Digital Nigeria: Promoting an Inclusive Approach to Achieving Digital Literacy

ABOUT US

The **Digital Transformation Center Nigeria (DTC Nigeria)** is jointly funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by *Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH*. The project focuses primarily on digitalization, innovation, and entrepreneurship. It aims to improve the Nigerian Digital Innovation Ecosystem and the capacity of the economy to adopt digital innovations for growth, through the transformation of the economy and the society.

The project follows a holistic approach to digitalizing the economy. It works with all stakeholders in the digital innovation ecosystem such as: National Information and Technology Development Agency (NITDA), research and academic institutions, innovation hubs, networks, start-ups, Micro Small and Medium Enterprises (MSMEs), women and youth to promote the supply of and demand for digital innovation. Innovation centers, public and private service providers and consultants are empowered to support MSMEs with their digitalization efforts. DTC Nigeria supports the government in implementing its policies and strategies for digitalizing the Nigerian economy. In doing so, it promotes the long-term provision of digitalization services for MSMEs, and, at the same time, positively contributes to the country's economic growth.

The thematic areas covered by the project are depicted in the figure below:
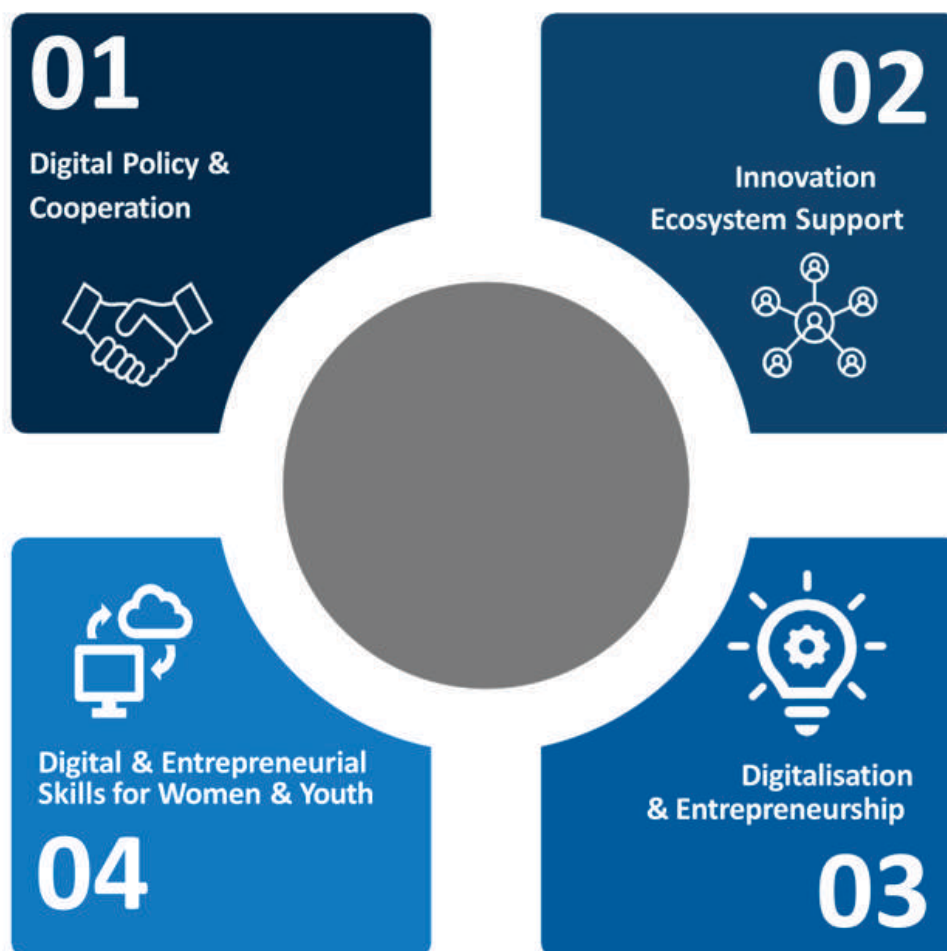
EXECUTIVE SUMMARY

With the rapid advancement in technology and innovation globally, being a digital citizen has become critical for accessing the benefits of an innovation-driven economy. Presently, over 50 percent of Nigeria's population, which exceeds 200 million people, lacks digital skills, and cannot utilize data services (as indicated in the 2021 World Bank Development Report)[1].

