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REMOTE LEARNING AND THE FUTURE OF WORK: CHALLENGES, SKILLS DEVELOPMENT, AND POLICY REFORM IN NIGERIA

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Abstract

The rapid transformation of the global labour market, driven by digitalization and the rise of remote work, has redefined the skills required for employability in the 21st century. Remote learning has emerged as a critical tool for skills development, enabling individuals to acquire competencies relevant to the evolving gig and remote work economy. While this shift presents significant opportunities, particularly for developing countries, it also raises important concerns regarding access, quality, and effectiveness. This paper examines the role of remote learning in preparing individuals for the future of work, with a specific focus on Nigeria as a representative developing economy. It explores how remote learning facilitates participation in the global gig economy by enabling flexible, skills-based education. However, the paper also critically analyzes the challenges associated with this mode of learning within the Nigerian context, including digital inequality, inadequate infrastructure, erratic power supply, low learner engagement, limited practical training, and concerns about the credibility of online credentials. Adopting a qualitative, desk-based research design, the study draws on existing literature, policy documents, and global reports to provide a contextualized analysis of the intersection between remote learning, workforce preparation, and economic participation in Nigeria. The findings reveal that while remote learning holds transformative potential, its effectiveness is significantly constrained by structural and systemic barriers. The paper argues that without deliberate policy interventions and educational reforms, remote learning may fail to adequately prepare Nigerian learners for the demands of the future workforce. It therefore proposes strategic recommendations, including investment in digital infrastructure, integration of skills-based curricula, strengthening of quality assurance mechanisms, and the development of inclusive policies that support equitable access to learning opportunities.

Keywords: Remote learning; Future of work; Skills development; Gig economy; Workforce preparation; Educational policy reform; Digital divide; Nigeria.

Introduction

The nature of work is changing rapidly due to advances in technology, globalization, and changing organizational practices. Traditional office-based employment is increasingly being replaced by remote work, hybrid arrangements, freelancing, and gig-based employment. Schwab (2016) describes this transformation as part of the Fourth Industrial Revolution, where digital technologies are reshaping industries and labour markets worldwide. Today, organizations rely on cloud computing, artificial intelligence, and digital collaboration tools to manage employees

across geographical boundaries, making digital connectivity rather than physical location the defining feature of modern work.

Nigeria is experiencing this transformation within a unique demographic and economic context. The country has an estimated population of 235 million people, with one of the youngest populations globally (DataReportal, 2025). Although the National Bureau of Statistics (2024) reported an unemployment rate of 4.3% in the second quarter of 2024, concerns remain that youth unemployment and underemployment are substantially higher than official figures suggest due to changes in labour-force measurement (Afrobarometer, 2025). According to Afrobarometer (2025), many young Nigerians identify inadequate skills, limited work experience, and poor alignment between education and labour-market needs as major barriers to employment. Meanwhile, internet penetration has continued to improve, reaching about 45% of the population, although access remains uneven between urban and rural communities because of poor infrastructure and unreliable electricity (DataReportal, 2025; Phillips Consulting, 2025). Despite these challenges, Nigeria has emerged as one of Africa's fastest-growing digital freelancing markets, creating new opportunities for participation in the global digital economy.

In response to these changes, remote learning has become an important means of developing the knowledge and skills required for the future workforce. Unlike conventional classroom education, remote learning offers flexible and scalable opportunities for individuals to acquire digital, technical, and interpersonal skills regardless of location. Its growth has also supported the expansion of the gig economy by enabling learners to prepare for freelance and remote jobs across international markets (Nugroho, 2021). This trend accelerated during the COVID-19 pandemic as organizations adopted remote work while many workers sought income through digital platforms (Brown et al., 2022). Consequently, technological change has reshaped not only where people work but also the competencies employers expect from workers (Odunayo & Fagbemide, 2024).

Although research has examined remote learning in Nigeria, much of the existing literature focuses on access and technology adoption rather than on employment outcomes. Eze et al. (2018) found that poor internet quality, inadequate training, and users' attitudes limited the effective use of e-learning facilities in Nigerian universities. Similarly, Egielewa et al. (2022) reported that unreliable electricity and weak internet connectivity were the most significant barriers to online learning during the COVID-19 pandemic. More recently, Muraina et al. (2025) showed that digital literacy, institutional support, and perceived usefulness are key predictors of successful e-learning adoption, while poor infrastructure continues to hinder participation. However, these studies provide limited evidence on whether remote learning equips learners with the practical competencies required by remote and gig-work platforms. As a result, there is little understanding of how well current remote learning programmes prepare Nigerian youth for the realities of the digital labour market.

