E-LEARNING AND DISTANCE EDUCATION IN NIGERIA

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ABSTRACT
This paper discusses the relevance of e-learning in the position of distance education in Nigeria. It commences by discussing the meaning of e-learning and distance education. It also discusses the historical background of distance education in Nigeria as well as the operations of National Open University of Nigeria (NOUN) as the first federal University in Nigeria dedicated to the provision of education through distance mode.

Furthermore, the paper highlights the prospects and challenges of e-learning in the operation of National Open University of Nigeria.

Keywords: Distance Education, e-learning, Quality Assurance, Information and Communication Technologies, National Open University of Nigeria.

INTRODUCTION
The e-learning is not a new phenomenon in promoting education in some parts of world. Presently, some institutions in Nigeria are using it to promote distance education (DE) and life long learning. e-learning according to Sale (2002), is the use of electronic technology to deliver education and training applications, monitor learner's performance and report learner's progress. Hedge and Hayward (2004), defined it as an innovative approach for delivering electronically mediated, well-designed, learner-centered and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design principles. It is all about learning with the use of computers. In this age, learning with the use of computer is simply online ways of acquiring knowledge through the internet or through the offline – CD-ROM. The online involves the use of Internet Explorer/Navigator. It may be in form of Audio, Visual, and or Audio/Visual. The convergence of the internet and learning, or Internet enabled learning is called e-learning. The applications and process of e-learning include computer-based learning, web-based learning, virtual classroom and digital collaboration where contents is delivered via the internet, intranet/extranet, audio and or video tapes, satellite TV and CD-ROM (Islam 1997).

The revolutionary development of Information and Communication Technologies
(ICT's) in education in the developed countries facilitated the establishment of 100% ICT – based University known as Virtual Universities. Here in Nigeria, very few of our conventional universities are now carrying out their academic activities through one form of ICT or the other. While the urge to embark on e-learning is still a dream to some because their infrastructure of ICT's is very weak. The rapid expansion of ICTs in Nigeria offers an opportunity to consider its use in the promotion of DE. It offers students considerable benefits including increase access to learning opportunities, convenience of time, and place, making available a greater variety of learning resources, improve opportunities for individualized learning and emergence of more powerful cognitive tools (Khan, 1996, Pierre, 1998).

Distance Education (DE) is a system of education characterized by physical separation between the teacher and the learner in which instruction is deliver through a variety of media including print and other ICTs to learner who may either have missed the opportunity earlier in life or have been denied the face-to-face formal education due to socio-economic, career, family and other circumstances. Jegede, (2003) defined distance education as education provided by a mode other than the conventional face-to-face method whose goals are similar to and just as noble and practical as those of on-campus full time face-to-face education.

Nigeria is the most populous nation in sub-Saharan Africa with about 140 million people (NPC, 2007), occupying a landmass of about 923,768 square kilometers and with over 274 ethic groups making up the federation. The social and economic dimensions of providing education for the population, within the context of prevailing national circumstances of dwindling financial and other resources in the face of developments needs are heavy. The ever-continuing growth in Nigeria's population, the attendant escalating demand for education at all levels, the difficulty of re-sourcing education through the traditional means of face-to-face classroom bound mode, and the compelling need to provide education for all (EFA) irrespective of environmental, social or cultural circumstances have meant that the country must of necessity find the appropriate and cost effective means to respond adequately to the huge unmet demand for education. All these emerging situations have signal to the need for a comprehensive search for a more viable, robust, reliable, efficient, effective, and cost-beneficial

educational solutions, which according to Jegede, 2003 and Sadeq, 2003 the most logical pathway to achieve these is by embracing distance education method.

Historical Background of Distance Education in Nigeria
The history of distance education in Nigeria dates back to the correspondence education as a means of preparing candidates for General Certificate in Education, a prerequisites for the London Matriculation Examination. The first indigenous distance learning programme was the English by Radio programme of Nigeria Broadcasting Corporation that followed independence in 1960. The programme was primarily targeted at primary and secondary school levels and covered core courses at both levels with more emphasis placed on the teaching and learning of Science, Mathematics and English. The technology driven distance learning came into existence almost the same time with the first indigenous distance learning with the emergent of Educational Television programmes of the then National Television of Nigeria (NTV). There was also Schools Educational Broadcast of the Radio Nigeria stationed in Lagos and relayed all through the federation. All radio stations were required to hook at specific times of the day during school hours for broadcasting of programmes.

