

ENHANCED DIGITAL SKILLS DEVELOPMENT AND DIGITAL INCLUSION: A NECESSITY FOR PROFESSIONAL RELEVANCE OF OFFICE TECHNOLOGY AND MANAGEMENT IN A TECHNOLOGICAL AGE

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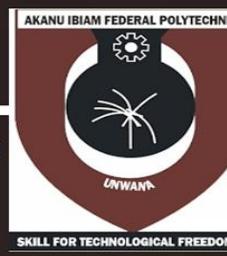
Abstract

Technological revolution of every age dictates how they live and operate. Today, technological evolution has made digital skills and by extension, digital inclusion an essential aspect of everyday life. In the world of work, potential employees are expected to possess basic digital skills, at least, irrespective of their core professional skills. OTM programme was a “rescue” programme for Secretarial Studies when its products, at the beginning of the millennium, risked redundancy and massive loss of job. It is however, not enough to overhaul the programme via change of curriculum, there is need to ensure the facilities and infrastructure needed to optimally transfer the skills imbedded in the curriculum. The paper adopted the approach of literature review as secondary data and reviewed the different categories of digital skills in demand today, the challenges to enhanced digital skills development and digital inclusion in Nigeria, importance of digital skills, ways to enhance digital development and inclusion. The paper concluded that digital skills are integral part of OTM programme and so the programme draws its relevance from the skills it stands to offer, hence the need to ensure the required facilities to effectively teach it are provided. Among other things, the paper suggested that NBTE should ensure frequent review of the OTM curriculum to keep it abreast with the trending digital skills in the world of work. It also suggested that infrastructural deficit should be addressed extensively and that there should be deliberate efforts to include relevant industries and private sectors.

Keywords: Digital Skills, Office Technology and Management, Digital Inclusion

1.0 Introduction

The world as it is today have experienced four different stages of industrial revolution, which includes mechanization/steam power (1765), mass production/assembly line and electrification (1870), automation/computers and electronics (1969), and finally, present day's



revolution which includes cyber physical systems, internet of things, networks, artificial intelligence, gene editing, advanced robotic, and so on. Every age's revolution/technology dictates how people of the age and their world function. The present age is not an exception. Technology has so taken over everyday operation such that there is virtually no aspect of life today (be it business, economy, social life, education, employment, and so on) that is not impacted and still witnessing varying degrees of changes at an unprecedented speed. Consequently, as technology keeps evolving, there has been constant changes in skills demand for employability in the world of works. Currently, it appears that skills-demands for certain jobs are no more so sharply divided along "professional" lines as the demarcating lines appear to gradually erode. For example, it is no longer the exclusive preserve of secretaries to type, edit documents, or handle/process correspondents in the office today. Almost everybody can do that now and so being a "secretary" or "office manager" requires far much more than ability to type and proofread or simply put, ability to use the computer to process documents. The mere ability to use a computer no longer sets potential employees apart from other candidates.

One key skill in use and demand in business and world of work today, consequent upon technological evolution is digital skills. Digital skills are now part of the existential skills required for relevance in today's business world. They are in high demands across all types/fields and not just limited to the tech sector. Eliku (2022) agreed with this assertion when he submitted that digital skills cut across various disciplines with particular emphasis on entrepreneurship. He reiterated that entrepreneurship skills have passed the era of soap/detergent making, and the likes and has moved to digital entrepreneurship, which helps in marketing businesses, irrespective of discipline, sector, or chosen field. European Commission report (2023) showed that 90% of professionals, including agricultural workers, are expected to possess basic digital skills and so it concluded that nearly all jobs require basic digital skills. The job/field may, undoubtedly, demand certain specific basic professional skills but beyond that, digital skills which are relevant to the job are still required for effective operation. Another research report from World Economic Forum (WEF) (2023) puts the evaluation of the global digital transformation market size, as at 2021, at USD 608.72 billion. The market was then expected to grow further by 23.1% from 2022 to 2030, thus increasing the demand for digital skills. The report, therefore, emphasised that more and more employers



