

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

---

Winter 1-5-2021

## INTRODUCTION OF ICT IN NIGERIAN SECONDARY SCHOOLS

Eniekebi ejiroghene  
ejiropere@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

---

ejiroghene, Eniekebi, "INTRODUCTION OF ICT IN NIGERIAN SECONDARY SCHOOLS" (2021). *Library Philosophy and Practice (e-journal)*. 4987.

<https://digitalcommons.unl.edu/libphilprac/4987>

# INTRODUCTION OF ICT IN NIGERIAN SECONDARY SCHOOLS

**ENIEKEBI REGINA EJIROGHENE**

LIBRARY DEPARTMENT

COLLEGE OF EDUCATION, P.M.B 1251 WARRI, DELTA STATE NIGERIA

08036287275

ejiopere@gmail.com

## **ABSTRACT**

*The research is to study the introduction of ICT in secondary schools in Nigeria. ICT in education is a tool par excellence that a nation can count on to create self-reliance. The study observed that, Nigeria is still experiencing a delay in its implementation of ICT, and this continues to expand the divides between digital and information, and access to ICT facilities is a major challenge facing Nigerian schools. The study concludes that although ICT can play a role in education, schools in Nigeria are yet to adopt it extensively for teaching and learning. Efforts to incorporate ICT into the school system didn't have much impact, Problems such as poor policy, strategies for implementing the projects and poor information infrastructure are militating against these efforts. The study recommends that the government should make efforts to post and provide ICT-qualified teachers to each school to impart ICT skills to the pupils, and also to stabilize Nigerian electricity supply.*

**Keywords:** Information and technology, Teaching, Learning, secondary schools.

## **INTRODUCTION**

Information and Communication Technologies (ICT) are electronic technologies used for information storage and retrieval. Development determines in part the ability to create a synergistic interaction between technological innovation and human values. Since the mid-20th century, the rapid rate of evolution of ICTs, the integration and omnipresence of ICTs, give them a strong role in growth and globalization. ICTs have influenced the area of education which have inevitably impacted teaching, learning and science. ICTs have the capacity to accelerate,

improve and expand skills, inspire and engage pupils, help link school experience to work practices, create economic viability for employees of tomorrow and strengthen teaching and help change schools (Davis and Tearle, 2010; Yusuf, 2011) Computer education is essential in a rapidly changing world if a person is to be able to access and apply the knowledge. The African Economic Commission has stated that being able to access and utilize information is no longer a privilege but a strategic requirement.

Sadly, many developing countries, especially in Africa, are still backward in the implementation and use of ICT (Aduwa-Ogiegbean and Iyamu, 2008). This paper focuses on the use of ICT in Nigerian schools, highlighting the importance of ICT in Nigerian schools and the reasons for abuse of ICT, and providing recommendations. Data and ICT were critical tools and had a profound impact on how and how we view the world. Today it is hard to undermine the role of ICTs in education and the world at large. New, day-to-day businesses are run and facilitated by internet use of telephones, fax machines, and electronic communication networks. This phenomenon has brought forth, among others, contemporary e-commerce, e-government, e-medicine, e-banking and education. According to Bandele (2006), ICT is a revolution involving the use of computers, the internet and other telecommunications technology in all aspects of human endeavour. The author suggested that ICT is a matter of simply sharing and easily accessing data. It is known by people all over the world as the super highway through which creation is transmitted and exchanged. Ozoji in Jimoh (2007) defined ICT as the handling and processing of information (text, photographs, graphs, instructions, etc.) for use, using electronic and communications devices such as computers, cameras, telephones. Ofodu (2007) also refers to ICT as an electronic or computerized tool, supported by human and interactive resources that can be used for a wide range of teaching, learning and personal use. Therefore, ICT could be interpreted from these definitions as the processing and sharing of information using all kinds of electronic devices, umbrella which includes all technologies for manipulating and communicating information. The Nigerian education sector has developments that suggest some degree of ICT adoption at the Nigerian schools. The Federal Government of Nigeria acknowledges the prominent role of ICTs in the modern world in the National Education Policy (Federal Republic of Nigeria, 2010), and has integrated ICTs into Nigeria's education system. To realize this objective, the document states that the government will provide basic infrastructure and preparation at primary school. Computer education was made an elective pre-vocational at the basic school, and is a technological medium and training for the introduction of ICTs into the school system. It should be noted that 2004 wasn't the Nigerian Government's first effort to implement electronic education in schools. In 1988 the Nigerian government adopted a policy of computer education. The aim was to create pilot schools and spread computer education innovation first to both secondary and tertiary schools, and then to primary schools. However, the project did not actually take off after personal computers were delivered and deployed (Okebukola, 2007; cited by Aduwa-Ogiegbaen and Iyamu, 2008). Okebukola (2007), cited by Aduwa-Ogiegbaen and Iyamu (2008), notes that in more than 90 per cent of Nigerian public

schools, the computer is not part of classroom technology. What is said by which chalkboard and textbook at most Nigerian schools continue to dominate classroom activities.

