The International Journal Of Engineering And Science (IJES)
||Volume||2 ||Issue|| 5 ||Pages|| 01-15||2013||
ISSN(e): 2319 – 1813 ISSN(p)**:** 2319 – 1805

Empirical Study of Internet Use by Undergraduates in Adekunle Ajasin University Akungba-Akoko
By

[1,]Akintomide O. A., [2,]Ademodi D. T.
[1],*Librarian I Adekunle Ajasin University Library Akungba-Akoko*
[2],*Senior Librarian Adekunle Ajasin University Library Akungba-Akoko*

----------Abstract----------

The objective of the study was to analyze internet use among undergraduates in Adekunle Ajasin University Akungba-Akoko. A total of five hundred (500) questionnaires were raised out of which four hundred and twenty eight (428) representing 84.8% were returned and used for the study. The questionnaire sought to elicit responses on frequency of internet use, where and how access is gained to the internet, what resources are used, level of satisfaction with the use of internet resources, preferred source of information as well as challenges encountered in using the internet. These responses were analyzed using simple percentages and results were presented in tables. The study revealed that a great number of respondents made use of the internet on a daily basis for mostly assignments and social networking purposes. It also revealed that quite a number of respondents, above 50% in most faculties, gained access to the internet via their phones and from their homes with very few making use of internet access platforms provided by the university. The most common internet resource used were search engines and level of satisfaction of most respondents was average. On challenges encountered, most respondents indicated fluctuating network as their greatest challenge. Conclusions were drawn and recommendations made to enhance effective use of internet resources by undergraduates in the university.

Keywords: *Internet, Network, ARPANET, ICT, Infrastructure*

Date Of Submission: 28 March 2013 Date Of Publication: 13,May.2013

I. INTRODUCTION

According to Aqil and Ahmad (2011), the internet is a **"network of networks"** that consists of smaller domestic, academic, business and government networks. One of the greatest inventions of the modern age, the internet has managed to creep into virtually every aspect of human existence essentially changing the way people live and work. Tan and Teo (1998) are of the opinion that the internet has transformed the way we communicate and access information. The past few years has seen an unprecedented increase in the use of the internet as people become more comfortable with it.

The internet has become an integral part of everyday life for a great many who use the internet as a medium to communicate and pursue personal interests (Chen et al 2002). Howard et al (2002) are of the opinion that the evidence from studies suggest that the internet has blended into the rhythm of everyday life as it is used in a variety of places (work, schools, universities, hospitals, etc) for a variety of reasons (surfing for information, playing online games, chatting etc). Tan and Teo (1998) said essentially the same thing when they posited that the Internet is everywhere knocking at our door as every aspect of our day to day life is affected by the internet whether it is shopping, business, banking, communication, paying bills, social gathering, partying, etc. The internet has totally transformed all spheres of human activities including education (Ogunkunle and Fomsi, 2010). Today's learners exist in a digital age which implies access to and use of a range of social web tools and software that provide gateways to a multiplicity of interactive resources for information, entertainment and, not least, communication (Committee of Enquiry into the Changing Learner Experience UK, 2009). It was in a bid to understand this trend that this study was undertaken. It was also carried out to discover how undergraduates make use of the internet, what resources they are using among other things. This study also tried to determine what challenges are encountered in making use of the Internet resources and possibly recommend solutions.

II. BRIEF HISTORY OF ADEKUNLE AJASIN UNIVERSITY

Adekunle Ajasin University, Akungba-Akoko was first established as Obafemi Awolowo University in March 1982 by the government of the old Ondo State, headed by the late Chief Adekunle Ajasin. The immediately succeeding military government of Navy Commodore Bamidele Otiko changed its name to Ondo State University in 1985. Its relocation to Akungba-Akoko in Ondo State became imperative in 1999, following the creation of a new State out of Ondo state three years earlier in October 1996. The bill backing the relocation was signed into law by the then Governor of the State, Chief Adebayo Adefarati, in November 1999, and that prompted the movement of a crop of workers from the old site in Ado-Ekiti to Akungba-Akoko on 1 December, 1999. The bill for yet another name change, this time to Adekunle Ajasin University, in order to immortalize the late Governor Ajasin, was signed into law by Governor Adefarati in 2004 following the demise of the former. The amended and subsisting statute of the University was signed into law in November 2007 by yet another governor, the former Governor Olusegun Agagu. At present, Adekunle Ajasin University Akungba-Akoko (AAUA) has a little over 10,000 students, 1,200 staff – academic and non-academic - and five Faculties – Arts, Education, Law, Science, and Social and Management Sciences.

