

# MOVING FROM THE FRINGES: PERSPECTIVES ON GENDER DIGITAL MARGINALITY IN NIGERIA

A collection of short essays by young digital women champions



**EDITOR**  
Ruqayyah Yusuf Aliyu

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# INTRODUCTION

The gender digital divide is insidious in that it works in a cycle in which gender insensitive policy-making is processes and instruments design and deploy policies and initiatives purported to address women digital marginalization but which invariably tend to reinforce the problem than eliminate it. A strategic way to address the problem is to break the cycle by inserting the voice and agency of women in the policy-making process and engender the policy instrument. It was in order to contribute in deconstructing the patriarchal inscribed cycle that the Centre for Information Technology and Development (CITAD) with support from the Association for Progressive Communications (APC) initiated the Developing Digital Policy Leadership Among Young Women project. We prefer to refer to it as initiative rather than the usual implementation because we do not believe that a pilot project like this would in the short implementation period of just three months address the challenge of the digital marginalization of women. Rather, it is supposed to seed a process in building a movement of knowledge and capable women and activities and cultivate their voice and agency in a sustained advocacy to bridge the gender digital divide and as well generally support digital inclusion in all its ramifications.

The project itself involves a couple of complementary activities. The first two of these were a capacity building

training on digital policy analysis and voice activation for young women. The rationale for this is to prepare more women to take their places in the digital policy-making institutions and instruments in the country. While we not believe that a three-day training will make the participants experts, our modest goals are to open their eyes to tools of analysis and to an exciting vista as to raise their interests and passion in being part of an active movement to banish gender digital divide in the country.

But the capacity in digital policy analysis is not an end in itself. It is meant to catalyze knowledge-based advocacy as well as showcase these skills capable of being on the policy table by occupying a niche in digital policy analysis.

To ground this aspiration, we encouraged young women of the pilot to undertake personal advocacy around the issues of gender digital inclusion to test their skills for persuasion and assess the reality on ground. To provide an opportunity for reflection on this, we requested them to write and submit an article about their experience in relation to either digital policy advocacy or gender digital inclusion.

The writing is to serve two purposes. First, it gives them the opportunity to ground their training in practice by engaging with real life issues of advocacy. The second is that we intend to make these short articles accessible to a wider circle of audiences, especially other women, with the hope that they would be motivated and inspire them to get involved with the advocacy for gender digital inclusion. As for the current cohort, our hope is that they will remain motivated

and continue to engage. We also plan to transit from these short articles and ask them as they continue to engage and write substantive longer pieces reflecting their own experiences and encounters with the advocacy for gender digital inclusion, teasing out the lessons learnt.

# GENDER DIGITAL DIVIDE: A DIFFERENT KIND OF GBV

By



Isaac Serah

In recent times, gender and women's issues have become things of concern to so many people around the world. The world has experienced a great increase in the support for the protection of women's rights and dignity of life. However, the more these concerns about the protection of women's rights, the more awareness we all have to still raise.

Personally, I have heard about Gender Based Violence (GBV) and I taken my time to study the concept, its consequences and effects and the aftermath of the psychology and entire wellbeing of the vulnerable group concerned, women. On the contrary, it never occurred to me that the concept of Gender Based Violence is very versatile and has extended itself to having a scope in technological space.

During the three-day training on Digital Policy Leadership Training for Young Women hosted by the Center for

Information Technology and Development (CITAD), my eyes were opened to another kind of GBV, which is Technological Gender Based Violence. During the course of this training, after Day One precisely, I went back to reflect on the issues highlighted on policy making, women in Tech, and the kinds of Gender Based Violence that have been existing in tech space.

Fortunately, I was able to draw facts on all. I have personally experienced Tech Gender Based Violence but without prior knowledge, I never saw it as one. One time or the other in my life, I have always been regarded as "just a young woman" and could never operate a computer system. Again, at home, I was often warned not to ever temper with electrical repairs. But I have often successfully repaired the family's television set and spoilt fuses. The irony here is that they see me as a woman and hold the belief that I cannot do it.

A quite pressing experience I recently had was about a picture I posted on my WhatsApp Status. I first posted a hot plate and captioned it "for sale". After a while, I posted a picture of myself. Sadly, a young man commented "na this one I wan buy." I was really sad that it came from an educated person. I quickly replied, "not a goods though". It occurred to me that I had heard series of this kind of abuse in tech space but I never saw it as such because I had zero knowledge of it. I also realized that there were so many women like me who had been brutally abused in tech space. A great take-home for all is that there are policies that need to be refurbished and created to guide and

defend the rights of women in Tech space. But first we need an attitude change towards the beliefs that a woman cannot be found in the tech space or in STEM space. There's a pressing need to readjust and create policies that safeguard the rights of women in tech space.

One of these policies that I will suggest is the Technological VAPP law. That should state and outline the kinds of Technological Gender Based Violence and the consequences that each of it attracts.

With all genuine sincerity, I stand with all women around the world and desire to see them trained in the field of science and technology so as to showcase their inventions and innovations. This is to foster women's productivity in the field of science and technology.

# ADVANCING FEMINIST EQUITY IN STEM: BREAKING BARRIERS, BRIDGING GAPS

By



**Hannatu Musa Piri**

## Introduction

In the ever-evolving landscape of Science, Technology, Engineering and Mathematics (STEM), the call for diversity and inclusivity has become increasingly urgent. Despite significant progress, gender disparities persist in these fields, prompting a closer examination of the challenges and opportunities for feminist equity in STEM. This comprehensive exploration delves into the multifaceted aspects of feminist engagement, critically analyzing the barriers women face in STEM and the initiatives driving positive change.

## The Gender Gap in STEM

Historically, women have been underrepresented in STEM disciplines, a stark reality that reflects deeply embedded cultural and societal norms. While there has been a notable increase in the number of women pursuing STEM education, a substantial gender gap still exists in

professional settings. Societal expectations, stereotypes and biases contribute to a climate where women may feel unwelcome or out of place. In an era where STEM fields shape the future, it's disconcerting that a considerable portion of the talent pool remains untapped due to gender disparities. The implications of this gap extend beyond individual careers to impact the innovation and progress of entire industries.

### **Barriers to Equality**

Understanding the persistent gender gap in STEM requires an exploration of the multifaceted barriers women encounter throughout their careers. Stereotypes perpetuate the notion that certain STEM disciplines are inherently masculine, creating an environment where women may feel unwelcome or out of place. The pervasive image of the male scientist, engineer and mathematician in popular culture further reinforces these stereotypes, affecting not only how women perceive themselves in these roles but also how they are perceived by their peers and superiors.

Implicit biases in hiring and promotion processes are other significant hurdles. Despite efforts to promote meritocracy, deeply ingrained biases can impact decision-making, leading to the unintentional exclusion of women from opportunities for career advancement. The often unconscious association of leadership qualities with masculine traits can further hinder the progress of women aspiring to reach

leadership positions in STEM fields.

Additionally, work-life balance challenges, lack of mentorship opportunities and limited access to resources for female researchers hinder career progression. The demanding nature of STEM professions, with long hours and intense workloads, can create a hostile environment for women, especially those who may be balancing familial responsibilities. The lack of mentorship deprives aspiring female scientists and engineers of the crucial guidance and support the need to navigate the challenges of a STEM career successfully.

### **Feminist Initiatives in STEM**

Efforts to address gender disparities in STEM have gained momentum, with feminist initiatives leading the way. Organizations, both grassroots and institutional, are actively working to dismantle systemic barriers and create an environment that is conducive to the success of women in STEM.

One key area of focus is the implementation of mentorship programs. These programs just like the digital leadership program for young women by CITAD pair experienced women in STEM with younger professionals, providing guidance, support and a platform for the transfer of knowledge and experiences. The significance of mentorship extends beyond professional development it also serves to create a sense of community and solidarity among women in STEM AND OUTSIDE STEM, fostering a

supportive network that can help to navigate the challenges unique to their experiences.

Networking opportunities are equally critical in breaking down barriers. Creating spaces where women can connect with industry professionals, potential mentors and peers allows for the exchange of ideas, experiences and support. Events, conferences and workshops that specifically address the needs and concerns of women in STEM contribute to building a sense of belonging and empowerment.

Advocacy for policies that promote work-life balance is another crucial aspect of feminist initiatives in STEM. Recognizing the importance of a supportive work environment that accommodates family responsibilities is a significant step toward fostering gender equity. Flexibility in work hours, parental leave policies and on-site childcare facilities are examples of the measures that contribute to creating a more inclusive and supportive workplace for women in STEM.

The push for inclusivity also extends to challenging and changing cultural and institutional norms within STEM organizations. Addressing unconscious biases in hiring and promotion processes requires a concerted effort to reevaluate and reform these practices. Training programs that raise awareness about these biases and their impact on decision-making can contribute to a more equitable professional landscape.

Highlighting the achievements of women in STEM is

an effective way to challenge stereotypes and biases. Celebrating the accomplishments of female scientists, engineers and mathematicians not only recognizes their contributions but also provides visible role models for aspiring women in these fields. Media, educational institutions and STEM organizations can play a pivotal role in shaping an inclusive narrative and representative of the diverse talent within the field.

### **The Importance of Representation**

Feminist equity in STEM goes beyond numerical representation; it emphasizes the need for diverse voices at decision-making tables. Achieving gender parity fosters innovation, creativity and a broader range of perspectives. When women are adequately represented, research shows that teams are more likely to produce groundbreaking solutions to complex problems benefiting society as a whole.

Representation is not only about increasing the number of women in STEM but also ensuring that they are visible and influential across all the levels of their respective fields. Leadership roles, from research and development to executive positions, should reflect the diversity of the talent available. Recognizing and addressing intersectionality within the feminist equity framework is also crucial, ensuring that women from different ethnic, cultural and socioeconomic backgrounds have equal opportunities for representation and leadership.

The importance of representation extends to

educational settings as well. Having diverse faculty and role models in academic institutions encourages women to pursue STEM disciplines by providing tangible examples of successful women in these fields. This visibility is particularly impactful in challenging the stereotypes that may dissuade girls from considering STEM careers from an early age, especially in our Arewa communities.

### **Fostering Inclusive STEM Education**

To address the gender gap comprehensively, the transformation must begin in educational institutions. Creating inclusive curricula that showcase diverse contributions and accomplishments in STEM helps to challenge stereotypes early on. Representation in textbooks, course materials and historical narratives is essential in providing a more accurate and inclusive portrayal of the history and current state of STEM disciplines. Encouraging girls to pursue STEM interests through mentorship programs, extracurricular activities and community outreach can inspire the next generation of scientists, engineers and mathematicians. STEM outreach programs that specifically target young girls, providing hands on experiences and exposure to successful women in STEM, can help to dismantle stereotypes and create a pipeline for future talent. Addressing gender bias in educational settings also involves fostering an inclusive and supportive learning environment. Teachers and educators play a crucial role in challenging stereotypes and

encouraging girls to explore their interests in STEM. Providing resources and support for girls who show an aptitude for STEM subjects ensures that their potential is nurtured and developed from an early age.

Creating pathways for girls and women to access STEM education and training is essential. Scholarships, grants and other financial incentives can help to alleviate the barriers that may prevent some women from pursuing STEM careers. Additionally, partnerships between educational institutions and industry can create opportunities for practical experience, further bridging the gap between academic learning and real-world application.

## **Challenges and Progress**

While strides have been made in advancing feminist equity in STEM, challenges persist. The culture of some STEM environments may still be resistant to change and unconscious biases continue to influence decision-making processes. Overcoming these challenge requires ongoing efforts from individuals, organizations and policymakers.

Addressing implicit biases and fostering cultural change within STEM organizations is a continuous process that involves training, awareness campaigns and a commitment to inclusivity at all levels. Organizations that prioritize diversity and inclusion in their values and mission statements are more likely to create an environment that attracts and

retains a diverse workforce.

Intersectionality remains a critical consideration in the pursuit of feminist equity. Women from different backgrounds may face unique challenges. Efforts to address these challenges must be comprehensive and intersectional. Recognizing and valuing the diverse perspectives that women bring to STEM disciplines is essential for creating an inclusive and equitable professional landscape.

Advocacy at the policy level is crucial for creating systemic change. Governments and regulatory bodies can play a pivotal role in implementing and enforcing policies that promote gender equity in STEM. This includes not only addressing workplace practices but also ensuring that educational institutions have the resources and support needed to encourage the participation of women in STEM disciplines.

## **Conclusion**

Feminist equity in STEM is not merely a matter of addressing the gender gap. It is about creating an inclusive, supportive environment that values the contributions of everyone, regardless of gender. As the world becomes increasingly reliant on technological advancements, it is imperative to harness the full potential of diverse perspectives in STEM. By breaking down barriers and fostering a culture of equality, we pave the way for a more innovative, resilient and equitable future in STEM fields. The on going efforts of feminist initiatives, coupled with a

commitment from educational institutions, organizations and policymakers, will be instrumental in shaping a landscape where the talents and contributions of women in STEM are fully recognized and valued. As we navigate the complexities of the 21st century, the progress of feminist equity in STEM is not only a measure of social justice but also a key determinant of our ability to address global challenges through scientific and technological innovation. In embracing the principles of diversity, inclusion and equity, we propel STEM fields toward a future where everyone, regardless of gender, has the opportunity to thrive and contribute.

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# BRIDGING THE DIGITAL DIVIDE: A COMPREHENSIVE POLICY APPROACH FOR NIGERIA

By



**Halima Sadiya Yahaya**

## Introduction

**D**igital gender divide refers to the disparity in access to and usage of digital technologies between men and women. This divide encompasses various aspects, including internet access, digital skills and participation in the digital economy. Women, particularly in certain regions or socio-economic groups, may face barriers, such as limited access to devices, lack of digital literacy and the cultural factors that contribute to this imbalance. Closing the digital gender divide is essential for promoting equality and ensuring that everyone has equal opportunities in the digital era. Whereas digital policy refers to a set of guidelines, regulations and principles that govern the use, access and management of digital technologies and data, it encompasses a wide range of issues, such as privacy, cyber security, internet governance, data protection and the ethical use of technology. Digital

policies are crucial for ensuring a secure and responsible digital environment, addressing the challenges arising from technology advancements and online interactions. In an era dominated by technology, Nigeria stands at the crossroads of progress and disparity in digital space. The dual challenge of addressing policy issues in the digital realm while concurrently tackling the gender gap demands a nuanced and comprehensive approach. This article explores key policy considerations to propel Nigeria towards a more inclusive and equitable digital future.

## **The Challenges Contributing to Gender Digital Divide in Nigeria**

Several challenges contribute to the gender digital divide in Nigeria:

### **1. Limited Access to Digital Infrastructure**

Unequal access to reliable internet services and digital devices, particularly in rural areas, hinders women's ability to fully participate in the digital sphere.

### **2. Socioeconomic Disparities**

Economic constraints can prevent women from purchasing digital devices or accessing the internet regularly, exacerbating the divide between those who can afford technology and those who cannot.

### **3. Digital Illiteracy**

A lack of digital literacy and skills among women may hinder their confidence and capability to use digital tools effectively for personal, educational or professional purposes.

#### **4. Cultural and Social Barriers**

Deep-rooted cultural norms and societal expectations may limit women's freedom to explore digital space, participate in online discussions or pursue careers in technology.

#### **5. Gender Stereotypes and Bias**

Stereotypes that associate certain technologies with masculinity can discourage women from entering STEM fields or pursuing careers in the tech industry.

#### **6. Online Harassment and Safety Concerns**

Women may face online harassment and safety concerns, deterring them from actively engaging in digital platforms and expressing their opinions online.

#### **7. Limited Representation in Tech**

The under representation of women in leadership roles and decision-making positions within the tech industry may contribute to policies and products that do not adequately consider gender-specific needs.

#### **8. Educational Disparities**

Gender disparities in educational opportunities, especially in STEM education, can limit the pool of women entering digital professions.

#### **9. Lack of Gender-Sensitive Policies**

The absence or inadequacy of policies that specifically address gender disparities in the digital realm can perpetuate unequal opportunities and outcomes.

## **10. Work-Life Balance**

Balancing family responsibilities with digital engagement can be challenging for women, impacting their ability to fully participate in online activities. Addressing the challenges contributing to the gender digital divide in Nigeria requires a comprehensive and coordinated approach. Here are potential solutions:

### **1. Expand Digital Infrastructure**

Invest in and expand digital infrastructure, particularly in underserved rural areas, to ensure equitable access to reliable internet services and digital devices.