In the last 31 years, University education programmes in the country begin to witness a lot of changes in terms of instructional delivery mode in some of our tertiary institutions. The Correspondence and Open Studies Unit (COSU) of University of Lagos that started in 1974, which later changed to Correspondence and Open Studies Institute (COSI) and now known as Distance Learning Institute was the first attempt made to establish a distance education unit as part of a University in Nigeria. It began initially to offer programmes in science education at first degree level in Biology, Chemistry, Mathematics, Physics and Postgraduate Diploma in Education (PGDE) for degree holders that did not possess teaching qualifications. The National Teachers' Institute (NTI) started as a distance education institution in1976 (as the first dedicated distance education institution) with the support of UNESCO. It began by training Grade Two Teachers (TC II). In 1990, the Nigerian Certificate in Education (NCE) programme was introduced when the expectation was that the minimum teaching certificate in Nigeria was expected to be NCE. The Institute also introduced the PGDE programme in the year 2005. Ahmadu Bello University (ABU) also started its distance education through a training programme known as Teachers-in-Service Education Programme (TISEP) for Grades Three and Two teachers and later the Nigerian Certificate in Education (NCE). Also in November, 1972, the University also established a University of the Air Programme for teachers in secondary schools and teacher training colleges. The Distance Learning Institute of the University of Ibadan which started in1979 as External Degree Programme of the university is another institution which adopted the distance learning mode

The National Open University of Nigeria (NOUN), was established in July, 1983, by an Act of the National Assembly as the first distance learning tertiary institution in Nigeria when it became crystal clear to the then Federal Government that the ever growing demand for education by her people cannot be met by the traditional means of face-to-face classroom instructional delivery. The institution was closed down few weeks after its establishment and the Act that established the University was suspended in 1984 by the then Federal Military Government that overthrew the civilian government. Many years after the closure, the compelling reasons that informed the earlier establishment of the university as well as the need to fill the gap created by the Federal Government clamped down on mushroom outreach study centres of many conventional universities all over the country and the need to take advantage of emerging developments in the field of ICTs which have revolutionalized the techniques and methods of instructional deliveries in the distance learning mode necessitated the reactivation of the suspended NOUN Act of 1983 in 2002. This paved the way for the resuscitation of the NOUN.

Development of e-Learning in Nigerian Schools
The development of e-learning in Nigeria could be traced back to the development of telecommunication which began in 1886 when e-cable connections was established by the colonial masters between Lagos and the colonial office in London to transmit information and receive feedback. By 1893, all government offices in Lagos were provided with telephone service for easy communication, feedback and easy access and later all other parts of the country were provided with telephone services.

A lot of changes have been witnessed in the telecommunication industry since 1886. The provision of telecommunication services was initially monopolized by the Nigeria Telecommunication (NITEL) until sometimes in 90's when the federal government of Nigeria commenced the liberalization policy of telecommunication industry. Four (4) private telephone service providers (Mtel – NITEL, Econet Now Vmobile, MTN and Communication Investment Limited – CIL) were initially licensed to provide General System for Mobile Services. CIL license was later revoked for inability to pay the license fee before the prescribed which was later given to Globacom (Glo) Nigeria.

With this development, more companies were licensed to provide internet services in Nigeria, and this led to improved access to the internet by Nigerians. The country has less than 11 ISPs in 2000, but by the year 2006, it has risen to above 100 and many got connected to the information super-highway, through broadband VSAT connection see.

