



## LIFELONG LEARNING IN A TECHNOLOGY-DRIVEN SOCIETY: THE NEEDS, THE BENEFITS, AND THE CHALLENGES

Abraham Oriji<sup>1i</sup>,

Ifeoma Felicia Uzoagu<sup>2</sup>

<sup>1</sup>PhD; DLS, Department of Curriculum Studies  
& Educational Technology,  
Faculty of Education,  
University of Port Harcourt,  
Nigeria

<sup>2</sup>PhD, Department of Adult and  
Non-formal Education,  
Faculty of Education University of Port Harcourt,  
Nigeria

### Abstract:

There is an axiom which states that “What is permanent is change.” Our world has become more dynamic than ever, and in constant change, and is fast changing to the degree that if nothing is hastily done, we will race behind time. In a technology-driven or knowledge-based society like ours, lifelong learning becomes the order of the day. The 21st century needs lifelong learners, who will constantly keep themselves updated in order to meet the current realities’. This article explained the concept of lifelong learning; examined different educational settings and contexts that are persistently powering lifelong learning. It further examined the need for lifelong learning in modern-day society. The paper additionally highlights the benefits and the barriers/challenges to lifelong learning in today’s context. Finally, the authors’ drew attention to the future of lifelong learning in our contemporary society.

**Keywords:** lifelong learning, online learning, personalized education, continuing education, and technological skills

### 1. Introduction

Researches show that in 1980, “the father of Adult Learning”, Malcolm S. Knowles, predicted that lifelong learning would become the organizing principle of all education (Duyff, 1999). Presently, the term “lifelong learning” has become a daily conversation in educational parlance. Our present society is information-driven. Consequently, lifelong

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<sup>i</sup> Correspondence: [abraham.oriiji@uniport.edu.ng](mailto:abraham.oriiji@uniport.edu.ng)

long learning has come to be and will remain with us. In the same development, some universities and Colleges of Continuing Education have departments of Lifelong Learning. Also, some positions and/or appointments, such as Director of Lifelong Learning, or Director of Continuing Education are in place in higher institutions worldwide and offering various courses on lifelong learning.

The information age requires exceptional skills to function appropriately. Based on this premise, Bernard et al (2009) cautioned and/or reminded us (the present generation) that, *"we have to ensure that everyone has a realistic opportunity to develop the intellectual skills required to prosper in an information age."* The scholar stressed, and further informed us thus: *"the present technological environment has enlarged some workers' responsibilities, and the requirements are rising in some areas that are highly visible to employers and to observers of the economy in general, and it is against these growing demands and expectations that the adequacy of preparation for the entering workforce must be viewed."*

In the time past, people limit schooling to younger generations' by ignoring the elderly persons. Collins (2009) concord to this when the author states, *"worldwide, education was not approached as a lifelong process, until the 1980s."* But the present societal demands have paved the way for adult learners. This is in view of keeping track of the societal challenges, which is necessitated by constantly evolving technological inventions and/or modernization. The speed of technological innovation around us, the required skills and competencies to keep abreast with the changing world, demands new knowledge and skills to match the frantic pace. This affirms the observations of Bernard, et al (2009) and other scholars.

This idea has long been acknowledged by the advanced worlds, particularly the United Kingdom and the United States of America; these countries have been on the knowledge of these required skills for decades, while developing countries, Nigeria inclusive are still lagging behind. As Ahmed (2014) pointed out, *"The need now is (for Nigeria) to visualize the various educational activities as potential components of a coherent and flexible overall learning system that must be steadily strengthened, diversified and linked more closely to the needs and processes of national development."*

Lifelong learning conforms to the present, cultural, political, social and economic realities. Lifelong learning evolved from the term, "life-long learners", created by Leslie Watkins (<http://techne-dib.com.br/downloads/6.pdf>). It involves personal development, the continuous building of skills and knowledge throughout an individual's lifetime. Ahmed (2014) also affirmed that 'education is obviously a continuing process, spanning the years from earliest infancy through adulthood and necessarily involving a great variety of methods and sources', Coombs and Ahmed distinguished between the three modes of education as 'analytically useful, and generally in accord with current realities'. Lifelong learning enhances social inclusion, active citizenship, personal development, employability and various competitiveness (Wikipedia, 2011).