2.1. ICT ADOPTION

Adekunle Ajasin University Akungba-Akoko is a rapidly growing state-owned university in Nigeria. The university adopted the use of information and communication technology (ICT) in 2007. The first phase of ICT adoption started with the establishment of a functional platform for Local Area Network (LAN) though without fibre optic backbone. The LAN coverage was two (2) kilometers radius covering the five (5) faculties Law, Science, Arts, Education, Social and Management Science. The coverage also includes the Main Library, Vice-Chancellor's Office, Bursary, Institute of Education and Part-Time Programme, all centres and the Registry. The LAN equipment used were Cisco, Mikrotik radio, D-Link switches, etc. both staff and students are connected on this platform on which they are able to perform basic functions such as messaging, file and document sharing, collaborative work, online phone systems, etc.

The second phase was the establishment of a platform for internet connectivity. This was essentially done to enhance students and staff access to the internet and its resources. The second phase was executed in 2009. The platform support available interfaces for LAN, that implied that both LAN and internet can run together.The internet was launched using C band 2"4 Very Small Aperture Terminal (VSAT) dish. The Internet Service Provider (ISP) was Bandwidth Consortium based in Abuja, Nigeria Federal Capital City. The university has three (3) main servers; File Server responsible for receiving and transferring of files; Mail Server for mail operations; and Web Server for internet related operations. The internet is accessed in the University through both wired and wireless network, hence staff and students have access to the internet within a 2km radius on the campus. With the ICT infrastructures put in place, staff and students have access to a wide range of internet resources (applications, software, tools, etc). These include news group, e-books, e-journals, File Transfer Protocol (FTP), e-mail, social networking applications, internet audio – video, etc. With all the available technological, physical and support infrastructure put in place, it becomes expedient to find out how students, who are considered principal actors in the process of ICT application in higher education institutions, utilize these facilities. The research is purposely carried out to find out how undergraduates surf for information on the internet, through what communication model(s) they access the internet, how often they make use of the internet, what they use internet resources for, where they have access among other things.

III. REVIEW OF RELATED LITERATURE

HISTORY OF THE INTERNET

The internet is a revolution that has transformed the way human beings live and work. Sometimes referred to as a **"network of networks"**, it is described as the worldwide publicly accessible network of interconnected computer networks that transmit data by packet switching using the standard Internet Protocol (IP) (Aqil and Ahmad, 2011). The origin of the internet could be traced to the early 1960s in ARPANET, a network designed by the Advanced Research Projects Agency (ARPA), now Defense Advanced Research Projects Agency (DARPA) to facilitate easy communication and quick access to data and programs from anywhere in the world. ARPANET was initially developed for military and defense purposes. It was part of the response of the US military to the Soviet Union's launching of Sputnik, the first artificial earths satellite, and to establish the US lead in science and technology. By late 1969, there were four interconnected nodes at the University of California at Los Angeles, Stanford Research Institute, University of California at Santa Barbara and the University of Utah. By the end of 1971 the number of nodes had increased to 15 and email was invented. In 1974 a commercial version of ARPANET called Telnet was released and Because Its Time NETwork – BITNET – was created in 1981.

