Utilization of Information and Communication Technology (ICT) in Promoting Adult and Non-Formal Education in Nigeria

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Abstract - The use of technology for adult education has been growing exponentially in recent years. Utilization of ICT and access to information differ significantly when the users in developed and developing countries are compared. This discrepancy can be attributed to a number of challenges that confront the users. This paper, therefore, examines the utilization of ICT in promoting adult and non-formal education in Nigeria. It also discussed some concepts, ICT and national development, selected case studies, challenges and came up with recommendations.

Keywords: Information and Communication Technology, Adult education, Non-formal education.

I. INTRODUCTION

The development in information and communication technology (ICTs), resulting from the ability to manipulate information in a number of ways, has made possible, the universal access and circulation of information. The United Nations (2003) sees information and Communication Technologies as Technical Systems that receive, manipulate and process information and facilitate communication between at least two parties. ICT has a lot of roles to play in Adult and Non-formal education. This is because it makes information available for learners at all times in different places.

The growing trends in the utilization of information technologies for the promotion of literacy education depict that institutions and people respond fast to the challenges of educational globalization. This response is perhaps seen as one of the strategic factors needed in meeting the 8-point agenda of the millennium development under the auspices of the millennium development goals. For examples, Van-de-Sand (2005) and Seya (2005) underscore the fact that nations, through their various educational policies, must put in place specific master plan to fast-track all programmes geared at reducing illiteracy by fifty-percent, given the challenges of addressing multifaceted and daunting problems of underdevelopment associated with illiteracy. Hence, the issue of access to literacy education and bridging the gap between illiteracy and development (Bhola, 1983), provide fundamental grounds on which practical evidence of more flexible methods of providing literary education could be explored, especially in developing countries.

It is in the light of appropriating both formal and informal approaches to literacy education, in terms of advancement, that Anderson (1999:462) notes with dismay that "from a global perspective, wide disparities exist between countries in respect to both availability and application of information technologies to literacy. The premise of Anderson's submission rests squarely on issues ranging from availability, access, application or utilization to sustenance. Therefore, any analytical discourse on the promotional relevance of information communication technologies in adult and non-formal education must first address these variables before its impact.

Traditionally, the use of the print media, audio materials, radio, television, and video has continued to be the mainstay of every society's literacy teaching and learning, especially by distance. On account of easy access, economy of cost, and wide coverage, high importance is placed upon the ability to understand and use ICT by the learners and educators. Consequently upon the development of other set of technologies of the new generation type and the convergence in internet network, the World Wide Web (www), literacy education has been made to permeate all educational policies of the nations with the hope of bridging the existing gaps in reading and writing, skills development, global information and knowledge. It is in the light of this, that this paper examines the utilization of information communication technologies in promoting Adult and Non-formal Education in Nigeria.

II. CONCEPTUAL FRAMEWORK

Information and Communication Technology (ICT)

ICT is defined in so many ways depending on the perceptions of authors. Anderson (1994) has defined ICT as the application of computers and communication equipment

for automatic processing of information which involves combination of computers, communication equipment (telephone, Video-Conferencing) and other technologies associated with automation. Wikipedia (2015) defined ICT as the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. It also refers to unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage and audio-visual systems, which enable users to access, transmit and manipulate information. According to Jung (2009), ICT can be described as a combination of data carriers, for example video, CD-ROM, floppy disk, cell phones and internet and software in which the possibility for an attractive approach is offered. ICT focused on the use of technological tools for managing and disseminating information. In education industry, ICT is integrated technologies for gathering, processing, delivering and storing information.

Adult Education:

Adult education has been defined differently by different authors. Okediran and Sarumi (2001) defined adult education as the provision of resources and support for self-directed learning irrespective of age. Adult education should be distinguished from schooling within the overall concept of lifelong learning. The emphasis should be in the cultivation of total man whose educational need goes beyond cognitive knowledge, but to other areas of human endeavor. Merriam and Brockett (2007) define adult education as virtually any activity for adults designed to bring about learning which according to them include, the work of aerobics instructor, nurse, private consultant, literacy worker and community activist. In the same vein, the National (Nigeria) Commission for Mass Literacy, Adult and Non-formal Education (2010) noted that adult education is any organized learning activity for people considered to be adults by the society. The criterion/criteria for the determination of the adulthood may be the constitution, social responsibility, physical maturity, economic, social status or any other one. The learning activity gives priority to age or adulthood but the teaching-learning activity may be for literacy acquisition, skill acquisition or information dissemination in form of workshops, seminars or conferences. The important thing is that the activity is meant for people considered to be adults by the society. In other words, adult education can be seen as any learning activity exclusively organized for adults in order to improve their social, economic, political, educational and cultural well being so as to function effectively in the society.

