

# INFORMATION COMMUNICATION TECHNOLOGY (ICT) AND MEDIA EDUCATION: IN HISTORICAL PERSPECTIVE

*Kabir Mohammed*

Department Of History And Strategic Studies Faculty Of Arts, Management  
And Social Sciences Federal University, Dutsin-Ma, Katsina State, Nigeria.

*Binta Muhammad Yarinchi*

Department Of Educational Psychology Isa Kaita College Of Education,  
Dutsin-Ma, Katsina State, Nigeria.

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## Abstract

The role and impact of information and communication technology on modern academic world in general cannot be left unstudied. It is against this background the study argues that if it had not been for the art of writing and printing founded as a result of technological revolution there would have been no full learning as currently and evidently found taking right shape. In view of this, it should therefore be borne in mind that industrialization is fundamentally the backbone of our contemporary progress and achievements and the positive impact claims to have on our academic life cannot be overemphasized. The study examines the concept of ‘media technology’, history of the world of information technology, relevance and significance to teaching and learning processes, and has further explored the role played by (ICT) in revolutionizing academic activities. Finally, solutions to the problems confronting teaching profession, learning and the use of computer in Nigerian area, in particular have been presented as way forward.

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**Keywords:** Communication technology, relevance, teaching, learning, significance.\*

## Introduction

For a better understanding of what the study seeks to examine for an analysis, it will be interesting to note that both the information and communication technology and media education have contemporarily become inseparable, pertinent and so pervasive in all aspects of human life, activities and occupations in general. Information and communication technology in particular has been generating immeasurable contribution to the academic life of teacher and student in general. In view of the

significance and relevance of information and communication technology and media education to teaching and learning processes. The study will therefore examine the role played by the following stated concepts in the development of human knowledge. They are:-

- The concept of communication and its relevance to teaching and learning processes
- The concept of media technology education
- A brief history of the world of information technology
- The concept of computer and its relevance to teaching and learning processes
- Types of educational media for learning
- The role of ICT in promoting teaching and learning processes
- Major problems militating against the progress of teaching and learning processes in Nigerian area, with reference to the application of computer
- A way forward and conclusion

#### **The Concept of Communication and Its Relevance to Teaching and Learning Process:-**

Communication may mean imparting of information from one person to another or between groups. Mustapha states that:

Communication originates from source to a destination, from a sender to a receiver through certain medium. The medium can either be a print or electronic.<sup>1</sup>

In view of the significance and relevance of medium/media in general to teaching and learning processes Samuel Johnson view it this way: *“If it had not been for the art of printing there would have been no learning.”*<sup>2</sup> This emphasizes the positive and tremendous role plays by media in the development of intellectual activities of learners and teachers in general. In respect of the above, the study identifies that media is used for these fundamental academic purposes namely; academic research, imparting knowledge, record keeping, storing academic data, retrieving and disseminating information, aimed at enhancing teaching and learning aspects.<sup>3</sup>

#### **The Concept of Media Education/Technology:-**

Studies have shown that this involves a combination or integration of skills that could be used by the teacher in order to enhance communication, with a view to achieving objectives in the process of teaching and learning activities. The essence of teaching is to change the behavior of learners from unknown to known. In an attempt at changing this behavior, there is a need to effectively communicate for proper dissemination of information to the

academic audience, by the use of any given gadget/device or orally. The message normally runs through this channel; communicator (sender), channel/device message and communicatee (receiver).<sup>4</sup>

### **A Brief History of the World of Information Technology:**

In any case, it is interesting to note that our study discovered that there has been a radical departure from the communication revolution of 1960's and that of today it is basically, because modern system of communication/ communication revolution has today been accompanied by rapid industrialization. The result is that technological development is necessitated by social structure; new methods of communication have been discovered to facilitate the dissemination of information. Some of these methods include; computers and satellites.<sup>5</sup> These new forms of communication are highly sophisticated. For example; satellites send long ranged signals, while computers help to calculate million of things, to learn to conduct research and to acquire knowledge. Satellites and computers have transformed the world into a global village and have made "Distance" shorter. It is as result of this revolution in information technology that made interaction among nations, individuals, interaction between a teacher and his students has also become possible and so-close. Educationally, the need for further scientific and technological development has today made communication necessary through the application of any given gadget/ device in teaching and learning processes. Therefore, developing nation should copy in highly selective manner from the technologically advanced nations.

However, the inception, growth and impact of information technology can be traced to the origin and impact of industrial revolution. It is a well known fact that Britain was the first industrialized nation because her industrialization was the event of 1750's and France in 1760's. The industrialization of these two nations in particular had generated a series of scientific invention in the fields of agriculture, commerce, transport, communication and education in general to mention just a few. The study seeks to relate the role of information and communication technology in advancing teaching and learning processes in modern academic world. In view of this Ogumilade views them this way:

Educational technology as a systematic way of designing, carrying out and evaluating the total process of teaching and learning based on resources, human learning and commutation, and employing a combination of human and non-human resources to bring about more effective instruction in a given environment.<sup>6</sup>

Similarly, Adesina opines that;

Educational technology as complex, integrated process, involving people, procedures, ideas, devices and organization or analyzing problem, devising, implementing, managing solution to those problems involved in all aspects of human learning.<sup>7</sup>

It should therefore, be borne in mind that both the two highlight how relevant and significant information and communication technology is to the academic life of teachers and learners in general. It has in one sense, made teaching and learning activities simple, impressive and satisfactory.