are expecting potential candidates or job seekers to have basic digital skills. It is no longer enough to have just the excellent knowledge of one's area of "specialization", there is always that more that will distinguish one applicant from the others. Earlier in 2018, the WEF conducted a global survey of companies and the result provides a glimpse of the forthcoming transformations across industries, Africa inclusive; it showed that industries are constantly adopting new technologies, some of which are data analytics, app and web-enabled markets, internet of things, machine learning, cloud computing, digital trade (e-commerce), augmented reality, encryption, new materials, wearable electronics, 3D printing, blockchain, and robotics at varying percentages. Interestingly, the WEF survey also found that certain class of jobs will be redundant and even if the jobs continue, workers and professionals would need to have hybrid skills - not only the skills of their core profession, but also digital skills. For instance, an accountant would not only need the usual accounting knowledge, but also skills in spreadsheets, databases, and so on; a marketing director needs to also have skills in digital marketing, social media, and content marketing and using search engine optimization (World Bank, 2020). Suffice it then to say that if digital skills are becoming such a huge demand on other professions, business education/office technology and management professionals cannot be expected to possess less.

With the advent of ICT, integration of office automation for enhanced operations, better organised process and increased productivity became a norm in businesses. As such, workers are expected to be able to multitask, thus justifying the demand for significant other skills such as digital skills for professional relevance. Oyedinefu (2022) observed that as technology evolves and digital transformation continues to shape how businesses operate, the list of digital skills will continue to grow, adding that there would be openings for new job opportunities and growth in the creation of new roles. It, therefore, becomes imperative for potential employees to learn new skills. Aside jobs, digital skills have become an integral part of everyday life. The COVID-19 pandemic, where employees were forced to work from home using digital devices was one case in point that brought to the fore the need for basic digital skills among employees and potential employees, irrespective of the profession. More than ever before, it has become necessary that OTM as a programme will not remain stuck in the yesteryears' curriculum but must be kept abreast with the currency of societal

technological changes, if it must remain relevant in this age and time. There is need for constant review and or enrichment of education curriculum but beyond that, the infrastructure deficit that limits digital skills acquisition in the programme must be addressed extensively.

2.0 Methodology

The research approach adopted for this study was literature review based on secondary data. The paper was broken down into different subtopics relevant to the study to make the review easier.

2.1 *What are Digital Skills?*

Digital skills have been variously defined. Digital skills comprise the various abilities that relate to technology, which include computer (software and hardware) and digital devices. Basically, digital skills refer to the essential skills needed to use computers and digital devices to access and manage information. These involve ability to use digital devices (referred to as digital literacy) and computing methods to complete tasks and responsibilities. By extension, digital literacy involves having the expertise and knowledge for effectively utilizing technology-based devices such as tablet computers, laptops, smartphones, desktops and iPads among others, to communicate and express oneself (Dynamic Measurement Group, 2010). It is through the acquisition of these digital skills that one can make good use of the available digital platforms in the market for both business as well as social purposes.

UNESCO (2023) defined digital skills as a range of abilities to use digital devices, communication applications, and networks to access and manage information. European Parliament and the Council (2006) viewed digital skills as the ability to use computers to find, evaluate, store, produce, present and exchange information and to communicate and participate in collaboration networks through the internet. According to Tech Partnership (2017), digital skill is the ability to search for, find, examine, use, transfer and create content through information technology platforms such as the internet. The group presented basic digital skills in five categories viz. managing information, communicating, transacting, problem solving, and creating contents. These five areas, more than anything, covers the core professional duties of OTM graduates generally referred to as office managers in today's office. It then goes without say that digital skills are very essential for the relevance of OTM in a digital era.



2.2 Types/Categories of Digital Skills

Digital skills are generally categorised into basic digital skills and advanced digital skills. The basic digital skills, according to DevSkiller (2023), are grouped into the following six categories:

- a. **Digital Foundation Skills.** The ability to navigate digital technologies such as web browsers and search engines, and keep passwords secure.
- b. **Communicating.** Using communication applications like email and social media to communicate with others.
- c. **Handling of Information and Content.** Having digital awareness and understanding the digital footprint we leave behind.
- d. **Transacting.** The ability to use online resources to complete basic tasks like paying bills and doing online shopping.
- e. **Problem-Solving.** The ability to navigate search engine results to find solutions to problems and answers.
- f. **Being Safe and Legal Online.** Understand how to keep oneself safe in the digital sphere.