In Nigerian schools, the commonest type of e-learning adopted is in form of lectures note on CD-ROM which can be played as at when the learners desires. The challenge of this method is that the numbers of students per computer in which these facilities are available are un-interactive as compared to when lectures are been received in the classroom. Some institutions adopted the use of intranet facilities; however, this is not well maintained because of incessant power problem and high cost of running generating set. Most students in Nigeria go to the cyber café but because there are people of diverse intension on the net at the same time, and the bandwidth problem, a multimedia interactive can not be done. Despite all these and other challenges facing e-leanring in Nigeria educational institution, institutions such as University of Ibadan, Obafemi Awolowo University, University of Benin, University of Abuja, University of Lagos, National Open University of Nigeria among others has the facilities for e-learning. The number seems very low (compared to other parts of the world and the usefulness of the e-learning in the economy development) because of location of most institutions, bandwidth issue and mostly the challenge of electricity. Though most of the educational institutions (private and public) have started setting up their ICT centres for internet services alone without actually taking into consideration other components of e-learning centre

Need for Open and Distance Education in Nigeria
The need for Open and Distance Education (ODE) in Nigeria is an important issue for several cogent reasons. Firstly, the vast majority of the population lives below poverty level. They are unable to attend urban based institutions and thus remain deprived of higher education despite their superior merit. Secondly, those who joined workforce without completing their studies or education due to family commitments are unable to combine their work with studies and very few of them who have strong desire for higher studies could not do so because of the limited offer in the traditional institution of higher learning. Thirdly, the tradition of childhood, early marriage and religious belief in the country deprives the majority of female population from higher education. Besides, there are some other usual factors like physical disabilities, remoteness of localities, exorbitant tuition fees in most privately owned Universities and so on. These are some of the major issues responsible for why millions of Nigerians are deprived of higher education despite their knee interest and eligibilities. ODE provides avenues for higher education for such a vast under-privileged population. Nigeria is generously endowed with human resources that need to be well equipped with literacy and skills to contribute to economic development, which is badly needed for this country. Thus, it is crystal clear that the way forward is to embrace ODE using both hands and supported by all necessary financial and infrastructural commitments.

Role of National Open University of Nigeria (NOUN) in the Promotion of Distance Education in Nigeria
NOUN, a federal government – owned university, has emerged as the first dedicated University in Nigeria to introduce education through distance learning mode. The vision statement of the University is that the NOUN is to be regarded as the foremost University providing highly accessible and enhanced quality education anchored by social justice, equity, equality and national cohesion through a comprehensive reach that transcends all barriers. While the Mission statement is that NOUN is to provide functional cost-effective, flexible learning, which adds life-long value to quality education for all who seek knowledge. In addition to the broad vision and mission statements, the university has eight major objectives which are listed below:

i.   provide a wider access to education generally but specifically in University education in Nigeria.
ii.   ensure equity and equality of opportunities in education
iii. enhance education for all and life-long learning
iv.   provide the entrenchment of global learning culture
v.   provide instructional resources via an intensive use of ICTs
vi.   provide flexible, but qualitative education
vii. reduce the cost, inconveniences, hassles of and access to education and its delivery
viii enhance more access to education.

In NOUN, Study Centres are the main contact place for students learning activities. These centres are thus the backbone of the distance learning methodology of the University. Presently, NOUN has 28 study centres spread across the length and breadth of the country as against the initial 18 temporary study centres approved by the Federal Government for take off of the University in the year 2002. In addition, the university has special study centres which cater for specialized groups, such as the Prison inmates and Armed Forces personnel. The

projection of the university is to have a study centre in every state capital and at every local government of the federation. This will enable the university to achieve its stated objectives.

A detailed description of NOUN and its academic programmes are included in this report to understand the current operation of the institution towards achieving its vision and mission statements.

Academic Programmes

NOUN provides higher education and professional training in wide areas, such as arts, business, education, social sciences, sciences and technology. The institution offered several formal academic programmes from Certificate to Masters Level under four academic schools and a Centre for Continuing Education and Workplace Training (CCE&WT).