The Federal Ministry of Education has launched an ICT-driven project known as School Net (Federal Republic of Nigeria, 2010) to provide computer and communications infrastructure for all schools in Nigeria. The New Partnership for African Development (NEPAD), held at the World Economic Forum African Summit in Durban, South Africa in June 2003, launched the high school's elective e-schools. It is also the government's plan to provide the required initiative aimed at equipping all African high schools with ICT equipment including computers, radio and television sets, telephones and fax machines, communication equipment, printers, digital cameras, and copiers. It is intended to link African students to the Internet, too. The NEPAD capacity-building program will be introduced over a ten-year period, completing the high school portion in the first five years.

This envisages three stages, with fifteen to twenty countries in each phase. The stages are to be phased, and is intended to support an additional 600,100 students. The project aims to impart ICT skills to schools of young Africans and to leverage ICT to develop, enhance and extend education in African nations. A mobile Internet unit (MIU) run by Nigerian National Information Technology Development Agency (NITDA) has been approved by the Nigerian federal government. The MIU is a local bus turned into a mobile training and cyber hub. The interior has 10 workstations, all wired and networked to the Internet. The MIU also includes printers, photocopiers and several multimedia services. The Internet is made available via VSAT with a 1.2 m dish mounted on the bus ' roof. It also features a small electrical generator to ensure regular power supply. The MIU takes the Internet to certain locations and separate primary and high schools. The number of buses is so limited but most rural areas and schools have not been reached yet. Although efforts have been made to ensure the availability and use of ICTs in Nigerian schools, the degree of uptake is still small.

NEPAD ranked students from the African continent with very low level of ICT experience and their ability to use them. Fifty-five per cent of students worldwide including Nigeria, Algeria, Burkina Faso, Cameroon, the Republic of Congo, Egypt, Gabon, Lesotho, Mali, Mauritius, Mozambique, Rwanda, Senegal, South Africa and Uganda (participating in the first phase of the NEPAD e-school initiative) said they had no computer experience whatsoever. Other results included that the traditional African school environment does not provide resources or preparation to use ICTS and that 75% of responding teachers have no or rather limited ICT educational applications experience and expertise.

## **THE NEED FOR ICT IN EDUCATION**

Development and use of ICT will be helpful in developing the education system in Nigeria and will provide the students with better education. A technologically advanced workforce will contribute to Nigeria's ICT development, with the ability to improve military technology and telecommunications, media communications, and trained ICT professionals who will be well-equipped to tackle IT issues in Nigeria and elsewhere. New instructional techniques employing ICTs offer a different instrument modality. Having ICT for the student allows for improved learning individualisation.

In schools where new technologies are being used, students have access to resources that adapt to their attention span and provide useful and immediate input to boost literacy, which is not currently being fully implemented in the Nigerian school system. The ability to effectively use computers has become an important part of the education of all. Skills such as bookkeeping, clerical and administrative jobs, stocktaking, and so on, are now a collection of computerized tasks that make up the core IT skills package: spreadsheets, word processors, and databases (Reffell and Whitworth, 2010).

There is a growing demand for computer / ICT literacy in Nigeria because workers know that computers and other ICT facilities can improve efficiency. On the other hand, employees have also realized that computers can pose a threat to their jobs, and the only way to improve job security is to become computer literate. The teaching and learning of these skills is a concern amongst professionals due to the high demand for computer literacy. This is true of other elements of ICT, too. Improved education is vital to establishing effective human capital in any country. The need for ICT cannot be over emphasised in Nigerian schools. Everyone needs ICT competency to thrive in this technology-driven era. Organizations find it very important to train and retrain their employees in order to develop or improve their computer and other ICT facilities skills, which need students to early learn ICT skills.

### **Problems of ICT Introduction to Secondary schools in Nigeria.**

In Nigerian secondary schools the problems of acceptance and deployment of ICT are attributed to several factors.

- ✓ Limited / poor IT-The schools lack / insufficient ICT equipment.

- ✓ Frequently disrupted electricity
- ✓ Failure to incorporate into school curriculum
- ✓ Weak ICT policy / Plan for executing the project
- ✓ Insufficient ICT manpower in Schools
- ✓ ICT facilities / components High cost Limited school budget
- ✓ Teachers lack / restricted ICT skills
- ✓ Teachers and administrators lack / poor perception of ICTs
- ✓ Inadequate Technology for Education
- ✓ Poor management of school administrators and government.
- ✓ Lack of Maintenance culture.
- ✓ Students lacking interest in / use of ICT applications.