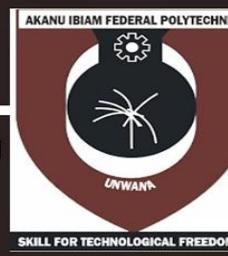
DIGCOMP (2016), on the other hand, grouped the basic digital skills into five broad categories thus:

- a. **Information, Alphabetical Listing of Information and Data Processing.** Identifying, locating, recovering, storing, organising and analysing digital information and assessing its relevance and purpose.
- b. **Communication and Collaboration.** Communicating in digital environments, sharing resources online, connecting and collaborating with other people using digital tools, interacting and participating in communities and networks, intercultural awareness.
- c. **Creation of Digital Content.** Creating and editing new content (texts, images, videos, etc.), integrating knowledge and reworking previous content, creating artistic works, multimedia content and IT programming, knowing how to apply the relevant rights.
- d. **Safety.** Personal protection, protection of data and digital identity, security, safe and sustainable use.

- e. **Problem Solving.** Identifying needs and digital resources, making decisions in order to select the best digital tools according to the situation or purpose, resolving conceptual and technical problems through digital means, creative use of technology, updating one's own skills and those of others.

Advanced digital skills, according to Preston (2023), are as follows:

- a. **Digital Office Software.** This involves the use of software tools to communicate and organise work using word processing and spreadsheet programs. Office software systems can include email programs that maximize storage and search features and facilitate contacts and message groups. These software systems can also include the use of a collaborative online calendar that lets employees schedule notifications for business and team events. Learning to update and use this software is an essential business practice in many fields.
- b. **Search Engine Marketing (SEM).** SEM involves using search traffic from internet users to gain more exposure for a brand, increase traffic to a company's website, highlight certain products or attract a larger audience of potential customers.
- c. **Search Engine Optimization (SEO).** Similar to SEM, search engine optimization focuses more on creating searchable content through organic or unpaid methods. SEO uses keywords to determine ways to optimise content so that users can find a company's webpage as a top search result.
- d. **Social Media Marketing.** Employees who understand the use of social media for marketing and business purposes can help companies expand their brand's reach and attract more potential customers. Businesses use social media to reach consumers and provide a platform for interaction. Many consumers use social media to communicate their needs with a company, including leaving reviews, asking questions about a product and discovering the values and operational processes of a business. Learning to post content and advertise on social media platforms to enhance business interactions with consumers can lead to increased engagement, more leads and an expanded customer base.
- e. **Data Analytics.** Interpreting data from vast source materials is also an important digital skill for employees. Learning the metrics your industry uses is another important

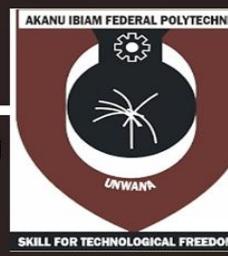


consideration for this digital skill. While retailers may focus on interpreting data from point-of-sales systems or incentives like coupons or reward programs, companies offering services may focus on metrics like lead volume and website traffic. Industries use data analysis to create strategies for areas such as customer service or advertising, and competency in this skill may increase one's opportunities for jobs using data science.

- f. **Digital Content Marketing.** Knowledge of content marketing strategies can help to understand how to market a brand and use items like videos and blog articles to establish a business as an expert voice on a product or service. Using other skills in written communication and creativity can increase your ability to produce effective and engaging content for a consumer audience. Digital content skills can also include creating white pages, podcasts, graphics, and e-books for online audiences.
- g. **Email Marketing.** Understanding the use of email communications in business is another digital skill within multiple industries. Customer service, marketing and leadership positions can all use strong communication skills to connect with current and potential customers using digital newsletters, offers and product updates sent via email software. Learning the techniques to share an offer with consumers and the psychology that pertains to getting the readers' attention are part of this ability.
- h. **Digital Project Management.** With many industries integrating software tools into their daily workflows, it is important to understand the role of a digital project manager and what it means to solve problems and reorganise processes to optimise the completion of a project. Knowledge of recognised methodologies, like agile and waterfall, in digital spaces is important for those working in any position using information technology. This skill can also benefit employees who oversee teams and collaborative processes that use software tools.
- i. **Pay-Per-Click Marketing (PPC).** This combines writing skills with an understanding of user psychology to attract consumers to click on an advertisement. It also uses sales and marketing techniques to negotiate the cost of each click and how the return on investment relates to the click price. For example, if you agree to pay for up to 1,000 clicks through a website ad agency or individual website, you can consider the cost of

the product and how many people are likely to click to determine if the cost per click is a reasonable amount.