Table 1: NOUN academic progammes, modes of present and proposed delivery

School	Formal Programmes	Level	Media Used	
			Present	Proposed
CCE & WT	1..Certificate Courses	Certificate	Print	AC,CDR
	2...Diploma Courses	Diploma	Print	AC,CDR
School of Arts and Social Sciences (SASS)	1. Certificate in French	Certificate	Print	AC, CDR
	2. Diploma in French	Diploma	Print	AC, CDR
	3. Postgraduate Diploma in Theology	Diploma	Print	AC, CDR
	4. Bachelor of Arts(BA)	Bachelor	Print	AC, CDR
	5. Masters in Arts (MA)	Masters	Print	AC, CDR
School of Business & Human Resources Management	1.Post-Graduate Diploma	Diploma	Print	AC, CDR
	2.Bachelor of Science (B.Sc) Hotel & Catering Management, Tourism Studies, Co-Operative Management, Entrepreneurial & Small Scale Business Management	Bachelor	Print	AC, CDR
	3. Masters of Science(M.Sc) Business Administration	Master	Print	AC, CDR
	4.Masters of Science(M.Sc)	Master	Print	AC, CDR
School of Education	1. Post-Graduate Diploma in Education	Diploma	Print	AC,CDR
	2. Bachelor of Arts (Education)	Bachelor	Print	AC,CDR
	3. Bachelor o f Science (Education)	Bachelor	Print	AC,CDR
	4. Masters of Education (M.Ed)	Masters	Print	AC,CDR
	5. Masters of Science (M.Sc.Ed.)	Masters	Print	AC,CDR
			Print	AC,CDR
School of Science &Technology	1. Post-Graduate Diploma	Diploma	Print	AC,CDR
	2. Bachelor of Science (B.Sc.) Agric. Extension, Environmental Studies, Computer Studies, Mathematics, Physics/Computer Science, Communication Technology.			
	3. Masters of Science (M.Sc) Information Technology	Bachelor	Print	AC,CDR
			Print	AC,CDR
School of Law	1. LL.B Law	Bachelor	Print	AC,CDR

Source: Learners Support Service unit, NOUN

Note   AC   Audio Cassette
       Pr   Print
       R   Radio
       CDR   Cd-rom, Internet
   *INET*   Internet

The current enrolment of NOUN is Forty-three thousand, two hundred and fifty four (43,254).   Ten Thousand and twenty-six students enrolled for the 2003/2004 academic session in various schools as shown below while Sixteen Thousand, Nine Hundred and Eight-Seven (16,987) enrolled for 2005/2006 academic sessions, while Sixteen thousand, Two Hundred and Forty-One (16,241), has enrolled for 2007/2008 academics session as at 9th of June, 2008.

Table 2.1 Distribution of registered students grouped by school 2003/2004 – 1st Admission

Various Schools in the University	Number of students registered
1. School of Arts and Social Sciences(AS)	3,081
2. School of Business and Human Resources (B)	3,106
3. School of Education (E)	1,126
4. School of Science and Technology (S)	2,532
5. Centre for Continuing Education ©	181
Total	**10,026**

Source: Learners Support Services, NOUN Lagos

No. of Students Registered
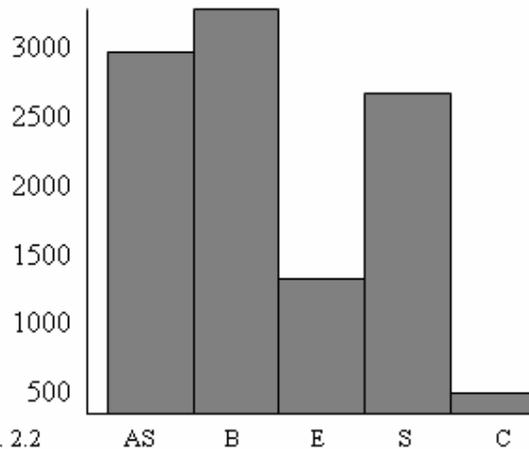
NOTE:

AS – Arts & Social Sciences
B   - Business & Human Resources
E   - Education
S   - Science
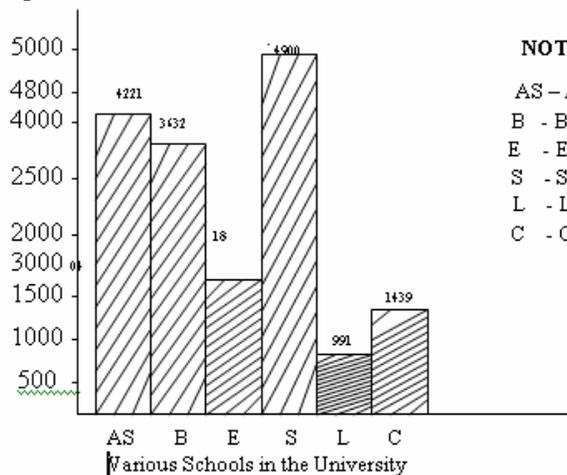C   - Centre for Continuing Education

