

RE-ENGINEERING INFORMATION COMMUNICATION TECHNOLOGY (ICT) FOR SELF EMPLOYMENT AND PRODUCTIVITY IN NIGERIA

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Abstract

This paper consider the re-engineering ICT for self employment and its importance in enhancing productivity and in achieving science, technology and education research in Nigeria. It also highlighted the advantages of re-engineering ICT in education and awareness with the aim of educating the populace to be productivity conscious in order to avert poverty. The paper discussed learning opportunities available to formal education where re-engineering ICT has made sufficient impact on all categories of learners. It was the position of this paper that the citizenry would imbibe the culture of productivity in all faces of their lives through re-engineering ICT for better living standard.

“Information Communication Technology (ICT) “ according to Tukur (2009) is said to be a generic terms referring to technologies that are used for collecting, sorting, editing and passing on information in different forms. He further went on to say that, a personal computer is the most common example of the use to ICT in education, but the term multi-media is also frequently used. Multimedia can be interpreted as a combination of data carriers, for example video, CD RM, USB, floppy Disc, flash, the internet and software in which the possibility of an interactive approach is offered.

In line with the above, Harney and Uliner (1975) also opined that information communication Technology is a science and activity of using computers and other electronic equipment to store and send information. It is also important in educational research, because it simplified many tasks. The use of computer application in data analysis according to Muyiwa and Balogun (2007) has the following basic advantages:

- I. Speed
- II. Accuracy
- III. Storage
- IV. Learning about data analysis is simplified (you only need to learn how to interpret the results).
With the above data collection and analysis in educational research is made simple.

This is the era of communication technology where computer is playing very vital role in every aspect of our lives. With the increase use of computer equipment in industries and commerce attention is being focused on the use of computer equipment in education. The need for computer technology in our educational system has become more relevant. The Federal Government has therefore reviewed its National Policy on Education of 1977 in 1981,1998,2004 and these reviews include a specific section on computer literacy at all levels of education.

According to the policy however, the intention of the Nigeria government seems to centre around the need to ensure that every one 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) itemized the following computer education objectives:

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

Recent development in re-engineering ICT may indeed provide a great impetus for science, Technology education research work in Nigeria and other developing countries. Computer hardware is becoming better and cheaper. This high performance personal computers available in the market at affordable prices compare very well with mini computers and even some main frames which until recently could only be found in sophisticated laboratories abroad.

Re-engineering ICT Education in Enhancing Productivity

Education according to Esu and Junaid (2007) is defined as the means of transmitting one's culture from one generation to another. It is the process of bringing about a relative permanent change in human behaviour. As the oldest industry it is the main instrument used by the society to preserve, maintain and upgrade its social equilibrium. They further said that society's future depends largely on the quality of its citizen's education.

Information as opined by Ottih (2003) is an important concept in human endeavour and the human being is the information processor. Information means facts about a situation, person, and event and so on. It has no value of its own, but the values in information are derived from the benefits of changes in actions or decisions which it causes.

Ottih(2003) further said that communication just like information is an essential tool in the human interpersonal relationships. He defined communication as the exchange of information between two more persons, and referred to it as an outward manifestation on human behaviour, representing the perceptions, attitudes, desires and feelings of individuals. Ottih (2003) give the five basic elements of the model of a communication system namely:

- o The source of the information
- o The transmitter or encoder
- o A channel
- o The receiver
- o The destination

In re-engineering ICT, The computer is the machine which accepts data from an input device, performs arithmetical and logical operations in accordance with a pre-defined program and finally transfer the processing or in a final printed form, such as business documents, management control reports, examination results, and so on.

The quest for knowledge in the 21st century has multiplied more than ever before, therefore, it is imperative to use ICT. The uses of ICT has been divided into four folds by Tukur (2009)

- i. ICT as an object
- ii. ICT as an assisting tool
- iii. ICT as a medium for teaching and learning
- iv. ICT as a tool for organization and management in schools.