### **2. Subsidize Digital Access**

Implement policies or programs that subsidize the cost of digital devices and internet services, making them more affordable for women, especially those from lower socioeconomic backgrounds.

### **3. Promote Digital Literacy Programs**

Launch targeted digital literacy programs to equip women with the necessary skills to navigate online platforms, use digital tools and understand the benefits of digital technology.

### **4. Challenge Gender Stereotypes**

Implement awareness campaigns and educational programs to challenge gender stereotypes that associate technology with masculinity, encouraging women to pursue STEM education and careers in the tech industry.

## **5. Create Safe Digital Spaces**

Develop and enforce policies that address online harassment and ensure the safety of women in digital space. This may involve stronger legal frameworks and reporting mechanisms.

## **6. Promote Female Role Models**

Showcase successful women in technology as role models to inspire and motivate other women to pursue careers in the digital sector.

## **7. Integrate Gender-Responsive Education**

Incorporate gender-responsive approaches in educational curricula, promoting equal opportunities for boys and girls in STEM subjects and addressing any biases in educational materials.

## **8. Support Women Entrepreneurs**

Establish support programs for women-led startups in digital space, providing access to funding, mentorship and networking opportunities.

## **9. Implement Gender-Inclusive Policies**

Advocate for and implement gender-inclusive policies in the workplace, ensuring equal opportunities, representation and advancement for women in the tech industry.

## **10. Foster Collaboration with Stakeholders**

Collaborate with government agencies, NGOs, private sectors and communities to create a synergized effort in

addressing the multifaceted challenges contributing to the gender digital divide.

### **11. Encourage Work-Life Balance**

Promote policies and workplace practices that support work-life balance, allowing women to seamlessly integrate their professional and personal responsibilities.

### **12. Collect Gender-Disaggregated Data**

Improve data collection methods to gather gender-disaggregated data, enabling a more accurate understanding of the specific challenges faced by women in the digital space. By implementing these solutions, Nigeria can make significant strides in bridging the gender digital divide and create a more inclusive and equitable digital environment for women.

Below are some key policies to propel Nigeria towards a digital future

**1. Digital Literacy and Education:** To bridge the digital divide, it is imperative to invest in digital literacy programs that empower all citizens, regardless of gender or socio-economic status. Implementing a nationwide initiative that integrates digital skills into the education system ensures that the younger generation is equipped to navigate the digital landscape seamlessly.

**2. Access to Infrastructure:** Unequal access to digital infrastructure exacerbates existing disparities. Policy measures must prioritize the expansion of reliable internet connectivity to rural areas, ensuring that the benefits of the

digital age reach all corners of the nation. Public-private partnerships can play a pivotal role in building the necessary infrastructure.

**3. Cyber-security and Data Privacy:** As digital interactions surge, safeguarding citizens' data becomes paramount. Robust cyber-security policies, coupled with stringent data protection regulations, are essential. Ensuring these policies are gender-sensitive safeguards against potential risks and privacy violations that may disproportionately affect women.

**4. Economic Inclusion:** Digital platforms offer unprecedented opportunities for economic empowerment. Policies promoting entrepreneurship, especially among women, can contribute to closing the gender gap. This involves providing access to capital, fostering a supportive business environment and encouraging the participation of women in emerging digital industries.

**5. Women in STEM:** Addressing the gender gap in the digital space necessitates a focus on Science, Technology, Engineering and Mathematics (STEM) education. Encouraging girls to pursue STEM fields through targeted policies, scholarships and mentorship programs can reshape the narrative, fostering gender balance in technology-driven sectors.

**6. Inclusive Digital Governance:** In crafting digital policies, it is crucial to ensure diverse representation and gender

inclusivity. Establishing mechanisms for women's participation in decision-making processes related to the digital landscape ensures that policies are reflective of the needs and aspirations. With regard to this, I will like to specifically talk about amplifying women's voices as a policy issue aimed at bridging the gap in digital gender divide.

## **AMPLIFYING WOMEN'S VOICES: A CALL FOR GENDER-INCLUSIVE POLICY MAKING IN NIGERIA**

In the vibrant mosaic of Nigeria's diverse society, the absence of women's voices in policy-making processes echoes as a glaring concern. To truly address the gender divide, it is imperative to advocate for increased female representation and influence in policy formulation and analysis. Feminists and advocates have, since the United Nations declaration of 1975 through 1985 "Decade for Women", continued the movement for gender equality as a way to end gender discrimination (Onwumah et al., 2019). On the other hand, even though existing situations that create discrimination against women remain unresolved, new and frightening challenges seem to be emerging (Adebiyi et al., 2017). One of such startling challenges was put forward by (Afisi, 2010) stating that women (wives and mothers) fail to perform their responsibilities effectively and their roles have been largely neglected. The consequence of all these to the family institution and the

larger society is that women's socialization role in passing societal values to children, right from infancy, which usually assists in regulating behaviour in the community, is critically insufficient (Afisi, 2010). This reveals the apparent reasons for the destruction of societal values, which are evident in many cultures in recent times. Cultural and moral African values are commonly instilled from home. That is, the institution of the family is no more. Hence, moral bankruptcy has become the order of the day due to the family system's failure, which has dramatically impeded living and development standards. Most importantly, regarding this study, duty, spirit of patriotism, and tolerance are much needed for development but are sufficiently lacking in our society. As was noted by Onwumah et al. (2019), all these are consequences of colonialization and the ongoing modernization process experienced by most African nations. This process has significantly affected in a negative way the institution of the family in Africa. This article serves as a passionate call to action, urging stakeholders to recognize the value of diverse perspectives for more effective and equitable governance. For efficiency, the following should be observed:

**1. Recognizing Disparity:** The first step towards change is acknowledging the existing gender gap in policy-making structures. Women remain under represented in decision-making bodies, limiting the scope of policies to fully address the diverse needs of the population.

**2. Creating an Inclusive Policy Space:** Advocacy efforts should emphasize the creation of an inclusive policy space

where women's voices are not only heard but actively sought. Establishing quotas or affirmative action measures can serve as temporary interventions to jumpstart a more balanced representation.

**3. Gender-Sensitive Policy Analysis:** Policy analysis should adopt a gender-sensitive lens, considering the differential impact of policies on men and women. Integrating gender perspectives ensures that policies address the unique challenges faced by women and contribute to dismantling systemic barriers.

**4. Empowering Women in Governance:** Encouraging women to pursue leadership roles in governance is pivotal. This involves breaking down societal barriers, providing mentorship programs and creating environments that nurture the growth of female leaders, who can shape and influence policies.

**5. Education and Awareness:** Advocacy efforts should extend to education and awareness campaigns, highlighting the importance of gender diversity in policy-making. By dispelling stereotypes and promoting inclusivity, society can better appreciate the wealth of insights women bring to the decision-making table.

**6. Collaboration and Networking:** Facilitating collaboration and networking opportunities for women in policy-related fields fosters a supportive ecosystem. Connecting aspiring female policymakers with established figures can create a network of support and mentorship crucial for navigating

traditionally male-dominated spaces.

**7. Accountability and Monitoring:** Establishing mechanisms for accountability and monitoring progress is essential. Regular assessments of gender representation in policy-making bodies and the impact of gender-sensitive policies ensure that advocacy efforts translate into tangible results.

## **Conclusion**

There is no doubt that gender plays a significant role in promoting or retarding a society's development process. As was observed, individual actors make up gender and none of these actors' actions and inactions are insignificant. As a continent, Nigeria and other African nations are unique in their settings and have a patterned and an orderly system, which is evident in her patriarchal society (Onwumah et al., 2019). However, with the diffusion of culture in her abode, several other order patterns resulting in agitations and gender tensions were passed down and created a new perception of inequality in gender roles and rewards and recognition. These perceived inequalities have also led to the emergence of several programs and initiatives meant to empower women and cause them to be active participants in all social institutions. While many of these policies are laudable and have yielded some results (Onwumah et al., 2019), many women are ineffective in the family from which other development emanates. Meaning, there should be a proper balance in women's integration in work and their roles as homebuilders. This paper, therefore, appreciates the work of the varieties of gender equality

movements and policies. It concludes that each gender role, especially women's roles both at home and in the industry, is as essential as men's roles in corporate and formal organizations (Onwumah et al., 2019; Olonade et al., 2019). However, this is not to say that women cannot function in other areas, even in politics and highly ranked leadership positions in the society but not at the expense of their primary roles in the family-the basic unit of society. Also, women should not just strive to make a point by attaining positions outside the home, thereby having little or no time to play their primary roles in the family but should see their primary roles as also a vital key to achieving societal development because they are and will be building lives that will make nations. As we celebrate progress, let us commit to reshaping the landscape of policy-making in Nigeria. The inclusion of women's voices is not just a matter of equality; it is a strategic imperative for crafting policies that resonate with the diverse needs of the nation. Through concerted advocacy, education and a collective commitment to gender-inclusive governance, we can pave the way for a Nigeria where every voice, irrespective of gender, contributes to shaping a brighter and more equitable future.

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# BRIDGING THE DIVIDE: NAVIGATING POLICY ISSUES IN NIGERIA'S DIGITAL SPACE AND ADDRESSING GENDER DISPARITIES

By



**Fatima Aminu Gurin**

## Introduction

**T**he digital revolution has transformed societies across the globe, with technology becoming an integral part of daily life. In Nigeria, like many other nations, digital space has witnessed unprecedented growth, presenting both opportunities and challenges. However, amidst rapid advancements, a glaring issue persists —the gender gap. This article explores the policy issues surrounding Nigeria's digital landscape and delves into the imperative task of addressing gender disparities in the realm of technology.

## Policy Landscape in Nigeria's Digital Space

Nigeria, as the most populous country in Africa, has witnessed remarkable growth in its digital space. The government has recognized the importance of technology

and implemented various policies to foster its development. However, challenges remain and policy issues need to be addressed to ensure a robust and inclusive digital ecosystem. The following are some of the major issues pertaining to digital landscape in Nigeria:

### **Infrastructure Challenges**

One of the primary policy issues in Nigeria's digital space is inadequate digital infrastructure. While urban areas may have relatively better access to high-speed internet, rural areas often face connectivity challenges. Bridging this digital divide is essential to ensure that all citizens, regardless of their geographic location, have equal access to the benefits of the digital age. The government needs to invest in expanding and improving the digital infrastructure, ensuring that remote and underserved areas are not left behind. This includes the deployment of broadband infrastructure, improving network reliability and promoting affordable internet access.

### **•Cyber-security Concerns**

The rapid digitization of services has also led to an increase in cyber-security threats. As more individuals and businesses move online, the risk of cyber-attacks becomes more significant. Adequate policies must be in place to safeguard digital assets, protect user privacy and ensure the integrity of digital transactions. Nigeria needs to enhance its cyber-security framework, implement effective legislation and invest in the training of cyber-security professionals. Collaborative efforts with international organizations can also contribute to building a resilient

cyber-security infrastructure.

### **•Data Protection and Privacy:**

The collection and use of personal data have become pervasive in the digital age. Ensuring the protection of individuals' privacy is crucial to building trust in digital platforms. Nigeria has taken steps towards data protection with the enactment of the Nigeria Data Protection Regulation (NDPR). However, enforcement and awareness remain significant challenges. Strengthening the implementation and enforcement mechanisms of existing data protection laws and fostering awareness about privacy rights among citizens are essential steps. The government should work closely with industry stakeholders to create a comprehensive framework that balances innovation with the protection of individual privacy.

### **Digital Inclusion**

A critical aspect of digital policy is ensuring that the benefits of technology are inclusive and reach all the segments of society. The digital divide is not only about access to the internet but also about the ability to effectively use digital tools and services. Policies should focus on promoting digital literacy and skills development, especially among marginalized communities. Initiatives such as digital skills training programs, especially for women and girls, can play a pivotal role in enhancing digital inclusion. Collaboration between the government, the private sector and civil society organizations is crucial to designing and implementing effective programs.

## **Addressing the Gender Gap in Nigeria's Digital Space**

While addressing broader policy issues is vital, special attention must be given to the gender gap that persists in Nigeria's digital landscape. Women and girls face unique challenges and barriers that hinder their participation in the digital economy. Bridging this gender divide is not just a matter of social justice; it is an economic imperative for the nation's sustainable development.

### **•Access to Technology**

A fundamental aspect of the gender gap in digital space is the differential access to technology. Societal norms, economic constraints and lack of awareness often limit women and girls' access to digital devices and the internet. Policy-makers need to implement measures to ensure that women have equal access to technology. This may involve subsidizing digital devices, creating community access centers and promoting initiatives that provide affordable internet connectivity. By addressing the barriers to access, policymakers can lay the foundation for increased female participation in the digital economy.

### **•Digital Literacy and Skills Development**

Even when women have access to technology, a significant gap exists in terms of digital literacy and skills. Empowering women and girls with the necessary digital skills is crucial for their active participation in the digital workforce. Policy interventions should focus on integrating digital literacy programs into formal education systems and providing targeted training for women in marginalized communities. Collaborative efforts involving government agencies,

educational institutions and non-governmental organizations can facilitate the design and implementation of effective digital skills development programs. These programs should not only cover basic digital literacy but also the advanced skills relevant to the evolving digital landscape.

**•Entrepreneurship and Innovation:** The digital economy offers numerous opportunities for entrepreneurship and innovation. However, women entrepreneurs in Nigeria face unique challenges, including limited access to finance, gender bias and lack of mentorship. Policies should be designed to create a conducive environment for women-led startups and businesses to thrive. Initiatives such as targeted funding programs, mentorship networks and capacity- building programs can empower women entrepreneurs to navigate the digital business landscape. In addition, creating awareness about successful women-led enterprises and showcasing their achievements can serve as inspiration for others.

### **Addressing Cultural Barriers**

Deep-seated cultural norms and stereotypes often play a significant role in perpetuating the gender gap. Societal expectations regarding women's roles and the perception of certain professions as male-dominated can discourage women and girls from pursuing careers in technology. Policy efforts should include awareness campaigns that challenge these stereotypes and promote a culture of inclusivity. Collaborating with community leaders, influencers and educational institutions to challenge and

change these norms is essential. Additionally, incorporating gender perspectives into educational curricula can contribute to breaking down these barriers from an early age.

### **·Promoting Diversity in the Tech Sector**

The tech industry itself often lacks diversity, with women being under represented in technical roles. Encouraging diversity and inclusion in the workforce is not only a matter of equity but also a strategic move for fostering innovation. Policymakers should work with the private sector to promote diversity in hiring practices, creating mentorship programs and establishing supportive work environments. Setting diversity targets, promoting flexible work arrangements and implementing anti-discrimination policies are steps that can contribute to creating a more inclusive tech sector. Government incentives and recognition for companies that prioritize diversity can further encourage positive change.

### **· Closing the Gender Pay Gap**

Gender disparities extend beyond access and representation; they also manifest in economic terms. The gender pay gap in the tech industry is a pressing issue that needs to be addressed. Policies should mandate equal pay for equal work and companies should be transparent about their pay structures. Implementing and enforcing policies that address the gender pay gap is crucial. Government agencies can work with the private sector to develop guidelines and benchmarks for fair compensation practices. Additionally, raising awareness about the

importance of pay equity and providing resources for negotiating fair salaries can empower women in the tech workforce.

## **Conclusion**

The digital space in Nigeria holds an immense potential for economic growth, innovation and social development. However, realizing this potential requires addressing critical policy issues and dismantling barriers that perpetuate gender disparities. Bridging the gender gap in digital space is not just a moral imperative; it is an economic necessity for Nigeria's sustainable development. Policymakers must prioritize the development of a robust digital infrastructure, enhance cyber security measures and ensure the protection of user privacy. Simultaneously, special attention should be given to policies that promote digital inclusion, address the gender gap and empower women and girls to actively participate in the digital economy. Through targeted interventions, such as promoting digital literacy, supporting women entrepreneurs, challenging cultural barriers and fostering diversity in the tech sector, Nigeria can create a more inclusive and equitable digital landscape. The collaboration between government agencies, the private sector, civil society organizations and international partners is essential for the effective implementation of these policies. As Nigeria strives to position itself as a digital leader on the African continent, it must recognize that true progress is measured not just by technological advancements but by the inclusivity and empowerment of all its citizens,

regardless of gender. Only through comprehensive and strategic policy measures while ensuring that no one is left behind can Nigeria harness the full potential of its digital future.