## 2. Conceptualizing Lifelong Learning

As observed by Dinevski and Kokol (2004), lifelong learning has too many definitions from different bodies, such as UNESCO, Council of Europe, European Commission, European Universities Continuing Education Network (EUCEN), etc. In the same development, many scholars have also given several definitions of “Lifelong learning” or “Later-life [learning](#).”

As found in all professions, there is hardly one definition that fits it all. Nevertheless, attempts have been made by scholars in this esteem to provide acceptable definitions for the aforesaid term. An examination of some of the concepts of lifelong learning is discussed by scholars.

Chobot (1989) Define Lifelong learning as the process of learning that continues throughout one’ life’s time based on individual needs, circumstances, interests, and learning skills. Dunn (2003) has conceptualized lifelong learning to cover the whole range of formal, informal and non-formal learning. It embraced the skills, knowledge, attitudes and behaviours that people acquire in their day-to-day experiences. Inevski and Kokol (2004) settled on European Commission definition, which says that it is “*all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective*”. This includes all forms of learning: formal (courses and examinations), non-formal (without examinations) and informal (without either courses or examinations). Based on this definition, lifelong learning is viewed as a situation whereby “*citizens can move freely to learn, work and make the most of their knowledge and skills to meet their aims ...*”.

“*LLL encompasses learning that takes place at all stages of life, whether formal learning at school or in daily life*” (Maruyama, 2009). The concept of LLL refers to the activities people carry out during their life to improve their knowledge, skills and competence in a particular field, given some personal, social or work-related motives (Field, 2001; Aspin and Chapman, 2000; and Griffin, 1999)

### 2.1 Examining Different Educational Settings and Contexts That Power Lifelong Learning

The term “Life long learning” acquaints us that learning is not confined to the classroom, or to the youth, but that which takes place throughout someone’s lifetime, and in a diverse range of situations. Interestingly, Ahmed (2014), in his own opinion also concord with the above statement when the scholar stated that it is an integration of learning outcomes from different educational settings and contexts, such as:

- a. formal education;
- b. informal education;
- c. non-formal education.

However, for better comprehensibility, it will be pertinent to expatiate on each of these forms of education that powers lifelong learning.

### **a. Formal Education/Learning**

This form of education has been severally defined by scholars based on their professional standing. Formal education has a well-defined set of features and corresponds to a well structured, systematized system governed by stringent norms and laws, and so on (Dib, 1988). Tissot (2004) defined learning as that which occurs within an organized and structured context (formal education, in-company training), and that is designed as learning; it may lead to formal recognition (diploma and certificate). In like manner, Dib (1988) further defined formal education as that which, *“corresponds to a systematic, organized education model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content and methodology.”* Sarramona (1975) emphasized that it is characterized by a contiguous education process named, *“presential education”* which necessarily involves the teacher, the students and the institution. This scholar assertion corresponds to the education process normally adopted by our schools and universities. Formal education institutions are administratively, physically and curricularly organized and require from students a minimum classroom attendance. In this setup, intermediate and final assessment or evaluation of students are carried out by teachers in order to advance students to the next learning stage. In concordance (agreement) with Tissot (2004), the author asserts that *“it confers degrees and diplomas pursuant to a quite strict set of regulations.”* In totality, therefore, formal education or learning Teachers, Students and Institution are involved. Dib (1988) opined that formal education cannot disguise its aloofness from the real needs of the students and of the community (Dib, 1988). Smith (2002) sees Informal education as *“truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbours, from work and play, from the market place, the library and the mass media.”* The scholar stressed that while a formal education is linked with schools and training institutions; non-formal with community groups and other organizations; that informal education, therefore, covers what is left out of the other two systems, thereby focusing on interactions with friends, family and work colleagues (Coombs and Ahmed, 1974).

