



DIGITAL DIVIDE IN THE PROVISION OF ETHICAL AND VALUES EDUCATION: RE-ENGINEERING FOR SUSTAINABLE NATIONAL DEVELOPMENT



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Abstract

*This paper investigates the complex and multidimensional ways in which the digital divide undermines the delivery and accessibility of ethical and values education, which are critical foundations for sustainable national development. Ethical and values education foster moral reasoning, civic engagement, empathy, integrity, and social responsibility all of which are indispensable for building just, inclusive, and forward-looking societies. However, disparities in access to digital infrastructure, connectivity, digital skills, and relevant content collectively known as the digital divide create educational inequalities that limit the reach and effectiveness of moral education, especially in developing regions such as sub-Saharan Africa. Drawing on empirical studies, global policy frameworks, and theoretical models, this paper analyzes how the digital divide manifests in three primary forms: (1) **access divide** (limited access to devices and internet), (2) **skills divide** (inadequate digital literacy among teachers and learners), and (3) **usage divide** (low engagement with ICT for meaningful educational purposes). These divides exacerbate existing inequalities in the moral formation of learners and hinder national aspirations for responsible citizenship and sustainable development. The researcher further proposes re-engineering approaches that integrate inclusive infrastructure planning, digital content development, teacher professional development, and culturally relevant policies for ethics instruction through ICT. Case studies from Africa, alongside frameworks like UNESCO's Qingdao Declaration and SDG4, are used to illustrate successful strategies and ongoing challenges. By bridging the digital divide, nations can strengthen ethical and values education as a catalyst for sustainable national transformation.*

Keywords: Digital Divide, Ethical Education, Values Re-engineering, Sustainable Development, Educational Equity and Moral Instruction,

Introduction

In the context of global transformations driven by technology, ethics, and sustainability, ethical and values education have gained renewed prominence as a foundation for social development, justice, and institutional accountability. Ethical education goes beyond academic learning; it is instrumental in shaping behavior, cultivating empathy, promoting civic engagement, and nurturing individuals capable of making responsible choices in increasingly complex societies (UNESCO, 2022). As such, embedding ethics and moral values into educational systems is not just a cultural or ideological necessity, it is a strategic imperative for achieving Sustainable Development Goals (SDGs), especially SDG 4 on “inclusive and equitable quality education” and SDG 16 on “peace, justice, and strong institutions.” However, the effective provision of ethical and values education in the 21st century is inextricably linked to access to digital tools and environments. The growing reliance on Information and Communication Technology (ICT) for teaching and learning means that students and teachers who lack adequate access, skills, or support are significantly disadvantaged. This phenomenon, known as the digital divide, encompasses not just the absence of physical access to technology, but also the absence of the skills and resources needed to use it effectively for educational purposes (van Dijk, 2020).

In many low- and middle-income countries, including Nigeria and other parts of Africa, the digital divide has a particularly damaging impact on the re-engineering of moral education. Infrastructural gaps such as poor internet penetration, unreliable electricity, limited teacher training in

digital pedagogy, and the lack of culturally appropriate online content mean that ethical education cannot be delivered equitably. Urban-rural divides, socio-economic disparities, and linguistic or cultural differences further complicate the integration of ICT into ethical education. Moreover, even where digital infrastructure exists, teachers and learners may lack the digital literacy to apply it meaningfully to values education. This is often referred to as the second-level digital divide, a gap not in access, but in the depth and quality of technology use. Without targeted policy interventions and inclusive pedagogical innovations, the digital divide risks exacerbating inequality, marginalizing already disadvantaged populations, and undermining the long-term development agenda of nations (Assefa et al., 2025; Drljić et al., 2025).

This seminar paper therefore aims to explore the ways in which the digital divide disrupts the provision of ethical and values education, and how educational systems can be re-engineered to overcome these challenges. It synthesizes evidence from international frameworks, empirical studies, and case-specific experiences in African contexts to propose a roadmap for bridging the divide and promoting ethical learning through inclusive digital strategies. Ultimately, it argues that bridging the digital divide is not just about technological access it is about ensuring moral inclusion, educational justice, and long-term national sustainability.