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# BRIDGING THE GAP: THE POWER OF DIGITAL LITERACY IN ERODING THE GENDER DIGITAL DIVIDE

By



**Raihanatu Mohammed Hamid**

## **Introduction**

**G**ender disparities in digital skills continue to be a major hindrance to global advancement in an age where information is power. Programs for digital education have become effective instruments in the fight for gender parity, since they aim to provide women with the knowledge and abilities to succeed in the digital world. The effectiveness of digital education initiatives in closing the gender digital divide is critically examined in this advocacy piece.

## **Understanding the Divide**

The differences in access, skills and opportunity are all included in the gender digital gap. It is critical that we systematically address these disparities as we traverse the digital era with emphasis on the role that digital education plays in empowering women.

## **The Effectiveness of Digital Education**

### **1. Ensure that All Educational Resources Are Accessible-**

Examine how digital education initiatives help to narrow the access gap to educational materials, especially in areas with limited access to traditional educational infrastructure. -Evaluate the accessibility and reach of digital learning platforms, taking into account elements, including device accessibility, internet connectivity and cost.

**2. Offer equal skill development-** Examine how digital education affects the development of fundamental abilities, such as the advanced technical skills required for involvement in the digital economy and basic digital literacy. -Examine how well digital education initiatives handle the particular difficulties women encounter in learning and using digital skills.

**3. Encouraging Females in STEM-** Examine how digital education might help to promote women's involvement in the Science, Technology, Engineering and Mathematics (STEM) area, which has historically been associated with the gender gap-Examine if efforts in digital education can dispel the prejudices and misconceptions that prevent women from pursuing careers in STEM fields.

## **Challenges and Opportunities**

**1. Addressing Socio-Cultural Barriers-** Examine how digital education programs navigate and address the socio-cultural barriers that may impede women's participation, including cultural norms, stereotypes and biases-Explore

the potential of digital education in challenging and changing societal perceptions of women's roles in the digital realm.

**2. Measuring Impact:-** Develop metrics to assess the tangible impact of digital education programs, considering factors, such as increased employment opportunities, entrepreneurship and civic engagement for women- Investigate longitudinal studies that track the progress of women, who have participated in digital education initiatives to measure the sustained impact over time.

### **Advocacy and Recommendations**

**1. Inclusive Curriculum Design:-** Advocate for the development of digital education curricula that are inclusive, addressing the specific needs and challenges faced by women in various cultural and socio-economic contexts-Encourage the incorporation of gender-sensitive content that fosters diversity and inclusion in digital learning environments.

**2. Accessibility and Affordability-** Call for initiatives that ensure the accessibility and affordability of digital education programs, particularly in underserved communities, to democratize access for women of all backgrounds.

**3. Public-Private Partnerships -** Promote collaborations between governments, the private sector and non-profit organizations to enhance the reach and impact of digital education initiatives-Encourage corporate investment in

digital education programs that specifically target the gender digital divide, fostering a more inclusive and diverse workforce.

**4. Community Engagement-** Emphasize the importance of community involvement in supporting and promoting digital education for women and recognizing the role of families and local communities in shaping educational opportunities.

### **Conclusion**

As we strive for a world where the gender digital divide is but a relic of the past, the examination of digital education programs becomes paramount. By understanding their effectiveness, addressing challenges and implementing strategic advocacy, we can pave the way for a more inclusive digital future—one where women stand on an equal footing armed with the knowledge and skills to thrive in the digital age.

# BRIDGING THE GENDER DIGITAL DIVIDE IN NIGERIA: CHALLENGES, POLICIES AND COLLABORATIVE SOLUTIONS FOR INCLUSIVE ICT DEVELOPMENT

By



**Mariya Shuaibu Suleiman**

## **Abstract**

**T**his article explores the gender digital divide in Nigeria, emphasizing the challenges and disparities in ICT access. Despite the government's efforts and NGO initiatives, women face limited access, digital literacy gaps and societal biases hindering their participation in the ICT sector. The paper discusses existing policies and proposes comprehensive solutions, including increased awareness, cultural sensitivity, infrastructure development and industry collaboration. The article underscores the importance of addressing gender disparities through educational initiatives, equal access to technology, digital literacy promotion and safety in digital spaces, economic empowerment and inclusive policymaking. Collaboration between government, NGOs and community leaders is

crucial for successful implementation. The way forward involves promoting girls' education, ensuring equal access to technology, fostering digital literacy, ensuring safety in digital spaces, promoting economic empowerment, enhancing women's representation in top ICT positions and addressing cultural norms. The involvement of non-governmental organizations, civil society and community-based organizations is essential for effective advocacy and implementation. Bridging the gender gap in ICT requires a tailored, data-driven and collaborative approach to ensure sustainable development in Nigeria's ICT sector.

## **Introduction**

Over the years, the global discourse on gender equality has gained momentum, emphasizing the need to address disparities in various sectors, including Information and Communication Technology (ICT). Digital technologies have become increasingly prevalent and essential in daily life in Nigeria, with over 140 million internet subscribers, constituting approximately 36 per cent of the population (Banyan Global for the Gender Integration Technical Assistance II (GITA II, 2023) However, significant disparities exist within access to and usage of digital technologies. Digital access tends to favor men, individuals of higher income and education levels and residents of major urban areas. According to Banyan Global for the Gender Integration Technical Assistance II (GITA II, 2023), the gender gap in internet usage is 17.05 percent: 37.20 per cent of men use the internet compared to 20.05 per cent of women. Particularly, the gender gap in mobile internet use has widened in recent years. Data gathered by GITA II (2023)

indicates a steady increase in internet usage until 2019 when women's use of technology and ownership of mobile phones started to decline. However, the COVID-19 pandemic underscored the importance of digital access, as some private schools shifted to online learning and many businesses relied on online platforms to survive. As the country continues to invest in its tech ecosystem, it is critical to renew efforts to close the digital divides, with a particular focus on disparities faced by women and girls. The following are the statistics of the gender digital divide in Nigeria given by the USAID in 2023:

Ninety-two per cent (92%) of men own mobile phones, compared to 88 per cent of women.

Fifty-four per cent (54%) of men use mobile internet, compared to 34% of women.

Women have less autonomy (62%) in paying for and selecting handsets than men (93%).

Sixty-eight per cent (68%) of women do not have a smartphone.

Thirty-seven per cent (37%) of adolescent girls own phones compared to approximately 77% of boys.

Forty-two per cent (42%) of people in urban areas use the internet, compared to 22% in rural areas.

Although ICT has played a pivotal role in shaping societies, education, health and economic sectors, a significant gender divide persists globally, particularly in developing nations like Nigeria. Even with efforts made by the government and several organizations like the Centre for Information Technology and Development (CITAD), with initiatives to encourage girls' education in Science,

Technology, Engineering and Mathematics (STEM), mentorship programs for women in the tech industry and advocacy for more inclusive workplace policies, Nigeria and its 36 states, including Kano, grapple with a significant gender digital divide that hinders social and economic progress. However, gender disparity in the ICT sector in Nigeria has become a major concern, with many factors contributing to it, such as societal norms, limited educational opportunities for women in STEM fields and gender biases in schools and workplaces.

### **The Gender Digital Divide in Nigeria**

The gender digital divide refers to the gap in access to and use of ICT between men and women. Hafkin, N. J. & Taggart, N. (2001), in their paper "Gender, Information Technology, and Developing Countries: An Analytic Study," described the divide as "the gap between women and men with regard to access to, use of, and impact of information and communication technologies." According to the International Telecommunication Union (ITU,2016), the divide is the gap between women and men with regard to access and usage of the Internet. These definitions underline the multifaceted nature of the divide, incorporating factors, such as infrastructure, skills and the broader societal impact of digital disparities. In Nigeria, this divide manifests in multiple ways, including limited access to digital devices, internet connectivity and digital literacy skills among women compared to their male counterparts. As a result, the government and concerned NGOs recognized the need to address the gender digital gap and implemented some policies and initiatives to promote

gender equality in the ICT sector. These policies and initiatives include:

i. **National ICT Policy:** Established in 2012, this policy creates an inclusive ICT environment for all genders, emphasizing the need to ensure equitable access to ICT resources and opportunities for all citizens.

ii. **National Gender Policy:** Established in 2006, this policy outlines strategies to ensure and promote gender equality for all. It also emphasizes gender mainstreaming in all sectors, including ICT, to ensure equal opportunities for men and women, but the effective implementation of the policy in the ICT sector remains a significant challenge.

iii. **Educational Initiatives:** The government and NGOs have initiated programs to encourage girls' participation in STEM education. These programs aim to breakdown gender stereotypes and create a conducive environment for girls to pursue ICT-related careers.

iv. **Digital Inclusion Programs:** Various digital inclusion programs have been implemented to bridge the urban-rural digital divide, such as the '2023 Digital Policy Leadership Training for Young Women' program organized and implemented by CITAD. This program built the capacity of young women across the North East and North West to fill the gap and advocate for women's inclusion in digital spaces in their respective workplaces.

v. **Girls in ICT Initiative:** Launched by the National Information Technology Development Agency (NITDA), this initiative aims to encourage young girls to pursue careers in ICT through mentorship programs, workshops and scholarships. Despite these policies, a wider gender disparity still exists in the ICT sector, posing a major national

concern due to various challenges and barriers:

i. **Limited Access to Technology:** Women, especially those residing in rural areas in Nigeria, have limited access to ICT and digital tools despite technological advancements. As a result, many of these women cannot operate smartphones, let alone other technological gadgets, e.g., women in Dausayi and neighboring villages in Kano. This results in a substantial digital gender gap in Nigeria and limits women's participation in the digital world.

ii. **Digital Literacy Skills:** Many of these women are illiterate and lack essential skills to operate technological gadgets and engage in digital activities.

iii. **Gender Bias:** Gender bias starts at home. Sometimes, parents favor male children more than females. This bias is also present in schools and workplaces, perpetuating the notion that male counterparts can perform better than females, contributing to the challenges at hand.

iv. **Safety and Security:** Risks of technology-facilitated gender-based violence, including harassment and cyberbullying, act as a deterrent to women's and girls' technology use. In Nigeria, a study found that 61 per cent of respondents have experienced online abuse or violence, and 62% know people who have experienced it. Additionally, Plan International (2020) found in a separate study that more than half (58%) of girls aged 15-25 across 22 countries, including Nigeria, have been harassed or abused online. This has immensely contributed to the gender disparity in Nigeria.

v. **Representation in STEM:** Gender stereotypes and societal expectations contribute to the underrepresentation of women in Science, Technology,

Engineering and Mathematics (STEM) fields, creating a scarcity of female talent in the ICT sector.

vi. **Cultural and Societal Norms:** Deep-rooted cultural norms and societal expectations often discourage women from pursuing careers in ICT. Overcoming these barriers require a multi-faceted approach that involves community engagement and awareness campaigns.

vii. **Infrastructure Limitations:** Inadequate ICT infrastructure, especially in rural areas like villages, such as Dausayi, hampers women's access to technology.

Addressing this issue requires investments in infrastructure development and internet connectivity. These factors and others have resulted in the under-representation and less participation of women in the ICT and other sectors like education, employment and civic engagement. Additionally, limited awareness, cultural barriers, insufficient infrastructure and many challenges hinder the effective implementation of existing policies. Therefore, to properly address the gender digital gap in Nigeria, policymakers should consider doing the following:

**Increased Awareness and Education:** Launch targeted awareness campaigns to inform women, especially those in rural areas, about existing policies and the benefits of ICT. Integrate digital literacy programs into formal and informal education systems and localize these policies in all states, including Kano.

**Cultural Sensitivity:** Collaborate with local communities and influencers to challenge gender stereotypes and

promote the cultural acceptance of women in the ICT sector.

**Infrastructure Development:** Invest in expanding ICT infrastructure in underserved areas, ensuring that women in rural communities have equal access to digital resources.

**Industry Collaboration:** Foster collaboration between the government, private sector and non-governmental organizations to create mentorship programs, scholarships and skill-building initiatives for women in ICT.

### **The Way Forward for All**

Based on my personal research in some villages of Kano State (e.g Dausayi and neighboring villages) in early December 2023, the result indicated a huge gender disparity, especially in the ICT sector, leaving many women behind in the digital world, especially those in rural areas. This limits their participation and representation in the sector. According to the CEO of Women Radio Centre, Mrs. Toun Okewale Sonaiya, women's inclusion and participation in politics, economics and the ICT sector will go a long way in bridging the gap and promoting good governance. Aminu Zainab, CITAD's Gender Office, during her presentation at the Digital Policy Leadership workshop, held on the 6th and 7th November at the Command Guest House in Bauchi State, said that women's inclusion and voices in the digital space are essential, as they can lead initiatives that will bring about positive change in society. Therefore, government agencies, NGOs, CSOs, CBOs and community, religious and traditional leaders should take the following approaches into consideration in bridging the gender disparity in Nigeria:

**Promote Girls' Education:** Implement policies and programs that encourage and enable girls to enroll and stay in school, so that they would be educated and have that orientation right from the grassroots of the need and significance of their involvement in the ICT. This includes addressing barriers, such as early marriage, cultural biases and inadequate infrastructure.

**Equal Access to Technology:** Women should be given equal access to technological tools and services and allowed to participate in the digital spaces and ICT. Initiatives set by CITAD in Northern Nigeria to ensure women's participation in digital spaces should be replicated by other organizations and government agencies.

**Digital Literacy:** Promote digital literacy among women to bridge the digital gender gap. This includes access to information and communication technologies, which can enhance educational and economic opportunities. Organizations like CITAD organize workshops for both men and women to educate them about digital tools and services.

**Ensure Safety and Security of Women and Girls in Digital Spaces:** This will go a long way in bridging the gap and making more women participate and contribute in the digital spaces.

**Economic Empowerment:** Implement empowerment programmes to empower women to participate in digital spaces as well as equal employment opportunities and equal pay for equal work for them. This can be achieved through organizing programmes for employers, enlightening and addressing them on gender-based

discrimination in hiring, promotions, and remuneration. For instance, CITAD has empowered many women in the North in skill acquisitions, supporting and giving them a voice. Such initiatives should be considered in other parts of Nigeria as well.

**Giving Women Top Positions:** Knowledgeable and qualified women should be given top positions at the managerial level and beyond in the ICT sector for them to have better representation and would deliver the voices of their fellow women.

**Women Inclusion in Policy Formulation:** Women should be given the opportunity and allowed to participate in policy formulation and make decisions on issues that concern all women.

**Political Representation:** Implement temporary quota systems to increase female representation in political and decision-making positions. This can help to break the cycle of under representation.

**Entrepreneurship Support:** Provide training, funding and support for female entrepreneurs. This could include creating women-friendly business environments, access to finance and mentorship programs.

**Cultural Awareness and Engagement:** Create community awareness of the danger of gender disparity, especially in rural communities. Engage community and religious leaders to promote gender equality and challenge and change harmful cultural norms and stereotypes that perpetuate gender inequality.

**Gender Equality Laws:** Advocate for and enforce laws that promote gender equality and laws that protect women against any form of harassment on digital spaces like the

Violence Against Persons Prohibition Act (VAPP Act) established in 2015. This act addresses domestic violence, sexual harassment, etc.

**Anti-Cyber Bullying of Women:** Enforce laws on social media platforms that protect women or females in general from cyber-bullying.

**Mass Media as a Tool for Enlightenment:** Use mass media to enlighten people on the significance of women's inclusion in ICT. Make people understand the negative consequences of existing stereotypes and promote the positive portrayals of women in various roles, including leadership positions.

**Non-Governmental Organizations (NGOs), Civil Society Organizations (CSOs) and Community-Based Organizations (CBOs) Involvement:** NGOs, civil society and community-based organizations play a crucial role in advocating for gender equality. Therefore, collaboration between government bodies, NGOs and community groups can amplify efforts to bridge the gender divide.

Addressing gender inequality is a complex and multifaceted task that requires collaboration between the government, civil society, communities and individuals. It's important to tailor strategies to the specific cultural and societal context of Nigeria while drawing on successful experiences from other regions. Therefore, for us to achieve this there should be data collection and monitoring to collect and analyze gender-disaggregated data to monitor progress and identify areas that need targeted interventions in the ICT sector. Briefly, bridging the gender gap in ICT requires a multi-faceted approach and collaborative effort that

encompass policy reforms, educational initiatives, awareness campaigns, community engagements and private sector involvement. This can only be achieved by first understanding the specific challenges faced by women in the ICT sector in Nigeria, especially in regions like Kano State. Policymakers can then develop targeted strategies to promote gender equality, empower women in the rapidly evolving digital era and ensure their inclusion in the digital revolution for sustainable development in the ICT sector in Nigeria.