### **b. Non-formal Education/Learning**

Tissot (2004) sees this method of education as that which *“consists of learning embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element, such as vocational skills”*. As observed by Dib (1998), the author observed that whenever one or more of the well-defined set of features in formal education is absent, we may safely state that the educational process has acquired non-formal features. Hence, the scholar emphasized that *“preliminary analysis of the existing non-formal systems reveals the constant presence of two features, such as centralization of the process on the student, as to his previously identified needs and possibilities, and the immediate usefulness of the education for the student’s personal and professional growth.”* Non-formal education, though not as structured as formal type of education, has a recognized need(s) that addresses the immediate needs of the learner. Some of the features of Non-formal education comprises

of decreased teacher and student contacts. Again, most of the activities do not take place within an institution, more functional and pragmatic than theory (reading and writing), and mostly confined to the learners/students work pace. Ward, Sawyer, McKinney and Dettoni (1974) observed that participants of non-formal education are led to these programmes because these offer learners the knowledge that they hope to acquire and the necessary assistance for a better understanding of their own selves and of their world. In concise, it is the type of learning that prepares learners to deal with life daily needs and/or problems. Ward (1974) summarized the promises of non-formal education with regard to their professionals and leaders thus:

- *“a more effective approach to relating education to national development;*
- *offer education that is functional and practical;*
- *related to the life-needs of the people;*
- *seeks to maintain a benefit/cost-consciousness of what it does in order to provide the most effective and purposeful consequences with the most efficiency;*
- *inherent commitment to seek innovative means to achieve the goals;*
- *offers a more eclectic, multidisciplinary approach to the problem of development in a country;*
- *produce short-term effects as well as long-term achievements;*
- *assists in the decision-making of educational and development funding agencies on both national and international levels.”*

In totality, non-formal education’s focal point is placed on the student-objectives, programmes, and methodologies developed with an emphasis on students/learners need and characteristics.

### **c. Informal Education/Learning**

Tissot (2004) defined it as, *“learning resulting from daily life activities related to family, work or leisure. It is often referred to as experiential learning and can, to a degree, be understood as accidental learning”*. *“The truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbours, from work and play, from the market place, the library and the mass media”* (Smith, 2002). This scholar continued by describing informal education as *“consists of learning activities that are voluntary and self-directed, life-long, and motivated mainly by intrinsic interests, curiosity, exploration, manipulation, fantasy, task completion, and social interaction.”*

As Dib (2002) revealed, informal education encompasses the following activities:

- a) visits to museums or to scientific and other fairs and exhibits, etc.;
- b) listening to radio broadcasting or watching TV programmes on educational or scientific;
- c) themes;
- d) reading texts on sciences, education, technology, etc. in journals and magazines;
- e) participating in scientific contests;
- f) attending lectures and conferences.

Other instances are situations/activities that may take place in the students' homes, such as:

- scientific or didactic games;
- manipulation of kits, experiments, reading sessions (biographies, scientific news, etc.);
- to institutional activities - lectures in institutions, visiting museums, etc.

## 2.2 Need for Lifelong Learning

Lifelong learning is a must in a technologically-driven society like ours. As Goode (2016) pointed out to this fact, the employment market is changing; therefore, to remain marketable, adults now realize the need to update/upgrade their knowledge and skills throughout their lives via lifelong learning. Consequently, Marcinkiewicz (1993), in addition to other scholars has advanced several declarations that necessitate lifelong learning as follows:-

- 1) High standards are being applied to technologies as well as to products, services and personal qualifications in many areas.
- 2) Highly industrialized nations attach substantial value to the basic and advanced training of skilled workers in every level.
- 3) Prosperity and the quality of life depend on the qualifications and attitudes of skilled workers.
- 4) Workers must have confidence in the new reality and must be prepared to face it
- 5) Innovations, new products and new technologies bring about changes in commercial structures and demand appropriately qualified workers.
- 6) The fast pace of technical change, the intensity of basic research, the need to hastily incorporate research results into products of industry and society all add up to a situation in which more is needed than merely a good education.
- 7) In countries where technologies are developing at a rapid pace, it becomes necessary for individuals to modify or supplement their professional or vocational qualifications in order to meet the demands of the labour market.
- 8) That knowledge will be the most important and highly regarded asset of the future; this does not mean knowledge learned only one (once), but rather a knowledge that is continually acquired.
- 9) People in employment wish to upgrade their skills to cope with changes in their existing jobs.
- 10) People in employment also wish to upgrade their skills in order to seek promotion in the same or similar companies.
- 11) People in employment need a considerable and substantial change from the present work environment.
- 12) People who are not employed, and require to re-skill in order to enter the workforce.