This gap is particularly important because remote learning in Nigeria continues to face significant infrastructural and institutional challenges. Poor internet connectivity, unstable electricity supply, limited access to digital devices, and inconsistent programme quality reduce the effectiveness of many online learning initiatives (Muraina et al., 2025; Phillips Consulting, 2025). At the same time, gig work is characterized by unstable income, intense competition, limited job security, and weak social protection (International Labour Organization, 2021). Consequently, completing an online course does not necessarily translate into sustainable employment. These

conditions raise important questions about the extent to which remote learning currently meets the skill requirements of the digital economy.

Failure to address this mismatch could have serious consequences for Nigeria's economic development. The country risks underutilizing its youthful population at a time when global demand for digital talent continues to grow. Many individuals invest substantial time and financial resources in remote learning with the expectation of improving their employment prospects. When these expectations are not met, confidence in remote learning declines, and opportunities for economic growth are lost. Policymakers also lack sufficient evidence to identify where reforms are most needed or how remote learning can be better aligned with labour-market demands. Understanding these issues is therefore essential for designing educational policies that promote workforce readiness and sustainable national development. Against this background, this study examines the role of remote learning in preparing Nigerians for the future of work. Specifically, it investigates the relationship between remote learning and skills development for the gig and remote-work economy, identifies the major challenges affecting workforce preparation, evaluates gaps in existing educational policies, and proposes practical reforms that can strengthen remote learning and improve workforce readiness in Nigeria.

Specific Objectives

This study will:

1. Analyze the relationship between remote learning and skills development for the gig and remote work economy.
2. Identify the major challenges and risks associated with remote learning in workforce preparation.
3. Examine how these challenges affect learners in Nigeria.
4. Evaluate existing gaps in the Nigerian educational system and policies regarding remote learning.
5. Propose policy and institutional reforms that can enhance the effectiveness of remote learning for future workforce development.

Conceptual Framework

To properly investigate the relationship between remote learning and the future of work in Nigeria, it is essential to first define and explain the core concepts that form the foundation of this study. This section provides a conceptual framework by clarifying what is meant by "the future of work", remote learning, and the gig economy. Understanding these terms is critical, as they are often used broadly in public discussion but have specific meanings in academic and policy literature.

Defining the Future of Work

The phrase "the future of work" refers to the profound shifts currently taking place in the global labour market. According to the International Labour Organization (ILO, 2021), these shifts are driven primarily by technological innovation, demographic changes, and globalization. However, the most significant driver is the rapid advancement of digital technologies, often associated with the Fourth Industrial Revolution (4IR). Schwab (2016), who popularized the term, explains that the 4IR is characterized by a fusion of technologies that blur the lines between the physical, digital, and biological worlds. This includes artificial intelligence (AI), automation,

cloud computing, and big data. These technologies are not just changing the tools people use at work; they are changing the very nature of jobs themselves. Many routine tasks are being automated, leading to a higher demand for non-routine cognitive and interpersonal skills (Autor, 2015). This transformation has given rise to new forms of employment that differ from the traditional model of a full-time, office-based job with a single employer. Existing literature distinguishes between several emerging models. These models include: remote model, hybrid model and platform economy (Lent, 2018, George, 2023). Remote work, also known as telecommuting, refers to work performed outside of a traditional office setting, often from home, using digital tools to stay connected (Allen, Golden, & Shockley, 2015). A related concept is the hybrid model, which combines remote work with periodic in-office attendance (Bloom, Jones, & Pistaferri, 2021). The platform economy, sometimes called the gig economy, is the idea of using digital platforms to connect independent workers with clients for short-term tasks or projects (Kässi & Lehdonvirta, 2018). In essence, the future of work is defined by a move away from rigid, location-based employment toward more flexible, digital, and outcome-focused arrangements. In addition, the future of work is characterized by flexibility, continuous change, and a growing emphasis on skills rather than formal qualifications (Balliester & Elsheikhi, 2018). Workers are now expected to adapt quickly, learn continuously, and combine both technical and soft skills to remain relevant in the labor market