While there are digital policies in place to support the digital economy, the National Digital Literacy Framework (NDLF) 2023, recently launched by the National Information and Technology Development Agency (NITDA), aims to standardize digital education for all segments of the population, particularly underserved communities. This involves providing comprehensive digital literacy programs that empower individuals with crucial digital skills, ranging from basic to advanced proficiencies. The framework also aims to encourage an inclusive participation in the digital economy, actively working to bridge gender and socioeconomic divides as well as prepare the workforce with relevant digital skills to address the evolving job market requirements. Lastly, the framework seeks to improve a lively digital ecosystem by promoting the development of locally relevant digital content.

Therefore, it is crucial to develop an inclusive implementation plan, focusing on the strategic objectives of the framework to provide a standardized digital education and skills training in Nigeria, ensuring equitable access and establish clear pathways to fostering adoption across diverse demography sectors in Nigeria.

A policy dialogue was held on the Nigeria Data Literacy Framework to enable a diverse range of stakeholders to make actionable recommendations for the successful implementation of the NDLF. This policy brief, crafted through a participatory and inclusive approach, summarizes key findings and recommendations emerging from the participatory breakout sessions at the Policy Dialogue.

A cross-section of dignitaries at the policy dialogue

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[1](Isaac O.), Digital Literacy In Nigeria Vs Unrealistic Projections: *https://sciencenigeria.com/digital-literacy-in-nigeria-vs-unrealistic-projections/*

INTRODUCTION

Nigeria has a few policies and strategies in place to support digital transformation, digital innovation, and entrepreneurship. The government agency responsible for the country's digital transformation exists in the form of the National Information Technology Development Agency (NITDA) and while policies such as the Digital Economy Strategy (2020-2030) and the National Digital Innovation and Entrepreneurship Policy, which outlines key delivery mechanisms, are in place[2], execution of key policies down to the state level is lagging. Most policies are not yet equipped with concrete execution plans and budgets for operationalizing the outlined goals.

There is insufficient engagement between the Government and stakeholders to develop strategies and execution plans. The rapidly advancing digital innovation ecosystem renders existing knowledge and policy implementation strategies insufficient to engage.

Interaction during a breakout session

Some participants at the policy dialogue listening attentively

In Nigeria, the prevailing digital literacy gap in human capital poses a significant threat to the nation's prosperity in the global digital economy. Recognising the deficit for global digital competitiveness and its impact on developmental priorities, The National Information Technology Development Agency (NITDA) launched the National Digital Literacy Framework (NDLF) aimed at navigating the challenges of digital illiteracy, fostering skill development, and ensuring Nigeria's active participation in the global digital landscape. The framework is a pivotal instrument in providing a clear and consistent definition of digital literacy. It is also critical to the development of a national curriculum for digital literacy capacity building training to ensure that everyone, regardless of their background or location, can acquire the skills they need to succeed in the 21st century economy[3].

As part of an agenda to create an inclusive and participatory implementation plan that recommends resource allocation for the execution of the NDLF, a Policy Dialogue was organised as a platform for stakeholders to understand the provisions of the National Digital Literacy Framework and contribute towards an implementation plan towards achieving Digital Literacy.

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[2]*NITDA, 2023, National Digital Literacy Framework (NDLF), Page 7.*
[3]*(Mubarak U.), August 2023, National Digital Literacy and Skills Framework: A key to Nigeria's digital future.*
https://dailynigerian.com/national-digital-literacy/

Why Digital Literacy Matters

In the rapidly evolving landscape of the modern world, digital literacy stands as a cornerstone for individual empowerment and societal progress. Its significance extends far beyond mere proficiency with devices and software; it captures a variety of skills essential for navigating, contributing to, and thriving in the digital age[4].

The digital landscape in Nigeria faces multitude of challenges that impact both citizens and businesses. Many rural areas lack access to essential digital infrastructure and face limited opportunities to acquire essential digital literacy skills. This digital divide hampers inclusivity and creates obstacles to achieving financial and social inclusion, limited access to education and skills development, and overall impact on the economic, education and health sector.

Without a proper understanding of digital tools and technologies, individuals, and businesses in Nigeria will not be able to utilize the benefits of the digital innovation ecosystem as they will remain reliant on manual methods, leading to cumbersome and slow operations, ultimately hindering efficiency. As we witness the technology revolution that fundamentally affects the way we live, work, and relate to each other, the importance of digital literacy will continue to grow, shaping every aspect of human lives and Nigeria must prepare its workforce for the challenges of the 21st century digital environment.