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# DIGITAL GENDER BASED VIOLENCE

By



**Maimuna Suleiman**

November 2023

## Introduction

**R**ecognizing the distinctions between men and women is essential to acknowledging the unique aspects of gender in terms of physiology and psychology. This prompts the need to bridge the recognized gap between women and the digital horizon. The global revolution brought about by information technology has transformed the way societies work and connect. While opening doors to innovative possibilities, it has also introduced challenges. Despite the world moving towards a post-digital era, countries like Nigeria still grapple with numerous challenges[3]. Historically, women worldwide, including Nigeria, have been influential in various capacities and at different ages. The perceived weakness of this gender is, in fact, a strength that has driven changes, nurtured great leaders, and held societies together. Why should anyone be excluded from something that enhances ease, access and societal development?

## **The Need for Online Gender Policies**

Although women constitute up to 49% of Nigeria's population, their representation in government remains discouraging. Out of 469 members of the national assembly, only 21 are women. This under representation extends to security personnel, policymakers and other domains. In the digital realm, disparities in phone ownership, internet access and smartphone use are evident<sup>2</sup>. These disparities influence policy making, as inadequate representation affects the effectiveness of well-intentioned policies. For instance, before the "Not Too Young To Run" bill, the political space seemed open to all. However, it took the bill's passage to see an increase in young representation in positions of power. In a broader sense, women bring a fresh perspective to decision-making. Their inclusion in areas concerning them ensures holistic policies widely accepted during implementation. The benefits of inclusion cannot be overstated—diverse decisions, enhanced social justice, a sense of belonging and improved governance outcomes are crucial for national development.

Examining the digital space in Nigeria reveals numerous challenges, particularly for women. Sociocultural factors, education, exposure, cost implications, access, self-esteem, language and safety contribute to the unacceptable divide we witness today<sup>2</sup>. According to the World Wide Web Foundation (2020), men are up to 52% more likely to be online than women in developing countries and a survey done in 22 countries, including Nigeria, shows more than half of girls online have been

harassed or abused<sup>8</sup> To contextualize this piece, let me focus on one aspect—the gender-based issue of digital safety, specifically online safety for women. The internet's role in daily life necessitates a "Digital Gender-Based Protection Policy." Addressing language, privacy and harassment is paramount.

The United Nations defines online gender-based violence against women as acts committed through information and communication technologies. In 2019, Statistics Canada reported that about 67% of those reporting online harassment were women and girls. Similarly, a January 2023 Nigerian study showed a similar pattern, with most percentage of women experiencing cyberbullying <sup>7</sup>. Existing digital policies in Nigeria like the "Digital Right Policy" guarantee data confidentiality. The "2015 Cybercrime Act" in Nigeria aims to regulate and legally address cybercrimes. Notably, Section 24 of the Act criminalizes cyber stalking, cyberbullying, blackmail/extortion and revenge porn<sup>[8]</sup> further steps like engendering them are necessary.

Cyberbullying has become a serious concern in social media use. Anonymity is often misused for online bullying through tactics like hacking accounts, posting humiliating content, stalking and threats<sup>4</sup>. Gender-based online violence targets women with harsh words, leading to psychological issues and media abandonment. Digital abuse or cyberbullying has far-reaching effects, spreading rapidly and imprinting on the digital space even if deleted<sup>6</sup>.

Specific policies addressing online behavior, akin to India's IT Act 67, should be in place. Penalties should translate to real-life consequences, significantly reducing barriers to the digital gap. This is an urgent issue and policies ensuring self-regulation are crucial for a safer online space. Simultaneously, raising awareness and educating internet users, leveraging media for propagation and sensitization and involving stakeholders are critical steps. Collectively, we must see the possibility of creating a safer digital society where the pros outweigh the cons and the gaps fasten together to ensure the nation's progress.

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# DIGITAL LITERACY POLICY FOR WOMEN

By



**Sadiya Lawal Danyaro**

In an age defined by digital advancements, the importance of digital literacy is vital. However, a digital divide persists as a multifaceted challenge. In Nigeria, a critical aspect of this divide is the discrepancy in digital access and literacy between genders. This article delves into the pressing need for a digital literacy policy for women to address the gender digital gap in Nigeria, exploring the implications, barriers and potential solutions that can pave the way for a more inclusive and equitable digital landscape. Despite progress in the digital sphere, a persistent gender digital divide exists in Nigeria, especially affecting women in rural areas who encounter barriers such as limited access to technology, societal norms and a lack of educational opportunities specifically tailored for their needs. According to a 2023 USAID report, a striking 64% of women lack smartphones, compared to 54% of men with mobile internet access, leaving only 34% of women connected. Addressing this divide is crucial for ensuring equal opportunities for women in the digital era,

necessitating targeted initiatives that go beyond providing devices to include comprehensive digital literacy programs. By dismantling these barriers, Nigeria can empower women to actively participate in the digital age, hence unlocking opportunities for education, economic empowerment and societal inclusion.

### **Digital Literacy: Empowering Women in the Digital Age**

Digital literacy is more than a set of technical skills; it is an empowerment tool that fosters critical thinking, creativity and participation in the digital realm. For women in Nigeria, enhancing digital literacy is not only a means of accessing information and resources but also a pathway to overcoming gender-specific challenges in education, employment and societal participation. Digital literacy equips women with the skills needed to participate in the digital economy. From online entrepreneurship to remote work opportunities, digital skills open up new avenues for economic empowerment, enabling women to contribute to household income and economic development. Through digital literacy, they gain the ability to engage in social and political discourse. Social media platforms, online forums and digital advocacy tools provide avenues for women to voice their opinions, participate in community discussions and advocate for social and policy changes.

Bridging the gender digital divide requires understanding the challenges at hand. From limited technology access to cultural norms that dictate gender roles and limited access to educational resources, the path to digital inclusivity for women in Nigeria is fraught with obstacles. Overcoming

these challenges necessitates targeted initiatives, advocacy and policy changes that prioritize and empower them in digital space.

### **Gender Digital Divide**

The digital divide, as defined by the Organization for Economic Cooperation and Development (OECD, 2018), is the "disparity among individuals, households, businesses, and geographic areas at different socio-economic levels concerning both their access to Information and Communication Technologies (ICTs) and their utilization of the internet for diverse activities." Effectively addressing the divide requires a multifaceted approach. Srinuan and Bohlin (2011), as well as Helbig, Gil-Garcia and Ferro (2009), propose identifying factors influencing on access, multi-dimensional and multi-perspective levels.

Other factors that contribute to the digital divide include economic, geographic, educational and social elements. Economic factors may include income disparities that limit access to technology, while geographic factors could involve the uneven distribution of infrastructure, leaving some regions with limited connectivity. Educational factors relate to the differences in digital literacy and technological skills, while social factors may involve cultural or societal barriers affecting technology adoption. Education emerges as a pivotal factor in mitigating the digital divide, as indicated by research conducted by Szeles (2018), Mwin and Kritzinger (2016) and Srinuan and Bohlin (2011). Generally, individuals with higher levels of education show a greater propensity to use and embrace Information and

Communication Technologies (ICT) (Szeles, 2018). Moon, Park, Jung and Choe (2010) posit that literacy is a fundamental element to address when seeking to narrow the digital divide, asserting that enhanced digital literacy results in a reduced digital gap. Conversely, a study by Knoche and Huang (2012) suggests that illiteracy may not present a significant barrier to utilizing mobile technology. The subjects in their study demonstrated the ability to navigate menus, identify unwanted SMS messages based on the sender's number length and sought assistance from others to read their messages.

Education-related factors contributing to the digital divide encompass digital skills and digital knowledge (Bagchi, 2005; Cullen, 2003; Mwin & Kritzinger, 2016; Tirado-Morueta, Aguaded Gómez, & Hernando-Gómez, 2018; Wamuyu, 2017). Some researchers posit that the absence of these skills and knowledge is a significant driver of the digital divide in Africa and other regions (Goncalves, Oliveira, & Cruz-Jesus, 2018; Mwin & Kritzinger, 2016). Nigeria, for instance, faces challenges with a relatively low-quality education system, low literacy rates and limited digital skills, which are factors that can be captured, to some extent, by the proxy variable of education level (Nishijima, Ivanauskas, & Sarti, 2017).

Efforts to address the digital divide often focus on policies and initiatives aimed at increasing access to technology, promoting digital literacy and ensuring that marginalized or underserved communities have the resources and opportunities to benefit from the digital age. Closing the

digital divide is seen as essential for promoting equity, inclusivity and equal opportunities in the increasingly digitized world.

### **The Digital Literacy Policy Landscape**

Several policy initiatives in Nigeria have aimed to address the digital divide in the past (Arikpo, Osofisan, & Usoro, 2009). However, only the Growth Enhancement Support Group (GES) policy in 2012 specifically targeted the reduction of the divide in mobile ownership among rural users. The GES policy operated on the assumption that poverty was the primary barrier to mobile phone ownership, yet this conclusion lacked detailed ex ante analysis of the socio-economic factors influencing mobile phone ownership (Federal Government of Nigeria, 2017 Ojameruaye, 2013; Yeboah-Boateng, Osei-Owusu & Henten, 2017). Vision 2020 and the ICT Roadmap 2017–2020, as outlined by the Federal Government of Nigeria in 2017, signify the government's commitment to addressing the digital divide by enhancing mobile penetration. These policies are designed to learn from past policy errors and inefficiencies. Consequently, there is a governmental emphasis on conducting a comprehensive national-level examination of the socio-economic factors influencing mobile phone ownership within the country (Federal Government of Nigeria, 2017).

The Nigerian government has officially acknowledged the connection between digital and human rights. A 2012 United Nations resolution affirmed that the civil, political, economic and social rights that people enjoy offline must

also be protected online. In July 2016, Nigeria joined 52 other countries, including the United States, Germany, France and the United Kingdom, to cosponsor an updated reaffirmation of the 2012 resolution. Nigerians' right to privacy is derived from Chapter 4 of the 1999 Constitution of the Federal Republic of Nigeria, which recognises privacy and free expression as fundamental rights. Section 37 provides that the privacy of citizens, their homes, correspondence, telephone conversations and telegraphic communications is hereby guaranteed and protected", while Section 39(1) asserts that "every person shall be entitled to freedom of expression, including the freedom to hold opinions and receive and impart ideas and information without interference".

In Nigeria, various policies are in place, such as of Digital Preservation and the 9-3-4 educational policy, officially titled the National Implementation Guidelines for ICT in Education (NIGICTIE, 2019), the National Digital Literacy Framework (NDLF) and the National Digital Economy Policy and Strategy (NDEPS), among others. However, to the best of the writer's knowledge, a thorough examination reveals a conspicuous void in the public domain concerning digital literacy policies that specifically emphasize the pivotal aspect of digital literacy for women. Consequently, an imperative and pressing need emerges for the formulation of an all-encompassing digital literacy policy. This policy is envisioned not merely as a response to existing gaps but as a proactive step towards addressing the unique challenges faced by women in accessing, utilizing and benefiting from digital resources and technology education.

## **Digital Literacy Policy for Women Design Proposal**

In recognition of the transformative power of digital literacy and the persistent gender digital divide, this policy proposal seeks to establish a comprehensive framework for digital literacy in Nigeria, with a particular emphasis on empowering women. By addressing the unique challenges they face in accessing and utilizing digital resources, this policy aims to foster inclusivity, economic empowerment, and social progress.

### **Policy Objectives**

- i. **Gender-Inclusive Digital Literacy:** Develop and implement digital literacy programs tailored to the specific needs and challenges faced by women in Nigeria.
- ii. **Accessible Infrastructure:** Invest in and improve digital infrastructure to ensure equitable access to technology and online resources, particularly in rural and underserved areas.
- iii. **Educational Integration:** Integrate digital literacy into formal education curricula, providing students, especially girls, with essential digital skills from an early age.
- iv. **Capacity Building:** Establish training and capacity-building programs for women of all ages, focusing on both basic and advanced digital skills.

### **Implementation Strategies**

- i. **Public-Private Partnerships:** Collaborate with private sector organizations, Non-Governmental Organizations and international bodies to leverage

- resources and expertise in implementing digital literacy initiatives.
- ii. **Community Engagement:** Promote community involvement to ensure that digital literacy programs are culturally sensitive and address local needs.
  - iii. **Online Resources and Platforms:** Develop and support online platforms that offer free or affordable digital literacy courses, reaching women in urban and remote areas alike.

### **Monitoring and Evaluation**

- i. **Data Collection:** Implement a robust data collection system to monitor the participation and impact of digital literacy programs, with a specific focus on gender disaggregated data.
- ii. **Periodic Assessments:** Conduct periodic assessments and evaluations to measure the effectiveness of the policy in bridging the gender digital divide.

### **Budget and Resource Allocation**

- i. **Financial Commitment:** Allocate sufficient funds to support the implementation of digital literacy programs, infrastructure development and training initiatives.
- ii. **Human Resources:** Train and deploy qualified personnel to facilitate digital literacy programs and provide ongoing support.

## **Collaboration with Stakeholders**

- i. **Government Agencies:** Strengthen collaboration among pertinent government agencies to guarantee a unified and synchronized approach to digital literacy. This entails fostering open communication channels, sharing resources efficiently and establishing a cohesive strategy that aligns with overarching national goals for digital empowerment. Such collaborative efforts are pivotal in maximizing the impact of digital literacy initiatives and ensuring a comprehensive, well-coordinated implementation across various sectors.
- ii. **Civil Society Organizations:** Actively engage with Civil Society Organizations to leverage their grassroots networks and amplify the reach of digital literacy initiatives. This involves forging partnerships that capitalize on the local insights and community connections of these organizations. By tapping into existing networks, the policy can extend its influence to more diverse and marginalized communities, ensuring that the benefits of digital literacy are accessible to a broader spectrum of the population. Collaborating with civil society organizations adds a crucial layer of community involvement, enhancing the effectiveness and inclusivity of the digital literacy policy.

This policy proposal envisions a Nigeria where every woman has the opportunity to harness the benefits of the digital age. By strategically addressing the gender digital divide through comprehensive digital literacy initiatives, we

aim to build a more inclusive, equitable and digitally empowered society.

### **Navigating the Implementation Landscape: Balancing Opportunities and Challenges in Proposing Digital Literacy for Women in Nigeria**

The implementation of the proposed Digital Literacy for Women policy in Nigeria, a developing country grappling with existing stereotypes and a low representation of women in legislative bodies, carries both positive outcomes and potential challenges. On the positive side, the policy has the potential to empower the workforce by increasing the economic participation of women and contributing to a more diverse and dynamic workforce. Furthermore, the integration of digital literacy into education curricula could lead to higher educational attainment among girls and women, fostering advancements in the educational landscape. Socially, digital literacy programs could empower women to actively contribute to community development, thereby fostering overall societal progress. Additionally, a more inclusive technology sector may arise, bringing diverse perspectives and contributing to technological innovation within the country.

However, there are several challenges that could impede the success of the policy. Deep-rooted gender stereotypes may result in resistance to change, hindering the full acceptance of women as active participants in the digital sphere. Their low representation in legislative bodies poses a challenge in terms of policy advocacy, potentially leading to difficulties in securing adequate resources for

implementation. Furthermore, existing urban-rural disparities in infrastructure may hinder the effective reach of the policy to rural areas, perpetuating digital access inequalities. Limited financial resources could pose a significant obstacle, impacting the scale and quality of digital literacy programs. Cultural barriers may also present challenges, with certain communities resisting the adoption of digital literacy initiatives, especially in more conservative areas.

To mitigate these challenges, a comprehensive strategy is essential. Robust advocacy and sensitization campaigns can challenge gender stereotypes and garner public support. Capacity building for women leaders is crucial to ensuring effective policy advocacy within legislative bodies. Targeted outreach programs must bridge the urban-rural digital divide, recognizing and addressing the unique challenges they face by in different regions. Engaging private sector organizations and NGOs through partnerships can supplement government resources, alleviating potential budgetary constraints. Incorporating cultural sensitivity into program design, along with collaboration with local leaders, is essential to overcome cultural barriers. Implementing a continuous monitoring and evaluation system is also vital, allowing for the timely adjustment of strategies to maximize positive consequences and mitigate potential challenge.