Conceptual Framework

The conceptual framework for this study is grounded in three interrelated concepts: the Digital Divide, Ethical and Values Education, and Sustainable National Development. These concepts are essential for understanding how digital inequality undermines moral instruction and hampers broader developmental outcomes.

Digital Divide

The digital divide refers to the gap between individuals, households, schools, and geographic areas at different socio-economic levels in terms of their opportunities to access information and communication technologies (ICTs), use the internet, and develop the digital skills necessary to participate effectively in modern society (van Dijk, 2020; Warschauer, 2003). The digital divide is not monolithic but is typically analyzed through three dimensions:

- **First-level divide:** Physical access to digital infrastructure, such as computers, mobile devices, and reliable internet connectivity.
- **Second-level divide:** Digital literacy the ability to use technology effectively, navigate platforms, evaluate digital information, and apply ICT in meaningful ways.
- **Third-level divide:** Outcomes of digital use where people differ in their ability to leverage technology for education, civic participation, employment, and empowerment (Scheerder et al., 2017). In education, the digital divide manifests as unequal access to online learning platforms, a lack of ICT-trained teachers, and poor integration of digital pedagogy in school systems. These disparities hinder equitable participation and knowledge acquisition, especially in rural, underfunded, and marginalized communities (OECD, 2021).

Ethical and Values Education

Ethical and values education involve structured efforts to cultivate moral awareness, civic responsibility, empathy, integrity, respect, and tolerance among learners. It encompasses formal curriculum components such as Civic Education, Social Studies, and Religious and Moral Education, as well as informal value transmission through classroom interactions and extracurricular activities (Lickona, 1996; Halstead & Taylor, 2000).

Its core objectives include:

- Promoting moral reasoning and ethical decision-making.
- Fostering respect for diversity and peaceful coexistence.
- Instilling civic virtues such as honesty, justice, responsibility, and patriotism.
- Encouraging active participation in democratic and societal development.



Values education plays a transformative role in equipping young people with the character and principles required to contribute to sustainable societies. However, in the digital age, the tools and methods for delivering such education have shifted. Traditional classroom-based moral instruction is now being supplemented (and often replaced) by digital learning platforms, which require equitable access and digital competence to be effective.

Sustainable National Development

Sustainable national development refers to a holistic approach to societal progress that ensures economic growth, environmental protection, and social equity meeting present needs without compromising future generations (Brundtland Report, 1987; United Nations, 2015). Education particularly ethical education is seen as central to this goal. According to SDG 4 of the United Nations' 2030 Agenda, achieving quality education for all is essential for promoting "inclusive and equitable education and lifelong learning opportunities." It emphasizes the need to develop education systems that are inclusive, accessible, and designed to foster sustainable values (UNESCO, 2022).

Ethical and values education contribute to sustainable development by:

- Producing responsible citizens who engage in community development.
- Promoting transparent governance and combating corruption.
- Reducing social inequalities and encouraging tolerance and equity.
- Strengthening national identity and promoting peacebuilding.

However, without addressing the digital divide, the equitable delivery of such education remains a challenge, particularly in rural or low-income settings.

Impact of the Digital Divide on Values Education

The growing dependence on ICT in educational delivery means that unequal access to digital tools and competencies directly affects students' and teachers' ability to engage in ethical and values-based learning. The digital divide in this context leads to the exclusion of certain populations from moral education and social learning processes (Ahiaku, Uleanya & Muyambi, 2025).

Multi-dimensional Digital Inequality **Access Divide**

In many parts of sub-Saharan Africa, including Nigeria, a large portion of the population still lacks reliable access to electricity, the internet, or digital devices. According to the International Telecommunication Union (ITU, 2023), approximately 33% of Africa's population remains offline, with the majority concentrated in rural and marginalized communities. Students in these areas cannot participate in online civic education, moral development games, or virtual ethics seminars. This **lack of access** creates a vicious cycle: students miss out on interactive digital resources that promote values such as conflict resolution, democracy, and community participation. Without proactive interventions, these learners fall further behind their digitally connected peers.