Equipping Nigerians with relevant digital literacy skills will have several benefits. Firstly, it will help to improve the economy by creating new opportunities in the digital sector. Secondly, it will significantly reduce unemployment by making it easier for people to find jobs. Thirdly, it will enhance labor productivity and mobility by making it easier for people to learn new skills and move between jobs. Finally, it will improve investment by making Nigeria a more attractive destination for businesses.

To tackle this issue, a holistic strategy is essential, involving collaboration between the government, private sector, and educational institutions. This collaborative effort can create a sustainable framework for digital literacy that not only empowers individuals and businesses but also propels Nigeria towards comprehensive economic development in the digital era.

The unveiling of NDLF by Nigeria's Information Technology apex agency would bridge the existing digital divide and empower its citizens with standardised digital education and skills training to participate meaningfully in the digital economy.

A policy dialogue on the NDLF was held to discuss practical ways to achieve participatory and inclusive digital literacy.

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[4](Mubarak U.), August 2023,National Digital Literacy and Skills Framework: A key to Nigeria's digital future.
https://dailynigerian.com/national-digital-literacy/

Key issues of the framework discussed at the policy dialogue were:

1 Creating a Nigeria standard for NDLF implementation: knowledge, skills, competencies, and components

2 NDLF inclusion into the educational curriculum

3 Enabling policies for NDLF implementation – Digital Literacy Bill and workforce

4 Development of a baseline assessment and measuring tool

Mr. Olusegun Alimi, Technical Advisor - Digital Policy and Cooperation, GIZ / DTC Nigeria

Dr. Thuweba Diwani, Commission Manager, GIZ / DTC Nigeria and Oswald Osaretin Guobadia, Managing Partner, DigitA

Cross-section of attendees at the policy dialogue

THEMATIC AREAS

1· CREATING A NIGERIA STANDARD FOR NDLF IMPLEMENTATION

To establish a robust framework, a combination of the European Digital Competence Framework for Citizens, also known as Dig Comp, with elements from UNESCO's global framework was used for the development of the digital literacy framework. The NDLF seeks to encompass defined standards influenced by the country's needs relating to knowledge, skills, competencies, and various components essential for achieving digital literacy goals in the country.

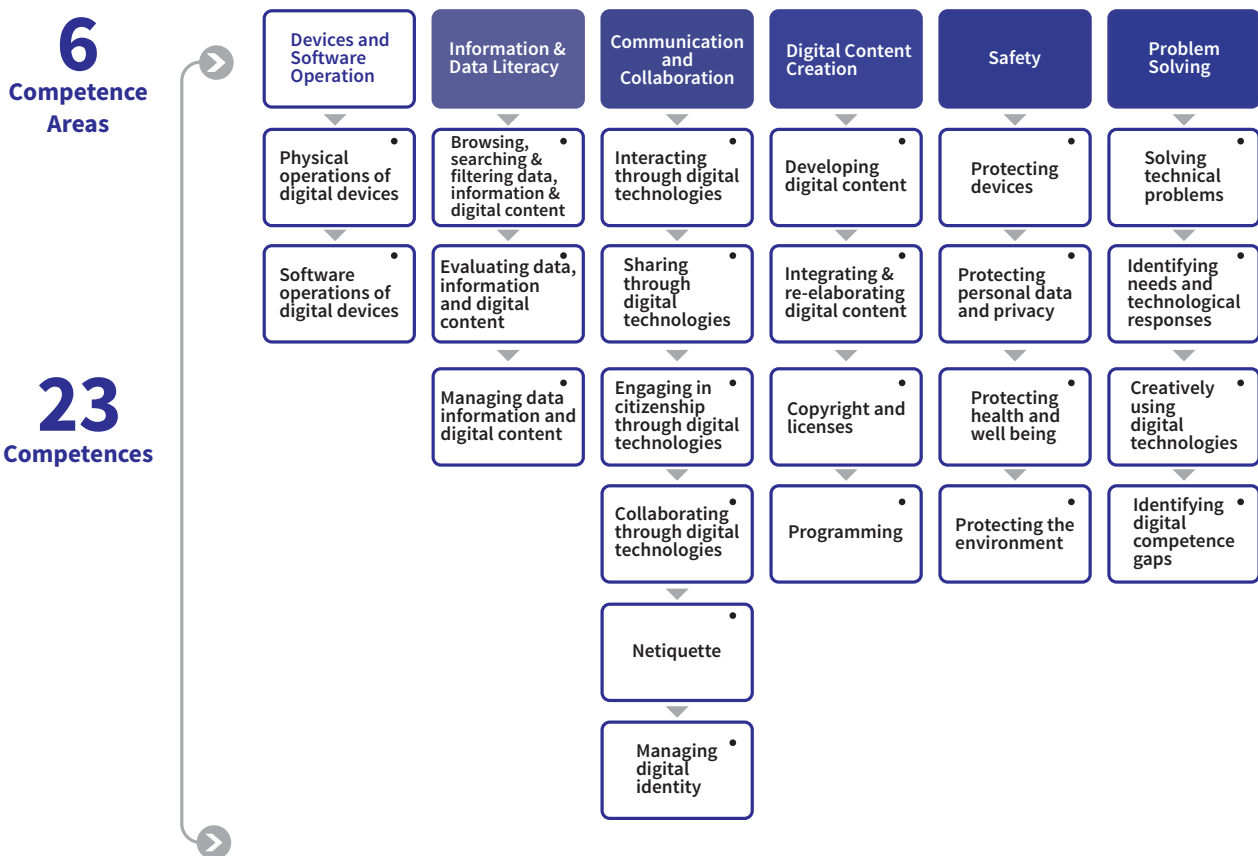**Fig 1:** *Adoption of DigComp and UNESCO for NDLF*