- j. **Video Conferencing.** This deals with the use of video conferencing to connect and share information, host social events or conduct interviews with potential job candidates. It can also be used to facilitate learning sessions and conduct virtual presentations. To use it effectively, knowledge of the basic control functions for video conferencing platforms is critical.
- k. **E-Commerce.** The increase in online retail opportunities for consumers has led to the need for more employees with e-commerce skills. Learning the nuances of online business transactions is an important ability for employees who work in software design, user experience, marketing and customer service. E-commerce has also become an essential part of the financial industry with an increase in technological applications for online banking and investment services.
- l. **User Experience (UX) Design.** This concerns a consumer's interaction with a digital product. This discipline focuses on the usability, function and appearance of a digital interface. It is the combination of technical skills and workplace skills that make websites, apps, and online experiences more intuitive and enjoyable. UX designers work to create an environment that makes a good impression on a consumer using general design skills like layout or color and font choice. They also understand computer functions such as interactive links and landing pages.
- m. **Basic Computer Programming.** Basic knowledge of common computer coding languages is an in-demand skill for many employers. Learning to code for web applications and computer programming can help to find opportunities in a variety of industries and improve a job candidate's value. Coding is also an important part of emerging technologies like artificial intelligence and augmented reality. This can make it a beneficial skill for future career opportunities due to the increasing prominence of software development across many industries.
- n. **Cloud-Based Competencies.** Cloud platforms allow businesses to collect, store and share large amounts of data. Employees also use cloud-based software systems to



collaborate remotely. Developing the competency to use cloud platforms is an important ability in workplaces across multiple industries.

2.3 Digital inclusion and professional relevance of OTM

Martinez (2022) defined digital inclusion as the policies and programmes that provide access to the internet regardless of race, gender, income or ability. Digital inclusion involves the activities necessary to ensure equitable access to and use of information and communication technologies for participation in social and economic life including for education, social services, health, social and community participation (Wikipedia, 2023). According to United Nations (2022), digital inclusion is the equitable, meaningful, and safe access to use, lead and design of digital technologies, services and associated opportunities for everyone, everywhere. Digital equity deals with ensuring that people have equal access to and provision of resources to effectively use the internet and other office technological devices optimally. UN further explained that digital equity refers to ability to participate, that is being able to create and influence content that is relevant and on one's own language.

Martinez (2022) emphasised that digital inclusion is the policies and programmes that provide access to the internet; it is about ensuring that everyone has access to the information and resources that digital tech provides for social services, health access, education tools, workforce development, connection with community and more. For National Defense Industrial Association, digital inclusion includes five elements and they are: affordable, robust, broadband internet service, internet enabled devices that meet the need of the user, access to digital literacy training, quality technical support, and application and online content designed to enable and encourage self-sufficiency, participation and collaboration.

The 2004 transition from Secretarial Studies to Office Technology and Management was in response to technological driven changes in the world of work. It was a total overhaul that saw the introduction of courses like database management, webpage design, information management system, ICT office application, desktop publishing, among others, into the programme. A closer survey of the courses will reveal that they are designed to equip the beneficiaries of the programme with relevant digital skills of the era. This also meant that OTM will lose its relevance without digital skills. The challenge, however, is that the programme is not moving/catching up with the speed of the ever-evolving technology of



today's world. The regulatory body for OTM programme, National Board for Technical Education (NBTE) appear to be resting on their oars after the laudable 2004 transition. A check at the NBTE website showed that there had not been any curriculum review for HND OTM programme since its birth in 2004. The ND OTM curriculum had fared slightly better in terms of review; it was reviewed in 2006, just two years after its launch. The last attempt at reviewing it was in collaboration with UNESCO in 2009, which eventually did not get properly integrated, reasons for which many schools are still stuck with the 2006 curriculum. Running a programme of the nature of OTM with a redundant curriculum, which is not quite reflective of the technological changes of the day is unhealthy for the programme, as it risks extinction if the right thing is not done at the right time. It, therefore, behooves the designers of the programme, the regulatory body and the relevant stakeholders to ensure frequent review and enrichment of the curriculum so as to facilitate digital skills development and digital inclusion of the beneficiaries of the programme.