Research shows that ICT implementation and deployment in Nigeria are not well developed due to poor information infrastructure (Adomi, 2006, Adomi, 2005, then 40 percent of Africa's population is in areas not covered by telecom services. Schools located in such areas will face ICT connectivity issues.

### **Others Include:**

#### **1. Lack of qualified teachers to teach ICT in schools.**

There has been a huge demand for ICT learning and the number of teachers trained to teach ICT cannot meet the demand. Many students are eager to be taught computer skills than the teachers are willing to transfer the skills.

#### **2. Computer shortages**

Computers are still very costly and despite concerted attempts by government agencies, Charities, private organizations and individuals to donate computers to as many schools as possible, a large percentage of schools still remain unable to buy computers for their pupils ' use.

#### **3. Electricity shortages.**

There are still many schools that are not connected to electricity; Nigeria is a developing country, and the government has not been able to connect all parts of the country to the national grid. Some schools which fall within these areas are therefore left with disabilities and may not be able to offer computer studies.

#### **4. Computers are still expensive in Nigeria**

In a country with high inflation rates, most people and schools cannot afford to buy a computer and consider it a luxury item, more expensive than a television. While the 2nd hand computers cost between N105, 000 and above as N50,000 naira and branded new computers sold.

#### **5. Broken down computers**

while a large number of schools have benefited from donated used computers, they have not been properly equipped with the same on maintenance and repair, hence it's very normal to see a school computer lab full of broken down machines, some repairable and some not. This was in fact a major problem and the government has now put strict measures on any individual, NGO or corporate body willing to donate 2nd hand computers. (It is called a dumping ground); control of e-waste;

#### **6. Burglary**

The fact that computers in Nigeria are still very expensive; this makes them a target for criminals who typically have ready markets at much lower numbers to another group. This has led many schools to incur additional expenses attempting to burglar-proof the computer rooms. The extra expense leads some schools to shy away from buying their students computers.

#### **7. Lack of Internet or weak connectivity**

Many schools are unable to link to the World Wide Web because of the high costs involved in telecommunications. On average it will cost about \$150 a month to connect to around 15 computers on a 128/64kbps bandwidth. This is considered very expensive for a very slow speed.

#### **8. The moral deterioration**

Internet pornography, cyberbullying and other antisocial behaviors is a disturbing emerging concern. The problem that emerges in delivering education technology stems from a lack of financial resources and a limited capacity for distribution. Nonetheless, many African countries were unable to hire teachers, and gave resources to meet this need. That results in poor educational quality. Additionally, many African governments face the educational expansion dilemma that corresponds to economic development. Notwithstanding the failures, most governments place a strong focus on access to education.

## **ICT POLICIES**

After being approved by the Federal Executive Council, Nigeria began implementing its ICT policy in April 2001 by creating an implementation agency, the National Information Technology Development Agency (NITDA). The policy empowers NITDA to enter into strategic alliances and joint ventures and collaborations with the private sector to realize the specifics of the country's dream of "making Nigeria an IT-capable country in Africa and a key player in the information society by 2005 using IT as an engine for sustainable development and global competitiveness." Some of the goals of Nigeria's ICT strategy are listed below: ensuring that ICT services are readily available to support successful national development.

- To ensure that the country benefits as much as possible and contributes significantly by delivering global solutions to the information age challenges.
- Enabling Nigerians to engage in software and ICT growth.
- Encouraging local production and manufacture of ICT components in a sustainable manner.
- Establishing and improving ICT infrastructure and optimizing its use nationwide
- To empower young people with ICT skills and prepare them for global competitiveness
- Integrating ICT into the education and training mainstream
- Encouraging joint venture partnership between government and private sector
- To grow human capital with a focus on creating and promoting a knowledge-based society. Using the NYSC, the NDE, and
- To train-the-trainer capacity building scheme to establish a mass pool of ICT literate manpower.

## **CONCLUSION**

In schools the adoption and use of ICTs has a positive impact on teaching, learning and research. Given the roles which ICTs can play in education, Nigerian schools have yet to implement them extensively for teaching and learning. Efforts aimed at incorporating ICTs into the school system, had little effect. Problems such as poor policies and implementation plans for programs and poor information technology are militating against these efforts. Subsequent efforts should be made to ensure that ICTs are widely adopted and used in the Nigerian secondary school system. The Government will make sure that ICT policy announcements are translated into

practice. A commission should be created for the implementation of ICT policies. This commission should be funded and given the power to provide the schools with ICT facilities and track their use. Both high schools are to be made beneficiaries of ICT programs. Computer / ICT education should be made compulsory for all high school students. Actually the National Education Policy, 4th ed., has turned computer education into an elective high school course. Which ensures that only those who choose to take it will get high school computer education. The Ministry of Education (at federal and state level) will strive to post ICT-skilled teachers at each secondary school to provide the students with ICT-skills. Nigeria's Federal Ministry of Mines and Power should be working to protect energy supplies.