Fig 2: *NDLF competency areas*

2. NDLF INCLUSION IN THE EDUCATION CURRICULUM:

Technological development have greatly improved the global economic situation and the structure of the labor force in this digital age of the 21st century, however many schools in Nigeria are yet to acknowledge its importance and implementation. Strategic Initiative 1 of NDLF seeks to ensure that students at all levels of education are digitally literate before graduation[5]. This will require that NDLF be integrated into the curriculum. There is also a need to rate the performance of the previously approved curriculum and adopt improved strategies to ensure that NDLF is included in the education curriculum and is successfully implemented.

3. UP SKILLING OF GOVERNMENT WORKERS TO ACHIEVE NDLF TARGET:

The enhancement of the digital skills and competence level of public servants has become imperative, especially in today's world where organisational processes are hugely dependent on ICT tools and platforms. Government operations and processes significantly impact all other sectors of the nation, therefore, building the digital competence and capacity of public service officers would go a long way in advancing a digital economy. Strategic Initiative 2 of the NDLF seeks to ensure that workers at national and subnational levels are digitally literate for effective management of the nation's digital economy[6]. However, there is much to be done for an effective and progressive upskilling of Government workers within the time frame to achieve the 70% and 95% targets by 2027 and 2030 respectively.

4. BASELINE ASSESSMENT AND MEASURING TOOL:

A Baseline assessment is essential for building a database against which to monitor and assess the NDLF progress, and effectiveness in achieving the 95% and 70% target[7], however the baseline must be determined by an actual data collected from all areas to aid projection and planning towards the achievement of the NDLF targets. Nigeria currently has no baseline that can be used to establish the proficiency level of Nigerians in digital literacy and serve as a reference point to measure progress based on the 6, 23, and 8 competency areas, competency and proficiency levels respectively present in the framework. Additionally, there are no established tools for measurement of the 70% and 95% target of the NDLF.

Dr. Bosun Tijani, Minister of Communications, Innovation and Digital Economy, Nigeria

A participant presenting after the participatory breakout session

[5]*NITDA, 2023, National Digital Literacy Framework (NDLF),Page 21.*
[6]*NITDA, (2023), National Digital Literacy Framework (NDLF), Page 22.*
[7]*NITDA, (2023), National Digital Literacy Framework (NDLF),Page 22.*

RECOMMENDATIONS

To ensure an inclusive and participatory approach in the implementation of policies, and make this framework valuable and impactful to Nigeria's digital economy aspirations, the following actions through a participatory means of stakeholders at the Policy Dialogue on the NDLF are recommended:

1· PASSING AN EXECUTIVE BILL (DIGITAL LITERACY BILL)

In the elaborate process of transforming the Digital literacy bill which seeks to domesticate the digital trainings and programmes and learning institutions, the complex nature of lawmaking demands meticulous planning, deliberation, and consideration of various interests and implications. NDLF's Strategic Initiative 4, aimed at passing the Digital Literacy Bill through the National Assembly with NITDA as the designated agency[8], requires strategic measures for successful implementation. Recommendations for this process include implementing data collection and need analysis through a dedicated dashboard, fostering holistic stakeholder buy-in at both state and federal levels, adopting a comprehensive expert drafting approach, lobbying legislative stakeholders for bill approval, and leveraging media channels to enhance awareness and acceptance of the proposed legislation. These strategic steps are crucial to navigate the intricate legislative landscape and ensure the effective passage and implementation of the Digital Literacy Bill.