Non-Formal Education

Non-formal education is education activity which takes place outside the school. It is the training and education outside the formal school system. It is organized to serve the identifiable learning needs of specific groups. There is interaction between the teacher and the learners outside the school system. Non-formal education cannot be classified into levels. It is designed to reach large number of people where they live and work. It can apply in business, industry and government. It helps more people to be educated and enrich their lives at a cost they can bear (Ani, 2003).

According to Bhola (1980:49), Non-formal education is:

Any organized educational or training activity for school drop-outs, for illiterate rural and urban adults, for youths, for women or for industrial workers aimed at improving their employment and income earning potential, or giving them general education which in some cases, as desired, may help them re-enter the formal education streams.

Non-formal education according to Ngwu (2003:41) can be defined as:

Any planned and consciously organized general education and/or training activity outside the formal school in a particular society for illiterates, school leavers, dropouts or other adults, as individuals or in groups, for the purpose of raising their consciousness of their social situation and their standard of living, improving their individual or collective efficiency in their jobs or preparing them for self-employment, wage employment or further training within the existing education/training system.

III. ICT FOR NATIONAL DEVELOPMENT

The empowerment of individuals through the creation of access to information, notably in the area of floating ICT culture, use, and its application, is of utmost importance to the growth and development of individuals and a nation at large. According to Longe (1998), economic potential participation in decision-making and contribution to good governance have been established to have a direct casual relationship with the ability to access, control, and manipulate information in the context of information power, for example, the UN World Summit on the Information Society (WSLS) Geneva, in 2003, defined Information and Communication for Development (ICTAD) ICT to include;

The whole range of technologies designed to access, process and transmit information in regard to text, sound, date and

picture. ICT encompass the full range from traditional widely-used devices such as radio, telephones or television to more sophisticated tools, like computers or the Internet (p.20).

Moreover, Holmes (2004) explains ICTs as tools that facilitate sharing information and fostering communication. ICT also include both new and traditional information communication technologies such as: personal computers, the internet, World Wide Web, mobile phones, satellite, and nucleus technologies. In the African context, ICT tools for development also encompass traditional website, telephone, radio, television, print media such as newsletters, cartoons, and graphic posters, and community communication initiatives including listening groups and community theatre. ICTs provide many opportunities for those who are literate, have good education and adequate resources for sustainable empowerment. For examples, ICT is being currently used to empower disadvantaged and marginalized groups in some communities through literacy. This may minimize social divides, close gaps between the rich and the poor communities, regions, individuals, and even between men and women.

In the same vein, ICTs can also be used as tools to empower women with the technological information and skills necessary for sustainable food securing and livelihood. It could also aid women in the developing world to speak out, have a voice, be assertive, be more visible, and less isolated, support their increased political, social, and economic participation at every level. ICTs would also promote the role of traditional and modern communication technologies by linking up rural radio with multi-purpose development centres, and promoting distance evaluation for database management for food security, agriculture education and extension work. All these help to promote knowledge societies.

Moreover, Wagner and Kozima (2003) of the International Literacy Institute – National Centre on Adult Literacy, University of Pennsylvania, emphasize the need for a refined concept of adult education that meets the needs of the modern era and takes advantage of technological opportunities. In the emerging information society, one of the most important contributions of ICT is tele-learning. Tele-learning will liberate education from time, place and space restrictions. Internet can be effectively used to reach every user anywhere in the world and provide not only information but high quality education as well (Zaharaids & Voliotis, 2003). By improving the educational environment of the home, it has also had a positive impact on health, and has raised the quality of human resources for development.

IV. THE ROLE OF ICTs IN THE PROMOTION OF ADULT AND NON-FORMAL EDUCATION

It should be noted that various types of technology could be used to promote adult and non-formal education either independently or in combination; hence, the need for appropriateness and affordability of the technology. Generally, it has been established that both the TV and radio are important and crucial media for lifelong and life-wide learning. The import of these two media in education and learning is underscored by the fact that most adult learners who have benefited little from formal education, which is of not much relevance in the area of practical applicability, stand to gain the invaluable experience from education and learning through these media premised on ICTs. Although, with little or no reading materials in their homes, most adults have regular access to radio and TV.

According to Aderinoye (1999), the educational uses of TV and radio include:

- generating awareness of the literacy problem,
- developing consumer demand and motivation for learning,
- helping to retain learners in a programme,
- helping to reach wider audience, and
- stimulating adult learning. (p.10)

However, one main demerit of technologies in education is that educational broadcasting often serves a motivational rather than an instructional function.