As asserted by these scholars, it will be impossible to meet the aforesaid technological and administrative demands without the training of the skilled workers (personnel); hence, continued training measures and programs to upgrade the qualifications of skilled workers will be required in every sector of industry and commerce as well as in administration. Consequently, various aspects must be taken into consideration in confronting the societal problems by training skilled workers to meet the demands of the market economy and government.

Having x-rayed the major assertions that could necessitate individuals to continually update one's knowledge and skills, lifelong education becomes a priority in our knowledge-based economy.

### 3. Basic Benefits of Lifelong Learning

Many sceptics will ask why lifelong learning is being stressed upon in our contemporary society. Having actually examined necessities for lifelong learning, let us look at the basic functions of lifelong learning as it affects the individuals and the society at large.

However, Nordstrom (n.d.) and other scholars have listed the major benefits of lifelong learning in a technologically rich society like ours as discussed hereunder.

- a) Lifelong learning enables individuals to constantly update their knowledge, improve individual values and reinforces the quality of individuals in a given society.
- b) Lifelong learning enlightens person, bring sanity to the society by critically examining issues; that is, by looking at the two sides of a coin (help us see the other side of an issue) before taking crucial decisions.
- c) Lifelong learners enhance moral development, active citizenship, social inclusion and cohesion of individuals.
- d) Lifelong learning keeps us involved as active contributors to society by taking part in educational programs, offers our expertise to societal development via significant community participation.
- e) It encourages self-sustainability, self-fulfilment and personal development, as well as competitiveness and employability. It has been observed that *"we base everything on the belief that our capacity to learn and grow does not decrease as our years' increase."* Through academic activities, we expand our awareness, embrace self-fulfilment, and truly create an exciting multi-dimensional life
- f) The level of knowledge, experience and skills that individual possesses will tremendously boost his/her self-confidence in dealing with individuals and the society at large.
- g) Lifelong learning helps us understand ourselves better, adapt and keep up with cultural and technological changes in our society.
- h) Humans are political animals, and do not enjoy [loneliness](#); hence, It enables lifelong learners to make new friends and establish priceless

associations/relationships as they meeting new people in course of their programmes and enjoy life (Nordstrom, n.d).

- i) Lifelong learning helps individuals to Fight Boredom (Powers, 2015). It has been said that the idle mind is a devils workshop. Ones you are challenged by taking one course or the other and read widely, loneliness will not be part of your again.
- j) Lifelong learning increases *"our wisdom; enables us to put our lives in perspective,"* says Nordstrom. The "whys" and the "whats" of previous successes and failures are better understood as we embark on lifelong learning, says Nordstrom (n.d.).
- k) Via lifelong learning, our minds are open and ideas are freely exchanged. It enables us to listen and take part in discussions and critically look at the two sides of an issue.
- l) Nordstrom (n.d.) sees lifelong learning as *"a proactive lifestyle for overall personal development and a primary factor for brain health!"* While Power (2015) also revealed that exploring health and fitness courses may inspire you to take better care of your body. The scholar further discovered that when we organize our activities and practice time management techniques that it will help reduce stress in our life. Additionally, when health and fitness courses are taken, it may inspire us to take better care of your body, heighten physical activity, and maintain healthy social relationships (Power, 2015 and Nordstrom, n.d.).
- m) As we get older, it seems as if the elderly people cannot learn new things to change our present situation. No, there is a lot to learn. Society is in a state of constant change. Hence, lifelong learning enables us to adapt to the changes that occur in a dynamic society like ours. *"Lifelong learning enables us to keep up with society's changes - especially the technological ones"*, says Nordstrom (n.d.).
- n) Through lifelong learning, we become active contributors to the society we belong to. As get involved in educational programs, we acquire more knowledge, which enables us to contribute meaningfully and become more committed to community development.
- o) Lifelong learning gives us a second opportunity in life. It enables us to reflect back and make amends to our previous failures in our lives.
- p) Lifelong learning provides an avenue for people to acquire life skills, which will enable the person to become adaptive, that is, the individual will be very flexible in approach and will easily adjust to situations/circumstances within his/her perceived culture and environment. Despite the professional knowledge we acquire through structured formal school, Lifelong learning enables us to acquire basic practical skills on the computer, communication, and skills of managing our finances. These skills may be provided via online learning programmes which are readily available.
- q) Lifelong learning keeps your brain healthy and your mind sharp, says (Power, 2015). This assertion has been affirmed by a study conducted by the University of California at Irvine in 2010, which revealed that learning keeps the human brain functioning at a high level. The brain is a muscle; It has been proven that the brain

will continue to be in form/alert by giving it new challenges and opportunities for learning and growth.