The Nature and Scope of Remote Learning

Remote learning, often used interchangeably with terms like online learning, e-learning, or distance education, is a mode of study where the learner and the instructor are not physically present in the same location. Instead, instruction and learning occur through digital platforms and technologies (Moore, Dickson-Deane, & Galyen, 2011). While distance education has existed for centuries in the form of correspondence courses, its modern, digital form is a product of the internet age. The key characteristics of remote learning are its flexibility, accessibility, and scalability. Flexibility in remote learning simply means that people can learn at their own time, pace, and place, instead of being tied to a fixed classroom schedule. It is accessible because learners can often access course materials at any time and from any place with an internet connection, allowing them to fit education around work, family, or other commitments (Means et al., 2013). This accessibility makes it possible for individuals in remote or underserved areas to access educational opportunities that might not be available locally. Scalability as a characteristic of remote learning simply means that remote learning can make it possible such that education can reach a large number of people at the same time without a major increase in cost or resources. In a traditional classroom, the number of students is limited by physical space, available teachers, and facilities. However, with remote learning, one course or training program can be delivered to hundreds or even thousands of learners simultaneously through digital platforms.

The Gig Economy as a Component of the Future of Work

The gig economy is a central component of the changing nature of work. It is a labour market characterized by the prevalence of short-term, flexible, and freelance jobs, often mediated by digital platforms (Wood, Graham, Lehdonvirta, & Hjorth, 2019). Instead of earning a regular salary from a single employer, gig workers are paid per "gig," which could be a task, a project, or a contract. Common examples include driving for a ride-hailing service, delivering food, or freelancing on platforms like Upwork or Fiverr. The literature presents the gig economy as having

a dual nature. On one hand, it offers significant opportunities. It provides workers with flexibility and autonomy over their schedules and choice of work (Manyika et al., 2016). It can also serve as an alternative source of income in economies with high unemployment, allowing individuals to participate in the global digital marketplace from anywhere (Kuek et al., 2015).

On the other hand, scholars have extensively documented the risks associated with gig work. A major concern is precarity, which refers to the unstable and insecure nature of the work (Pathiranage, 2024). Gig workers typically lack the benefits and protections associated with traditional employment, such as health insurance, paid sick leave, pension contributions, and job security (ILO, 2021). This creates a situation where workers must constantly find the next job and bear the full weight of financial risks themselves. Furthermore, because gig workers are often classified as independent contractors rather than employees, they are excluded from many labour laws designed to protect workers (Cherry, 2016). Therefore, while the gig economy opens new doors, it also operates within a framework that can leave workers vulnerable.

Remote Learning and Skills Development for the Digital Economy

As the nature of work evolves, the demand for new sets of competencies has intensified. Traditional education systems, which often operate on fixed curricula and lengthy cycles, struggle to keep pace with the rapidly changing requirements of employers and the digital marketplace. This is the point where remote learning has emerged as a critical tool for equipping individuals with those competencies required by employers and the digital marketplace. Contemporary literature distinguishes between two broad categories of competencies: digital skills (often called technical or hard skills) and non-cognitive skills (commonly referred to as soft skills). Both are essential for success in remote work and the gig economy. Digital skills encompass the ability to use digital tools, platforms, and technologies effectively. At a foundational level, this includes basic digital literacy: navigating the internet, using email, and working with productivity software (van Laar, van Deursen, van Dijk, & de Haan, 2017). However, the demands of the modern workplace go far beyond the basics. The World Economic Forum (2023) identifies several advanced digital skills as increasingly critical. These include: data analysis and visualization, coding and software development, artificial intelligence and machine learning, digital marketing and e-commerce, and cybersecurity. These skills are not only required in traditional technology companies. Non-tech industries such as finance, healthcare, manufacturing, and creative sectors increasingly demand digitally competent workforces (Autor, 2015; Bessen, 2019).

While technical skills often receive the most attention, Deming (2017) argued that soft skills are equally, if not more, important for employability in the digital age. Soft skills refer to interpersonal, communication, and self-management abilities that enable individuals to work effectively with others and navigate complex work environments. In the context of remote and gig work, specific soft skills become amplified. Some examples of soft skills include: Self-management and discipline, adaptability and resilience, communication and collaboration, critical thinking and problem-solving, and entrepreneurial mindset. A substantial body of evidence shows that employers across sectors rank soft skills as a top hiring priority, often above technical qualifications (National Association of Colleges and Employers, 2022; Balliester & Elsheikhi, 2018). However, traditional education systems have historically underemphasized these competencies, creating a persistent gap between what graduates possess and what the labour market demands (Carnevale, Smith, & Strohl, 2020).