In 1982 the internet was introduced as a result of the standardization of the Internet Protocol Suite (TCP/IP) and in 1984 the Domain Name System (DNS) was introduced. In 1986 TCP/IP network access was expanded when National Science Foundation Network (NSFNET) was created to provide access to supercomputer sites in the United States from research and education organizations. NFSNET initially operated at 56Kbps and later upgraded to 1.5Mbps and 45Mbps.By 1990 ARPANET was decommissioned and a few years later NSFNET was decommissioned and the National Science Foundation lifted restrictions on commercial use of the internet. The commercialization of the internet sparked off a rapid expansion all over the world."Since the mid 1990s, the internet has had immense impact on culture and commerce including the rise of near instant communication by email, instant messaging, Voice-Over-Internet-Protocol (VOIP) two way interactive video calls and the World Wide Web with its discussion forums, blogs, social networking and online shopping sites. Increasing amounts of data are transmitted at higher and higher speeds over fibre optic networks operating at 1Gbps, 10Gbps or more. The internet continues to grow driven by ever greater amounts of online information and knowledge, commerce, entertainment and social networking" (Wikipedia, 2012)

The internet continues to grow exponentially. In December 1969, there were four hosts and no domains, but by July 1989 there were 130,000 hosts and 3900 domains. As of July 1999 there were more than 56 million hosts (Zakon 1999). In 1989 there were 837 networks; by 1996 there were 134,365. In 1993 there were 130 websites, by June 1996 there were more than 230,000 and by August 1999 there were more than 7 million. According to the originator of the World Wide Web, Tim Berners-Lee, the traffic on the original web server at CERN (European Organization for Nuclear Research) indicated exponential growth over the first three years (Berners-Lee 1996). With more than 3 billion email messages a day, the internet has now surpassed the telephone as the primary business means of communication (Philips 2000). As of 2011, more than 2.2 billion people use the services of the internet.

IV. IMPORTANCE OF INTERNET

The internet is an invention in the generation of mankind that has revolutionized all aspects of human life from its very basic form to its complex state. The importance of this technological invention cannot be overemphasized. Roknuzzaman (2006) in his paper, "A Survey of Internet Access in a Large Public University in Bangladesh" highlighted seven (7) importance of internet as follows:

[1] A platform for online communication
[2] Acts as a tool for academic and professional excellence
[3] Access to a variety of information sources
[4] Access to universities basic and general information
[5] A guide for scholarship and fellowship programme
[6] A source for seminar, conference and workshop information
[7] Access to library activities and databases

In consonance with the above view, Teitelbaum (2012) concur that on the face of it, internet offers wondrous possibilities in education, business, culture and the general flow of information across boundaries. The internet has come to transform the academic world, breaking all geographical and spatial restrictions or barriers to bring universities information and programmes to the doorsteps of potential scholars, researchers, lecturers, applicants, etc. The mysteries surrounding foreign universities admissions and employment have been greatly demystified by the internet. The internet has come to promote mobility in terms of admissions, business and employment to universities and other sectors of the world economy. Margaret Tan and Thompson Teo (1998) assert that the internet is a phenomenon that has transformed life in its entirety; changing the way people work, communicate, eat, do business, etc. It enables worldwide access to information and the creation of a worldwide electronic presence. Jagboro (2003) in her paper, a study of internet usage in Nigerian Universities: a case study of Obafemi Awolowo University, Ile-Ife re-affirmed that internet has greatly facilitated information dissemination and a medium for collaborative interaction between individuals and their computers without regard for geographic limitation of space. The internet through its various applications, tools and resources have ultimately brought all nations of the world together regardless of geographical barriers and spatial restrictions to a global village where individuals, race, or colour interact, collaborate and do business of all sorts in cyberspace.

Evans (1996) in Jagboro (2003) arguably re-affirmed that internet is a 'life' constantly moving, theoretically boundless, potentially infinite space for the production and communication of information. On the strength of internet relevance or importance, the advantage of fixity and finitude nature or characteristic of internet cannot be ignored. The internet is able to remove fixity and finitude nature of information materials housed between library and bookshop walls.

