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The Young Old and the Youth as Users: Impact and Challenges of **Information and Communication Technology in Open Distance Learning Paradigm**

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Abstracts

As the world changes every day, so is the education sector. The introduction of Information and Communication Technology (ICT) paradigm into the education sector as it is in various other sectors is one of the good things that has happened since the beginning of this millennium. The young old is supposed to be part of the beneficiary of this innovation but they seem not to have embraced it as well as the youth in the society. This paper discusses the accessibility, competence, visits to the internet, purposes, role of ICT in open distance learning, challenges encumbering the development expected in the relationship between ICT and distance learning and proffers solutions. This is with a view to improving the lot of the young old as regards ICT. This will allow ICT serve the young old better, help many to achieve their aim of using the internet more and also enable the workers who are learners to acquire the adequate knowledge required for better performance at their various workplaces. It will also be beneficial to the employers of labour as the competence of their staff will be guaranteed with regular seminars, conferences and workshops. This study is theoretical and quantitative; the method adopted is a combination of survey and ex-post facto design. The result of this study will be effective on the young old people, the government and the society in general.

Keywords: ICT, young old, youth, open and distance learning, impact and challenges

Introduction

The latest technique of creating and disseminating information using digital technology is the transformation the world is experiencing since the beginning of this millennium and it is what is being referred to as Information and Communication Technologies (ICTs). These are modem tools (cable satellite, the internet telemetric applications) that facilitate the circulation of ideas and bring people together. ICT according to Tinio (2009) is defined as a diverse set of technological tools and sources used to create, disseminate, store and manage information. It is a technology that manipulates and processes information and at the same time facilitates communication among people. The ICT can be used to promote social development and facilitate the teaching-learning process particularly in the open distance learning.

The young old consists of people between 55 and 65 years of age, 66 to 75 is the middle old group while 76 and above is the older old as stated by Obembe (2009). Old people generally place much higher value on information then the young people but their access seems to be poor. The open and distance Learning uses a variety of resources and technologies since it is web- based, thereby making ICT most relevant and useful to the young and old (Tinio,2009). In the same light, Berge and Collins (1995) assert that physical and social distance instructional contexts are transformed in distance learning among the technological immediate communication between teacher and leaners. Thus, open and distance learning haw gained credibility as a result of it cost effectiveness and geographical coverage due to its enormous usage of wet-based method of delivery

Background

The concepts of Information and Communication Technology refers to all kinds of electronic systems that are used for broadcasting, tele-communication and other forms of computer-mediated communication. It includes all ICT- centred online self-learning packages, interactive CDs, chips, satellites, radio, optical fiber technology, tele-presence systems and all types of information technology (IT), hardware and software. However, it is important to point out the fact that the most commonly used at present are the Computer- based internet broadcasting technologies (radio and television)

and telephony, although they have been in use over time and have richer history of use as instructional tools (Odogwu, 2007)

The University of South Africa, which is Africa's premier distance learning institution, the Open University of United Kingdom (OUUK) and Indira Gandhi Open University in India used print, recorded audio and video, broadcast radio and television and in recent years audio conferencing technologies, (internet) to advance the course of ODL. This is also evidenced in the operations of The National Open University of Nigeria and it uses print and online materials to facilitate learning.

Objectives

This paper sought to find out how:

1. accessible the internet is to young old compared to the youth.
2. competent the young old is with the use of ICT when compared with the youth
3. often the young old use the ICT compared to the youth.

The Problem

It is difficult and even almost impossible to think of the future of education or business environment that will be devoid of Information and Communication Technology, The on-going development and the dedicated efforts of the developed countries to the promotion and implementation of ICT in education and training is a confirmation of the fact that it will affect and dominate every areas of human life today and in the future. Although technology is embraced by all, it seems a group of people (the youth) make use of it more than the others. We need to find out how far the young old group has gone with the use of ICT in terms access, competence, visits to the internet and the purpose of their visit to mention a few compared with that of the youth.

Research Questions

1. How many young old have personal computers?

2. How many of them can use it?
3. How often do they use the computers?

Hypotheses

Hol: There will be no significant difference in the number of young old that have personal computers.

Ho2: There will be no significant difference in the number of the young old that can use computer.

Ho3: There will be no significant difference in the number of times the young old use computer.

Related Literature

The importance of ICT cannot be underestimated in our day to day lives. It serves quite a number of purposes ranging from information to education. The young old will always want to get information concerning every aspect of their lives. The process by which they seek information may be empowering. Some of them are in the vulnerable group and may be having consumer health information needs (Obembe, 2009).