The Role of Remote Learning in Bridging the Skills Gap in digital economy

Given the growing demand for both digital and soft skills, and the limitations of conventional education in meeting that demand, remote learning has emerged as a powerful alternative and complement. Researchers and policy analysts have identified several mechanisms through which remote learning helps bridge the skills gap. These include provision of flexible and accessible learning, provision of just-in-time education, and provision of micro- credentials and skills- focused Certification. First, remote learning has the ability to provide education to a broad and diverse population, regardless of geographic location or time constraints. Unlike traditional universities that operate on fixed schedules and often require physical presence, remote learning platforms allow learners to study at their own pace, from any location with an internet connection (Means, Bakia, & Murphy, 2013). This flexibility is particularly important for workers who are already employed or for individuals in rural or underserved areas where educational infrastructure is limited (Kuek et al., 2015). For many young Nigerians, for instance, the ability to access courses from global platforms opens opportunities that local institutions may not offer. Second, remote learning is capable of providing just-in-time education. Traditional degree programs often take years to complete and their curricula can become outdated before students even graduate (Carnevale et al., 2020). In contrast, many online learning platforms are designed to respond rapidly to market shifts. When a new technology, software tool, or industry practice emerges, courses can be developed and deployed within weeks or months (Brown & Sacco, 2022). This agility allows learners to acquire exactly the skills they need when they need them, making education more relevant to immediate job requirements.

Third, remote learning provides quick evidence of learning through the provision of micro- credentials and skills- focused certifications. Unlike full degrees, micro- credentials validate mastery of a specific skill or narrow set of skills, often in partnership with industry leaders (Brown & Sacco, 2022). Prominent examples include: Google Career Certificates, Coursera and edX MOOCs, Udemy and LinkedIn Learning. These platforms provide a direct link between learning and employment, especially in the gig economy where clients often rely on verified skills rather than formal degrees (Kässi & Lehdonvirta, 2018). Furthermore, while remote learning is often associated with technical training, some platforms and programs have also developed innovative methods to teach soft skills. For example, courses on communication, teamwork, and leadership increasingly incorporate interactive elements such as peer- reviewed assignments, group projects conducted virtually, and simulation- based learning (Dede, 2020). These pedagogies not only transmit knowledge about soft skills but also allow learners to practice them in a digital environment, which mirrors the reality of remote work.

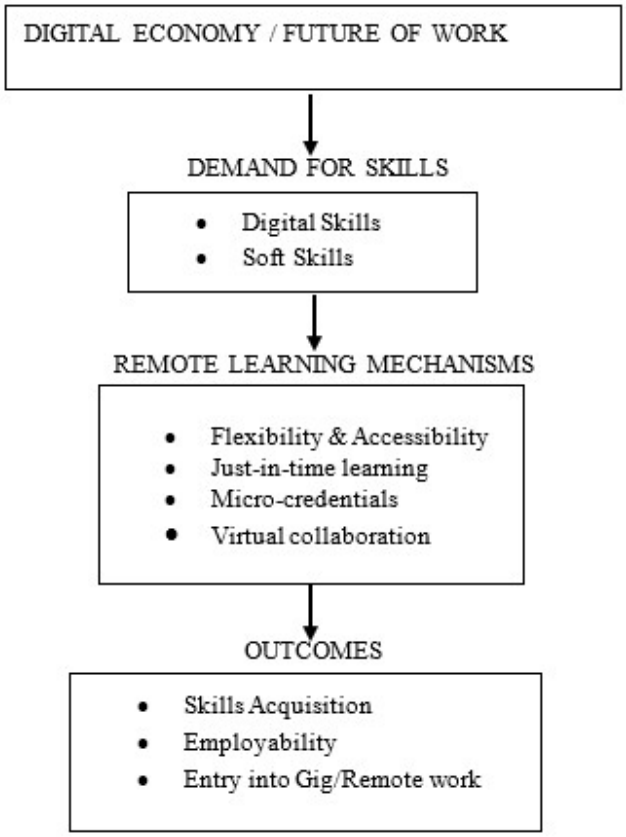


Figure 1: *Relationship between remote learning and skills Development for the digital economy.*

This conceptual framework shows how the changing nature of work in the digital economy is increasing the demand for both digital and soft skills. Remote learning serves as a key tool for meeting this demand through features such as flexibility, accessibility, just-in-time learning, and micro-credentials, which enable individuals to acquire relevant, job-ready skills. As a result, learners are better equipped for employment, including participation in the gig and remote work economy.