### **The Concept of Computer and its Relevance to Modern Form of Teaching and Learning Process:**

Computer has been defined as an extremely fast electronic device that manipulates alphabetic, numeric and other symbols that human beings use to represent things according to the instructions given to it to do so. Computer stores vast amount of data and retrieves it within an extremely short time, “recall” and remember as well. It is a very versatile tool that can be used in so many diverse situations.

### **The Types of Media Used in Teaching and Learning Process:**

Educational media are many among others, we have projected teaching materials and non-projected teaching materials; Computer Assistance Instruction, (CAI) and Computer Assistance Learning (CAL).<sup>8</sup>

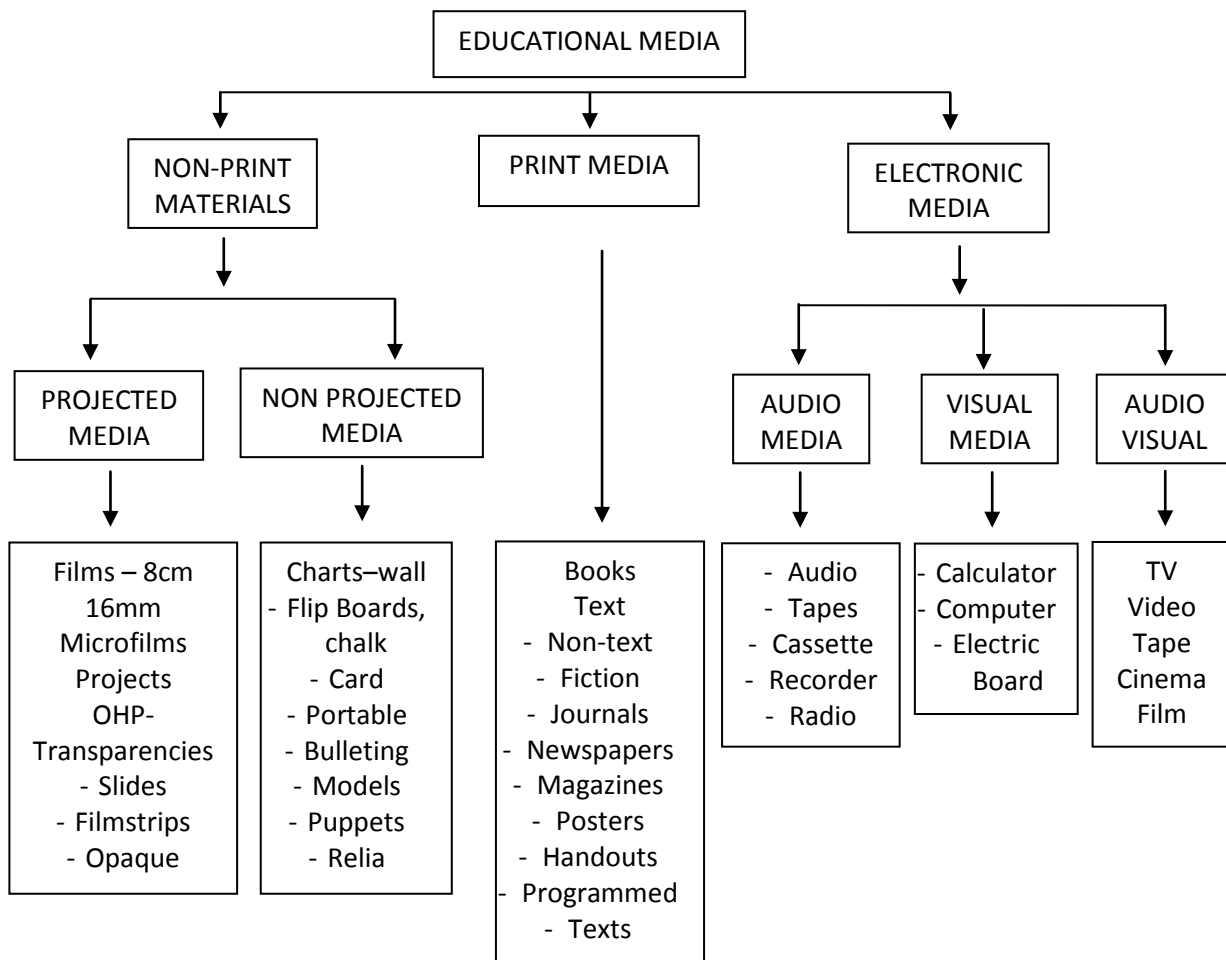


Fig 1: Educational Media Categorization  
Evaluation and Selection of Educational Media for Utilization.<sup>9</sup>

The electronic media is also used in the pursuit of teaching and learning processes, among such include; condenser, video, satellites and café centers for encoding and decoding. In addition, print media since its invention to date has been making a positive role towards the progress of education in general. Examples of print media are; books, gazettes, journals, memoirs, newspapers, magazine and even leaflets. They equally play an important role in educating teachers and students. Many of which persuade, entertain, orientate and mobilize learners to study harder, especially audio and visual, radio, video and television respectively.