Fig. 2.2

Various Schools in the University

Table 2.2 Distribution of registered students grouped by school 2004/2005 – 2nd Admission

Various Schools in the University	Number of Students registered
1. School of Arts and Social Sciences (AS)	4,221
2. School of Business and Human Resources (B)	3,632
3. School of Education (E)	1,804
4. School of Science and Technology (S)	4,900
5. School of Law (L)	991
6. Centre for Continuing Education ©	1,439
Total	**16,987**

Source: Learner Support Services, NOUN, Lagos

Number of Students Registered

NOTE:

AS – Arts & Social Sciences
B   - Business & Human Resources
E   - Education
S   - Science
L   - Law
C   - Centre for Continuing Education

Various Schools in the University

Table 2.3 Distribution of registered students grouped by school 2007/2008 – 3rd Admission

Various Schools in the University	Number of Students registered
1. School of Arts and Social Sciences (AS)	3,239
2. School of Business and Human Resources (B)	4,263
3. School of Education (E)	1,728
4. School of Science and Technology (S)	5,325
5. School of Law (L)	1,361
6. Centre for Continuing Education ©	325
Total	**16,241**

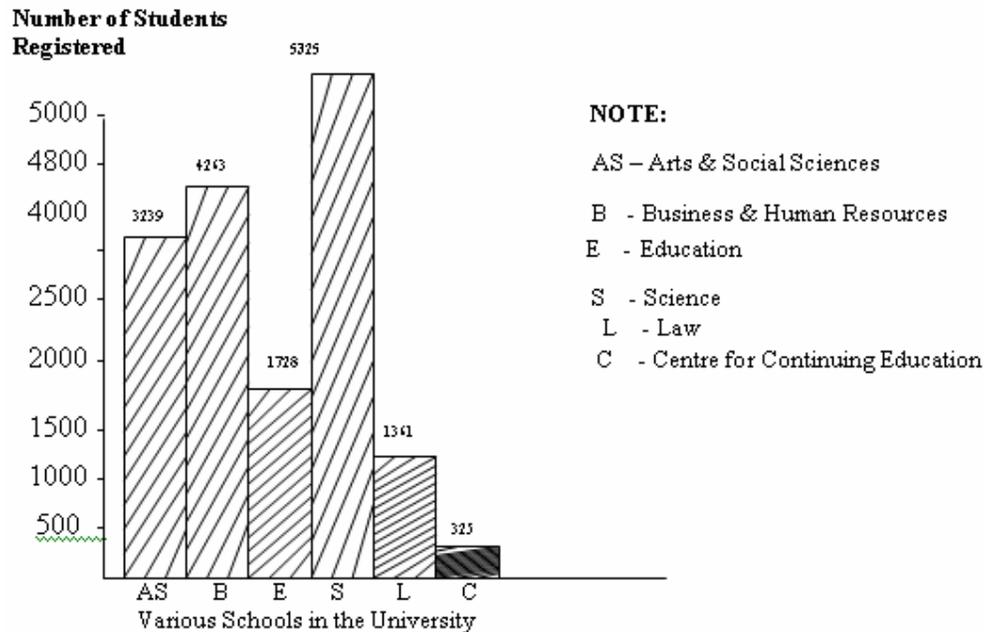*Source: Learners Support Services, NOUN Lagos*

Fig.2

The number of registered learners in NOUN is higher than the enrolment of any conventional university in the country as at today. (Fig. 2.1, 2.2, and 2.3). Considering the importance of life-long education and NOUN in its desire to uphold the principle of flexibility offered concession admission for matured-aged candidates whose age is 35 years and above with work experience in relevant areas. Also fall in this category is the Access Programme which is open to the candidates whose ordinary level results do not qualify them for a direct admission into the 100 or 200 level of a degree programme. The programme enables the candidate to acquire the necessary knowledge and skill in at most any two subjects they are deficient.