Challenges and Risks of Remote Learning

While remote learning holds considerable promise for skills development and workforce preparation, its effectiveness is constrained by a range of challenges and risks. These obstacles are not uniform across contexts; they manifest differently in high- income countries compared to low- and middle- income settings such as sub- Saharan Africa. Understanding these challenges is essential for identifying the gaps that limit remote learning's impact and for designing appropriate interventions. Previous literature suggests that there are three interconnected categories of challenges: the digital divide, issues of quality and relevance, and psycho- social barriers.

The Digital Divide as a Foundational Barrier

The digital divide is a major barrier that limits how effective remote learning can be, especially in African countries. It is not just about having access to the internet, but also about having the skills to use digital tools and benefit from them (van Deursen & van Dijk, 2019). In sub-Saharan Africa, many people still struggle with poor internet connectivity and unstable electricity. According to the International Telecommunication Union (2022), only about 36% of households in the region have internet access at home, compared to over 80% in Europe. In Nigeria, high data costs and unreliable networks make access even harder, especially for people in rural and low-income areas (Adeyinka & Ajayi, 2021).

Even when people have access, many lack the digital skills needed to use online platforms effectively, such as evaluating information or working with others online (van Laar et al., 2017). Other issues, like language barriers and sharing devices within families, make things more difficult. The COVID-19 pandemic clearly showed these problems, as many students in Africa could not continue learning when schools moved online (UNESCO, 2021). This shows that the digital divide is a basic issue that must be solved for remote learning to succeed.

Issues of Quality, Relevance, and Pedagogy

Apart from access, the quality of remote learning is another major concern. One clear problem is the low completion rate of online courses, especially massive open online courses (MOOCs). Studies show that only about 5% to 15% of learners complete these courses, with many dropping out early (Reich & Ruipérez-Valiente, 2019). This suggests that self-paced learning may not work well for everyone, especially those who struggle with discipline and time management (Hew & Cheung, 2014).

Another issue is that many online courses are not designed for local needs. Most are created in Europe or North America and may not match the realities of African job markets, leading to a gap between what people learn and available job opportunities (Adarkwah, 2021). In addition, many courses rely heavily on videos and simple tests, with little hands-on practice, mentorship, or interaction, which are important for skill development (Dede, 2020). There are also concerns about the value of online certificates. While they are gaining acceptance globally, many employers in Africa still prefer traditional university degrees (Ehlers, 2020).

Psycho-social and Motivational Challenges

Remote learning also comes with psychological and social challenges that affect how well learners perform. Unlike traditional classrooms, online learning can feel isolating because there is little face-to-face interaction with teachers or other students (Phirangee & Malec, 2017). This can lead to feelings of loneliness and reduce motivation, especially in countries like Nigeria where group learning is highly valued (Adarkwah, 2021). In addition, remote learning requires a high level of self-discipline, time management, and personal motivation. Without fixed schedules or direct supervision, many learners find it difficult to stay consistent (Zimmerman, 2002). Research shows that people who lack these skills are more likely to drop out (Hew & Cheung, 2014). Spending long hours on screens can also cause stress and fatigue, sometimes referred to as techno-stress, which can affect learning (Fauville et al., 2021). In low-income settings, learners often face extra pressure from financial responsibilities, household duties, or caregiving. When immediate income becomes more important than long-term learning, many are forced to stop their studies (Adeyinka & Ajayi, 2021).

The Nigerian Context: Educational System, Challenges, and the Gig Economy

Nigeria's educational system faces deep structural challenges that limit the effectiveness of remote learning. These include weak digital infrastructure, teachers' incompetence, and systemic inequalities (Samuel et al., 2025). An aspect of digital infrastructure which is a major issue is limited internet access. Although broadband penetration reached about 42% in 2024, this still leaves more than half of the population without reliable connectivity (Punch, 2024). The example of Nigeria reflects a wider global gap, as internet usage in low-income countries (where 27% of the population have internet access) remains far below that of high-income countries (where 93% of the population have internet access) (ITU, 2024). Even where internet access exists, it is often unreliable. Poor electricity supply, another infrastructural deficit, forces many learners to depend on generators or solar power, increasing the cost of participation. In addition, many teachers and lecturers lack the skills and training needed to effectively use digital tools, making the transition to online learning difficult (Ogundiran, 2024). Futhermore, there are also strong inequalities between urban and rural areas, and between public and private schools. These differences limit access to e-learning and deepen the digital divide, as seen during the COVID-19 pandemic (Okonkwo & Adebayo, 2024).