2· NEED TO CREATE A NIGERIAN DIGITAL LITERACY STANDARD:

To ensure consistent digital literacy practices in Nigeria, it is imperative to establish a comprehensive digital literacy standard for Nigeria. Creating a template that aligns with local standards, specifically tailored to the Nigerian populace, will foster inclusivity, understanding, and active participation across all demographics. This standardized framework should be localized, respecting cultural sensitivities and diversities, and involve grassroots communities for the collection of quality data. Additionally, proper documentation of these standards is essential to maintain consistency, clarity, and user-friendly references for both stakeholders and development partners, facilitating the realization of a digitally empowered Nigeria.

3· BUDGET LINES FOR ACTUALISATION OF STRATEGIC INITIATIVE 1-4 OF THE NDLF

Strategic Initiative 5 aims to establish budget allocations for implementing activities outlined in strategies 1-4, directing funds to the relevant Ministries Departments and Agencies (MDA's) overseeing strategies 1-3. This should include exploring public-private partnerships, generating revenue through tax policies, monetising support from local and international development partners, and harmonising educational funds across MDAs to ensure effective resource allocation and implementation of the specified strategies. These measures will contribute to the successful execution of the initiatives outlined in the strategic plan.

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[8]*NITDA, (2023), National Digital Literacy Framework (NDLF), Page 23.*

4· INCLUSION OF DIGITAL LITERACY AS A CORE SUBJECT IN THE EDUCATIONAL CURRICULUM

Nigeria's educational system demands a comprehensive restructuring to align with global trends while ensuring its citizens are equipped to navigate international opportunities and adapt to the evolving world. Within the NDLF Implementation Plan, Strategic Initiative 1 highlights the imperative for students to attain digital literacy before graduation, defining the Federal Ministry of Education as the key actor . However, the implementation of this vision and expectation of potential challenges stands as significant hurdles for policymakers and academia.

A comprehensive restructuring, led by the government, is essential to strategically equip students with core digital skills at all educational levels. This transformation should involve the inclusion of digital literacy to local educational content and the seamless integration of digital literacy into the educational curriculum. Furthermore, ensuring compulsory training and certification for teachers in digital core courses will be pivotal, empowering them to effectively guide students through this transformative educational journey.

5· MONITORING AND EVALUATION TOOLS

Effective monitoring and evaluation (M&E) are pivotal for measuring project progress and success, providing ongoing learning and feedback throughout its stages. Despite efforts in government sectors, particularly by NITDA, to promote digital literacy there is a lack of a clearly defined Monitoring and Evaluation Framework for integrating ICTs and digital literacy. As identified by the NDLF, NITDA is tasked with institutionalising and coordinating the M&E mechanism. This can be actualised through breaking down stakeholders across regions through geographical and language mapping, establishing local committees, and creating regional representation offices for broader inclusivity. Additionally, the development of a digital data collection and reporting tool through the development of a Dashboard, along with the provision of necessary infrastructures like laptops, tablets and internet connectivity is essential for effective monitoring and evaluation at all levels of implementation.

6· BUILDING AND MANAGING A ROBUST AND COLLABORATIVE NDLF ECOSYSTEM:

To achieve 70% of 95% Digital Literacy in Nigeria, there is a critical need for widespread collaboration and commitment amongst stakeholders in the digital ecosystem. This demands effective stakeholder mapping and management of a collaborative NDLF Ecosystem to monitor, reward, and celebrate contributions. NITDA can employ using regional uniqueness for inclusive requirements, developing metrics for tracking outcomes, adopting a multi-sectoral response, and promoting engagement through the identification of award criteria and awareness campaigns.