## **RECOMMENDATION**

Subsequent efforts should be made to ensure that ICTs are widely adopted and incorporated into the school system in Nigeria. The Government will ensure that announcements on ICT policy are translated into practice. A commission should be formed for the implementation of ICT policies. This commission should be funded and given the power to provide ICT services for the schools and to control their use. Computer / ICT education should be made compulsory for all high school students. Actually the National Education Policy, 4th ed, has transformed computer education into an elective high school course. This ensures that only those who choose to take it will get high school computer education. The Ministry of Education (at federal and state level) should make efforts to post ICT-skilled teachers to each school in order to impart ICT-skills to the students. The Federal Ministry of Mines and Power should also seek to secure Nigeria's electricity supply and beneficiaries of ICT programs should be rendered to all students.

## **REFERENCES**

- Adomi, E.E. (2005a). Internet development and connectivity in Nigeria. *Program* 39 (3): 257-68.
- Adomi, E.E., & Anie, S.O. (2006). An assessment of computer literacy skills of professionals in Nigerian university libraries. *Library Hi Tech News* 23 (2): 10-14.
- Aduwa-Ogiegbean, S.E., & Iyamu, E.O.S. (2008). Using Information and Communication Technology in Secondary Schools in Nigeria. *Educational Technology & Society* 8 (1), 104-112.
- Ajayi, I. A., & Ekundayo, Haastrup T. (2009). The application of information and communication technology in Nigerian secondary schools. *International NGO Journal* Vol. 4 (5), pp. 281-286, May, Available online at <http://www.academicjournals.org/INGOJ> ISSN 1993—8225 © 2009 Academic Journals

- Bandele S.O (2006). Development of modern ICT and internet system. In Agagu AA (ed). Information and communication technology and computer Applications. Abuja: Pan of Press pp. 1 — 3.
- Dankor Matthew, Irinyang Danjuma Joro, & Haruna Manasseh (2015). The Role of Information Communication Technology in Nigeria Educational System. International Journal of Research in Humanities and Social Studies Volume 2, Issue 2, February 2015, PP 64-68 ISSN 2394-6288 (Print) & ISSN 2394-6296 (Online)
- Dave, P.A., & Tearle, J. (2010). Impact of ICT based distance learning: The African story. The Electronic Library 21 (5),476-486.
- Enakrire, R., & Onyenenia, O.G. (2007). Factors affecting the development of information infrastructure in Africa. Library High Tech News 24 (2):15-20.
- Esharenana E. Adomi. & Emperor Kpangban. (2010) “Application of ICTs in Nigerian Secondary Schools,” Library Philosophy and Practice 2010 (March) University of Nebraska — Lincoln DigitalCommons@University of Nebraska - Lincoln
- Evoh, C.J. (2007) Policy networks and the transformation of secondary education Through ICTs in Africa: The prospects and challenges of the NEPAD E-schools Initiative. International Journal of Education and Development Using Information and Communication Technology (IJEDICT) 3 (1), 64-84. Available: <http://ijedict.dec.uwi.edu/include/getdoc.php?id=2198&article=272&mode=pdf>
- Federal Republic of Nigeria (2004). National policy on education. 4th ed. Lagos: Nigerian Educational Research and Development Council.
- Federal Republic of Nigeria (2006). The government in action. Available: [http://www.nigeriafirst.org/article\\_2090.shtml](http://www.nigeriafirst.org/article_2090.shtml).
- Federal Republic of Nigeria (2010). National Policy on Education. 4th ed. Lagos: Nigerian Educational Research and Development Council.
- Jimoh AT (2007). Students attitude toward ICT in Nigeria tertiary institutions. Educ. Focus 1(1): 73 — 79.
- Kaku, F.A. (2005). The use of the Internet by secondary school teachers in the rural areas of Delta State: The case of Udu Local Government Area. Abraka: Delta State University. Unpublished B.Sc. (LIS) project.
- Ofodu GO (2007). Nigeria Literary educators and their technological needs in a digital age. Educ. Focus 1(1): 22 — 30.

- Okebukola, W.E. (2007). Integrating ICTs into the globalization of the poor developing countries. *Information Development* 22 (3): 167-179.
- Reffell, R., & Whitworth, O.G. (2010). Factors affecting the development of information infrastructure in Africa. *Library High Tech News* 24(2):15-20
- Okwudishu, C.H. (2005). Awareness and use of information and communication technology (ICT) among village secondary school teachers in Aniocha South Local Government Area of Delta State. Abraka: Delta State University. Unpublished B.Sc. (LIS) project
- Yusuf, M.O. (2011). Information and communication education: Analyzing the Nigerian national policy for information technology. *International Education Journal* 6 (3), 316-321.