The COVID-19 pandemic forced Nigeria into an unplanned shift to remote learning, revealing both its potential and its limitations. With little preparation, schools adopted online tools, and many learners turned to simple, familiar platforms. For example, a study by Ogundare et al. (2025) found that students preferred WhatsApp over Google Classroom because it was easier to use, required less data, and allowed real-time communication. This shows that in low-resource settings, learners rely on affordable and accessible tools rather than advanced platforms. However, several challenges limited effectiveness. Poor internet connectivity, high data costs, unstable electricity, and unconducive learning environments were major barriers (Ogundare et al., 2025). Many students could not afford data for video-based learning, and crowded homes made studying difficult. As a result, learning outcomes were mixed. While remote learning helped maintain some continuity, its overall effectiveness was reduced by the digital divide (Okonkwo & Adebayo, 2024).

Building on the mixed outcomes of remote learning in Nigeria, the gig economy has become an important alternative for many young people seeking income. With limited formal job opportunities, many Nigerians now rely on freelance and platform-based work. This includes high-skilled roles like software development and digital marketing, as well as lower-skilled jobs such as ride-hailing and delivery services. Platforms like Upwork and Fiverr connect Nigerians to global clients, while local platforms serve domestic needs. However, a major challenge is the growing skills gap. While about 30% of jobs require advanced digital skills, only 11% of Nigerians currently possess them (NCC, 2025). Many critical roles remain unfilled, and demand for these skills is expected to rise significantly. This highlights the limited effectiveness of remote learning in fully preparing workers for the digital economy. In addition, the sector faces issues such as brain drain, low pay, and reliance on foreign talent (NCC, 2025). Workers also deal with unstable income, lack of job security, and no access to benefits. These challenges, combined with problems of remoting learning discussed earlier, make it difficult for many Nigerians to fully participate in and benefit from the gig economy.

Review of Existing Policies in Nigeria: Policy and Institutional Responses to the Future of Work

Nigeria has made notable strides in developing policy frameworks aimed at digital transformation, education, and youth employment. These policies would be grouped under: National Digital Economy Policy and Strategy (2020–2030), National Policy on Education, National Skills Framework and Youth Initiatives; and School Curriculum Innovation.

National Digital Economy Policy and Strategy (2020–2030)

The National Digital Economy Policy and Strategy (NDEPS) was launched in 2020 to reposition Nigeria's economy for the digital age (Federal Ministry of Communications and Digital Economy, 2020). It sets out eight pillars, including digital skills development, digital infrastructure, and digital entrepreneurship. The policy aims to create a digitally literate population and foster innovation. However, implementation has been uneven. While the policy acknowledges the importance of digital skills, it does not explicitly address the integration of remote learning into mainstream education or the specific needs of the gig workforce (Okonkwo & Adebayo, 2024).

National Policy on Education

The current National Policy on Education (revised in 2013) includes provisions for distance education but was developed before the widespread adoption of digital learning tools. It recognizes the importance of open and distance learning but does not adequately address the competencies needed for the digital economy (Federal Ministry of Education, 2013). A 2025 review by Samuel et al. argues that the policy must be updated to incorporate AI literacy, digital pedagogy, and flexible learning pathways that align with labour market demands. As of 2026, about 29 universities have been approved to offer online degree programmes in Nigeria, allowing students to earn degrees remotely (Legit.ng, 2026). However, approval alone does not guarantee effectiveness. For remote learning to truly support the future of work in Nigeria, identified structural barriers must be addressed alongside policy expansion.

National Skills Framework and Youth Initiatives

Recent initiatives such as the 3 Million Technical Talent (3MTT) Programme and the Digital States Programme reflect a growing recognition of the skills gap. The 3MTT aims to train three million Nigerians in technical skills over several years, leveraging a network of training partners (NCC, 2025). Similarly, the NiYA Gigs platform, launched in 2025, attempts to directly connect youth with gig work opportunities (Federal Ministry of Youth Development, 2025). While these initiatives are promising, they operate largely outside the formal education system and lack a coherent strategy for recognizing and certifying skills in ways that are portable across sectors.