The old people, that is, the young old, middle old and older old generally use the internet for a variety of reasons. Fox (2004) found that these groups of web users use the internet for research, purchase of goods, make travel reservations, visit government Web sites, check religious and spiritual information and do online banking. These purposes are more common with people in the developed countries; most people in Africa use the computers for research, education and social activities. Eurostat (2005) asserts that there is a declining access to the internet as people age. This means that young people are more interested in ICT usage than the young old. The latter uses it as the work and basic need demands while the former uses it for social and information services. Odogwu(2003) corroborates this by stating that “Even children and teenagers are enjoying the gains of information explosion. “He stated that "the world is currently undergoing an unprecedented pace of information explosion and that availability of electronic communication

systems and multimedia technology has made the world a global village "where communication takes place among a very large number of people within a twinkle of an eye

Table 1:EU Internet Use at least one per Week by Age in 2005
(Eurostat, Community survey on ICT usage in households and by individuals,2005)

Age Group	16-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
Weekly Internet access	86%	55%	51%	39%	27%	10%

Adapted from Punie, Zinnbauer and Cabrera (2006): A Review of ICT on Learning

Methodology

Questionnaire was used to elicit information from the respondents. This is so because information can be used to study attitudes, values, beliefs and behaviours. It is also easy to administer. The population consists of the adults in an Open Distance Learning institution like the National Open University of Nigeria. Forty (40) respondents were selected from the total population of the adults. They constituted 100 per cent of the general population.

Analysis

The descriptive statistics of simple frequency counts and percentages were used to describe the bio-data of the respondents, whole inferential statistical tools of mean scores, Chi-square and Multiple Regression Analysis were used to analyse the data gathered in the research hypotheses formulated for the study at 0.05 level of significance.

Results

Table 2: Comparison between the Young Old People and the Youth in the Usage of Internet

Access		**Personal**	%	**NOUN**	%	**Others**	%	**X^2 Value**
	Young old	17	27.9	7	11.5	27	44.3	
	Youth	25	30.5	8	9.8	36	43.9	0.1
Competence		**Very competent**		**Slightly competent**		**Not competent**		
	Young old	13	15.9	47	57.3	12	26.8	
	Youth	14	23.0	37	60.7	9	14.8	3.351
Visits to the internet		**Daily**		Weekly		**Monthly**		
	Young old	4	6.6	37	6.07	14	23.0	
	Youth	9	11.0	35	42.7	24	29.3	3.256
Purpose of using the internet		**Send mail**		Searches		**Other purposes**		
	Young old	20	33	28	45.9	7	11.5	
	Youth	32	39	32	39.0	10	12.2	0,784

Discussion

The Table presents the results of the analysis of the two groups' access to computers and internet, competence in the use, visits to the internet and purpose of visit. The results show that there was no significant difference in the young old people's access to computers with a chi-square value of 0. 180.Thirty per cent (30%) of the youth had personal computers as against 17.9%of the young old. The chi-square value obtained for competence was 3.351and was also not significant. Twenty-three per cent (23%) of the young old were very competent while only 15.9 per cent of the youth were very competent. This also shows that the youth are less anxious about ICT and therefore make more frequent use of it. There was no significant difference in the frequent use of both groups to the internet or in what it was used to do.

Among the young old, the percentages of daily, weekly and monthly visits were 6.6, 60.7 and 23.0, while that of the youth were 11.0,42.7 and 29. 3respectively.Thirty-three per cent (33%) of the young old visited the internet to send e-mail against 39% of the youths. There was a great percentage of the young old using the internet for searches as against 39.0% of the youth.

Generally, 18.9% of the total samples were competent in the use of the computer. 26.8 % of the youth were not competent at all in the use of computer against 15% of the young old. Forty-five per cent of the young old acquired their competence privately while 50% of the youth never indicated how they acquired their skill. This almost tallies with the percentage of those without competence. This shows that the young old group still has a long way to go in the use of ICT; this may be due to their varying economic capability, degree of education, their health and functional ability.

Impact of ICT on Open Distance Learning

The computer as an example of ICT is a million instructors in one. It teaches so many lessons at the same time, makes information available in various fields of learning including the dictionary meaning and pronunciations. The use of ICT has made the traditional world of paper obsolete. Traditional library involves the use of millions of books and shelves, which occupy space. In some areas, the shelves are filled with out-dated books. The introduction of online electronic libraries and CD-ROMs by ICT is a great improvement on information, organisation and retrieval in the libraries. Learners access different landscapes, museums, libraries and other places on the screen while staying in a place with the effective use of interactive CDs.