Experiences all over the world have established the fact that the use of computer and other technologies such as interactive video, improves the thinking faculty, skills, problem-solving skills, and encourages individualized instruction. This technology also efficiently provides ways to collect and evaluate information and at the same time, gives room for feedback on the spot. The internet can be used in improving literacy programmes. Through it, adult learners can be provided with higher quality materials and have access to information in homes, workplaces, and public libraries. The Internet encourages fast learning, particularly in global knowledge and information coupled with enhancing access to almost unlimited resources in a multidisciplinary dimension for the sharing of professional

ideas and problem-solving (UNESCO, 1997 Bisham and Wood, 1999).

It is an established fact that we now live in a fast changing and complex world. Hence, the society is changing, indigenous knowledge, concepts and global knowledge are now required. The rhythm of the production of knowledge and new telecommunication technologies are changing the way humanity lives and works (Hamad, 1992). ICT tools, such as the internet, that promote cooperative learning allow for rich exchange of information between members of a knowledge community (Hiltz, 1998). The internet can offer the learning process a variety of benefits, including easy access to educational content, easy access to learners and learner as well as learner and teacher, cooperative-learning process and the re-use of content.

V. SELECTED CASE STUDIES

The Shelcom Communications Literacy network (USA):

This was an experimental internet-based computer-project with adults living in Shelcon-for the homeless. The project began at the peak of internet revolution between 1993 and 1995. Participants worked collaboratively, through internet-based computer network, on creating a collective publication. The programme instruction focused on cognitive strategies within a writing process approach in the computer and on facilitating the collaborating process between writing partners by means of file-sharing (electronic networking). The Shelcom programme has the goal of showing how technology could be utilized for educational purposes, targeted especially towards the poor adults. File-sharing by these adult learners promoted cooperation and collaboration between participants and facilitated the collaboration process between writing partners by means of file-sharing (electronic networking). The Shelcon programme has the goal of showing how technology could be utilized for educational purposes, targeted especially towards the poor adults. File-sharing by these adult learners promoted cooperation and collaboration between participants and facilitated the provision of instruction from teachers. The programme also gained insight and understanding on the fluid nature of technology and text as on its speed and reversibility.

University and Technology for Literacy, Basic Education Partnership in Developing Countries (UTLP):

This programme was created by USECO International Literacy Institute now known as UNESCO Institute for Lifelong Learning (UILL) to assist disadvantaged people in Local District Councils (LDCs) in gaining access to information and communication technologies. It is designed as a collaborative university partnership programme aimed at minimizing the “digital divide” between the “haves” (Developed) and “have nots” (developing) world. The Ford Foundation initiated UTLP in South African, with the view of using ICTs to improve the education of the disadvantaged.

VI. CHALLENGES

There are still, in general, a lot of challenges facing the use of ICT for the promotion of the education industry and the development process in Nigeria and sub-Sahara Africa (SSA). These include: access to information, lack of political stability, Incompetent management, weak information and communication policies, lack of framework for information-sharing and intellectual property rights, inadequate human resources, intellectual poverty, poor social infrastructure (in health, social service, public administration), unreliable and very limited telecommunications infrastructures, and poor connection to worldwide network.

Moreover, there are also maintenance problems, inadequate technical support, weak research and development, inadequate learning and use of ICT, inadequate knowledge of systems, and poor system design. Others also include: financial resources problems, dependence on donors, low level of partnership between government and business, weak access to credit facilities, non-enabling environment to invest in ICT, gender, ethnic, and class inequalities, island of sophisticated users, and weak analysis of information requirement and user needs. Poverty, which is very prevalent in Africa, has even made most people record low intellectual development and lack of interest in the use and application of ICT to educational development.

VII. RECOMMENDATIONS

The following recommendations are proffered:

1. There is the need for building community centres and relevant tools for the majority, especially in the developing world. Increase private sector involvement in ICT and improving quality of system design when applying ICT in the public sector.
2. There is also the need for improving the links to the worldwide networks, the use of multiple technologies such as radio, satellites, PCS and terminals, and to

improve users actions through association and users groups.

3. There should be innovative funding of ICT projects such as cost sharing, education and awareness and the need to work on language interfaces to solve the challenges of weak analysis of information requirements and user needs.
4. ICT programmes should be integrated into school curriculum at all levels to equip students with the knowledge and skills of ICT before graduation.

VIII. CONCLUSION

From the foregoing, this paper has been able to establish the fact that ICTs develop and promote educational development with specific emphasis on the advancement of innovative research in adult and non-formal education. With ICTs, literacy education programmes can be improved as learners stand to gain the invaluable experience from education and learning promised on ICTs. This shows that adequate utilization and access to information reduces the digital divide between the developed and developing countries which is the key challenge in the twenty first century.

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