School Curriculum Innovation

Nigeria has recently introduced a major curriculum reform aimed at preparing students for the digital age. The updated curriculum, which takes effect from the 2025/2026 academic session, places strong emphasis on digital skills, technology, and entrepreneurship. New subjects such as digital literacy, programming, artificial intelligence,

cybersecurity, and data science have been introduced, especially at the secondary school level. In addition, digital technologies have been made part of the core subjects, alongside practical trade skills. The overall goal is to equip learners with 21st-century skills needed to participate effectively in the global digital economy (Federal Ministry of Education, 2025). However, the impact may be limited if existing challenges are not addressed. Issues such as poor internet access, unstable electricity, and limited teacher training could reduce the effectiveness of these changes.

Gaps in Policy

First, there is no comprehensive policy that addresses quality assurance for remote learning. Unlike traditional universities, which are regulated by the National Universities Commission (NUC), online course providers both domestic and international operate with little oversight (Ehlers, 2020). Second, the social protection of gig workers is almost entirely absent from current policy frameworks. While the National Social Safety Net Programme exists, it does not extend to workers in the platform economy, leaving millions of freelancers without health insurance, pension coverage, or unemployment benefits (ILO, 2021).Third, there is a lack of coordination between the Ministry of Education, the Ministry of Communications and Digital Economy, and the Ministry of Youth Development. Each ministry runs parallel digital skills programmes, there is no unified framework for assessing outcomes, avoiding duplication, or ensuring that training aligns with actual employer needs (Adarkwah, 2021). In addition, many initiatives are not well integrated into the formal education system, making it hard to recognize and transfer skills across sectors. Infrastructure challenges, such as poor internet and electricity, are also not fully addressed in policy implementation. Finally, limited teacher training and weak monitoring systems reduce the effectiveness of reforms.

In summary, existing literature has provided valuable insights into remote learning, digital skills, the gig economy, and workforce development; however, important gaps remain. Most previous studies have focused on the adoption of remote learning technologies, access to digital infrastructure, or the barriers to online education, with limited attention to whether remote learning actually equips learners with the competencies required for the evolving gig and remote-work economy. Similarly, studies on the gig economy have largely examined employment opportunities and labour conditions without adequately exploring the role of remote learning in preparing individuals for these emerging forms of work. Furthermore, existing research has tended to examine educational, technological, and policy issues separately, resulting in limited understanding of how these factors interact to influence workforce readiness in Nigeria. Policy discussions have also paid little attention to the alignment between remote learning programmes, digital labour-market demands, and institutional reforms needed to support sustainable employment. This study addresses these gaps by providing an integrated analysis of the relationship between remote learning and skills development for the future of work in Nigeria. It examines the challenges that limit the effectiveness of remote learning, evaluates existing educational and policy gaps, and proposes practical policy and institutional reforms for aligning remote learning with the skills demands of the digital and gig economy, thereby offering a more comprehensive framework for strengthening workforce readiness.

Recommendations for policy and institutional reforms to enhance the effectiveness of remote learning for future workforce development in Nigeria

Nigeria's current policy landscape contains promising elements, such as the NDEPS, the 3MTT programme, and NiYA Gigs, but these initiatives are not yet connected into a coherent system that supports remote learning as a mainstream pathway to employment. For Nigeria to fully harness remote learning for skills development and workforce readiness, policy reforms must move beyond isolated projects toward a holistic framework. This framework should:

1. Strengthen digital infrastructure by treating broadband and electricity as essential public goods.
2. Establish a national digital skills qualification framework with quality assurance for both formal and non- formal remote learning.
3. Strengthen teacher training and digital capacity
4. Extend social protection to gig workers through portable benefits.
5. Foster coordination across ministries and with private sector stakeholders to align training with labour market demand.
6. Integrate remote learning into the formal education system

Conclusion

The future of work in Nigeria is being shaped by digital change, remote learning, and the rise of the gig economy. This study shows that remote learning has great potential because it is flexible, accessible and scalable. However, its impact is still limited by challenges like poor internet, unstable electricity, low digital skills, and inequality. There is also a gap between what policies aim to achieve and what is actually happening in practice, as well as a mismatch between the skills people learn and what employers need. Although recent initiatives and curriculum reforms are steps in the right direction, they are not enough on their own. For remote learning to truly prepare people for the future of work, Nigeria needs better infrastructure, stronger coordination, and closer links between education and industry. In simple terms, progress is being made, but more practical and consistent efforts are needed to make remote learning work for everyone.

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