- r) Enables those adults who missed schooling at an early age (young age) to be able to catch up later in life
- s) Keep abreast with skills that will keep them up-to-date in line with societal needs.
- t) Some adults may be uncomfortable with the work or professional that they are already into and would like to make a change to make them happier in life. Hence, they will like to pursue new programmes that will necessitate the change.
- u) Some adults would like to keep their knowledge and skills up-to-date in order to retain, maintain, and improve their position in the labour market.
- v) Some adults are involved in lifelong learning in order to continue their personal development in the society.

Generally, and summarily, lifelong learning creates room for more knowledge to be acquired through continues education; it enhances the self-improvement of development. It improves the mind, creates opportunities for a better job, and boosts an individual's self-esteem. Lifelong learning increases social wellbeing and definitely leads to crime reduction in society. In fact, it also enables an individual to holistically understand life and society at large.

## 5. Obstacles/Barriers to Lifelong Learning

For decades, as noticed by [Potamias](#) and [Simou](#) (2012), lifelong learning has become an important topic within the educational parlance in view of the fact that more and more adults worldwide tend to participate in educational programmes, either for personal need in order to expand their horizons or due to increasingly demanding circumstances in their work environments. In agreement with the above scholars, Laal and Laal (2012) affirmed that with globalization and the growth of the fast-changing knowledge economy that people need to upgrade their skills throughout their adult lives to cope with modern life, with regards to their work and private lives respectively.

Many of these adults in attempts to resume their educational activities face various obstacles, which may include - financial, demographic, technological, social, environmental and democratic nature (Laal and Laal, 2012). Let's examine some of these challenges as observed by these scholars.

- a) stress or anxiety as a result of introducing a person in a new educational environment, especially if the latter consists of people from a wide age variety. In this case, an older person might find himself in an awkward position and become self-conscious, when confronted with much younger classmates.
- b) the fear of failure and the resulting criticism is another major barrier among adult trainees, particularly if one has sacrificed a lot of his limited time when he could be spending it with his family.
- c) way to adapt to new teaching methods, which may look alien to the elderly persons

- d) Factors such as social and family responsibilities
- e) It may also be as a result if programmes that do not successfully cover their needs or wants.
- f) The participants of a programme may have totally different opinions and preferences about how things should be taught or even value differently the curriculum and its educational target.
- g) Uncertainty on the conditions under which the educational process is going to take place.
- h) Age is a very big factor for learning among adults. At this stage, visual acuity becomes a barrier to learning, as print size or colour fonts used in materials presents big barriers to adult learners (Eng and Ronaldson, 2010). The author stresses that the eyes must be able to focus and identify writing and instructions well to be able to read and comprehend the directions being given or the task to be accomplished. In agreement, (Benders, 2014) stated that adult learners, later in life earning have the physical limitations caused by the diminished hearing or vision abilities.
- i) Adults, especially, the retirees' capability to read and understand what was read are some of the issues confronting the adult population.
- j) The anxiety of learners. Watkins (2001) stated thus: *"the idea that an adult needs to learn something new to progress within a work situation or to find a better job or to accomplish a new task to be hireable in a different job structure certainly does not put the learner at ease. Rather it adds to the stress and anxiety of the adult learner."* The scholar adds that more anxiety and stress are created when the use of technology is involved, especially as this generation is used to handling issues face-to-face as opposed to mechanized approach.
- k) Kim (2008) also pointed out that anxiety is overblown as adult learners are most times slower and less confident in the use of technology, such as computer usage and knowledge. In addition, they tend to make *"more errors than younger adults"*
- l) Walker (2007) identified health issues and literacy levels as the largest issues which separate adult learners later in life over the middle-aged adults in a learning environment. While adults prefer printing materials, such as handouts remains the preferential means of distributing information (rather than reliance on a slide or presentation on a screen (Walker, 2007).