Peters and Lankshear (1996) assert summarily that while printed materials have a certain fixity and finitude advantage, text published via the internet have much more fluid character. With text no longer housed between library or bookshop walls, it becomes impossible to 'pin down' all or even most of the available materials in a given subject area for archival and classification purposes. The internet might thus be described as a sea of information subject to the ebb and flow of various forces (political, corporate, institutional etc) creating an everlasting shoreline. The internet has overwhelmingly influenced all aspects of our daily life. Parvez (2011) opined that every aspect of our day to day life is affected by the internet, whether it is shopping, business, banking, communication, paying bills, social gathering, partying, learning, etc. Presently we live in an information age and obtaining information and its effective application has ever been of greater importance. The fact remains that education is primarily concerned with impacting knowledge and information is obviously the only Vehicle For Knowledge (VFK) while the internet is the Vehicle For Information (VFI), hence the internet could be described as the embodiment of information and knowledge. The internet is a dependable, rich, sustainable and ever current channel of impacting knowledge in the world today.

However, inspite of the tremendous importance or benefits of internet, it has some attendant challenges militating against its effective use. The developing countries seem to receive more hits from these challenges than the developed economies as a result of technological advancement and technical know-how of the advanced nations. Azad and islam (1999) identified low buying power of potential clients, high service charge by providers and poor telecommunication system as some of the challenges of internet usage. Press (1999), Rahman (2004) and Igbal (1999) remarked that poor telecommunication infrastructure, lack of computer and networking equipment, inadequate qualified and skilled human resources and poor funding are major challenges of internet usage. Ahmad and Mohammed (2011) attributed interrupted power supply, low computer processing speed, information overload, missing or breaking links and irrelevant retrieval or lack of precision while trying to find out information on the net are also some of the challenges inhibiting effective use of the internet. Considering the gains or benefits individuals and the global world derive from the use of the internet, it means then that some attention must be given to finding solutions to all the challenges enumerated in this paper.

V. USES OF THE INTERNET

Ogunkunle and Fomsi (2010) in their paper on Internet Literacy for Research Development Among Lecturers in Tertiary Institutions in Rivers State, Nigeria, opined that the use of internet is many and varied. The basis of its development in 1969 with the evolution of the Advanced Research Projects Agency Network (ARPANET) had been greatly amplified over the decades. Its global impact has brought tremendous changes to all facets of life. It has had significant effects on the communication media today – telephone, music, film and television. Access through mobile internet devices such as mobile phones, data cards, cellular routers, desktop computers, laptops, tablets, handheld game consoles, etc have changed the patterns of doing virtually everything and has transformed life in its entirety.

Based on the above, the following, among others, could be highlighted as uses of internet:

[1] Business team collaborate and share documents and other information at different platforms such as scientific research, software development, conference planning, political activism, creative writing, etc

[2] It enables remote login. Computer users and any user of mobile internet devices can have remote access to other computers and their resources or information. It is also possible to store the information on the computer for personal or official use. Barry Wellman (2002) concur with the above use that the internet is a move from densely knit and tightly-bounded groups to more sparsely-knitted and loosely bounded networks.

[3] The use also enhanced availability of educational resources/materials that helped people who engage in one form of learning or the other. Such educational resources include, among others; scholarly literature, e-books, school revision guides, e-journals, etc.

[4] The use of internet enables some sort of schooling process. People now get engaged in online education programmes ranging from certification courses to PhD programmes. The use of internet has facilitated electronic teaching, learning and research.

[5] The use of internet allows cross-fertilization of ideas such as knowledge sharing, sharing of ideas and skills. The various applications and tools of the internet have enhanced interactions which make sharing of knowledge, ideas and skills possible. Tools such as File Transfer Protocol (FTP) allows for exchange of files of various types and formats. Social networking allow for chats, discussion groups and all forms of social interactions.