## **Conclusion**

The writer explored the imperative of addressing the digital literacy policy issue, particularly focusing on proposing a "Digital Literacy Policy for Women" in Nigeria. Highlighting the existing gender digital divide and the unique challenges faced by women, the policy proposal emerges as a strategic response to empower them economically, socially and educationally. The outlined consequences, both positive and challenging, emphasize the urgency of implementing gender inclusive digital literacy initiatives. The importance lies in fostering a workforce that is not only technologically adept but also diverse and innovative. As we navigate the potential challenges, it becomes clear that concerted efforts are needed to overcome deep-rooted gender stereotypes, the low representation of women in legislative bodies and resource constraints. The call to action resounds: stakeholders, policymakers and the public must recognize the significance of this policy proposal and actively support its implementation. It is an opportunity to reshape societal norms, bridge digital divides and propel Nigeria toward a more inclusive and digitally empowered future. Now, more than ever, is the time for collaborative action to ensure that the proposed Digital Literacy Policy for Women becomes a catalyst for positive change in Nigeria.

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# EMPOWERING MOTHER'S IN STEM: NAVIGATING THE INTERSECTION OF CAREER AND FAMILY"

By



**Hannah Kabrang**

**A**s an increasing number of women navigate the demands of motherhood alongside STEM professions, the intersection of family life and careers in STEM becomes increasingly significant. While every employee has a personal life, not all employers acknowledge this reality. Worldwide, achieving a balance between family and work remains a significant challenge for women. Thus, this article explores the impact of fostering a family-friendly environment on enhancing the productivity of women in the workplace.

In Africa, however, women have to work four times as hard as their male counterparts, and often face challenges in balancing work and motherhood—a situation personally relatable. A family-friendly workplace is one that respects that employees have commitments outside of the organization and

intentionally creates a work environment that allows them honor those commitments. The more family-friendly policies including maternity leave, child-care leave, on-site child care, restriction of night duties and the restriction of overtime work are encouraged, the better the productive of employees will be. As a founder and Executive Director of an Edtech startup and proud mother of a 13 month-old son, I've always prioritized my family over anything.

A few days ago, I came across a conversation centered around breastfeeding and its influence on a baby's health. A part of the Nigerian discourse, the discussion shifted towards nursing mothers and their work productivity. It's disheartening to learn that some women choose not to exclusively breastfeed due to the absence of family-friendly facilities in their workplaces. Bloom Innovations' Survey highlights that around 70% of women in Gombe lacked awareness of their rights to push for enhanced work environments that cater to both their babies and flexible hours for nursing. These challenges contribute significantly to women opting out of careers, particularly in STEM, where work-life balance arrangements absent or insufficient. Interestingly, Several financial institutions in Nigeria lack a family-friendly environment that adequately supports women, particularly nursing mothers.

To boost women's involvement in STEM careers, it's crucial for young girls to understand that they can ascend

the corporate ladder without compromising their family life. Therefore, addressing the challenges faced by mothers in STEM fields is crucial for their support. Here are some potential solutions:

1. Advocacy plays a vital role as moms in STEM share their experiences and stories, acting as advocates not only for themselves but for all women. This fosters increased awareness, compassion and support for the challenges faced by moms in STEM fields.

2. Establishing support systems, both within and outside the workplace, can greatly benefit mothers in STEM fields. Employers can contribute by creating affinity groups for mothers in STEM and providing practical resources, such as breastfeeding rooms, onsite daycares and assistance with maternity leave.

3. Promoting mentorship and role models within STEM fields, especially among employers who are mothers, can offer valuable guidance for women. Initiatives like mentoring programs, networking opportunities and panels featuring accomplished women, who have successfully balanced parenting with their STEM careers are effective ways to achieve the safe space.

To conclude, this approach not only contributes to the success of mothers in STEM fields but also makes careers in STEM more attractive to other girls. It fosters both professional and personal growth, creating a more equitable and welcoming workplace for everyone.

# GENDER DIGITAL DIVIDE: THE NORTH CRIES

By



**Maimunatu Ya'u Ibrahim**

(B.Tech, M.Sc, PhD (in view), mncs, mnim)

## Introduction

**D**igital technology presents transformative prospects and advancements to encourage equitable development, broaden educational horizons, enhance healthcare services and cultivate government. However, there is a chance that using digital technology would exacerbate already existing disparities in access to and benefits from its use. "Transform Nigeria into a leading digital economy, providing quality life and digital economies for all," is the stated goal of the National Digital Economy Policy and Strategy. With over 140 million internet users or around 36% of the population, digital technologies are becoming more and more common and indispensable in Nigerian daily life. Nonetheless, there are notable differences in the ways that digital technologies are accessed and utilized. Men, those with greater incomes and levels of education, and people living in large cities are

more likely to have access to digital media. There is a 17.05 per cent gender disparity in internet usage: 37.20 per cent of males and 20.05 per cent of women use the internet, respectively (USAID, 2023).

Nigeria Digital Divide Data states that 92 per cent of men own mobile phones compared to 88 per cent of women. 54 per cent of men use mobile internet compared to 34 per cent of women. Women have less autonomy (62 per cent) in paying for and selecting handsets than men (93 per cent). 68 percent of women do not have a smart phone. 37 per cent of adolescent girls own phones compared to approximately 77 per cent of boys. And 42 per cent of people in urban areas use the internet, compared to 22 per cent in rural areas (USAID, 2023).

### **The gender digital divide: why is it there?**

The gender digital divide exacerbates the socioeconomic disparities that already harm women and girls. The divide in Nigeria is caused by three main but connected factors: 1) access, 2) use, and 3) safety and security.

- a. **Access:** Compared to men and boys, women and girls frequently have less access to technology and, when they do, they frequently start using it much later than their male counterparts. The first thing to think about is digital device access. Two of the top three access-related hurdles to cell phone ownership in Nigeria that women have cited are lack of family acceptance (10%) and price (35 per cent). Restrictive societal norms in certain societies prevent women and girls from adopting technology.

For instance, according to a survey by the Centre for Information Technology and Development (CITAD, Year???), 61% of dads in Northern Nigeria had worries about their daughter's internet use, while 55 per cent of males opposed their spouses using the internet. Access to and the perceived value of technology are also influenced by awareness and conventions. There is a gender disparity in Nigeria's knowledge of mobile internet, with 83 per cent of women and 90 per cent of males being aware of it, which might explain why fewer women are requesting access.

- b. **Use:** The deficiency of digital skills and literacy is another major obstacle. Twenty-six per cent of Nigerian women stated that the biggest obstacle to owning a cell phone was being unable to read and write. Furthermore, 32% of men and 41% of women who are aware of mobile internet but have not yet used it indicated worry about having trouble writing and reading (Mobile Gender Gap Report, 2022).
- c. **Safety and Security:** Women's and girls' use of technology is discouraged by the risks of technology-facilitated gender-based violence, which include cyberbullying and harassment. According to a survey conducted in Nigeria by UReport (2020), 61% of participants had personally encountered online harassment or violence and 62% knew of others who had. Moreover, 88% believe that harassment on the internet is getting worse. Furthermore, a different research conducted by Plan International (2020) revealed that 58% of females between the ages of 15

and 25 in 22 different countries, including Nigeria, had experienced harassment or abuse online.

Digital technology provides transformative prospects for equitable growth, extending education options, enhancing health care and encouraging governance in Nigeria, where over 36% of the population has internet access. Nonetheless, notable differences in the availability and application of digital technology may intensify pre-existing gender disadvantages. It is critical to make bridging the digital gap a top priority as Nigeria makes further investments in its tech sector, with particular emphasis on resolving inequalities that affect women and girls.

### **Challenges/Problems**

The "leaky pipeline" phenomenon where women prioritize their families and other domestic responsibilities over their own personal development shrinks institutional opportunities to access ICTs, as well as inadequate technological infrastructure. Lack of educational opportunities for young women that affects their overall skills and public access to ICTs in places where girls feel uncomfortable are among the structural factors that generally impede women's and girls' use of and access to ICT. Extreme poverty and patriarchal societal systems, which place women and girls in a significantly lower social standing is also a remarkable factor. In addition to these systemic injustices, psychological barriers also prevent girls from having access to and using ICT tools. These barriers include low self-esteem regarding their capacity to pick up ICT skills, skepticism regarding the advantages of ICT use,

beliefs that technology is only for elites or men and the reluctance to try new things (Singh, 2017).

Boys and men in developing nations may benefit significantly more from the many types of inequality and exacerbate pre-existing gender disparities since they are more likely to have access to and be able to exploit ICT resources. Undoubtedly, this type of exclusion or bias is not only against human rights but also hostile, immoral, perverse and unreasonable (Singh, 2017).

It goes without saying but it's true that this problem cannot be solved easily. Females frequently find themselves in obstructive environments, which leads to gender-based digital inequality. The Nigerian Federal Government's digital economy strategy, which intends to bring over 100 million Nigerians out of poverty in the next eight years, has reinforced this requirement even more. It sets a 2030 objective of 95 per cent digital literacy in the nation. It's interesting to note that a significant portion of this noble goal is expected to be fulfilled by the digital economy, which now accounts for 17.8% of the GDP of the nation (Adeluyi, 2020).

Currently, there are three geopolitical zones that make up the region known as northern Nigeria: the North Central zone, which includes Benue, the Federal Capital Territory, Kogi, Kwara, Nasarawa, Niger and Plateau; the North West zone, which includes Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara; and the North East zone, which includes Adamawa, Bauchi, Borno, Gombe, Taraba and

Yobe. For more than eleven years, these zones have served as the stronghold of Islamic militants and insurgent groups. It is also a root of the recurring disputes between farmers and herders. Regarding the gender aspect of the digital inclusion story in Nigeria, there is now a significant disparity in the access and usage of the internet by men and women (Adeleke, 2021).

### **Socio-Economic Constraints**

The digital gender gap in the area has been linked to a number of social, economic, cultural and religious norms and beliefs. These challenges have persisted in undermining the interests of women and girls in the digital sphere. The problem has been made worse by the region's relatively low rate of access for female children to basic education. According to a UNICEF (2021) assessment, there are a lot of females in the area who do not attend school. In certain states and zones, the proportion of females to boys in schools varies from one girl to three boys. The study also pointed out that with barely 20% of women and girls in North West and North East attending school, North Central and North West represent the worst national situations. Similarly, women and girls suffer from the idea that science and technology are fields only for males to pursue. Dr. Amina Sambo-Magaji's presentation, "Promoting Digital Inclusion: Harnessing Opportunities with a Gender Lens," at the Nigerian Women in Information Technology (NIWIIT) conference in Abuja, Nigeria, perfectly encapsulated this claim. The keynote speaker, Dr. Sambo-Magaji, also mentioned that because the ICT industry is dominated by men, women sometimes perceive it as frightening,

unwelcoming and isolating.

### **Government's Intervention to Digital Exclusion**

According to information obtained from the National Information Technology Development Agency (NITDA, 2020), the organization provided laptops and computers to enhance the opportunities for self-employment in ICT-related fields and trained 360 women in three states: Gombe (North East), Jigawa (North West) and Nasarawa (North Central) between 2018 and 2019.

Additionally, it carried out a skills/gap study for women's ICT entrepreneurship requirements in four of the nation's six geographical zones. In 2020, Nasarawa state's 100 women received equal training from NITDA in ICT, enhancing their digital literacy and equipping them with skills to close the state's gender-based digital divide. In addition, the recipients received Wi-Fi routers, backpacks and computers. The agency in the Northwest zone trained fifty women in total during the October 2021 Digital Journalism for Women session, while computers were given to all other participants. Furthermore, in 2022 almost 200,000 people received training on various facets of digital literacy.

Sixty female participants from Jigawa State attended a five-day workshop in January of 2022 at the NITDA Hub in Dutse, the state capital. The organization also gave the trainees computers and other equipment. Overall, NITDA has been successful in setting up to 80 digital capacity-training centres across the country. In addition, it has

established four innovation and incubation parks, six IT community centres, three IT hubs and six IT community centres at higher education institutions situated in underprivileged areas.

The organization also runs an academy, which is a website for independent study. In addition, it conducts the Women ICT Techpreneurship Training Program, which aims to support digital inclusion by empowering women of all ages with digital literacy skills. In light of the significant benefits that can be gained from digitalization across all economic sectors, the National Communication Commission (NCC) said that its efforts over the past three years had all been directed toward advancing Nigeria's vision to transition to a fully digital economy. It further stated that this goal has been attained by building essential infrastructure to increase digital literacy and skills. Additionally, the Commission is essential to the execution of the 2020–2025 Nigeria National Broadband Plan (NNBP) and other associated policies aimed at improving connectivity for all residents to close the gender gap in digital access across the nation. The Federal Ministry of Communications and Digital Economy is another cornerstone of the federal government that is pushing the envelope. Additionally, the Ministry has assisted in ICT skill capacity training programs. Over 219,000 Nigerians benefited directly from training in digital skills between August 2019 and July 2021, according to data gathered by the government. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Ministry collaborated to organize a two-day workshop in December 2021 with the topic "Eliminating

## Gender Imbalance: A Pathway to Nigeria's Digital Economy."

### **Closing the Digital Gender Divide: What Works?**

Government agencies, the community of donors, the commercial sector and civil society should work together to support girls' early digital education and skill development. Social impediments are closely associated with psychological obstacles, such as uneasiness when socializing with males or anxiety while using public services. These ideas are fostered in females raised in traditional households. Parental and community-wide awareness initiatives must to be created with a special focus on these cultural norms. To address the problem at the ground level, ICT-related interventions in primary and secondary education are essential. Laws and policies controlling internet use should address concerns like privacy, safety, harassment and violence in order to boost the confidence and self-esteem of girls and women.

The disparity between men's and women's access to and usage of Information and Communication Technology (ICT) in Nigeria is the most glaring feature of the current national digital divide. Many of the most effective strategies for closing this gap involve working with children and young people: encouraging early access to the internet to help to develop confidence and skills; making sure that content is created for and by girls and young women; increasing the opportunities for digital education for female students and addressing early on the social and psychological barriers that are based on gender and deter girls and women from

using the internet.

Girls and young women could gain greatly from increased access to ICT in terms of literacy, time constraints, mobility obstacles and breaking numerous taboos related to culture and religion. Having more access to ICTs would contribute to an increase in self-esteem, sovereignty and self-confidence. ICT has the potential to support women's transition from the informal to the formal economy by granting them more independence and the capacity to engage in activities like banking and business ownership. Young women may speak out against gender-based violence, including rape, harassment and victimization, with the use of ICT tools. ICT technologies may also assist women and girls make better personal decisions, foster global and local solidarity and most importantly open up new channels for public engagement.

Through the use of ICTs, women's ability to produce, communicate and exchange knowledge must be strengthened in these civilizations. Once more, this needs to start young. More pertinent information is needed if women are to use the internet for activism, education and money generating. Languages and substance are both included in this. Gender-sensitive curriculum are critically needed in both official and informal education, among other reasons, in order to increase women's comprehension and ability to develop the material. In order to boost the proportion of women working in ICT, it is also necessary to support early intervention programs in science and technology that are aimed at young girls. It is

vital to promote sharing best practices and lessons gained both within and across countries, but only very cautiously, taking into account socioeconomic factors, cultural norms and, most crucially, the continued presence of obstacles based on gender and class that prevent girls from using and accessing ICT.

Development professionals must create interventions that target the root causes of the gender digital divide in Nigeria in order to close it. USAID 2023 discovered five tried-and-true methods to bridge the gender digital divide and enhance women's and girls' access to and usage of the internet through the Women Connect Challenge. It's crucial to keep in mind how people's intersecting identities affect their access to and usage of technology while putting these tactics into practice.

### **Strategy 1: Change Social Norms and Cultural Perceptions**

Social norms and ideas of proper behaviour have an impact on who uses technology and the internet and how. Women and girls may be assisted in accessing the resources, opportunities and services that technology provides by collaborating with males, elders and leaders in the community and religion.

**Advice:** Promoting women's and girls' access to and use of technology can set off powerful gatekeeper reactions that can serve to further harmful gender norms and stereotypes, frequently putting women and girls at danger of violence based on their gender. It is critical that professionals comprehend these triggers and create

mitigation techniques to lower the risk of Gender Based Violence (GBV) among women and girls, especially forms that result from using Technology Facilitated Gender-Based Violence (TFGBV).

**Nigeria initiative:** Through a behaviour change approach that includes radio programs, family discuss within groups, digital literacy trainings and community action, Equal Access International's Tech4Families established new norms at the family level in Northern Nigeria.

### **Strategy 2: Create Economic Opportunities**

Digital divide obstacles are lowered when technology is combined with economic opportunity. Men and women alike frequently become more in favour of adopting technology when it is presented as a way to improve families and expand economic prospects. Gains in wealth for women across all demographic groups contribute to their enhanced autonomy, competencies and capacity to overcome financial obstacles.