As the title of this paper Re-engineering ICT, all what is learnt through the formal or informal education system, if not properly put into productivity use may not be of benefit to the individual, therefore re-engineering ICT will head productivity In every aspect of life according to Prokopenko (2007) defined productivity as "the attitude of the mind, the mentality of progress and constant of being able to do better today than yesterday, the will to improve on present situations no matter how good it may look, it is about faith in human capabilities. With re-engineering ICT education the citizenry must imbibe the culture of doing things better and resolve to result oriented programmed which will hitherto result into excellence intelligence and focused effort.

Re-engineering Information Communication Technology

Information adjustment policy involves appreciation of the significance of information technology in life long learning, trade, employment, accountability and better management of resources and environment. Tukur (2009). Further said that information technology, if 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 in development, growth and poverty alleviation if government can fulfill necessary conditions for networking ability, learning and reliability.

The potential to information technology activities that improve the quality of life, efficiency of social and economic organization and its cohesion is evident. Nigeria, indeed, needs to re-engineering the information and communication policy adjustment to share the promises of the rapid changes in information technology.

The Modern use of information technology requires aggressive activities in education which is one of the world's greatest enterprise, information technology and education according to Tukur (2009) have dual impact on each other. Information communication Technology has greater impact on education in the development of new concepts. Improving resources, sharing and advancing research. Re-engineering ICT education is the main solution for building capacities in all faces of our lives.

Mango (2010) gave reasons for his view on the application of computers in education as an example of ICT. He argued that "Students have little or no control over what they learn or how they learn it. They are simply instructed by an authoritarian academic regime and to be successful one must conform to its rules" He then concluded that under the present social structure of the society, the powers that be will never be sincere with the motives for ICT education in Nigeria. Mango hinged his conclusion on the contention that children that could really be creative and innovative are not often granted the opportunity for proper education because of their class in our society.

The Role of Re-Engineering ICT

Aduwa-Ogiegbaen and Iyamu (2005) examined the problems and prospect of using Information Communication Technology in Nigeria. They agreed that when properly used in the field of education, ICT holds a great promise to improve teaching and learning in addition to shaping workforce opportunities. They noted that to be a major player in the global market place and prepare her citizens for the new environment of today and the future, Nigeria should embrace ICT to aid in teaching and learning as a tool for management as an instrument for economic development, and as instrument of high technology development.

Despite the numerous advantages of introducing ICT in schools they also observe that there has been steady decline in government budgetary allocation to education which has greatly hinders the adoption of ICT in schools in Nigeria to include: high cost of computer hardware and software, weak infrastructure, lack of human skill and knowledge in ICT and lack of relevant software appropriate and culturally suitable for Nigeria.

Education is the process by which the society assists the younger generation to participate productively in the affairs of the present as well as contribute to the future, therefore the role or importance of re-engineering ICT education in schools and the need to train instructors in ICT to impart this knowledge cannot be over emphasized. This is because introducing students to ICT at an early age is another way to build and develop human capacity in ICT.

Conclusion

This paper has shown that re-engineering ICT education will help in moving the country forward even in productivity. But there is need to be sincere with the educational policy implementation on ICT.

Developments in information and communication technology are set to boost research activities in Nigeria in a number of ways. It is now possible to equip our research centres with fast, high performance, high capacity micro computers that can cope with complex numerical analysis and graphic intensive tasks. Various type of rugged computer networks can facilitate collaborative work among researchers including those located even in the most remote areas.

Recommendations

It is recommended that the three-tier of government should play active role in diffusing ICT to the school system. The use of internet for instance is particularly a boost to educational research for both learners and instructors. Government should also promote the use of ICT in the propagation of government activities to the populace, including printed and audio visual information system in business, finance, health, legal, science and technology amongst others, should be encouraged to enhance the use of appropriate information and learning opportunities through ICT.

Government should develop better policies for equitable access to ICT, especially in this political era, so that the citizenry would be well informed in order to avert crisis in the country .

ICT should also dominate teaching and learning through the use of television and programmed instruction in line with the educational curricula. Sophisticated and extensive media such as computer networks, information retrieval systems and multi-purpose telecommunications grids amongst others must be made mentioned in our educational discussion in Nigeria.

Finally, re-engineering ICT will also enhance productivity which is the positive attitude of the mind should be imbibe by everybody to bring about creativity, wealth creation, self reliance, profitability, waste control, quality improvement not only in goods and services but also in educational standards.

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