Skills and Usage Divide

Even when devices and connectivity are present, many educators and learners lack the necessary digital literacy to use them effectively. According to UNESCO (2020), fewer than 30% of teachers in low-income countries feel adequately prepared to integrate digital tools into their teaching. This is especially problematic in ethical education, where instructors must carefully curate content, moderate online discussions about sensitive moral topics, and guide critical thinking using multimedia. Without appropriate training, teachers may default to outdated methods or skip values education altogether, especially when under pressure to meet academic performance metrics.

Ethical and Social Justice Implications

Digital Apartheid in Education

The term digital apartheid refers to the systemic exclusion of certain groups from digital access and opportunities due to structural inequalities mirroring past forms of racial or class-based segregation (Brown & Czerniewicz, 2010). In education, this means that wealthier urban schools are able to deliver digitally integrated, interactive values curricula, while rural and poorer schools rely on outdated textbooks and underqualified instructors. This structural injustice undermines the universal right to quality education and hampers national cohesion, leading to ethical asymmetry across socio-economic lines.

Loss of Moral Capital and Civic Engagement

From a **social justice perspective**, the inability of marginalized students to engage in digital moral education limits their exposure to democratic values, global citizenship, and social ethics. Platforms like UNESCO's Global Citizenship Education (GCED) and Peace Education rely heavily on digital resources and interactive participation. Without access, excluded students cannot develop the moral capital required to contribute effectively to nation-building. Moreover, digitally excluded teachers and schools miss out on global conversations around values, sustainability, and cultural empathy, further entrenching educational inequalities (Drlić et al., 2025).

Digital Strategies for Re-engineering Ethical Education

To effectively re-engineer ethical and values education for the digital age, policymakers and educators must adopt multifaceted strategies that integrate technology into curriculum development, teacher preparation, infrastructure provision, and inclusive learning environments. These strategies must be informed by international education policy frameworks and adapted to local realities through context-specific interventions.

International Policy Frameworks

Global frameworks provide direction for member nations on how to use technology for equitable, inclusive, and values-driven education. Two notable instruments are the Qingdao Declaration (2015) and Sustainable Development Goal 4 (SDG 4).

The Qingdao Declaration (2015)

Adopted by UNESCO and endorsed by education ministers from around the world, the Qingdao Declaration serves as a roadmap for harnessing ICT to improve education systems. It emphasizes that ICT should be used not only to expand access but also to enhance the quality and relevance of education, particularly in teaching ethical values, global citizenship, and lifelong learning. The declaration outlines key commitments for UNESCO member states, including:

- Ensuring equitable access to ICT, especially for marginalized populations.
- Enhancing teacher training on digital pedagogy and ethics integration.
- Promoting the development and use of Open Educational Resources (OERs) to support context-sensitive and culturally relevant values education.
- Supporting inclusive and lifelong learning platforms for continuous moral development (UNESCO, 2022).

This global commitment underscores that digital transformation in education must go hand in hand with ethical, civic, and humanistic dimensions of learning.

Sustainable Development Goal 4 (SDG 4)

SDG 4, one of the 17 United Nations Sustainable Development Goals, targets inclusive and equitable quality education and the promotion of lifelong learning for all. Importantly, SDG 4.7 calls for education to foster learners' understanding of sustainable development, global citizenship, human

rights, and cultural diversity all of which are moral and ethical competencies (Obizue, Enomah & Onyebu, 2025).

To fulfill this goal, countries are encouraged to integrate ICT in delivering moral and civic instruction, especially through digital curricula, teacher capacity building, and values-driven digital content. SDG 4 also encourages innovations that bridge the digital divide and ensure that no learner is left behind due to digital exclusion (UNESCO, 2022; United Nations, 2015).

Practical Interventions in Africa

Several African countries have made commendable efforts to integrate ICT into educational systems to foster values-based learning. However, these efforts are marked by both successes and challenges.