VI. METHODOLOGY

The population of the study was made up of four hundred and twenty eight (428) students representing 84.8% return rate out of the total five hundred questionnaires raised and distributed for the study. One hundred (100) questionnaires each were randomly distributed to students in each of the five faculties. Ninety eight (98) questionnaires were duly completed and returned from Faculty of Arts and Science representing 98% return rate from each of the faculties. Ninety seven (97) representing 97% return rate were completed out of the one hundred questionnaires sent to the Faculty of Social and Management Science. Out of the one hundred questionnaires administered to Law students, only thirty seven (37) were returned representing 37%. In the Faculty of Education, Ninety eight (98) questionnaires were returned representing 98%.The questionnaires administered in the main library and at the Faculty of Law Library. The low return rate from Faculty of Law was due to the questionnaire being administered during examination period. Out of the four hundred and twenty eight (428) involved in the study, one hundred and thirty nine (139) were females representing 32.5% of the total respondents and two hundred and ninety three (293) were males representing 68.5% of the total respondents. Simple percentage statistical method was employed in analyzing the data collected. This statistical method was used basically because of the multiple response of respondents to questions asked.

VII. DATA ANALYSIS

Table 1: How often do you use the internet?

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social & Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	On daily basis	39	36.8	36	39.6	19	50	47	47.9	41	44.1
2	Twice a week	4	4.1	4	4.4	1	2.63	1	1.0	22	23.6
3	Often times	20	20.4	25	27.5	8	21.05	18	18.4	16	17.2
4	Few times a week	15	15.3	3	3.3	4	10.53	15	15.3	5	5.3
5	Few times a month	9	9.2	4	4.4	1	2.63	3	3.1	5	5.3
6	Rarely	5	5.1	12	13.2	4	10.53	12	12.2	1	1.1
7	Cant say	6	6.1	5	5.5	1	2.63	2	2.0	3	3.2
	Total	98	97%	91	97.9	38	100	98	99.9	93	99.8

Table 1 shows how often respondents make use of the internet. In Faculty of Arts, 39 representing about 36.8% of the respondents make use of the internet on a daily basis. 4 representing about 4.1% use the internet twice a week. 20 (20.4%) often use the internet while 15 (15.3%) of the respondents admitted to using the internet few times in a week. 9 representing 9.2% of the respondents in the Faculty of Arts make use of the internet few times a month and 5 (5.1%) rarely use internet. 6 (6.1%) cannot say whether they use the internet or not.

In the Faculty of Education, 36 respondents representing 39.6% used the internet daily while 4 representing 4.4% make use of the internet 2 times in a week. 25 respondents representing 27.5% often use the internet with 3 (3.3%) using the internet few times a week. 4 (4.4%) use the internet few times a month and 12 (13.2%) rarely use the internet. On the other hand, 5 (5.5%) cannot say if they use the internet. In the Faculty of Law, 19 respondents representing 50% use the internet everyday. 1 respondent (2.63%) uses the internet twice a week while 8 (21.05%) use the internet often. 4 respondents representing 10.53% use it few times a week and 1 (2.63%) uses the internet few times in a month. 4 (10.53%) indicated they rarely use the internet while 1 (2.63%) cannot say.

Faculty of Science has 47 respondents (47.9%) indicating that they use the internet on a daily basis while 1 (1%) use the internet two times in a week. 18 (18.4%) often use the internet. 15 (15.3%) and 3 (3.1%) use the internet few times a week and few times a month respectively. 12 representing 12.2% rarely use the internet and 2 representing 2% cannot say. In the Faculty of Social and Management Sciences 41 respondents representing 44.1% use the internet everyday, 22 (23.6%) use the internet about twice a week while 16 (17.2%) often use the internet. Of the respondents in this faculty, 5(5.3%) use the internet few times a week as well as few times in a month. 1 (1.1%) rarely use the internet while 3 (3.2%) cannot say. The table depicts that in all faculties the greater number of respondents indicated that they use the internet on a daily basis.

Table 2: What do you use internet for?

