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LEARNING OPPORTUNITIES FOR ALL: THE INFORMATION TECHNOLOGY AS PANACEA

TUKUR, A. K. Ph.D.

Department of Adult Education and Extension Services
Usmanu Danfodiyo University, Sokoto

ABSTRACT

Policy makers and educators make difficult choices among alternative educational improvement options. They emphasise increase in classroom size, school size etc. this paper, thus discussed learning opportunities available to formal education where information and communication technology has made sufficient learning opportunities for all categories. It also discussed the effects of Information Technology in learning vis-à-vis the teacher education providers in the country. It also proposed possible solutions to the problems of employing IT in learning.

INTRODUCTION

This is the era of communication technology where computer is playing very vital role in every aspects of our lives. With the increased use of computer equipment in industry and commerce, attention is being focused on the use of computers in education. The need for computer technology and literacy in our educational system has become more relevant. The Federal Government has reviewed its National Policy on Education in 1988, 1994, 2004 and these reviews included a section on computer literacy at lower levels of education (i.e. primary or basic education and secondary). For this policy to succeed, computers require special environment and trained teachers especially to handle this aspect. According to the committee on Computer Literacy, the following general political objectives on the matter were outlined:

- To bring about a computer literate society in Nigeria by the middle of 1990s.
- To enable the present generation of school children at different level of education appreciate the potentials of the computer and be able to utilize the computer in various aspects of life and occupation.

- To enable the out of school adults use the opportunity to gain employment and sustainability. Liverpool (2003).

According to the policy however, the intention of the government seems to centre around the need to ensure that everyone feels the impact of information and computer technology in today's society and also appreciates the techniques by which information is processed, managed and communicated as well as appreciates the role of computer in school management and gainful employment. The National Policy on Education (2004) itemised the following computer education objectives:-

- Ability to use and programme computers;
- Knowledge and ability to use and develop software packages;
- Understanding of the structure and operations of the computer;
- Knowledge about the history of computers;
- Appreciation of the economic, social and psychological impact of the computer;
- The use of computers in problem-solving, and
- The use of computers as avenue for learning. NPE (2004: 465 - 46).

The above general objectives can now be specified for the levels of education, which include:

- Primary School level;
- Secondary School level;
- Teachers College Level;
- College of Education Level;
- Polytechnic level;
- University Education Level; and
- Non-Governmental Organisations (NGOs).

The primary level of education has the following objectives as far as computer education is concerned:

- Use the computer and thereby acquire basic skills such as using the key board, accessing files and editing at the operating system level;
- Use the computer to facilitate learning; and
- Develop rudimentary skills in the use of computers for text writing, computing and data entry activities.

At Teachers College level, the objectives of training of teachers at college level include exposure to computers which will among others:

- build confidence in the handling of computer hardware and software;
- take account of and familiarize the teachers with the dynamics of nature of computer technology, thus stressing the necessary skills for continuous upgrading of his knowledge;
- manage small computer laboratories and workshops; and
- emphasise the importance of documentation procedures and software maintenance.

The aim of this paper therefore is to examine the attainments and highlight the challenges and strategies for the use of ICT as learning opportunity in the education sector.

ICT as an Opportunity for Learning

ICT is a generic term referring to technologies that are used for collecting, sorting, editing and passing on information in different forms. A personal computer is the most common example of the use of ICT in education, but the term multimedia is also frequently used. Multimedia can be interpreted as a combination of data carriers, for example video, CD ROM, USB, Floppy Disc, the Internet and Software in which the possibility for an interactive approach is offered.

The uses of ICT in education is divided into four folds namely:

1. ICT as an object: This refers to learning about KTC and is mostly organized in specific courses of training. What is learnt depends on the type of education and the level of the students. The training received prepares students for the use of ICT in education, future occupation and social life.
2. ICT as 'an assisting tool': ICT is used as a tool, for example while answering questions for assignments, collecting data and documentation, communicating and conducting research. More over, ICT is used independently from the subject matter.
3. ICT as a medium for teaching and learning: This refers to ICT as a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.

4. ICT as a tool for organisation and management in schools: This refers to using ICT to handle school chores and records, ranging from time-table to attendance, examination results, to school fees and general communication.

