

# THE NEED FOR A FUNCTIONAL INFORMATION AND COMMUNICATION TECHNOLOGY (I.C.T.) IN SECONDARY SCHOOL EDUCATION IN NIGERIA

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## **Abstract**

*The Information and Communication Technology (ICT) facilities and application in Nigeria are relevant to the mobilization of human capacity building. The prominent role of ICTs in the modern world has prompted the Nigerian government to integrate ICT into the curriculum of the Nigerian school system. However, this paper tends to x-ray the need for a functional Information and Communication Technology (ICT) in secondary school education in Nigeria. It started with an introduction, examined the place of ICT as a core subject in the Nigeria secondary education, the need and function of ICT in Nigeria secondary school. It also looked at the impact of ICT in Nigeria secondary school, mentioned the role of ICT in secondary school education, after which the possible challenges of ICT were highlighted, suggestions were given and then conclusions drawn.*

The ICT is an acronym for Information and Communication Technology. It is formed by the combination of Information Technology (IT) and Communication Technology (CT). The Information and Communication technology is a product of innovation and has become both the icon and engine of innovation today (Trucano, 2009).

The Federal Government of Nigeria in her National Policy on Education (FRN, 2004), recognizes the prominent role ICTs provide in the modern world and its integration into the Nigeria school system (Adom, 2010). Nevertheless, the demand for ICTs literacy is on the increase in Nigeria and new instructional technologies that use ICTs to provide different types of instrument for learning. There is a great expectation that adequate provision and utilization of ICT facilitates in schools will improve Nigeria educational system by giving students a better education. This paper focus on ICT facilities and its application in secondary schools in Nigeria with emphasis on ICT as a core subject. Onyejemezi (2001) cited in Iwu (2006) explained that information technology is used to describe any materials that creates, stores and has the ability to exchange the information. The process of organizing and storing of

information for use in the society, retrieval and dissemination of information is known as information technology.

The information to be communicated should be facts, orderly and carefully arranged so that they are accurate, timely, complete and concise for usage.

Information and communication technologies in secondary schools have changed the school in a profound way. Computers and networked electronic resources have become an integral part of secondary schools for the past one decade.

Nevertheless, every sphere of the Nigeria secondary school is being affected by ICT quite radically. No longer the Nigeria secondary school untouchable custodian of information providers (Cheng, 2001:32) of all the information and communication technologies, the internet and particularly the World Wide Web with its graphical user interface has had the greatest impact on the information revolution. (Duff 2003:6)

The concept Information Communication Technologies (ICT) means technologies that enable the society to create collect consolidate, manage and process information in multimedia and various digital for different formats for different purpose i.e. computing and telecommunications technologies. Like the personal computers, CD-ROM, cable TV, cellular phones and the internet. Ekwueme (2010) defined information and communication technologies (ICT) as the acquisition of computer and other telecommunication equipment.

The Wikipedia free internet encyclopedia defined information communication technology ICT as the technology required for information processing in particular the use of electronic computer and computers soft ware to convert store, protect process transmit and retrieve information.

### **ICT as a Core Subject in Nigerian Secondary Education**

The introduction of Information and Communication Technology (ICT) in schools as a core subject curriculum has the following:

- ❖ To ensure that all country, both developed and developing has access to the best education facilities necessary for preparing young people to play full roles in modern society and to contribute a knowledge nation. In order to do this, ICT curriculum for secondary schools (1994) and information for primary school (2000) were produced
- ❖ To ensure that ICT for secondary schools is made in line with the current international trends for all government to provide the most comprehensive education for their citizens.

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- ❖ To organize an outline programme of professional development for teachers to implement the specified ICT Curriculum successfully (UNESCO ICT Education 2002).

Government provision of efficient ICT facilities or infrastructure will add value to the process of learning in organization and management of schools. A secondary school ICT curriculum should contribute to the building up of teams of professionals, new competence such as critical thinking, general or broad competencies as well as competent work, decision making, handling of dynamic situations and working as a member of team communicate effectively. Obioms (2008) stated that the Nigeria new curriculum for schools emphasizes functional numeracy, literacy, technological productive life skills entrepreneurial skills as well as provision of ICT. The National Board for Technical Education at Kaduna produced National Technical Certificate (NTC) curriculum which include Information and Communication Technology (ICT) programme for technical colleges in Nigeria.

To realize the objectives of ICT curriculum, the ICT facilities should be provided for schools and utilized accordingly. According to the National Policy on Education of Federal Republic of Nigeria (FRN, 2004) government is expected to provide basic infrastructure and training in schools for the realization of ICT goals for advancing knowledge and skills necessary for effective functioning in world of today. When these are done, the students will be self productive after school.

**The Need for Functional ICT in Nigerian Secondary School Education**

According to Segun (1984), educational plans need instrument for information to enable them gathered information like computers laptops etc. While Mayo (2002) noted that, the computer is a multipurpose Machine or gadget that has the capacity of receiving or gathering data information, storing and processing and supplying the interrelated components (processors, peripherals, auxiliary and programmes, which play increasing role in communication technology, computer is structured to perform many functions which include data gathering, information processing, calculation, graphic design, system control, computer assisted instruction, Computer Management Instruction (CMI) information about each students is stored, learning is directed and evaluation is offered Chimezie (2002) opined that (CMI) has the following characteristics

- ❖ Organizing curricular and student data
- ❖ Monitoring students progress
- ❖ Diagnosing prescribing and evaluating learning out comes and
- ❖ Providing planning and information for teachers.