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	Mere browsing	16	4.96	17	4.87	12	6.66	20	4.87	18	5.52
2	Sending and receiving mails	23	7.14	31	8.88	16	8.88	33	8.04	28	8.58
3	Reading	42	13.04	41	11.74	21	11.66	54	13.17	36	11.04
4	Assignments	59	18.32	50	14.32	25	13.88	67	16.37	57	17.48
5	Downloading reading materials	34	10.55	31	8.88	19	10.55	39	9.51	34	10.42
6	Research	44	13.66	40	11.46	22	12.22	46	11.21	41	12.57
7	Pornography	-	-	2	0.57	-	-	2	0.48	-	-
8	Social networking	37	11.49	44	12.60	26	14.44	54	13.17	40	12.26
9	Business	4	1.24	3	0.85	1	0.55	2	0.48	2	0.61
10	Publishing	2	0.62	7	2.00	-	-	1	0.24	2	0.61
11	Course material	22	6.83	20	5.73	7	3.88	22	5.36	23	7.05
12	Online course	9	2.79	18	5.15	6	3.33	21	5.12	9	2.76
13	News update	30	9.31	42	12.03	25	13.88	49	11.95	36	11.04
	Total	322	99.95	349	99.08	180	99.93	410	99.94	326	99.94

Table 2 shows what the internet is used for. In the Faculty of Arts 16 respondents representing 4.96% used the internet for mere browsing. 23 (7.14%) used it for sending and receiving mails, 42 (13.04%) used it for reading while 59 (18.32%) used the internet for solving assignments. 34 respondents representing 1.55% used the internet to download reading materials. 44 representing 13.66% used it for research while none of the respondents in the Faculty of Arts used the internet for pornography. Social networking and business account for 37 (11.49%) and 4 (1.24%) of respondents respectively. 2 (0.62%) used the internet for publishing while 22 (6.83%) used it for collecting course material. 9 (2.79%) used it for online courses while 30 (9.31%) use it for news updates.

For the Faculty of Education, 17 respondents (4.87%) made use of the internet for mere browsing. 31 (8.88%) used the internet for sending and receiving mails while 41 (11.74%) used it for reading. For assignments, 50 (14.32%) responded in the affirmative. 31 (8.88%) used it for downloading reading materials while 40 (11.46%) use the internet for research. 2 (0.57%) use the internet for pornographic purposes. This is followed by 44 (12.60%) that use the internet for social networking. 3 (0.85%) used the internet for business

while 7 (2%) used internet for publishing. 20 respondents representing 5.73% used the internet to obtain course materials and 18 representing 5.15% use it for participating in online courses. Finally 42 (12.03%) use the internet for news updates. In the Faculty of Law, 12 respondents (6.66%) use the internet for mere browsing with 16 (8.88%) and 21 (11.66%) using the internet for sending/receiving mails and reading respectively. 25 (13.88%) use it for assignments while 19 (10.55%) use it for downloading reading materials. It is interesting to note that 22 respondents (12.22%) use the internet for research while no respondent used it for pornography. 26 respondents representing 14.4% make use of the internet for social networking. 1 (0.55%) use it for business and no respondent in the Faculty of Law use the internet for publishing purposes. 7 respondents (3.88%) use the internet to get course materials while 6 (3.33%) and 25 (13.88%) use it for online courses and news updates respectively.

In the Faculty of Science, 20 respondents (4.87%) use the internet for mere browsing. 33 (8.04%) use the internet to send and receive mails. 54 (13.17%) use it for reading and 67 (16.37%) use it for assignments. When it comes to downloading reading materials, 39 respondents (9.51%) use the internet in this manner. 46 respondents (11.21%) use the internet for research. 2 (0.48%) were discovered to be using the internet for pornography. 54 (13.17%) tend to use the internet for social networking while 2 (0.48%) use it for business. 1 (0.24%) use it for publishing and we have 22 (5.36%) using the internet to obtain course material. For online courses and news update, we have 21 (5.12%) and 49 (11.95%) respectively. In the Faculty of Social and Management Sciences, 18 (5.52%) use the internet merely for browsing. On the other hand 28 (8.58%) use it for sending and receiving mails. When it comes to reading and assignments, we have 36 (11.04%) and 57 (17.48%) respectively. 34 respondents representing 10.42% use the internet to download reading materials. 41 (12.57%) use the internet for research while none of the respondents in this faculty use the internet for pornography. 40 (12.26%) use the internet for social networking while 2 (0.61%) use it for business and publishing. For course material we discover that 23 (7.05%) responded in the affirmative with 9 (2.76%) and 36 (11.04%) using the internet for online courses and news updates respectively. From the table it can be inferred that the respondents mostly accessed the internet because of assignments.