NEPAD's E-School Programme

Launched in 2003 under the New Partnership for Africa's Development (NEPAD), the e-School initiative aims to provide all African primary and secondary schools with ICT infrastructure, teacher training, and educational content. The program was designed to ensure that African youth acquire 21st-century skills, including digital ethics and civic responsibility. Despite its ambition, the implementation has faced significant hurdles, such as inconsistent funding, lack of technical support, electricity shortages, and maintenance issues. These challenges have made it difficult for the initiative to reach its goal of transforming all schools into digitally-enabled learning environments that support ethical education (Gillwald et al., 2016).

Rwanda's Vision 2020 and ICT in Education

Rwanda stands out as an example of how political will, innovation, and strategic investment can promote digital values education. Through its Vision 2020 development blueprint, the country implemented several ICT-based educational reforms, including:

- The One Laptop per Child (OLPC) initiative, which distributed thousands of laptops preloaded with ethical stories and civic content to primary school learners.
- Promotion of local content development in Kinyarwanda to ensure that digital moral instruction reflects indigenous values and social realities.
- Investment in teacher training to equip educators with the ability to integrate technology and moral instruction in classrooms.

These efforts have contributed to improved learner engagement, better integration of civic values in digital learning, and increased digital access in rural areas.

Recommended Strategies

Based on global trends, regional experiences, and educational best practices, the following strategies are recommended for re-engineering ethical and values education through digital inclusion.

Infrastructure and Access

Digital inclusion begins with access. Without adequate infrastructure, moral education cannot be re-engineered through ICT. Governments and partners should:

- Invest in broadband infrastructure and establish community ICT centers in remote and underserved regions to facilitate universal access.
- Partner with telecom providers to offer affordable or zero-rated educational services for moral and civic education platforms.
- Ensure that schools are equipped with solar-powered digital labs to counteract unreliable electricity.

Digital Literacy and Teacher Training

Teachers are central to the success of digitally delivered ethical education. As such:

- Teacher training colleges and professional development programs must incorporate digital ethics, online pedagogy, and character education using ICT tools.
- Curricula should be adapted to include critical thinking, cyber ethics, **and** digital citizenship.
- Peer-to-peer learning and digital communities of practice should be established to allow teachers to share strategies for digital moral instruction (OECD, 2021).

Development and Use of Open Educational Resources (OERs)

OERs provide a low-cost and scalable way to distribute moral content:

- Ministries of Education and academic institutions should promote the creation of culturally relevant OERs in local languages that convey traditional and universal ethical values.
- Platforms like UNESCO's OER Commons can be used to disseminate these materials and foster collaborative ethical learning.
- Interactive simulations, case studies, and digital stories should be designed to stimulate moral reasoning and civic engagement in learners.

Policy and Governance

Policy frameworks must intentionally address the digital divide and its moral implications:

- Digital inclusion and ethical education must be embedded within national education policies and digital transformation plans.
- Regular monitoring of SDG 4 indicators, especially those related to digital learning equity and value-based instruction, should guide policy decisions.
- Governments should partner with civil society, private sector, and international organizations to mobilize resources, technology, and expertise for digital moral education (UNESCO, 2022).

Conclusion

Bridging the digital divide is not only a technological or infrastructural challenge—it is an ethical imperative that lies at the heart of sustainable national development. Ethical and values education play a foundational role in fostering civic responsibility, national cohesion, and socio-economic equity. However, in the digital age, the effectiveness of this education is severely constrained by unequal access to technology, weak teacher capacity, and a lack of culturally relevant digital content. By adopting integrated digital strategies such as infrastructure investment, teacher digital training, OER development, and robust policy governance, nations can re-engineer values education to meet the demands of the 21st century. International frameworks like the Qingdao Declaration and SDG 4 provide critical guidance for aligning national actions with global educational aspirations. Ultimately, ensuring that all citizens, regardless of geography or socio-economic background, have equal access to digital moral education is not just a pathway to achieving educational equity, it is the foundation upon which ethical, peaceful, and sustainable nations are built.

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