lead to inconsistent application among institutions (Ghosh & Banerjee, 2026). Additionally, economic capacity is a major factor in determining results. While Kenya has more financial limitations that prevent widespread adoption, Indonesia's comparatively larger economy allows for more investment in digital infrastructure.

These variations demonstrate how national settings influence the efficacy of digital teaching tactics. By illustrating how local political and economic circumstances interact with global trends in digital education, the comparative analysis adds to the body of previous material. It emphasises how crucial context-specific tactics are to combating digital inequality. In the end, even if both nations have similar structural problems, their different strategies imply that there isn't a single way to address digital inequality and that local requirements and capabilities must be taken into account when developing policy (Isbah et al., 2025).

CONCLUSION

This study shows that while digital transformation in higher education can expand access and improve learning, it also risks reinforcing existing inequalities in countries such as Kenya and Indonesia. Differences in infrastructure, socioeconomic status, internet access, and digital literacy continue to shape unequal educational opportunities. The findings also challenge the idea of education as a public good by showing how market-oriented reforms and the growing role of private actors contribute to the commodification of education through issues of affordability, unequal access, and concerns over data ownership. Moreover, the study demonstrates that digital inequality is not only technological but also political and economic, as differences in governance and policy implementation produce unequal outcomes in both countries.

The study contributes to the literature by emphasizing that digital transformation must be understood within broader structural and institutional contexts. Achieving equitable digital transformation therefore requires stronger public investment, inclusive and context-sensitive policies, and effective regulation to ensure that technological innovation supports the right to education rather than deepening inequality. Future research should further examine the impact of digital transformation on marginalized groups and explore the long-term implications of platformization and data-driven education in the Global South.

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