Table 3: How do you get access to internet resources?

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	Through cell phones	83	54.2	88	56.4	35	47.3	90	52	75	61
2	Through personal desktop computer	3	2	9	5.8	3	4.9	4	2.3	3	2.4
3	Through personal laptop	18	11.8	17	10.8	10	13.5	20	11.6	11	8.9
4	Through personal iPad	1	0.7	2	1.3	1	1.4	-	-	-	-
5	Through internet platform in the university	2	1.3	4	2.8	-	-	1	0.6	2	1.6
6	Through cyber café	39	25.5	29	18	14	18.9	49	28.3	28	22.7
7	Through personal modems	7	4.6	7	4.5	11	14.9	9	5.2	4	3.2
	Total	153	99.6	156	99.6	74	100	173	100	123	99.8

Table 3 looks at how respondents gain access to internet resources. Starting with the Faculty of Arts, one discovers that 83 respondents (54.2%) access the internet through their cell phones. 3 respondents representing 2% use personal desktop computers to access the internet while 18 (11.8%) make use of personal laptops. 1 (0.7%) use an ipad with 2 (1.3%) using internet platform provided by the university. 39 (25.5%) gain access to the internet resources through cybercafés while 7 (4.6%) use their own personal modems. In the Faculty of Education, we have 88 respondents representing 56.4% using their cell phones to access internet resources. 9 (5.8%) use personal desktop computers to access internet resources while 17 (10.8%) use their

personal laptops to do the same. 2 (1.3%) make use of ipads while 4 (2.8%) make use of access provided by the university. Of the respondents that use cybercafés to access internet, we have 29 respondents representing 18% while 7 (4.5%) use their personal modems.

In the Faculty of Law, we have 35 respondents representing 47.3% using their cell phones to access internet resources. For respondents that access internet resources using personal desktop computers and personal laptops, we have 3 (4.9%) and 10 (13.5%) respectively. We now have 1 respondent (1.4%) that uses an ipad to access the internet resources while none of the respondents in the Law Faculty use access platforms provided by the university. 14 (18.9%) access internet resources via cybercafés and 11 (14.9%) use their personal modems. From the Faculty of Science, we discovered that 90 respondents (52%) access internet resources using their phones with 4 (2.3%) and 20 (11.6%) accessing internet resources using personal desktop computers and personal laptops respectively. None of the respondents in this faculty uses an ipad while 1 respondent (0.6%) use access platforms provided by the university. 49 respondents representing 28.3% use cybercafés for accessing internet resources while 9 (5.2%) use their personal modems to gain access to internet resources.

In the Faculty of Social and Management Sciences, we have 75 respondents (61%) accessing internet resources via their cell phones. 3 (2.4%) use personal desktop computers while 11 (8.9%) make use of personal laptops. None of the respondents use an ipad and 2 (1.6%) use access platforms provided by the university. 28 respondents (22.7%) use cybercafés while 4 (3.2%) use personal modems. This table clearly shows that the access method of choice is through personal cell phones as, with the exception of Faculty of Law that has 47.3%, all the faculties have greater than 50% response rate for this particular access method probably pointing to the increased popularity of mobile computing.

Table 4: Where do you always have access to internet resources?

Table 4 seeks to show the locations from which respondents access internet resources. In the Faculty of Arts, we have 9 respondents (7.6%) accessing the internet from the university. 64 (54.2%) access the internet from their homes while 38 (32.2%) access the internet from cybercafés. 7 (5.9%) access the internet from a designated location.