Computer assisted planning and instruction is a learning process during which a student can interact and be guided by a computer through a course of study aimed at achieving certain instructional goals. The Computer Assisted Instruction (CAI) interactive modes are sub divided into drill and practice, tutorial simulation/games and problem solving. According to Woherem (2001) the computer packages are able to instruct students on almost all the school subjects. He emphasized that the Computer Assisted Services (CAS) technology helps students in the rural areas to have access to the resources, libraries and other information on the internet.

Also the computer can be applied to the field of education:

- ❖ In the process of gathering examination marks, for printing mark sheet and
- ❖ Writing online exam eligibility test which are relevant to teaching and learning.

### **Impact of ICT on Nigerian Secondary School**

Development in ICT have brought about the merger of the computing information communications entertainment and mass Media industries there by providing means of exchanging Information any time any where in the digital format used by computers (David, 2001).

It also helps the school in keeping records, data retrieval resources, data bases, and electronic bulletin board information.

It enhances the ICT facilities and features that support teaching and learning. Iwu (2006) observed that, successful ICT secondary schools, are those that provide integrated technology for their students to increase their technological ability, seek, analyze, and evaluate new information, become problems solvers and decision makers use tools to create and effectively to assist them in decision and becomes communication. Indeed, the Federal Ministry of Education has lunch an ICT driven project known as school net ([www.snng.org](http://www.snng.org)) in Nigeria in 2004 (Adomi, 2006 and Okebu and Kola, 2004) which intended to equipped all secondary schools in Nigeria with computers and communication technologies, However three is need to ascertain whether the above stated objectives has been achieved. Some problems encountered in ICT manpower in schools is poor perception of ICT among teachers and students (Adomi and Kpangban, 2010). No wonder Adomi (2010) postulated that 75% of teachers in Nigeria Secondary Schools has little or no experience regarding ICT in Education. This implies that information and communication technology is still unfamiliar and distance to Most Nigeria at Secondary level.

### **Challenges of ICT**

- ⇒ Due to the fact that some secondary schools are faced with challenges because the government have failed to supply the computers and hinders the functional activities with the use of ICT in these schools.

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- ⇒ **Poor School Plant:** Some of the secondary schools have no good building structure, as they are in a state of collapsing.
- ⇒ **Lack of ICT Facilities:** Most secondary schools lack adequate and functional facilities, sometimes because of poor funding.
- ⇒ **Lack of Skilled Manpower/Personnel:** Some of the schools have no trained personnel that can teach and man the equipment.
- ⇒ **Poor ICT Training for Teachers and Students:** Teachers and students have no access to involve themselves in web site project development nor required to create a full of instructional/learning material.
- ⇒ Some of the few secondary schools in Nigeria who has the computers connected to the internet can not be able to operate it due to the difficulties they face.
- ⇒ **Uninterrupted Power Supply:** Almost all the secondary school are faced with the problems of power supply mostly because of no funding from their parent ministries this turn has made it difficult for ICT to effectively operate in secondary schools.
- ⇒ The lack of skilled manpower has really hindered the operation of ICT in some of the secondary schools if not all.
- ⇒ The various ministry/parastatals have made it difficult for ICT to effectively operate in secondary schools, due to non-challant attitude of the workers.
- ⇒ Lack of training and re-training of the teachers in ICT skills.

### **Conclusion**

The application of Information Communication Technology in Secondary education has assisted technological pursuit, saved human labour and cost as well as increased its effectiveness and efficiency in education. However, ICT facilities are not available in some schools today. There is need to make ICT facilities available in all schools to enable students become knowledgeable in the use of communication Technology to achieve our national goal and aspiration in education. The catalyst role of ICT in enhancing education, commerce and socio-economic development for human capacity building has been widely acknowledged as new technologies continue to evolve.

### **Suggestions/Recommendations**

The relevance and application of ICT in secondary education has a positive impact on teaching and research, among them are:

- i. Government should ensure that ICTs policy statement are translated into reality
- ii. Government should create an ICT policy implementation Commission. This commission should be funded and given the power to provide ICT facilities in

- schools and monitor their usage according to ICT Curriculum in Secondary education.
- iii. All Secondary schools should be made beneficiaries of ICT project
  - iv. Teachers and students in school should make use of ICT facilities and ICT Curriculum in the schools.
  - v. Principals of schools, Secondary Schools Management Boards and Ministry of Education should haise to ensure that ICT in schools are functional as well as the provisions Electricity Supply are (generator set) and security in the implementation of school ICT Curriculum. This will help secondary schools to function well.
  - vi. There is need for sufficient fund to be given by the federal /state ministry of education for the secondary school, so they may be able to purchase enough facilities in their schools.
  - vii. There is need for training and retraining of skilled man power that will be able to make the ICT facilities functionable in secondary schools.
  - viii. There is need for the teachers and students to be educated on how to use ICT facilities. This will help to facilitate its usage and help to create awareness and knowledge for the students and teachers. To this end government should organize capacity training for secondary school students and teachers.
  - ix. Government should also provide an ICT policy implementation commission and it should be funded and given the power to provide ICT facilities.
  - x. Government should ensure that ICT policy statements are translated into reality.

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