Mode of Delivery of Instruction in NOUN
Mode of delivery of instruction is very important for open and distance learning. There are two major types of mode of instruction for open and distance learning:

   i   Mixed mode of instruction delivery system: this system uses   several different media methods or
   deliveries such as video and e-mail.
   ii Single mode of instruction delivery system: this method according to Hirschbuhi (1995)does not
   provide enough instructional power to ignite student's interest because they fail to provide student
      involvement.

As a distinct mode of imparting education, NOUN relies heavily on print materials, and face-to-face tutorial services. The use of these techniques helps NOUN to take its academic programmes to the door steps of her students far and wide. It makes room for in-house education. Considering the rapid expansion of ICT's in the country, NOUN has commence plan on the introduction of more electronic media like CD-ROM, e-mail, internet and interactive e-learning systems for its courses delivery (Table 1).

Indeed, NOUN has established its own radio station in its headquarters in Lagos. The radio station is also one of the strategies to disseminate NOUN programmes to its students in Lagos to start with. Efforts are being made by the institution management towards establishing more radio station across the country to further assist in transmitting their programmes to other students in the remaining states of the federation.

Staff in NOUN
New skills must be learned by faculty members to meet the needs of quality distance education (Sherry and Morea, 1995). NOUN has well-trained and skilled academic and management staffs. All academic and higher ranked officers received an advanced training in open and distance learning both at home and abroad funded by both the management of NOUN and Commonwealth of Learning (COL). The staff received training in all aspects of ODE including modern management, computer skill development, information technology, media production, communication skill development, editing, module writing etc. These skilled staffs are able to introduce and run any new technology for e-learning. Presently, some NOUN staff (both academic and non-academic) has completed the Postgraduate Diploma in Open and Distance Education programme and have also commenced their Masters of Arts in Distance Education (MADE) programme under the scholarship scheme offered the university by Indria Ghandi National Open University (IGNOU).

Students Enrolment in NOUN
In the first admission exercise in 2003/2004, NOUN admitted thirty thousand (30,000) applicants out of which, Ten Thousand and Twenty-Six of them registered (10,026), and were distributed to various schools according to their qualifications. During the second admission exercise in 2005/2006, out of Thirty-Six Thousand and Fifty-Seven (36,057) learners that were admitted, Sixteen Thousand, Nine Hundred and Eighty-Seven (16,987) of them registered. So also during the third admission exercise in 2007/2008, out of the forty-Four Thousand, Four Hundred and Eight (44,408) learners that were admitted, Sixteen Thousand, two-Hundred and Forty-One of them have registered as at June 9th, 2008 and were equally distributed to various schools based on their entry qualification. Apart from the various schools, the operations of NOUN are facilitated by five administrative directorates. The five administrative directorates are mentioned below:

1. Regional Training and Research Institute (RETRIDAL)
2. Directorate of Learners Support Services (DLSS)
3. Directorate of Media
4. Directorate of Computer and Networking Services
5. Directorate of Legal and Protocol

Quality Assurance in NOUN
NOUN sees quality assurance as a deliberate and conscious planning, monitoring and evaluation of the sequential process involved in a system operation for efficient and effective performance of the system. Quality is the watch-word at the NOUN and it underpins every aspect of the experiences prepared for a student who has decided to be instructed at the NOUN. All the conventional universities in Nigeria are assessed through accreditation team of the National Universities Commission (NUC), the NOUN too took part in the accreditation. The programmes of the NOUN, its tutorial facilitation and degrees awarded are all subjected to the same quality assurance as all Nigerian universities.

Besides, due to globalization, the NOUN collaborates with the Commonwealth of Learning (COL) in Canada, the International Council for Distance Learning (ICDE), the African Council of Distance Education (ACDE) and some well established open and distance learning universities in the United Kingdom, Hong Kong, India, Australia, South Africa, and the Africa Virtual University in Kenya.