ICT is an instrument that enhances the learning process; both the learner and the instructor make use of the instrument and benefit from it. As observed by Okenimkpe (2003), an instrument is an aid, without it, a tutorial function could still be performed (although perhaps less effectively, so that the instrument lends support to the tutorial function and its truly an enhancer of effect), and a method if without an instrument, a particular tutorial function cannot be undertaken (in which case the instrument is the sole prop and means of the tutorial procedure).

Britain, according to Gell and Cochrane (1996), presents a comprehensive

overview of how she makes use of ICT to promote distance learning. In the 1960s as reported by them, the Open University in United Kingdom (UK) started offering courses through the use of television and in 1994, opened a summer school over the internet. Also, in Britain through the use of Integrated Service Digital Network (ISDN), learners obtained masters degree via interactive lectures. In 1995. the Inst virtual university was opened in Britain and this enables learners in different locations to learn through the use of ISDN. The virtual university system makes it possible lor learners to improve on their academic qualification without unnecessary hardship. Learners' registration, learning and evaluation are done via ISDN.

These universities give learners the opportunity to learn from experts that were recruited from all over the world. A learner is not compelled to learn at a particular time since whatever the instructor does is not recorded on a student's computer. From the virtual electronic classroom. learners access interactive databases around the clock. Online postgraduate degree courses have offered by the Stanford University in California since 1995.

Distance learning covers the various forms of study at all levels without the learners being under the continuous and immediate supervision of instructors. In spite of this, they benefit from planning, guidance and tuition of a tutorial organisation (Egunyomi and Aderinove in Okedara. Anvanwu and Omole, 2001). They observed that the learner and the instructor can be separated in distance learning and that with the use of ICT the gap between the two can be bridged. Supporting this assertion. Aderinove (2002) used the inclusion in the Nigerian blue-print on Nomadic Education of 1987 to observe the situation surrounding the education of the nomad vis-a-vis the relevance of ICT. He remarked through his observation that “the nomads are in different stages of settling down; no one school system is deemed sufficient in providing them with meaningful education at the present stage. For an effective education to take place, a multi- approach school system and resource development will therefore need to be adopted. These will include: radio/distance education, and telecast for the settled Fulani who possess television sets.” This challenge can only be met with the use of ICT. which is considered the best aid to reach the scattered and rural areas, groups traditionally excluded from education due to cultural, social or economic reasons. Others who could benefit from this might also include those who for

cost and time-constraint were unable to have formal education; that is, the out-of-school and the disadvantaged group.

With this move and development in the education sector, the 21" century illiterates will not be those who cannot read and write, but those who cannot learn, Global changes have put pressure on all groups to constantly acquire knowledge in order to be able to apply new skills. This underscore the fact that the world generally is not discussing literacy again but 'literacies'; as this affects every individual because no one can be literate in every area of life. The adult learner is now unlike before, time and location-bound and ICT has the ability to break the barrier of time and space, as it can be accessed anywhere and anytime. Electronic media such as fax, television, radio, internet, cassette tapes, video tapes, computer and phone which according to Imogie (2004) are very germane in the delivery of education through ODL play the following roles in respect of teaching-learning environment:

- awakening adults' interest by their ability to arouse their curiosity to know more
- they supply necessary basis for developmental learning and hence make learning more permanent
- they offer a reality of experience, which stimulates self-activity on the part of the adults
- individualising education and therefore if properly applied, opening diversified ways through which individual learning needs are met.

The points raised above show that the quality of education has improved through ICT as it increases learner' motivation and engagement through facilitation of basic skills while it enhances instructors training. Adult learners are motivated through the use of resource materials like video, multi-media computer, software etc, which provide challenging contents that engage the learner in the learning process. Access to programmes and courses on the internet helps to improve and widen knowledge and skill of instructors, Also, interaction and cooperation among learners, instructors and experts is encouraged by ICT-support learning as it also encourages working with people from different cultures, enhance communication skills and global awareness.

Computer -assisted learning is very valuable tool for guided self-study because it can be more easily manipulated to adjust to individual skill and behaviors than lectures or textbooks. Clark (2001) remarked that, it promote, lifelong learning behaviour. With ICT, learners are able to simultaneously undertake work from several institutions in different parts of the world and within the realistic time frame, bring this diverse learning experience together to make up coherent results. This situation is described as 'virtual university." Although this definitely poses huge challenges to government in terms of provision of funds to put required facilities in place and to traditional institutions whose structures and modes of operation are ill-equipped to deal with such social and educational revolution.