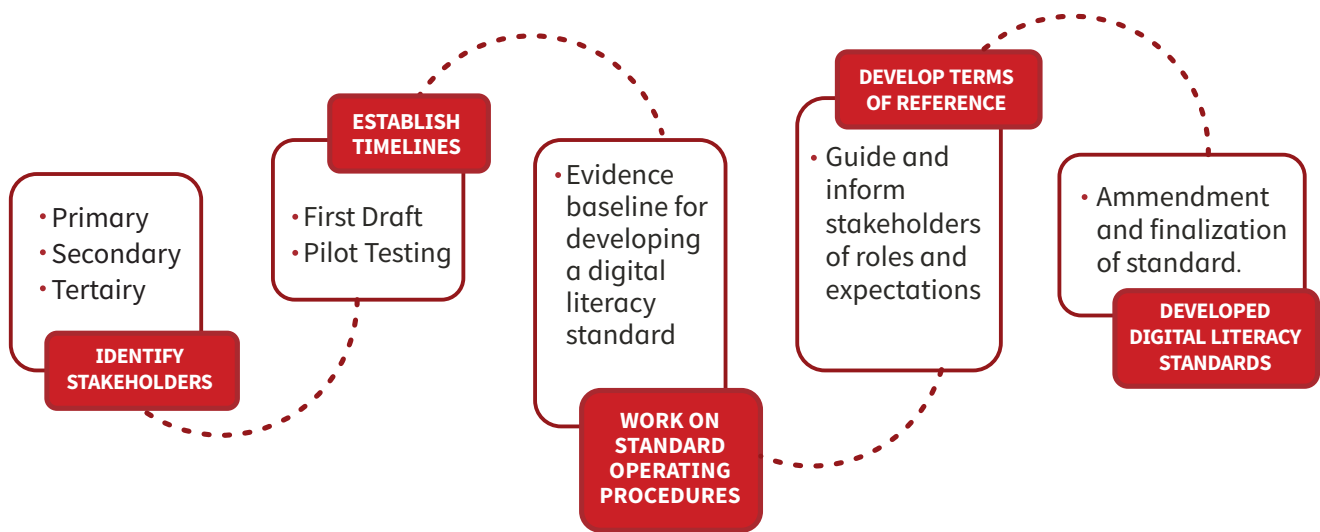# HOW CAN WE WORK AS AN INDUSTRY TO ESTABLISH DIGITAL LITERACY STANDARDS?

ESTABLISH TIMELINES

- Primary
- Secondary
- Tertairy

IDENTIFY STAKEHOLDERS

- First Draft
- Pilot Testing

- Evidence baseline for developing a digital literacy standard

WORK ON STANDARD OPERATING PROCEDURES

DEVELOP TERMS OF REFERENCE

- Guide and inform stakeholders of roles and expectations

- Ammendment and finalization of standard.

DEVELOPED DIGITAL LITERACY STANDARDS

Fig 3: *Process flow to establish digital literacy standard*

WHICH STAKEHOLDERS ARE REQUIRED TO ESTABLISH A NIGERIA STANDARD FOR DIGITAL LITERACY?

TERTIARY STAKEHOLDERS

- Learning Institutions
- Development Partners
- Media Organisations
- Research Partners
- Other Government Bodies

PRIMARY STAKEHOLDERS

- NITDA
- Federal Ministry of Communication
- Federal Ministry of Education
- Policy Consumers
- Teachers Registration Council of Nigeria
- Federal Ministry of Finance