**Advice:** Positive norms shift message combined with education on the potential economic prospects that technology access might provide for their family will improve gatekeepers' support for women and girls using technology and learning digital skills. Whether or whether women and girls in all their variety have access to ICT resources is largely dependent on gatekeepers, who are frequently males and other family members.

**Nigerian initiative:** Start-up Kano is an ICT cluster located in northwest Nigeria that supports female entrepreneurs in developing their ideas, expanding their enterprises, obtaining finance and breaking down social conventions that restrict women's access to technology.

### **Strategy 3: Cultivate Women's and Girls' Confidence**

Initiatives that offer instruction in digital literacy, skill development and mentorship have the potential to boost the confidence, self-efficacy and technological proficiency of women and girls. Consequently, this may foster the use of technology and enhance the agency of women and girls in their communities by positioning them as role models in all of their variety.

**Advice:** In addition to addressing possible concerns like TFGBV, promoting technological possibilities should encourage women and girls to practice safe online behaviours and report incidents.

**Nigerian Initiative:** Plan International's "Equality for Girls" females can utilize technology efficiently, as seen by the Nigerian movement, which is an organic movement led by females and demands girl power and representation. This has bolstered the confidence of girls.

### **Strategy 4: Design Creative Women and Girl Centric Technology**

Diverse technological solutions have to be customized to meet the requirements, talents and access of women and girls. The advantages of technology are extended across

digital divides through, for instance, creative video and audio platforms, offline materials in regional languages, accessible content for people with impairments, reasonably priced data packages and content that is simple to access on basic feature phones.

**Advice:** To guarantee that their demands are satisfied, include women and girls in the creation of personalized technological choices, services and gadgets. This is superior to "universal" technology in terms of effectiveness, affordability and impact.

**Nigerian initiative:** Girl Effect's digital platform, Springster, which is accessible in 66 countries, includes educational and entertaining content to improve participation while fostering connections among girls. The platform's goal is to help females become more self-assured, adept and resilient on the internet. Springster uses girl-written articles and true-life tales to explore a variety of subjects, such as mental health and wellness.

### **Strategy 5: Develop Community Support**

Community support is necessary to close the gender digital divide. As more women and girls have access to technology, many of them grow to be advocates for positive social change and contribute to the growing acceptability of these groups' use of technology.

**Advice:** Finding partners that are willing to embrace change and support women and girls in using technology might assist increase access to and acceptance of this

demographic.

**Nigerian initiative:** The goal of ONE's Make Naija Stronger project is to provide primary healthcare to all people. Using technology to further a shared community cause, the initiative tracks state-level progress toward providing free primary healthcare and encourages activism.

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# LACK OF AFFORDABLE AND ACCESSIBLE CHILDCARE FOR WOMEN IN THE DIGITAL WORKFORCE IN NIGERIA; A CALL TO ACTION FOR THE CONVENTION OF A MATERNITY POLICY

By



**Khadija Zangina Aliyu**

## BACKGROUND

**W**omen constitute at least half of society's population, presenting them as potential active users of information. Enabling them to become significant contributors to information and communication as producers and policymakers involves removing barriers to information access. This necessitates providing them with equal opportunities in education, employment, politics and communication. To successfully achieve this objective, structural reforms are crucial to enhance their participation in the political and social spheres of contemporary information societies. This strategic approach aligns with the broader goals of fostering gender equality, acknowledging its pivotal role in shaping

technological advancements and driving comprehensive socio-economic progress<sup>1</sup> .

Gender equality is increasingly recognized not only as a fundamental human right but also as a crucial driver for reducing poverty, improving living standards, fostering sustainable growth and ensuring economic stability. The inherent connection between democracy, development and equality is evident<sup>2</sup> . Global summits on the information society have played a pivotal role in endorsing documents that emphasize women's crucial roles in this sphere. Article 12 of the principles specifically highlights the diverse opportunities that Information and Communication Technologies (ICTs) present for women, positioning them as indispensable contributors to the information community<sup>3</sup> . This commitment to gender equality extends across all aspects of ICT, involving users, producers and policymakers, as emphasized in the preliminary conference of European Ministers during the World Summit on the Information Society<sup>4</sup> . This overarching context underscores the intricate relationship between gender equality, technological progress, and broader socio-economic advancement.

Nevertheless, female employees face numerous challenges in employment relations<sup>5</sup>, stemming from both legal and institutional factors, with many being manmade<sup>6</sup> . These challenges include discriminatory practices, sexual harassment, chauvinist intimidation, denial of equal employment opportunities, constraints on career growth and restrictions on reproductive rights<sup>7</sup> . Instances of job

vacancies explicitly barring women and imposing conditions like refraining from pregnancy are not uncommon, especially in unregulated private sectors<sup>8</sup> . Some advertisements, particularly in law firms, expressly prohibit female applicants, despite no evidence supporting the notion that male employees are more resourceful<sup>9</sup>. Such discriminatory policies, including restrictions on marriage for female staff, subject women to unnecessary hardship in the workplace.

To address and prevent discriminatory practices against females in the workplace, both domestic and international measures have been implemented. Notable instruments include the 1999 Constitution of the Federal Republic of Nigeria, the Labor Act, the African Charter on Human and Peoples' Rights (ACHPR) and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)<sup>1</sup> . Certain global conventions safeguarding women's rights encompass the Equal Remuneration Convention<sup>10</sup>, International Convention on the Rights of the Child<sup>11</sup>, Maternity Protection Convention<sup>12</sup> and Discrimination (Employment and Occupation) Convention<sup>13</sup> . CEDAW allows state parties to implement special measures safeguarding maternity without considering them discriminatory. It mandates specific actions to prevent discrimination against women in employment based on marriage or maternity, prohibiting dismissal on grounds of pregnancy, maternity leave or marital status<sup>14</sup> . States are also urged to facilitate social services supporting parents in balancing work and family responsibilities, promoting childcare facilities<sup>15</sup>. The

Maternity Protection Conventions<sup>16</sup> aims to ensure equality for employed women during pregnancy, nursing and return to work, encompassing various forms of dependent work<sup>17</sup>. Article 6 of the Maternity Protection Convention (No. 183), 2000 outlines financial benefits for working mothers during maternity leave, including cash benefits (up to two-thirds of their previous income) and medical benefits for both the mother and child. Additionally, it mandates breaks for breastfeeding upon return to work, considering them as working time and remunerating accordingly<sup>18</sup>.

Unfortunately, in Nigeria, the issue of affordable and accessible childcare disproportionately affects women in the workforce, particularly those engaged in the digital sector. Women often face challenges in balancing professional responsibilities with caregiving duties due to the limited availability of affordable childcare options. The lack of affordable and accessible childcare facilities is a barrier to women's full participation in the workforce, impacting their ability to pursue and sustain careers in technology and other industries. This challenge is especially pronounced in the context of the growing digital workforce, where remote and flexible work arrangements are becoming more common. This study aims to address the policy issue of the Lack of Affordable and Accessible Childcare for Women in the Digital Workforce.

## **2.0 THE CURRENT SITUATION**

In Nigeria, the effort to bridge the gender gap is stagnating, because the World Economic Forum's 2017 Global Gender

Gap report reveals that Nigeria is ranked the 122nd out of 144 countries in efforts to narrow the gender gap<sup>19</sup>. Although there is a gradual improvement in gender equality regarding labor force participation, this progress has not manifested as anticipated in achieving gender parity within the workplace. The rights and protection of working women against discrimination and inequality in the workplace are outlined in the Nigerian Constitution<sup>20</sup> and the Nigerian Labor Act<sup>21</sup>. These legislations establish a basic set of rights that collective bargaining can enhance within a well-functioning industrial system, particularly benefiting women. Chapter II of the CFRN emphasizes equality of rights, obligations and opportunities before the law for every citizen<sup>22</sup>. It directs the state to ensure equal opportunities for securing livelihood, suitable employment and equal pay for equal work without discrimination based on gender.

The Nigerian labor Act is considered the primary comprehensive labor legislation in Nigeria<sup>23</sup>, with key provisions regarding the rights of working women outlined in sections 54 to 56. These provisions cover maternity protection<sup>24</sup>, night work<sup>25</sup> and underground work<sup>26</sup>. Section 54 specifies that women workers are entitled to maternity leave, typically lasting 12 weeks, with the option to start six weeks before confinement<sup>27</sup>. Some entities, like the Lagos State Public and Civil Service, have extended maternity leave to 24 weeks with full pay<sup>28</sup>. If a woman's absence is due to pregnancy and she has been continuously employed for at least six months, she is entitled to at least fifty per cent of her wages during the absence<sup>29</sup>. Upon

returning to work, nursing mothers are entitled to nurse their babies twice a day for half an hour each, often accommodated by employers allowing early departure or flexible hours for a specified period<sup>30</sup>.

The policy lacks provisions addressing childcare arrangements for women post-maternity leave. The allocated twelve-week period appears insufficient, especially when considering the recommended six-month duration for exclusive breastfeeding. Furthermore, the policy fails to acknowledge the unique challenges faced by mothers of multiple births, such as twins, triplets or quadruplets, who may require additional time for recovery and childcare compared to mothers with a single child. This is particularly crucial in a digital workplace where childcare becomes imperative. Considering the higher proportion of men than women in the digital workplace, maternal mothers need privacy to adequately care for their infants.

Many conventions were applied to the maternity policy but little attention is given to the provision of a childcare facility in a digital workplace. For example, the 1999 Constitution of the Federal Republic of Nigeria section 42(1) prohibits disallowing female employees from getting pregnant over a period or terminating their employment, but doesn't talk about childcare facility provision. Secondly, the International Labour Organization (ILO) on Maternity Protection Convention No. 183 of 2000 provides that the maternity period shall be at least 14 (fourteen) weeks, including 6 (six) weeks of compulsory post-natal leave. Also, article 5(d) of the ILO Termination of Employment

Convention No. 159 of 1982 provides that pregnancy shall not be a ground for the termination of the employment of an employee, but still no convention for childcare facility provision.

Several barriers lead to this issue. Oyogbola's (2019) study highlights the primary barrier for women in Nigerian workplaces as the existing legislation. The author criticizes the current laws, stating they lack comprehensive coverage and recognition of women's rights, with insufficient protection for a broad range of needs. In the manufacturing sector, for instance, the law obstructs the appointment of female executives in core roles, hindering women's success. She argues that these laws, despite their intention to protect women, often deny them the right to choose. The second barrier she highlighted is the limited involvement of women in decision making processes. Although there is a gradual increase in the representation of women in prominent roles in Nigeria, the progress is occurring at a slow pace. At the end of her paper, she advocates that all companies at a minimum should provide child care services either with an on-site or off-site day-care or breastfeeding room or consider flexible working19 conditions for nursing mothers.

## **2.1 PROPOSED SOLUTIONS**

To advocate for the inclusion of provisions requiring digital workplaces to provide childcare facilities involves strategic and well-informed strategies. Here's a guide on how to effectively advocate for this important policy change.

1. Survey and gather data on the current challenges faced by working parents in digital workplaces, emphasizing the impact on gender diversity and career progression

## **2. Building a solid case from previous implementations:**

Many countries especially the developed, implemented quality and affordable child-care in workplaces, while some are still in the state of implementing it. For example, in the United States of America, Senator Elizabeth Warren's extensive proposal for universal childcare for children aged 0-5 ensures that families with incomes at or below "200% of the federal poverty line" incur no costs. For families exceeding this threshold, the plan caps childcare expenses at "no more than 7%" of their household income<sup>31</sup>. The initiative includes raising the wages of care workers, establishing national quality standards and allocating significant federal funding, primarily sourced from taxes on affluent Americans to collaborate with local providers<sup>32</sup>. Senator Warren's plan is based on the premise that child-care should be a right. She received much support for the approval of her proposal from different sources.

In 2013, Germany implemented a system of universal child-care for children under the age of three and showed a favorable effect on the economic achievements of women from 2013 to 2017<sup>33</sup>. The extension of Chile's no-cost childcare initiative resulted in improved accessibility for low-income families. Additionally, a program in Nairobi offering women vouchers for childcare services demonstrated a positive effect on the employment of these women over an extended period<sup>34</sup>.

**3. Engagement with stakeholders:** Here many stakeholders are needed for this advocacy. Starting from institutions organizations, legislators, NGOs and employee resource groups to gather support and insight. This is because most of them are powerful advocates for change. Engagement with senior leaders and decision makers to build support from the top-down, this will help in articulating how on-site childcare aligns with the company's goals and values.

**4. Legal compliance:** The legal landscape has been explained under CURRENT SITUATION above, in which existing labor works have been explained and regulations related to the workplace

**5. Developing financial justification:** Many researchers have talked about cost benefit analysis, showcasing the long-term financial advantages of on-site childcare. A study in Nigeria (Mother's Employment and Child Care: Implications on Child Health Outcome in Nigeria) by Salman shows factors such as unobserved ability shared between child and mother (or nature and nurture) may influence both maternal employment and child health outcomes directly. So also the research talks on the importance of breastfeeding in order to reduce children malnutrition and spending money on children's food. These can be achieved by the provision of childcare at mothers' workplaces. The development of many researches will help in finding financial justification.

### **3.0 POTENTIAL IMPACT**

**3.1 Positive Consequences:** 1. **Improved Gender Equality:** Implementing extended maternity leave and childcare facilities in digital workplaces can contribute to improved gender equality by addressing the specific needs of women in the workforce. This, in turn, fosters a more inclusive and diverse workplace.

**2. Enhanced Employee Well-being:** Policies that support work-life balance, such as extended maternity leave and on-site childcare, can significantly improve employee well-being. This is likely to boost job satisfaction, mental health and overall morale, leading to a more productive and committed workforce.

**3. Increased digital Workforce Participation:** By providing comprehensive maternity policies and childcare support, more women may feel encouraged to remain in or rejoin the digital workforce. This could contribute to increased digital workforce participation rates among them, benefiting the economy and society at large.

**4. Positive Impact on Child Development:** Extended maternity leave and accessible childcare facilities can positively impact child development by allowing mothers to dedicate more time to their infants during critical stages. This aligns with global recommendations for exclusive breastfeeding and early childhood care.

## 3.2 Negative Consequences

**1. Potential Business Costs:** Implementing extended maternity leave and on-site childcare facilities may incur additional costs for businesses. This could include expenses related to hiring temporary staff, maintaining childcare facilities and providing resources for flexibility in working hours.

**2. Perceived Productivity Loss:** Employers might express concerns about potential productivity losses due to longer maternity leaves and the introduction of on-site childcare. This perception may be based on a misunderstanding of the long-term benefits of supporting employees' work-life balance.

**3. Resistance to Change:** Resistance to change is a common challenge when introducing new policies. Some employers may resist the implementation of extended maternity leave and on-site childcare facilities due to concerns about disruptions to existing practices or resistance to embracing more flexible work arrangements.

**4. Gender Stereotyping:** There may be lingering gender stereotypes that associate taking care of children with decreased commitment or productivity. Implementing such policies might inadvertently reinforce these stereotypes, potentially impacting women's career advancement.

### **3.3 Balancing Considerations**

Balancing the potential positive and negative consequences requires careful consideration and effective communication. Addressing concerns about business costs and productivity loss involves highlighting the long-term benefits, including improved employee satisfaction, retention and diversity. Education and awareness campaigns can help to combat gender stereotypes and foster a more inclusive workplace culture. While there are potential challenges and costs associated with implementing extended maternity leave and on-site childcare, the long-term benefits, both for employees and the organization, can contribute to a more equitable, productive and supportive work environment.

## **4.0 IMPLICATIONS OF THE PROPOSED POLICY CONVENTION**

### **4.1 Economic Impacts**

**1. Increased Productivity:** Policies supporting work-life balance, such as the provision of on-site childcare, can contribute to increased productivity. Satisfied and well supported employees are likely to be more engaged and committed, positively influencing overall workplace efficiency.

**2. Reduced Turnover Costs:** Enhanced support for working parents can lead to reduced turnover rates, saving businesses significant recruitment and training costs. Companies that prioritize family-friendly policies often

enjoy better employee retention. That will increase the number of women in digital workforce.

**3. Wider Talent Pool:** Family-friendly policies can attract a more diverse talent pool, including women who might otherwise be deterred by inadequate support for balancing work and family responsibilities. This can contribute to a more skilled and varied digital workforce.