Prospects of e-Learning in NOUN
The e-learning has several advantages in promoting the activities of NOUN as an open and distance learning institution. Some of the important points are listed as follows:

- NOUN students will learn what they need to learn and go at their own pace
- the internet will provide NOUN students with the opportunity to make choices about the type and direction of their learning and gain feedback quickly and efficiently. This has the potential to cater for individual learning and styles and requirement providing information about a topic
- of personal interest.
- the courses provided by NOUN in this model will have wide variety of courses based on IT and non-IT topics, which is an additional benefit to attract large number of learners from all the background.

- e-learning will provide NOUN students courses round the clock i.e. 7 days
- a week and 24 hours a day, which further attracts working class, students and individuals.
- computers with high internet infrastructure will help NOUN management to reduce the overheads cost as there won't be any recruitment, training and up gradation of faculties.
- internet activities will enable NOUN students to discover how the information they gain fits into the real life.
- the internet will provide NOUN students a culturally, racially, physically and gender anonymous medium for communication. Social behaviours can be reduced as students realized that they are judged solely on what they say and how they say it.

Challenges of e-learning in NOUN

e-learning in Nigeria Universities and educational institutions is still a dream because of poor ICT infrastructure and other socio-economic reasons. Due to very high primary cost of infrastructural development and to increase public access to internet and other ICTs, the developing countries are still far behind from getting benefit from the e-learning. The major problems facing the proper implementation of e-learning in Nigerian institutions in general and NOUN in particular are as follows:

- Inequality of access to the technology itself by all the NOUN students the so called digital divide: The cost of a Personal Computer (PC) and Laptop are still very high in Nigeria considering the income level of an average worker in the country. Few of the NOUN students that are privileged to have a PC/Laptop are not connected to the internet as this do attract extra cost which they cannot afford.
- Technophobia: Most of the student admitted by NOUN have no computer education background, hence they are afraid of operating one, some go to the extent of hiring expert at a cost to fill their admission, registration and other document meant for them to fill online. However, the very few who have access to the computer do not know how to use it and maximize it usage.
- Internet Connectivity: The cost of accessing internet is still very high in West Africa. It is as high as $8/Kbps, while it costs a ridiculous amount of $0.52/Kbps in North Africa and even lesser in Europe. Most of NOUN Students make use of Cyber Café who charges between #100.00 and #150.00 per hour despite their poor service and slow rate of their server
- School Curriculum: Most of the students admitted by NOUN have no information technology/computer education knowledge because it was not entrenched in the curriculum at their elementary and secondary education level. Not until recently when computer education is been introduced at elementary level and it is not yet a compulsory subject at the secondary level of our education.
- Attitude of NOUN Students: ICT refutes independent learning and most of NOUN students are reluctant to take responsibility for their own learning.   But they preferred to be spoon-fed at all times.
- Software and License cost: It is very expensive to get some of the soft wares because they are not developed locally, they are developed in Europe and other developed countries to suit their own system and make their own living. The cost and even the interpretation of the software put off some of the NOUN students who showed interest.
- Maintenance and Technical Support: There are few technical staff to maintain the system, this make it very expensive for few NOUN students that has a PC to maintain when a technical problem is noticed.
- Electricity: The perennial problem in Nigeria is the problem of electricity instability which has been a major setback for our technological development. Some of NOUN students that reside in cities and towns are faced with the problem of epileptic supply of electricity. While majority of them live in rural areas that are not connected to the national grid

CONCLUSION

The survival of tertiary education institutions in the 21st century will increasingly rely on various forms of electronic delivery and communication inside a market place that requires education to be flexible. e-learning is now widely used in most of the developed countries to promote distance education (DE) and life-long learning in an effective way. In Nigeria, the recent developments and awareness of the Government on ICT have opened an opportunity to adopt e-learning to deliver distance education for educating mass of its uneducated or less educated peoples. Considering the recent expansion of ICTs in the country, NOUN could introduce some

modern ICT like e-mail, web-based learning (e.g. open course wares), CD-ROM for delivering its course materials through e-learning for its learners. However, before going to introduce an advanced ICT in NOUN, it is suggested that enough research be conducted on learner's access, cost and other related parameters essential for it.

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