2.4 Challenges to Digital Skills Development and Digital Inclusion

DevSkiller (2023) observed that despite technological advancement and incorporation, generating enough candidates with the right digital skills, is still farfetched globally and especially in developing countries like Nigeria. This meant that the rise in the use of technology is not on par with the growing number of skilled candidates thus resulting in growing skills gap. 2021 World Bank Development Report cited in Onyedinefu (2022) revealed that over 50% of Nigeria's 200 million population lack digital skills as a result of lack of digital literacy, non-affordability and insufficient relevant content. Other challenges to digital inclusion in Nigeria are digital illiteracy, which include inability to use digital tools including computers, smartphones and the internet; connectivity – bothering on lack of access to the internet via broadband, Wi-Fi, and mobile devices. Okoye and Umeifekwem (2023) found some factors that challenge digital inclusion and development in Nigeria to include infrastructural inequalities and deficit, and intentional institutional and political phenomenon.

Another identified challenge to digital inclusion in Nigeria is the lack of relevant digital development and inclusion policy. It has been argued that without policy interventions, ongoing technological developments threaten to exacerbate the inequalities between those with and without digital skills. Benjamin and Foye (2022) stressed that adopting a strong policy to

promote digital technologies and minimize the possible effect of future global problems on the Nigerian economy and address strategies for digital economy is essential. Unfortunately, according to the duo, there had been factors that hinder relevant policy adoption, particularly the industry 4.0 technologies in Nigeria and the factors include illiteracy/language barrier, disparities between urban and rural areas, lack of digital literacy, internet crime, computer phobia, fluctuating transmission signal, and institutional factors.

Oye (2019) identified lack of access, affordability and poor funding, among others, as factors militating against digital inclusion and inclusive development in Nigeria. This had been the experience of many tertiary institutions running OTM programme. The resultant effect is that these institutions lack the basic digital facilities, infrastructure and compliant environment necessary for active digital skills transfer to their students. The imEducation, Mallam Adamu Adamu, in 2022 admitted that Nigeria needs to improve the existing teaching methodology in schools and increase its commitment to providing digital skills for its students as demonstrated in its policies, strategies and initiatives. Poor funding, more than anything else, hamper the process of digital skill development and digital inclusion of youths offering OTM programme in many Nigeria polytechnics. The report of the Economist Intelligence United Limited (2018), reported in Benjamin and Foye (2022) showed that Nigeria ranked 79th out of 81 countries with a digital readiness score of 2.125, which simply suggests that the Nigerian education sector lags in the adoption of the digital learning system. There may have been pockets of digital semblance in the education sector such as the National Open University of Nigeria (NOUN), uLesson platform birthed as a result of COVID-19 Pandemic, and adoption of computer-based test (CBT) for unified tertiary matriculation examination (UTME) by the Joint Admission and Matriculation Board (JAMB), more still needs to be done to ensure adequate digital inclusion in learning. Ensuring that everyone has relevant digital skills helps promote inclusive and equitable education and lifelong learning for all.

2.5 Importance of Digital Skills and Digital Inclusion

Digitalization presents several opportunities for employment, socialization, education, and so on, which can be harnessed if there is understanding of the skills sets needed to fit into each area. Digital tools ranging from smart devices to software clients are important in businesses across a broad range of industries, making them important for modern individuals.



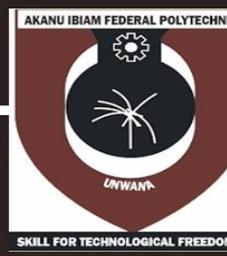
Digital skills, according to Odeyemi (2023), have moved from optional to critical and need to be complemented with transversal soft skills such as the ability to communicate effectively in both online and offline mediums. One other importance of digital skills is that they are in high demand and greatly improve prospects for decent and higher earning employment. Odeyemi further opined that regardless of the field of work, developing general technological abilities and the digital skills important to one's industry can help one execute responsibilities more efficiently. Another importance is that ability to use basic technological systems enables faster adaptation to emerging technologies and digital workflows. Odeyemi concluded that digital skills are essential to keep up with the increasing popularity of digital-centric interactions like virtual collaboration, online commerce and remote work.

DevSkiller (2023) buttressed that the world is embracing technology every day, hence the need for digital skills development with a view to increasing relevance by using technology to enhance productivity in work, learning and daily life. Indeed, provision of advanced digital skills is part of solution to unemployment because they not only open windows for new jobs but also ensures one's relevance and effective participation in the society.