## 4.2 Social Impacts

**1. Improved Gender Equality:** Family-friendly policies contribute to improved gender equality by addressing the barriers that disproportionately affect women in the workforce. This fosters a more inclusive and equitable society.

**2. Better Work-Life Balance:** Policies supporting work-life balance positively impact employees' personal lives, reducing stress and enhancing overall well-being. This, in turn, can contribute to healthier families and communities.

**3. Child Development:** Comprehensive maternity policies and on-site childcare facilities positively influence child development by allowing parents, particularly mothers, to actively participate in early childhood care. This can have long-term societal benefits.

## 4.3 Environmental Impacts

**1. Reduced Commuting:** Flexible work arrangements, which may be facilitated by family-friendly policies, can reduce the need for daily commuting. This has

environmental benefits, contributing to lower carbon emissions and less strain on transportation infrastructure.

**2. Sustainable Practices:** On-site childcare facilities can be designed with sustainability in mind, incorporating eco-friendly features. This aligns with global efforts towards sustainable practices and environmental responsibility.

**3. Support for Remote Work:** Policies promoting flexibility, including remote work options, can reduce the need for extensive office spaces and associated energy consumption. This supports a more sustainable approach to business operations.

#### 4.4 Challenges and Considerations

**1. Financial Implications:** The economic impacts of these policies may pose financial challenges, especially for smaller businesses. It's crucial to consider potential costs and explore ways to mitigate financial burdens through government incentives or partnerships.

**2. Balancing Employee Needs:** Striking a balance between supporting employee needs and maintaining business efficiency is essential. Clear communication and ongoing evaluation of the policy's impact can help achieve this balance.

**3. Societal Shift:** The broader implications may require a societal shift in mindset regarding female digital work and family responsibilities. Education and awareness

campaigns can contribute to changing societal expectations and norms.

## 5.0 ADDRESSING COUNTER ARGUMENTS

### 5.1 Increased Costs for Businesses

**Opposing Argument:** Critics may argue that implementing family-friendly policies, such as extended maternity leave and on-site childcare, would impose additional costs on businesses, especially smaller enterprises, potentially leading to financial strain.

**Counter argument:** While it's true that implementing these policies may incur initial costs, the long-term benefits can outweigh the financial investment. Higher employee satisfaction and retention rates reduce turnover costs and a more diverse workforce can enhance creativity and innovation, contributing to overall business success. Additionally, it will lead to a high number of females in digital workforce. This will lead to increase in Gross Domestic Product (GDP). Research indicates a noteworthy correlation: for every unit increase in female labor force employment, there is an associated deceleration in GDP growth by approximately 13,340.43 units.<sup>35</sup>

Government incentives and support programs can help to mitigate the financial burden on businesses, ensuring a balanced approach to implementation.

### 5.2 Perceived Productivity Loss

**Opposing Argument:** Some may express concerns about potential productivity loss, especially with extended

maternity leave and on-site childcare facilities, fearing that employees might take advantage of flexible arrangements to the detriment of overall productivity.

**Counterargument:** Numerous studies conducted in many countries like Germany<sup>33</sup> and Nairobi<sup>34</sup> indicate that policies promoting work-life balance actually enhance productivity and employee engagement. Satisfied and supported employees are more likely to be committed to their work, leading to increased efficiency. Additionally, proper monitoring and evaluation mechanisms can be implemented to ensure that flexible arrangements contribute positively to both employee well-being and overall business objectives.

### 5.3 Gender Stereotypes and Workplace Dynamics

**Opposing Argument:** Skeptics might argue that family-friendly policies could reinforce gender stereotypes, with concerns that women could be unfairly perceived as less committed or capable in the workplace.

**Counterargument:** The aim of these policies is to break down gender stereotypes by providing equal opportunities for both men and women to balance work and family responsibilities. Sally E. Shaywitz from Yale University argues that women can gain social recognition by going beyond traditional female expectations without needing to emulate men.<sup>40</sup> Indeed, inherent biological responsibilities, such as childbirth and caregiving, are undeniable aspects of human existence. The critical discourse revolves around creating supportive

infrastructures that enable individuals, particularly women, to effectively manage these responsibilities while participating fully in public life. Recognizing the disproportionate burden placed on women for caregiving<sup>37</sup>, the establishment of comprehensive childcare systems becomes imperative to foster gender equality and ensure equitable participation in societal activities. Clear communication campaigns and education initiatives can accompany the policy changes to dispel misconceptions. Furthermore, showcasing successful examples from companies that have implemented such policies without reinforcing stereotypes can provide evidence of their positive impact on workplace dynamics.

#### **5.4 Resistance to Change**

**Opposing Argument:** Some businesses might resist implementing family-friendly policies due to concerns about disrupting existing practices or facing resistance from employees, who may be resistant to change.

**Counterargument:** Change management strategies, including thorough communication and employee involvement, can help to alleviate resistance. Demonstrating the benefits of these policies through pilot programs or case studies can show that such changes can lead to a more satisfied, engaged and loyal workforce. Proactive change management can transform resistance into an opportunity for growth and improved workplace culture.

## **6.0 SUMMARY AND CALL TO ACTION**

In summary, the proposed family-friendly policy of provision of affordable childcare at digital workplaces aims to address gender disparities, the improve employee well-being and contribute to a more inclusive and productive work environment. While acknowledging concerns about potential costs, productivity loss and resistance to change, counterarguments emphasize long-term benefits, including enhanced productivity, reduced turnover costs and societal well-being.

It is crucial to recognize that this policy aligns with global standards and recommendations, fostering gender equality in the digital workforce, supporting employee work-life balance and contributing to sustainable business practices. The need for such policies is underscored by existing gaps in legislation and the current stagnation in efforts to bridge the gender gap in Nigeria.

Stakeholders, including businesses, policymakers and advocacy groups, are urged to take action and support the proposed solutions. By implementing these family friendly policies, we can create a workplace that not only meets the diverse needs of employees but also fosters a more equitable and prosperous society. The call to action is an invitation for collective efforts to champion positive change, ensuring a work environment that values and supports the well-being of every individual, irrespective of gender or family responsibilities. Together, we can create a workplace that reflects the values of inclusivity, equality and sustainable progress.

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# NAVIGATING THE DIGITAL DIVIDE IN AFRICA: ADDRESSING GENDER DISCRIMINATION IN AI DEVELOPMENT AND IMPLEMENTATION

By



**Hadiya Usman**

**T**he rise of artificial intelligence (AI) brings with it transformative opportunities, particularly in Africa where it holds the potential to bridge the digital gap and empower women. However, unlocking this potential requires a concerted effort to confront the prevalent issue of gender discrimination within AI development and deployment.

## **Unveiling Gender Bias in AI: A Data-Driven Perspective**

Gender bias in AI takes various forms, stemming from inherent flaws in technology and biased training data. Facial recognition systems, a hallmark of AI, disproportionately misidentify women and individuals of color. A study by the National Institute of Standards and Technology (NIST) found a concerning 35% misidentification rate for women of color, compared to a mere 0.8% for white men. AI-driven recruitment algorithms exacerbate gender-based

economic inequalities, as studies by the AI Now Institute in 2018 reveal a bias favoring male candidates over equally qualified female counterparts. This bias not only impacts employment opportunities but reinforces systemic gender disparities. Voice assistants, another facet of AI, struggle to recognize and respond accurately to female voices, perpetuating harmful stereotypes. Research from the Pew Research Center (2020) indicates that 18% of women face issues with voice assistants recognizing their voice compared to 11% of men. These stark examples underscore the urgency to adopt a comprehensive approach to combat gender discrimination in AI.

### **Fostering Inclusivity and Diversity in AI Development**

The key to combating gender bias in AI lies in prioritizing inclusivity and diversity at every stage of its development. This involves implementing policies that promote diverse representation among AI developers, ensuring demographically balanced training data and fostering awareness of AI ethics and responsibilities. Including diverse perspectives in AI development teams is crucial to identifying and mitigating biases early on. By training AI models on data that accurately reflects societal diversity, the risk of perpetuating stereotypes diminishes. Additionally, widespread awareness and understanding of AI ethics are essential for promoting responsible AI development. Stakeholders, including policymakers and AI practitioners, must be educated on the potential for gender discrimination in AI, emphasizing the importance of embedding fairness and inclusivity principles.

## **Collective Action for Equitable AI**

Addressing gender discrimination in AI demands a collaborative effort across sectors. Governments can play a role through policy frameworks mandating diverse datasets, transparency in AI algorithms and clear accountability mechanisms for developers. Civil society organizations have a role in advocacy, awareness creation and supporting the development of inclusive AI solutions. Technology companies, as key implementers, must embed fairness principles, conduct regular bias audits and provide user education. Academic institutions contribute through research, developing bias detection methodologies, inclusive to AI frameworks.

## **Conclusion**

Paving the Way to Equitable AI and confronting gender discrimination in AI, we unlock its potential to create an inclusive society in Africa. Through collective action, policy reforms and targeted capacity building, we can ensure AI benefits all, narrowing the digital gap and empowering women in the digital age.

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# PROVIDING AN ENABLING ENVIRONMENT TO ADDRESS THE GENDER DIVIDE IN DIGITAL SPACE

By



**Nafisa Umar Garba**

## INTRODUCTION

The world has already turn into a global village. Today, countries are connected through internet and people find it interesting to harness information technology to expand their skills and knowledge in order to compete with others around the globe. Narrowing this to Nigeria, one will agree with the fact that usage of internet space among Nigerians, especially women in rural communities is facing a serious setback due to some factors. To address the factors, there is the need to implement, gender responsive policies that would tackle issues of digital space. Firstly, the availability of Internet connectivity and power supply should be given priority.

## POLICY FRAMEWORK

For the purpose of this article, I will leverage on the rural broadband policy framework: Connecting the unconnected

by Alliance for affordable Internet. The framework indicates that Internet has revolutionised the way many of us live our lives, enabling new forms of communication, fostering online communities, fueling economic growth and facilitating all manner of entertainment, but yet about half of the world's population remain offline, especially women (connecting the unconnected by alliance for affordable internet, March 2020).

### **STAKEHOLDER INVOLVEMENT**

Policy formulation needs a multi-faceted approach. It requires stakeholders' collaboration for it to see the light of the day. Community members, religious and traditional leaders, government, Civil Society Organisations and the legislative and the media among relevant bodies, must be involved, depending on what the policy want to achieve.

### **WHAT IS WORKING AND WHAT ISN'T**

Despite having the policies in place, there exists a gender gap in terms of access and use of digital devices especially among women in many parts of the country. The cultural and the religious, literacy, poverty and cyberbullying are among the leading factors responsible for the divide.

### **AREAS OF IMPROVEMENT**

#### **DON.**

- \* Implementing responsive gender policies that will make digital space safe for women.
- \* Addressing poverty and literacy especially among females in rural communities.
- \* Providing affordable broadband Internet

connectivity to rural areas.

### **SOCIAL AND ECONOMIC IMPACT**

When all these are harmonized, it would really impact the livelihood of women because their voices would amplify. Socially, they can network and expand their knowledge on many issues, both offline and online. Economically, they can use digital space to market products and provide services, giving them opportunity to become self-reliant.

### **CONCLUSION**

Government can work on closing digital gender gaps in both rural and urban settings through collaboration with relevant stakeholders to ensure workable policies and implementation.

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# BRIDGING THE DIGITAL GENDER DIVIDE IN DIGITAL LITERACY AND LEADERSHIP FOR YOUNG WOMEN IN KANO STATE

By



**Amb. Maryam Ibrahim Sani**

**T**he emancipation of transition means an equity role for young women in Kano State to be justly included in digital skills and leadership. As one of the determinants of growth, it forms the basis for transforming their innovations and spotlighting the resourceful solutions they contribute in shaping modern Kano. Widening the digital divide, through bias and the meagre implementation of women-centred information and technology policies has remained a source for concern. The role of advocacy by civil society organisations and stakeholders seeks to encourage more young women in Kano State to explore meaningful opportunities in the technology ecosystem while having a safe environment to navigate. As leaving no one behind is a fundamental issue, the digital rights for young women in Kano are human rights.

In 2024, the world is expected to see a significant increase in women becoming digital CEOs, founders and co-creators. This is driven by the high-performing consultative roles, dynamic solutions, fact-based development, and policymaking that young women bring to the society. For them, the growth is also fuelled by the 'tech-girl and tech-woman' concept, which means encouraging girl and women digital economy. The young women in Kano State, primarily from low-income families, who are disproportionately affected by the belief system and social stereotypes, emphasize the call for urgent critical frameworks to be implemented.

According to a UNICEF report in 2022, Kano State had about one million out-of-school children, with over 50% of the population being young women. Young women in the state still face serious barriers in terms of access to school, Science, Technology, Engineering, Arts and Mathematics (STEM) education, creative arts and commercially relevant digital skills. Apart from the urban areas in Kano, the underserved areas are left with no formal education or proper computer skills. Also, low access to the internet and unreliable network connections in these areas prevent young women from also learning on-the-go through edtech and online long-distance learning like their peers globally.

Exploring the know-how of emerging technologies can equip girls with digital literacy and digital entrepreneurship for economic growth. The rise of Artificial Intelligence, climate change and a fast-growing work culture could see many young women in Kano being relegated to limited tech

knowledge in their communities and eventually cut off from digital opportunities and green jobs. Meanwhile, inadequate capacity development and funding grants for young Kano women in ICT are causing serious setbacks.

Globally, the evolution of STEAM education is on the rise and can provide young Kano women access to quality education and digital skills to nurture their career paths in digital tech and cleantech. According to a UNICEF report in 2023, 1.5 million girls were able to go to school in six northern states in Nigeria between 2012 and 2022 through the third phase of the Girls' Education Programme (GEP). These states are Sokoto, Bauchi, Kaduna, Zamfara, Niger and Kano. Another intervention is the Adolescent Girls Initiative for Learning and Empowerment (AGILE) in Kano State, a World Bank programme that has helped over 100,000 girls attain secondary school education with improved learning conditions.

According to a 2023 report by USAID, the gender divide in ICT for women in urban areas is 42% and in rural areas, To date, 64% of women in Kano State do not have access to smartphones and mobile networks (34%), compared to 54% of men, who use mobile internet.

In the formulation of policies for women, their privacy, empowerment and protecting their rights must be taken into account. The future of work needs women-centred policies that will position and equip young women to have information technology skills, access to communication technologies and core technological education for social,

economic and leadership empowerment. The advantage of increasing the number of information technology policies for young Kano women and Nigerian women at large is that this policy will provide much-needed information technology growth in the country, equitable access to thrive in the information age and bridge the gap in digital literacy and leadership.

Having such a policy will provide action for creating awareness and advocacy against misconceptions and misinformation about young women. For example, misconceptions like young women are only good for taking care of the family; women are not brave enough to take socio-economic risks related to ICT; women do not need phones or tech gadgets; STEM jobs and high-paying jobs are for men to discourage women from participating or competing equally will be corrected. Other impairments include child marriage, harassment, poverty, little or no money to buy smartphones, social media platform gender gaps and gate-keeping by certain men, who restrict women will also be addressed with the appropriate policies in place.

With the intervention of the state government and developing partners in promoting digital skills through bootcamps and fostering a supportive tech community to reimagine their world, young Kano women can co-create future solutions. Hence, it is imperative to engage women in a variety of training workshops on telecommunications, valuable soft skills and digital leadership. This will equip them with a foundational level for quality digital education

through the support of international partners and the government of Nigeria. Through such, a key performance index of their role, inclusion and baseline for output and input can be addressed through quarterly monitoring and evaluation with strategies to adopt emerging tools for growth and productivity. Importantly, the government of Kano State can also set aside a resilient 'Digitally Enabled Women' (DEW) Fund to promote women who are certified to be given this grant to move to an advanced level of digital skills for their digital innovations and business capacity. The DEW Fund capital should be supported with a \$500,000 to \$1 million pledge yearly

One of the significant ways in changing the narrative is by awarding scholarships, forming intensive digital fellowships, capacity development workshops and creating digital forums. For instance, a two-way approach can create a forum that could enhance the digital skills of young Kano women, enable them to teach young girls and serve as a source of inspiration to many. Secondly, it is a gateway to implementing women-centred policies on digital transformation, with opportunities for the young women in Kano to explore key ICT and boardroom positions. To develop their competencies, there's a need to expose them to project partnerships and accelerator programmes, provide funding for their tech startups and promote their initiatives at the local, state and national levels. This will lead to high-paying jobs, cross-cutting job creation and diversification into other enabling environments.