Summarily, (Price and Lyon, 1982) affirmed that older adults have fears too about returning to learn and of being seen as too old, having poor health, lack of time, cost, out at night, transportation, absence of a companion, lack of information about what is available, fear of competition with younger adults, fear of exposure of their background, fear of the unknown and location. Older adults are more likely to attend institutions which are accessible and familiar

## 6. The Future of Lifelong Learning in Global Perspectives

Lifelong learning has come to stay with us, and we must embrace it in its entirety. In view of the continuous technological advances and the technological skill requirement of the technology-driven society, there is the likelihood that the future of lifelong learning will be very bright. Earlier before now, our formal education ends whenever we start working, and if we want to continue our career, we are advised to resign our job for the envisaged career. But recently, lifelong learning has become the order of the day as people register for online and part-time courses even as they are fully engaged in their jobs, a situation that was very rare before now.

There are lots of indices that inform us that there will be a constant massive acquisition of knowledge and skills throughout individuals' lifetime. There are Massive Open [Online Courses](#) (MOOCs), which is in conformity with lifelong learning. This quote from Yu (2014) summarizes the future of lifelong learning thus:

*“As the internet becomes more ubiquitous and digital solutions extend learning beyond physical classrooms, the potential for lifelong learning has grown dramatically. In earlier years, brick-and-mortar continuing education classes, books for self-study, and apprenticeship programs represented the range of possibilities for learning beyond formal education. With the proliferation of online schools, learning platforms, and applications in the last decade, however, exponentially more professionals have been able to engage in lifelong learning (1)”.*

In the same development, the Paris 1998 UNESCO global conference on higher education decided and declared that *“On the eve of a new century, there is an unprecedented global demand for learning”*. At the same time, that conference of leading educators declared that *“higher education is being challenged by new opportunities in relating to technologies that are improving the ways in which knowledge can be produced, managed, disseminated, accessed and controlled.*

This clearly shows that the advent of the Internet and subsequent online programmes, there will be explosive interest in the acquisition of knowledge and skills by lifelong learners. Other indicators are as follows:

- 1) Evolution of lifelong learning movements worldwide;
- 2) More access to educational institutions than before now;
- 3) More adults are now aware and interested in furthering their education;
- 4) More part-time undergraduate and graduate courses springing up daily;
- 5) Awareness of the importance of education by the adults and the general public;
- 6) Basic skill education required to challenge the 21<sup>st</sup> Century skills;
- 7) Workers needing new skills to cope with present societal and job realities;
- 8) Affordability of learning opportunities due to digital innovations. New learning methods, such as MOOCs are expanding rapidly on a daily bases. In fact, it has been predicted that in the near future, online courses will be serving more learners

than the combined provision of physical courses offered by the world's universities. Online courses will replace the in-class courses to become the dominant educational mechanism ("brick and mortar" schooling);

- 9) College and university courses/programmes are springing up daily to meet the demands of the lifelong learners;
- 10) Vocational, technical, apprenticeship, personal and work-related programmes are being floated daily to meet the demands (skills) of the knowledge-based economy.
- 11) Constant changing needs of the knowledge-economy;
- 12) There is a growing need to increase skill levels to make sure that as the population gets older people to remain healthy and productive.

## 7. Conclusion/Recommendation

Change is emerging on a daily basis. We must accept the change as it comes, and each and every one of us must make our utmost contribution in order to make a difference. In order to survive and thrive in such changing environments, organizations and individuals must be able to adjust and enhance their knowledge and skills to meet all necessary evolving needs. An understanding of web 2.0 tools is critical to keeping up with a changing world, and the information and knowledge explosion associated with it. In this respect, opportunities to learn should be extended to senior citizens through appropriate local lifelong learning programmes (Lam et al, 2010). To ensure that a greater diversity of lifelong learners are supported to succeed, a new model of higher education is required. The present higher institutions in Nigeria have a long way from being a genuine lifelong learning institution as the majority of them are a preoccupation with fulltime study and it would require a major change in direction to be regarded as a lifelong learning institution. Higher institutions in Nigeria should move towards creating a lifelong learning framework by providing multiple entries and exit points for learners, which will favour full-time and part-time modes of study. In response to UNESCO's "Policy Paper for Change and Development in Higher Education", which urged higher education institutions to make greater use of the advantages offered by the advancements of communication technologies by adopting open and distance learning possibilities in various points in time? For effective lifelong learning to thrive in modern time, e-learning mode of study must be massively employed by all levels of the education system.

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