2.6 Ways to Enhance Digital Skills Development and Digital Inclusion in Nigeria

A former president of the United States, Mr. Barack Obama, once said that internet is not a luxury but a necessity. This statement has not been any truer as it was during the COVID-19 pandemic of 2020 till date. The issue of connectivity with others and the need for current and correct information to manage life and situations were clearly palpable. The pandemic unraveled a lot of possibilities and then more than anything else the need for digital knowledge and inclusion. It literally forced the fast tracking of digital age in Africa and around the globe. It now remains to build on the digital benefits of the COVID-19 pandemic so as to facilitate digital inclusion among Nigerians.

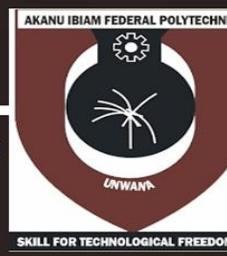
Nigeria has a national digital economy policy and strategy (NDEPS), which captured its digital projection for the period covering 2020-2030. NDEPS was anchored on eight pillars, which are developmental regulation, digital literacy and skills, solid infrastructure, service infrastructure, digital services development and promotion, soft infrastructure, digital society and emerging technologies, indigenous content promotion and adoption. As at 2022, Nigeria government announced that it was targeting attaining 95% digital literacy in the country by



2030 (Dariem, 2022). Religious pursuit and implementation of this policy will enhance digital development and digital inclusion in Nigeria.

Oye (2019) advocated the adoption of appropriate digital inclusion and inclusive development policies and strategies that will aid in revolutionalising and transforming Nigeria's development. Waswa, et al (2021), while analysing a 2021 World Bank Group (WBG) Youth Summit report, identified ensuring accessibility, availability and affordability of technology as well as ensuring a fragmented entrepreneurship support ecosystem as a two-step approach that will solve some of the key identified challenges to digital inclusion in Africa and Nigeria by extension. The group further emphasised that barriers to accessibility, availability and affordability are majorly due to lack of access to electricity, power outages, high internet costs, and poor infrastructure and therefore, recommended a shift towards renewable energy (Renewable Solar Energy Systems) to address the challenges and enhance digital skills development and digital inclusion. To tackle the challenge of digital illiteracy, the group suggested the development of digital public goods, including training and making the digital training content available in native languages. The group also emphasised the need to establish proper policy, legal and institutional frameworks, and reducing the digital divide through collaboration and partnership among various stakeholders. This is particularly true for tertiary education system in Nigeria. Government alone cannot provide the needed facilities, infrastructure and digital environment required for seamless digital skills development and digital inclusion. The efforts and contributions of the private sector, industry and other relevant stakeholders are essential to attaining that height. Preston (2023) outlined the following steps to improve digital skills:

- a. **Engage in Self-Instruction.** Look for free courses online or through a local study centre, study online videos, blogs and other resources to refine basic digital skills.
- b. **Regular Use Technology at Work.** Digital skills can be practically improved by using technology in the workplace whenever possible. For example, taking notes on a word processing program during a work conference instead of using paper and pen, creating digital presentation aids to use video conferencing calls rather than relying on your vocal presentation. Incorporating technology into one's work where possible can help one become more comfortable and confident with various digital skills.



- c. ***Earn a Certification for Specific Skills.*** Enroll for a certificate programme for specific skill sets to enhance proficiency and boost confidence.

As part of the measures to enhance digital development and bridge digital gap, UNESCO (2018) suggested the dual measures of digital upskilling and digital reskilling. Digital upskilling consists of providing the skills and knowledge needed to improve digital literacy with focus on enhancing skills by adding to the existing skill set within a role. Reskilling, on the other hand, deals with the process of learning new skills needed to do an entirely different job. As machines continue to replace humans, instead of leaving the affected employees behind, they can be reskilled.