Networking and knowledge sharing for digital and tech women in Kano State can spur them to apply their relevant industry skills and have quality jobs in the formal and informal sectors in Nigeria. Their unique expertise can facilitate sustainable ICT project management in rural and urban areas in Kano State through initiating programmes, co-creation, software coding, company human resources, telecommunications policing and resilient public-private collaborations. It is important for ICT regulators to reduce taxation on women-led companies to encourage more women-owned businesses to thrive. This will increase women in business to venture into ICT, wireless communications, network infrastructure and other ICT services.

The application of digital skills by Kano women can open a framework for indigenous professionals for government operations, industry workforce, innovations and macroeconomics, as well as be integrated into sectors like energy, fintech, banking, edtech, health tech, smart agriculture, e-commerce, automotive and aviation industries, to mention a few. The gender use case is to engage young women and accelerate their smart SMEs and tech-enabled businesses in Kano and other parts of Nigeria to attract international investments.

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# EPILOGUE: STORIES ABOUT DIGITAL MARGINALIZATION

By

**Y. Z. Ya'u,**  
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**O**n Thursday, December 28, the Centre for Information Technology and Development (CITAD) held an experience sharing session for the beneficiaries of its Digital Policy Leadership Analysis and Voice Activation Training at the Command Guest House, Bauchi. The objective of the meeting was to hear stories of engagement from the beneficiaries since the training that held earlier in October.

The Digital Policy Leadership Analysis and Voice Activation Training is part of a broader project entitled ***Developing Digital Policy Leadership Among Young women***, that CITAD has been implementing with support from the Association of Progressive Communication (APC) whose objective is to contribute to addressing the gender digital divide by drawing attention to the absence of women in the digital leadership structure of the country. The logic of the project is that unless we have women in digital leadership and policy positions, we will not be able to develop and implement appropriate policies and initiatives that will address the gender dimensions of the digital divide in the country. For now the policies and initiatives are developed with at best gender insensitivity mindset but at worse with

an attitude to maintain patriarchal privileges accrued to men because of their dominance in the policy making space in the country.

One of the key challenges of even comprehending the gender digital divide is the lack of data. Only two weeks earlier, the Washington-based Portulans Institute released the 2023 global network readiness index (NRI) in which Nigeria was not only lowly ranked 106 out of 131 countries but also scored zero in the gender gap in Internet use sub-pillar, indicating that there was either no data or the data was not sufficient to award any point for the country in that important sub-pillar.

To have a clear understanding of the presence of women in digital leadership positions in the country, CITAD, as part of the project, commissioned a head count survey of the presence of women in the management and boards of eight national ICT agencies and authorities in the country. These included the Ministry of Communication, Innovation and Digital Economy, the National Information Technology Development Agency (NITDA), the Nigerian Communication Commission (NCC) and the Nigeria Identity Management Commission. Others were the National Data Protection Commission, the Nigerian Communication Satellite Limited (NICOMSAT), the Nigerian Postal Service (NIPOST) and the Universal Service Provision Fund (USPF). The findings were sobering. For example, out of 19 board members of NITDA, only two are females and out of 21 management heads, only four females. Similarly, for the Nigerian Data Protection Commission (NDPC), out of 42

management members, only eight were women. The Universal Service Provision Fund (USPF) has a Board of 11 members with only one female member while for the management the number is similarly one woman out of 10. The sector regulator, the Nigerian Communication Commission, does not do better, as out of its 17 board members, only one is a female.

The stories told at the experience-sharing meeting by trained champions were equally sobering and intriguing, often bringing the invisibility of the gender digital divide.

**Raihanatu Mohammed Hamid**, an academic with the College of Education Billiri, Gombe State told of the story of how she was removed as the Head of the ICT Directorate of her institution (even as the only qualified person) because the head said he did not like women in important positions (as they go for maternity leave). Not surprising, they waited until she took her maternity leave for them to remove her permanently from the position and move her to head the SIWES (Student Industrial Work Experience Scheme) Unit.

**Maimuna Sulaiman**, a Pharmacist and Programms Director at She&Tech, Dutse Jigawa State told of the sad story of a young woman living in a rural community in the state who could not afford a handset and her husband could not allow her to use his or that of any neighbors. When she developed pregnancy complications and there was no one to take her to the hospital because the husband did not give permission, she wanted to call her mother but had no access to a handset. By the time her mother (probably out

of motherly instinct) came, it was too late. She died after spending 14 days in a coma. That phone which she could not afford could have been her life-saver.

A journalist from FM Radio, Bayero University, Kano, **Maria Shuaibu** raised a question which at the time remained a poser with no clear answer. She observed a lack of women representation at the management level of the media industry, attributing it to stereotypes that view women as soft and fragile, restricting their leadership roles to the middle tier. The question she raised was where all the female journalists go after they had attained mid-career positions, as they hardly make it to the top.

It was the presentation by **Khadija Zangina**, a PhD student and Research Assistant with the African Centre of Excellence for Population Health and Policy located at Aminu Kano Teaching Hospital , Kano that brought an insight that revealed the answer to the poster by **Maria Shuaibu**. Miss Zangina started her story by saying that while all others were trying to increase the number of women at the top of the ICT ladder, her focus was not to increase but to maintain the number, arguing that her classmates who studied professional courses, such as IT, engineering, journalism, etc., were no longer working. They had been sequenced out of work. This made her questions why they were not working. It emerged that the working environment is not supportive of the family woman. At entry level, with enthusiasm and an eye for the future, young women are able to cope with the toxic work environment. By the time they get married and have

children, they have been able to scrape through middle level positions that do not attract competition and hostility from male colleagues. After this stage, working in an environment that is not supportive of women with children who face the hostile attitude of management and male colleagues, they found that they can no longer cope with the situation, resulting in their quitting.

The narrative that emerged is that the work environment is critical to addressing the gender digital divide as well as ensuring that women are able to make it to the top and be in a position to sit on decision and policy making tables. In this sense, the advocacy for gender digital inclusion and getting women to be part of the policy instrument must link up with the more broader advocacy for a gender friendly work environment and work ethics in the country.

**Serah Isaac**, a technology change-maker from Jigawa State also told a surprising instance of invisibility and the normalization of technology assisted gender violence. She narrated how fairly informed women, including gender activists, seem not to be aware of Technological Facilitated gender based violence. While the women are not able to see this menace, its normalization by men was appalling. This normalization she illustrated by relating how, when she had advertised a product she was selling on her Facebook profile, a male professional colleague wrote across her picture: “How much?”, implying that she her too was a product to be sold and was asked for the price. When she pointed out this to him that this was violence against her person, he simply shrugged off.

The narrative at some stages could dampen the enthusiasm of the campaigners as the beneficiaries of the digital policy analysis leadership develop programmes related to their experiences. They talked of hostilities from male colleagues, seniors and even leaders. **Hadiya Usman**, a teacher told how a principal of the girls secondary school she went to sensitize warned her against bringing her feminism to his students. Similarly, **Hannatu Musa Piri**, a lecturer at Gombe State University who decided to take her advocacy to her colleagues, told of how she countered opposition from both young and older colleagues in the university. **Hannah Kabarang**, the founder of Bloom Innovation, Gombe State explained how her efforts to train women living with disabilities were dismissed with derision. **Hadiya Usman** from Akko Local Government of Gombe said she got worried when leaders demanded incentives to allow her space to sensitize women about digital issues.

Not all the stories were about opposition and hostility. There were instances of support and appreciation, **Halima Sadiya Yahaya** from Gombe State found openings from a group of religious leaders. **Amb. Maryam Ibrahim Sani**, a peace campaigner, was well received by her traditional rulers, who helped her in mobilizing other women to attend her sensitization sessions. For **Sadiya Danyaro**, a PhD student and lecturer with the Federal University, Dutse-Ma found an opening from government officials one of whom gave her the draft digital policy for the state to make observation and pointed out to him the lack of any consideration about women and gender issues, which he

gladly acknowledged as a gap that needed to be addressed.

Overall, one comes out of the meeting better informed and with a nuanced understanding of the challenges ahead. It was gratifying to see the enthusiasm, the passion and the energy as well as the sense of mission that these young ladies exhibited. Surely, we shall overcome.

# NOTES ON CONTRIBUTORS

1. **Maimuna Suleiman**, from Jigawa State is a recent graduate of Ahmadu Bello University, Zaria with a degree in Pharmacy, serves as Programs Director at She&Tech, COO at Dopals Technologies and PRO at Leap Africa Alumni Network, while also working as a Hospital pharmacist. Known for her dynamic and passionate approach, Maimuna excels in project management, research, and creating meaningful connections. Her commitment to community well-being is evident through active involvement in various social service initiatives, showcasing a dedication to making a positive impact. Additionally, Maimuna is recognized as one of the ambassadors of the recently trained young women in the digital leadership analysis project by CITAD.

2. **Nafisa Umar Garba**, from Gombe State, is a journalist and a Mass Communication alumna of the University of Maiduguri (2014). Her journalism career began in 2017 at the Nigerian Television Authority, Gombe, where she continues to work. Nafisa, a versatile journalist, has covered diverse news stories and actively pursued capacity-building through various courses and workshops. A member of professional associations, including the Nigerian Union of Journalists and the Nigerian Association of Women Journalists, she is also a participant in the Digital Leadership Analysis Program for young women, aiming to advocate for the voiceless and address the gender digital divide in her community.

**3. Maimunatu Ya'u Ibrahim** is a Debt and Corporate Treasury Manager at Gwani Software in Bauchi State. She holds an associate membership with the Nigerian Institute of Management and is a member of the Nigerian Computer Society. Currently pursuing graduate studies in the Department of Management and Information Technology at Abubakar Tafawa Balewa University, she is affiliated with the Faculty of Management Sciences.

**4. Hannah Kabrang**, from Gombe state is a Nigerian Software Developer and Entrepreneur, who established Bloom Innovations to empower girls in the North East in STEM. Driven by the gender gap in technology, particularly in her region, she dedicates herself to cultivating girls' interest in STEM through her startup. Hannah's experience as a female software developer fuels her mission to address gender disparities in STEM by educating and inspiring more girls. Her efforts align with the UN's Sustainable Development Goals, contributing to a better world and advocating for gender equality in STEM.

**5. Fatima Aminu Gurin** an Adamawa indigene but resident in Bauchi has a degree in Architecture at Ahmadu Bello University in Zaria. Presently, she is employed at the Federal University of Health Sciences in Azare, where she serves as a non-academic staff member within the physical planning unit (PPU). Apart from her professional role, Fatima is a devoted advocate for gender issues and is driven by a strong passion for enhancing educational standards and community development.

**6. Mariya Shuaibu Suleiman** from Kano is a Mass Communication graduate from Bayero University, Kano, possesses two years of experience as a Multimedia Journalist at BUK FM and Solacebase. Specializing in amplifying voices for women and children, seeking justice and conducting investigative stories, Mariya has contributed to Women Radio Centre and Premium Times. She has authored a research paper on youth empowerment for peace building, published internationally and regularly contributes articles to Pakistani and Nigerian media houses. Currently, a Fellow with Women Radio Centre, International Centre for Investigative Reporting and BAOBAB for Women's Rights, Mariya excels in journalism, peacebuilding and digital policy leadership.

**7. Sadiya Lawal Danyaro**, a Kano native, holds a first-class honors degree in Education Geography from Yusuf Maitama Sule University Kano. She pursued her MEd in Educational Psychology at Bayero University, and is currently a Lecturer in the Department of Educational Psychology and Counselling at Federal University Dutsin-Ma, Katsina State (2020-date). Sadiya is passionate about advocating for digital literacy for women and girls and enjoys research, reading and traveling.

**8. Khadija Zangina Aliyu**, also from Kano, holds a Bachelor's degree in Microbiology and a Master's in Maternal Child Health and Policy. She is a certified advocate for the Sustainable Development Goals (SDGs) and currently works as a Research Assistant at the Africa Center of Excellence for Population Health and Policy (ACEPHAP) at

Bayero University, Kano (BUK). Khadija is skilled in data analysis and has a strong interest in utilizing technology to enhance healthcare. Beyond her professional endeavors, she is dedicated to community engagement and strives to positively impact maternal and child health, as well as girls' education.

**9. Amb. Maryam Ibrahim Sani**, a Kano state native, holds a National Diploma in Textile Science and Technology from Kano State Polytechnic. Certified in Data Information Technology, Civic Engagement and Public Policy, she has completed courses in research, advocacy and media engagement. As an SDGs advocate and Digital Gender Divide activist, she co-chairs the Nigerian Coalition on Youth, Peace and Security Agenda (UNSCR2250). With over a decade of experience in project management and community engagement, Amb. Maryam has significantly impacted the lives of women, young people and individuals with special needs in Kano state and Nigeria.

**10. Halima Sadiya Yahaya**, a microbiologist from Gombe State, holds Bachelor's and Master's degrees in Medical Microbiology. She is an Assistant Lecturer at the Federal University of Kashere, contributing to academia and research. Actively engaged in professional societies, she has received certificates and awards for her commitment to development. Halima has participated in CITAD's digital skills training and aims to leverage her skills for personal and organizational success. Currently pursuing a Ph.D. in Medical Microbiology.

**11. Raihanatu Mohammed Hamid**, from Gombe State completed her early education at Gombe Children & High School and Federal Government Girls' College, Bajoga. She pursued a BSc. in Computer Science at Gombe State University from 2008 to 2012, followed by a Post-graduate Diploma in Education at Federal College of Education (Technical), Gombe in 2013. Raihanatu earned her Master's degree in Computer Science from Abubakar Tafawa Balewa University, Bauchi. Since 2015, she has been employed at College of Education Billiri, Gombe State.

**12. Hadiya Usman**, Advocacy Officer at the SDGs Project Support Unit in Gombe, is a dedicated advocate for sustainability and the UN SDGs. As the Executive Director of Nudge Initiative and a Women Techmakers Ambassador, she shows effective leadership in driving grassroots campaigns and fostering gender inclusivity in technology. Hadiya, also proficient as a Data Analyst, exemplifies unwavering commitment to positive change, contributing to a more sustainable and inclusive world.

**13. Serah Isaac** is a young Nigerian from Jigawa State who is dedicated to fostering positive societal change. As a social change maker, she led impactful projects, including a Peace Project in Gombe State and co-founding the Gombe branch of the Area Young Women Graduate Development Initiative. Serving as a Public Relations Officer for the initiative, she played a vital role in successful projects like the Gombe Day of Literature and Creativity. During her university tenure, she served as the first female president of the Creative Club at Gombe State University, leading

effective change campaigns. She also contributed to community change projects while working with Meadows Foods, focusing on connecting remote farmers to affordable farming resources. Currently, she is leading a Climate Change Action project in three secondary schools in Dutse and an SDGs project in another school.

**14. Hannatu Musa Piri**, a law graduate from the University of Maiduguri currently pursuing an LL.M at the University of Jos, Hannatu is an engaged legal practitioner at Maidugu Chambers in Gombe. Alongside her work at Gombe State University, she ardently contributes to community service, teaching and research. Actively involved in advocacy for children, she has a keen interest in travel and reading. Hannatu is characterized by her determination to achieve set goals and a commitment to providing legal aid to the underprivileged in society.

## NOTES ON THE EDITOR

**R**uqayyah Yusuf Aliyu is a Senior Lecturer with the department of Information and Media Studies in Bayero University, Kano.

She holds a PhD in Mass Communication and Masters in Public Health from the same institution.

Her areas of research interest span across Media/Press Freedom, Media Law and Ethics, Conflict Reporting, Gender Studies and Health Communication.

She is a member of a number of national and international professional associations and she is well published. She is also a Consultant to many development partners and media institutions.

She is a member, Premium Times Ombudsman Board, Editorial Board member, Sahellian Times, and the Vice President (North West) of the Association of Communication Scholars and Professionals (ACSPN). Before joining the University, Ruqayyah reported for Daily Trust Newspapers.

## About CITAD

Centre for Information Technology and Development (CITAD), is non-profit and non-governmental organization that focuses on the use of technology for the promotion of good governance, human rights, education, peace building and development in general. With its head Office in Kano, it has other Offices in Federal Capital Territory, and three other Offices in Bauchi State. CITAD's vision is a knowledge-based and self-reliant democratic society. Its' mission is to empower citizens for a just and knowledge-based society that is anchored on sustainable and balanced development using ICTs, Capacity Building, Research and partnership. It was established as a single project (Computer Literacy Project) in 1996 but was expanded in 2000 to include other projects. Now it incorporates six different thematic units.

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