The use of ICT in teaching and learning prepares the present generation for a workplace where ICT is a common phenomenon and tools for their daily operations. The ability to use ICT effectively and efficiently provides a competitive environment thereby increasingly globalising job market. However, the fact remains that computer literacy is not enough requirements for jobs with high remuneration in the new global economy but it is a means to an end. En-Gauge of the North Regional Educational Laboratory (USA)has identified what it calls "21" century skills."

Table 3: Skills Needed in the Workplace of the Future

Digital Age Literacy	
Functional Literacy	Ability to decipher meaning and express ideas, in a range of media; this includes the use of images, graphics, videos, charts and graphs or visual literacy
Scientific literacy	Understanding of both the theoretical and applied aspects of science and mathematics
Technological literacy	Competence in the use of information and communication technologies
Information literacy	Ability to find, evaluate and make appropriate use of information, via the use of ICTs
Cultural literacy	Appreciation of the diversity of culture
Global awareness	Understanding of how nations, corporations, and Communities all over the world are interrelated

Inventive Thinking	
Adaptability	Ability to adapt and manage in a complex, independent world
Curiosity	Desire to know
Creativity	Ability to use imagination to create new things
Risk-taking	Ability to take risks
Higher-Order Thinking Effective Communication	Creative problem-solving and logical thinking that result in sound judgments
Teaming	Ability to work in a team
Collaboration and interpersonal skill	Ability to interact smoothly and work effectively with others
Personal and social Responsibility	Be accountable for the way they use ICTs and to learn to use ICTs for the public good
Interactive communication	Competence in conveying, transmitting, accessing and understanding information
High Productivity	Ability to prioritise, plan, and manage programmes and projects to achieve the desired results. ability to apply what is learnt to real-life contexts to create relevant, high quality products

Source: Adapted from EnGauge, North Central Regional Laboratory. Available Online at http: www.ncrel.org/engauge/skills/21skills.htm Accessed 22 July 2004

The effect of ICT can only be felt when it is used as a tool for the improvement of educational standard and better learner environment.

Challenges of ICT in Open Distance Learning

Having discussed some of the benefits associated with the use of ICT in

Open Distance Learning, there are major setbacks which the marriage is facing presently. Amongst these is the one noted by Aron (1999) who observed that the online classes always have high drop-out rate because learners may not be computer literate. More often than not, they have problems of accessing the internet for tests and examinations. When many people try to access the net at the same time, the server works very slowly or almost inaccessible especially in the developing world where the ICT infrastructure are just being put in place or not well rooted.

As observed by MacDonald (2002), many learners prefer face-to-face in the traditional method and find web-based teaching frustrating. The telecast and broadcast materials are barely accessible to the most distance education learners without interruptions. In a country like Nigeria, where there is epileptic power supply, alternative supply (solar) should be made available because lack of regular supply of power is a serious issue in the use of ICT and also a cog in the wheel of progress and development as it affects all areas of production, storage and maintenance. There is also the problem of cost in the use of ICT. The machines are expensive to procure and maintain. It is hoped that donor agencies, On-governmental organisations and well-to-do individuals will invest in Open Distance Learning.

The instructors of open distance learning need to be trained in the use of technology though Bates (1995) had suggested that newer technologies are not inherently better than old ones and many of the lessons learned from the application of older technology will still apply to any newer technology. The fact remains that the best distance education practices depend on creative, well-informed instructors (Greenberg,1998).

In some countries like Singapore, Malaysia and the United Kingdom teaching accreditations requirement include training in ICT use. Teachers need to continuously upgrade and keep abreast of latest development and best practice. For effective use and uninterrupted classes in the ODL mode of education, technicians must always be on ground to see to any malfunction during classes. An instructor may be knowledgeable in the use of technology but not likely in its repair. If there is any problem with any machine during the course of an instruction and there is no technician to rectify it immediately or if it is a complex problem, the lesson will definitely come to a halt. (Computers are now made to have virtually all important languages of the

world. The purpose of this is to reach out to large number of users; the software developers write their software instructions in every language for various readers, for better understanding and at the same time prevent piracy).

Conclusion

Keegan (1995) asserts that the challenge is to design cost and educationally effective system for use in the new millennium of modern technologies that permits for the first time in history the electronic teaching of learners face-to-face though at a distance. Naturally, cost of technology will reduce with time as more people import and are involved in the sale, installation and maintenance.

In other countries of the world where ODL is practised, the story is different from that of Nigeria. The success rate is very high, the impact is felt in such country and the income generated for the country through such institution is immense. The institution where ODL is being practised, is supposed to be the financial nerve centre of the country.

It is hoped that very soon, ODL in Nigeria will get over all its teething problems and perform as excellently as its counterparts across the globe as this will boost the country's education, manpower and economic status.

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