### **The Role of Information and Communication Technology in Promoting Teaching and Learning processes:**

The information and communication technologies (ICT) are technologies used for the collection, storage, processing, analyzing, transferring and dissemination of information. For instance, academic lectures can be conducted online. Data of several types can today be uploaded and downloaded for solution to research problems. Similarly, examination results NECO, SSCE, IJMB, JAMB and University registration is now being done hitch-free.

Paul Shoe Buttom in his studies identifies five major roles of ICT and computer. They are as follows:

- Computer as a teacher: both teachers and students use it for different purposes. It can be used for dialogues and academic activities. For example, having seen how world wide web (www) satisfies our basic needs in respect of instruction and other vital programmes.<sup>10</sup>
- Computer as tester, it presents learners/operators with questions and answers.
- Computer as a tool; it controls spreadsheets, data bases and presentation.
- Computer as a data source, it presents data to the researchers.
- Computer and (ICT) as communication facilitators. They both facilitate communication at various levels. They are both being used for the presentation of assignment, solution to academic thesis, research problems and reports in general.

However, information and communication technology has taken a prominent intellectual position and serves as catalyst, collaboration and use for various creativities, complimentary function and as tool for learning and teaching activities in general.

### **Major Problems Militating Against the Progress of Teaching and Learning Processes, with Reference to (ICT):-**

The major problems confronting teaching and learning processes in modern Nigeria, with particular reference to computer. Among others include; financial constraints. Studies have proved that two – third of the teachers and students do not have money to purchase computers. Teaching and theoretical knowledge is another problem. There is a problem of lack of knowledge and as such it is a serious problem/barrier to the use of computer to promote teaching and learning processes. Nonchalant or improper attention of the Nigerian government ranging from local government councils, state and federal governments to financially motivate teaching staff at whatever education levels, through provision of computer to them on loan basis and subsidized rate. The problem of over dependence on fairly imported computers is another obstacle confronting teaching and learning

processes in Nigeria. This is a serious challenge to our Indigenous Nigerian Engineers as found incapable of manufacturing computers.<sup>11</sup> The last but not the least of the problems confronting teaching, learning and media education in Nigerian area include, inadequate power supply as it brings about digression, failure to achieve the desired goals and objectives in time and there is also the problem of inadequacy of well-qualified personnel to train others and repair the broken down computers for continuity, progress, betterment and well being of Nigerian teachers and students in general.<sup>12</sup>

### **Recommendation**

In view of the above mentioned points, as major factors confronting teaching and learning processes as regards the use of computer in particular. Therefore, the study seeks to proffer solution for the progress of education in general. One of the ways forward is that both the teachers, students and government should equally play a positive role in promoting the standard of education to the desired level. This may help in satisfying the long term intellectual commitments of the concerned citizens. The economic life of the Nigerian teaching-staff especially at primary and secondary levels in an economically, had pressed time like ours, it is quite impossible for such teachers receiving meager salary to effectively maintain their basic domestic requirements and possess some of the technological tools required for academic progress, such as computer in particular.

These identified economic obstacles impeding the progresses of teaching and learning processes have made the study to implore all tiers of government, including local government, state and federal governments, Nigerian stake holders and even Non-governmental Organizations (NGOS), to endeavour to financially support less-privilege teaching staff and students for the promotion of teaching profession, learning and education in general. The problem of inadequate supply of electricity/power should also be tackled. Furthermore, the Nigerian teaching staff and students should be serious, intellectually creative, formative, versatile punctual and prepare to read for nation building for the satisfaction of their long term intellectual commitments. The last but not the least is that efforts should be made to overcome the problems of public treasury looting, bribery and corruption. If these properly tackled would enable the Nigerian government to manage its national resources for human and national developments.

### **Conclusion**

The study examines the positive developments associated with information and communication technology and its profound impact on teaching and learning processes. It has further portrayed the tremendous contributions of (ICT) to the development of teaching and learning processes respectively. The study has also identified the major problems confronting teaching and learning processes as a result of inadequacy of computers, and

knowledge for its proper application. It has in the same vein, proffered solutions to the above outlined problems. The study has also explored the role of instructional materials, electronic and, print media in promoting education in general. Having seen the prominence and significance of information and communication technology, it is therefore interesting and equally important to thank information technology via-industrialization for revolutionizing our contemporary academic world.

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