SECONDARY STAKEHOLDERS

- Media Organisations
- Research and Academia
- Community Based Organisations
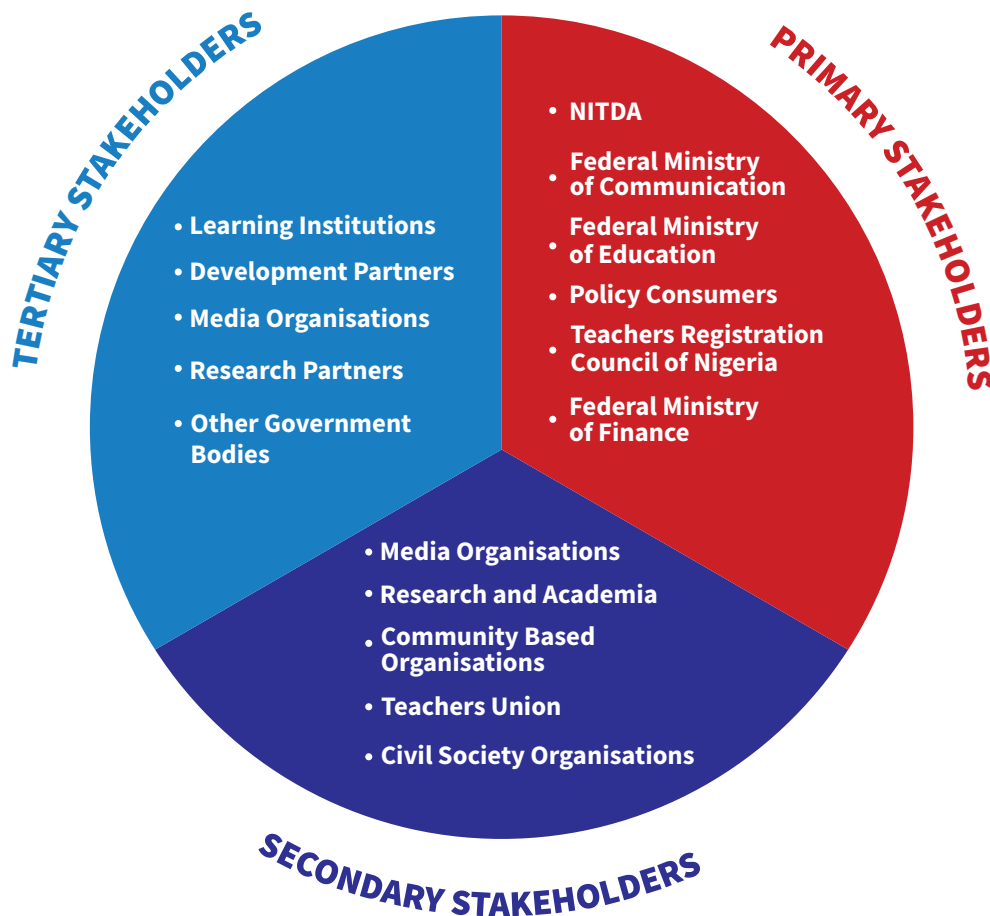- Teachers Union
- Civil Society Organisations

Fig 4: *Adoption of DigComp and UNESCO for NDLFKey stakeholders involved in the establishment of Nigeria's digital literacy*

PRIORITIES FOR POLICY ATTENTION IN SHORT TO MEDIUM-TERM

At the Policy Dialogue on the National Digital Literacy Framework, the stakeholders through a participatory breakout session identified key priority areas policymakers should pay attention to in the short to medium term to achieve digital literacy and meet the 70% and 95% targets established in the framework. Below are the priority areas highlighted.

Key priority areas, resources and time plans for implementation for NDLF

ACTION STEPS	RESPONSIBILITIES	COLLABORATIVE INSTITUTIONS	ANTICIPATED CHALLENGES
Key Priority 1: Restructuring the educational system to include NDLF in the curriculum and making digital literacy a core course (**Time frame:** December 2024 - December 2025)			
1. Review the current curriculum. 2. Domestication of Curriculum. 3. Training and retraining of Teachers and Teachers Educators. 4. Establish STEM clubs and Ensure provision and accessibility of enablers.	NITDA, Federal Ministry of Education, Federal Ministry of Communications, Innovation and Digital Economy, and other relevant Agencies.	Civil society Organisations (CSOs), Teachers union, labour union, and licensing bodies like the Teachers Registration Council of Nigeria (TRCN) Various teachers' institutes, and relevant organised private sector organisations.	1. Resistance by teachers, schools, and persons whose relevance is threatened by digital literacy. 2. Lack of digital skilled teachers to drive new curriculum. 3. Lack/ inadequate funding for restructuring. 4. Lack of necessary infrastructure and tools.
Key Priority 2: Establishment of a Baseline on digital literacy proficiency (**Time frame:** Dec 2024-Dec 2025)			
Collate primary data to establish digital proficiency Level (baseline).	NITDA, Federal Ministry of Communications, Federal Ministry of Education, Innovation and Digital Economy, and other relevant Agencies.	CSOs and relevant tech hubs and organisations, National Youth Service Corps (NYSC), Research Institutes, think tanks, etc.	Lack of adequate tools to aid the collection of primary data across last mile communities and hard to reach areas in Nigeria.