However, investigation on the use of ICT in education in Europe indicated that ICT was not used as a (learning) objective by 33 of 55 school teachers; 27 of them did not use ICT as teaching material and 21 teachers did not use ICT as teaching at all.

Most teachers employ computer mainly for the purpose of word processing in the educational settings. This should not however be the case. ICT has many technical possibilities and the innovative use of ICT is a big challenge at all levels of the education sector most especially in the teacher education programmes e.g. Special Teacher Upgrading Programme of the Federal Government.

Education all over the world experienced many challenges and changes in the last century but none of such challenges is as profound as at that effects of ICT. Consequently focus on educational activities has to change fundamentally to embrace ICT fully. The Internet and in particular the world wide web, now provide much wider access to information and new instructional possibilities so that the learning and research process in various disciplines, have changed. Nigeria is now moving to an era of open and distance learning through virtual environments so that learning can be done at any time and place through data networks without national or continental boundaries. Now, new curricula and new teaching techniques and methods have evolved. More flexible delivery modes are in use; from traditional methods to web based learning formats; radio and television now complement existing teaching aids, while interactive multimedia with audio and video are becoming standard modes.

Effects of IT in Learning

While ICT has already involved and dominated teaching and learning in the developed world, its invasion into the system in most of the developing world and in Africa in particular has been painfully slow. The primary obstacle to the introduction of technology into the system was partly the inertia of the educational system itself and partly the inability of governments to muster the sums of money required to provide instructional media resources. Film, television and programmed instruction are hardly considered in making key curricular decisions. More sophisticated and extensive media such as computer networks, information retrieval systems, and multipurpose telecommunications grids, super information highway are hardly mentioned in educational discussion in Nigeria.

The decentralized nature of information and communication technology vide its other facilities, i.e. the internet, the world wide web, the e-mail etc, provides relevance and greater democratization through the involvement and participation of adult education agencies within the local and wider communities.

Also, the provision of continuous professional support, in form of donations, hardwares programmes, softwares training and workshops to relevant groups and NGOs open learning avenues for the participants and beneficiaries. These provide learning opportunities for both stakeholders and participants. The ICT is however, just one of the many learning opportunities that were created and sustained to a large extent by the federal and state governments. For instance,

NTI – Provides specialized learning courses.
NUC – Provides capacity building opportunities.
UBE – Provides mass education.
NCCE – Provides middle level learning opportunities.
NMEC – Provides mass learning for out of school etc.

The Way Forward

The potential of information technology in developing activities that improve the quality of life, efficiency of social and economic organisation and its cohesion is evident. Nigeria, indeed, needs information and communication policy adjustment to share the promises of the rapid changes in information technology. Information policy adjustment involves appreciation of the significance of information technology in life long learning, trade, employment, accountability and better management of resources and environment. Information technology, properly designed, can be deployed to even rural areas that lack adequate water, food and power. Information technology represents the biggest chances for major leap frog in development, growth and poverty alleviation if our governments can fulfill necessary conditions for networking, agility, learning and reliability.

Modern use of information technology requires aggressive activities in education. Information technology and education have dual impact on each other. Information technology has greater impact on education in the development of new concepts, improving resources sharing and advancing research. Information technology education is the main solution for building capacities in all facets of our lives.

The three-tier of government should play active roles in diffusing IT to the school system. The use of Internet for instance is particularly a boost to graduate research. Connectively, it helps to open the window to global knowledge for the country, West Africa and Africa. In addition to deploying information technology in Education, governments should promote the use of information technology in the public communication media, including printed and audio visual media, telecommunications and postal services. Information system in business, finance, health, legal, science and technology should be encouraged to enhance the use of appropriate information and learning opportunities through IT.

CONCLUSION

Governments should develop better policies for equitable access to Information Technology. The need to provide equitable access should not undercut connection of information delivery agencies, business and private institutions to high bandwidth networks. Those ready to ride should be allowed to surf on the global information networks. Appropriate information and communication policies and objectives are the basis for building local, state, national, regional and world-wide information infrastructure for further learning and socio-economic development.

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