3.0 Conclusion

With the advent of ICT at the beginning of the millennium, many secretaries were displaced in their jobs and those still having their jobs were not sure for how long before they will become redundant and subsequently lose their jobs. The fear of extinction was real. The transition of Secretarial Studies to Office Technology and Management in 2004 was, therefore, a very laudable move, which sought to address the identified technological challenges. ICT related courses such as database management, management information system, webpage design, desktop publishing, and so on, were included into the curriculum so as to equip the beneficiaries of the programme with saleable skills. A breakdown of the specific learning outcome of the courses showed that they were designed to equip OTM graduates with basic digital skills. It then goes to say that without those digital skills, OTM risks extinction in a digital era. The challenge, however, is that while technology keeps evolving with the attendant changes in digital skills demand, OTM curriculum has remained redundant and generally unchanged since its rebirth in 2004. Another challenge is that lack of digital facilities and infrastructure are hampering the effective teaching of the current curriculum and thereby hindering the digital skills development and digital inclusion of the beneficiaries of the programme. It is therefore imperative that the relevant stakeholders would rise to the occasion so as to ensure that OTM does not lose its relevance in a digital era.



Suggestions

Based on the reviews, the following suggestions were made:

1. NBTE should ensure frequent review of OTM curriculum across board so as to keep abreast with the digital skills demand of the day.
2. Government should prioritise education in Nigeria in budgeting and fund allocation.
3. Government should provide the basic infrastructure such as electricity, to enhance digital skills development.
4. Heads of OTM departments in Nigeria polytechnics should endeavour to identify skills training needs of their lecturers and as well help to see they get it.
5. Relevant stakeholders should partner with government to sponsor different aspects of tertiary education.
6. A strong feedback mechanism between employers of labour and trainers of labour/workforce should be established.

REFERENCES

Benjamin, O. O. & Foye, V. O. (2022). Inclusion, organisational resilience and sustainable development in Nigeria: The role of digital innovations. *Environmental Science proceedings*, 15(1)27. <https://doi.org/10.3390/environscipro2022015027>

Dariem, N. (2022). Nigerian government tasks educational institutions to enhance digital skills.

<https://von.gov.ng/nigerian-government-tasks-educational-institutions-to-enhance-digital-skills/>

DevSkiller (2023). What are digital skills and why are they important. www.devskiller.com/blog/what-are-digital-skills/

Digital Competence Framework (2016). adaptation. September.

European Union (2023). Committee report. https://joint-research-centre.ec.europa.eu/digcomp_en

Eliku, M. (2022). Digital Skills Will Fast Track Industrialisation in Nigeria. *Leadership Newspaper*.
<https://leadership.ng/digital-skills-will-fast-track-industrialisation-in-nigeria-don/>

Martinez, H. (2022). What is digital inclusion? Learn with the definitions and examples.

United Way of National Capital Area. <https://www.unitedwaynca.org>

Obama, B. (2015). The internet is not a luxury, it is a necessity. Techcrunch.

<https://techcrunch.com/2015/07/15/internet-for-everyone/>

Odeyemi, V. (2023). What are the benefits of having digital skills in 2023 & beyond?

MSME Africa. <https://www.msmeafricaonline.com/author>

Okoye, N. S. & Umeifekwem, U. T. (2023). Addressing digital technology gap challenges:

The Nigerian experience. <https://www.researchgate.net/publications>

Oye, P. O. (2019). Strategies and challenges for promoting digital inclusion and inclusive

development in Nigeria: The library perspective.

<https://www.digitalcommons.uni.edu/>

Preston, R. (2023). Digital skills development and digital inclusion.

<https://www.indeed.com/career-advice/career-development/digitalskills>

Tech Partnership (2015). What are digital skills?

UNESCO (2018). <https://en.unesco.org/mlw/2018>.

Waswa, S. C., Murasalzada, V., Sheti, M., Atien, P., Ayua, I. T., N'Doua, N. S. & Daniel, S.

(2021). Going digital is no longer an option: Addressing barriers to digital inclusion in Africa. <https://blogs.worldbank.org>

World Bank (2020). Digital skills: Frameworks and programs.

https://ngea.gov.ng/Content/resources/DTTWG%20Training_National%20Digital%20Economy%20Policy%20and%20Strategy.pdf

World Bank (2021). Digital skills framework for Africa.

<https://Documents1.Worldbank.Org/Curated/En/562351611824219616/Pdf/Digital-Skills-Frameworks-And-Programs.Pdf>

World Economic Forum (2023). How big is the digital skills gap?

<https://www.weforum.org/agenda/2019/03/the-digital-skills-gap-is-widening-fast-heres-how-to-bridge-it/>