ACTION STEPS	RESPONSIBILITIES	COLLABORATIVE INSTITUTIONS	ANTICIPATED CHALLENGES
Key Priority 3: Develop a participatory implementation framework (**Time frame:** April 2024 - March 2025)			
1. Set up steering and working Committees. 2. Stakeholders Mapping. 3. Create implementation timeline. 4. Collaboration with relevant stakeholders.	NITDA, Federal Ministry of Communications, Innovation and Digital Economy, Federal Ministry of Education, and other relevant Stakeholders and developmental partners	Relevant stakeholders identified across the trisector.	1. Lack of enthusiasm amongst stakeholders to drive development of the framework. 2. Inadequate skills and knowledge of stakeholders required to actively participate and contribute towards the development of the framework. 3. Unclear reporting and accountability mechanisms, translating to difficulties in tracking outcomes and sticking to implementation timeline.
Key Priority 4: Passing a Digital Literacy Bill (**Time frame:** December 2024)			
1. Adopting a comprehensive Expert approach to draft a Digital Literacy Bill. 2. Stakeholders buy-in and inclusion of relevant stakeholders to incorporate their recommendations to aid relevance and successful implementation. 3. Lobbying of legislators to Ensure the Bill is passed. 4. Exploring media outlets to create awareness of the bill. 5. Creation of a data collection and storing dashboard to store information and monitor progress.	NITDA, Federal Ministry of Communications, Innovation, and Digital Economy, Federal Ministry of Education, National and State Assemblies, and other relevant government agencies.	Relevant stakeholders identified across the trisector.	1. Stakeholders and Educational institutions resistance to change of educational curriculum. 2. Inadequate funds for the allocation of resources to promote digital literacy. 3. External influence from educational institutions, tech institutions or interest groups may affect the efficacy of the bill.

ACTION STEPS	RESPONSIBILITIES	COLLABORATIVE INSTITUTIONS	ANTICIPATED CHALLENGES
Key Priority 5: Create a digital literacy standard For Nigeria (**Time frame:** December 2024)			
1. Develop a Terms of Reference to guide and inform stakeholders of their roles and expectations. 2. Establish timelines to guide the development of the standard.	NITDA, Federal Ministry of Communications, innovation, and Digital Economy, Federal Ministry of Education, and other relevant government agencies.	Civil societies, the Teachers Union, labour unions, and licensing bodies like the Teachers Registration Council of Nigeria (TRCN) Various teachers' institutes, tech hubs, and other relevant organisations across the trisector.	1. Lack of cooperation and buy-in from critical stakeholders. 2. Lack of sustained will and action to see the process from development through deployment. 3. Lack/ Inadequate acceptance of the standard on the global frontier.
Key Priority 6: Promote stakeholders' collaboration to achieve a digital Nigeria (**Time Frame:** April 2024 - December 2025)			
1. Stakeholder identification. 2. Onboarding of identified stakeholders. 3. Role mapping of stakeholders. 4. Creation of awareness and gather insight of stakeholders. 5. Stakeholders engagement to secure their buy in and active involvement in the NDLF vision, fostering a collaborative approach to collectively own and drive the implementation.	NITDA,Federal Ministry of Communications, innovation, , Federal Ministry of Education and Digital Economy, And other relevant Government agencies.	Civil societies, the Teachers Union, labour unions and licensing bodies like the Teachers Registration Council of Nigeria (TRCN) Various teachers' institutes, tech hubs, and relevant trisector institutions.	1. Possible risk of not securing stakeholders who represent the needs and challenges of rural areas, potentially leading to digital initiatives that represent the needs of rural communities. 2. Lack of a comprehensive stakeholder engagement plan can result to inefficiency and lack of synergy among stakeholders.

ACTION STEPS	RESPONSIBILITIES	COLLABORATIVE INSTITUTIONS	ANTICIPATED CHALLENGES
Key Priority 7: Create monitoring and evaluation tools that cut across all levels(**Time frame :** December 2024 - December 2030)			
Develop a digital data collection and reporting dashboard.	NITDA, Federal Ministry of Communications, innovation, Federal Ministry of Education and Digital Economy, And other relevant Government agencies.	CSOs, think tanks, relevant tech hubs, and trisector organisations.	1. Inadequate funding to support scope and impact of the data collection tool. 2. Possible occurrence of Data breaches or privacy issues. 3. Possible challenge of keeping the data updated in real time.
Key priority 8: Budget lines for the actualization of strategic initiatives 1-4 of the NDLF (**Time frame:** December 2023 - December 2030)			
1. Explore public-private partnerships. 2. Revenue generation from tax policies. 3. Monetise strategic support from local and international development partners. 4. Harmonise educational funds across MDAs.	NITDA, Federal Ministry of Communications, innovation and Digital Economy, Ministry of Finance, Federal Board of Inland Revenue, State and local government Revenue boards and authorities And other relevant Government agencies.	Relevant stakeholders identified across the trisector.	1. Delays in the disbursement and allocation of budgeted funds can affect the timely execution of strategic initiatives. 2. Inadequate funding may affect implementation of strategic initiatives.