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	In the university (through wired or wireless)	9	7.6	12	9.4	-	-	6	4.2	10	9
2	At home	64	54.2	60	47.2	30	55.8	76	53.5	59	53.6
3	Cyber café (around or outside the university)	38	32.2	42	33.1	18	35.2	54	38	31	28.1
4	At a designated location	7	5.9	13	10.2	3	5.9	6	4.2	10	9
	Total	118	99.9	127	99.9	51	96.9	142	99.9	110	99.7

In the Faculty of Education 12 (9.4%) access the internet from the university while 60 (47.2%) access it from their homes. 42 (33.1%) choose to access the internet from cybercafés while 13 (10.2%) do this from a designated location. In the Faculty of Law, no respondent accesses the internet from the university. 30 (55.8%) access the internet from their home with 18 (35.2%) choosing to do this from a cybercafé. 3 (5.9%) access the

internet from a designated location. The Faculty of Science has 6 respondents representing 4.2% accessing the internet in the university. On the other hand, 76 (53.5%) choose to access the internet from their home. 54 respondents representing 38% access the internet from cybercafés while 6 (4.2%) do this from a designated location.

The Faculty of Social and Management Sciences has 10 respondents (9%) obtaining access from locations in the university. 59 (53.6%) access the internet from their homes while 31 (28.1%) access from cybercafés. 10 respondents representing 9% access the internet from a designated location. The table clearly shows that the preferred location which respondents access the internet is their homes as this has the highest response rate. As mobile phones are the most preferred means of accessing the internet, this implies that respondents are not restricted, they could access the internet anywhere and at any time. It stands to reason that they would want to do this at a location that is most comfortable for them which is probably why they mostly choose to access the internet from their homes.

Table 5: Which resources do you use/access on the internet?

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	Email	50	25.5	48	22.7	24	22.6	55	21.9	5	2.6
2	Research databases	9	4.6	17	8	3	2.8	8	3.2	42	22.2
3	Virtual Library	2	1.0	7	3.3	2	1.9	4	1.6	8	4.2
4	Blogging	3	1.5	13	6.2	2	1.9	3	1.2	2	1.0
5	Search engines	56	28.6	55	26	30	28.3	61	24.3	2	1.0
6	E-books	11	5.6	7	3.3	4	3.8	10	4	59	31.2
7	Newsfeeds	20	10.2	24	11.4	17	16.0	32	12.7	27	14.2
8	Social networking	32	16.3	30	14.2	18	17	53	21.1	38	20.1
9	Music	11	5.6	8	3.8	5	4.7	23	9.2	6	3.1
10	Online shopping	2	1.0	2	0.9	1	0.9	2	0.8	-	-
	Total	196	99.9	211	99.8	106	99.9	251	100	189	99.6

Table 5 seeks to elicit information on which resources respondents use on the internet. Starting from the Faculty of Arts, we discover that 50 (25.5%) use email. This is followed by 9 (4.6%) that use research database resources. Virtual libraries are used by 2 respondents (1%) while 3 (1.5%) use blogging resources. Search engines account for 56 respondents (28.6%) while e-books account for 11 (5.6%). 20 (10.2%) use newsfeeds while 32 (16.3%) use social networking resources with 11 (5.6%) using music and 2 (1%) use online shopping resources.

48 respondents (22.7%) from the Faculty of Education use e-mail resources. 17 (8%) use research database resources while 7 (3.3%) use virtual libraries. 13 (6.2%) use blogging resources with 55 (26%) using search engines. In this faculty we find 7 (3.3%) using e-book resources. For newsfeeds and social networking resources, we have 24 (11.4%) and 30 (14.2%) respectively. 8 (3.8%) use music resources on the internet while 2 (0.9%) use online shopping resources. The Faculty of Law has 24 respondents (22.6%) using e-mail resources. 3 respondents representing 2.8% use research database resources while 2 respondents representing 1.9% use virtual library as well as blogging resources. 30 respondents (28.3%) use search engines. 4 (3.8%) use e-books while 17 (16%) use newsfeeds. For social networking we have 18 (17%) while for music, we have 5 (4.7%). For online shopping we have 1 (0.9%).

In the Faculty of Science, we have 55 respondents representing 21.9%. Research databases account for 8 (3.2%) with virtual library having 4 respondents (1.6%). Blogging and search engines have 3 (1.2%) and 61 (24.3%) respectively. E – books account for 10 (4%) while newsfeeds account for 32 (12.7%). 53 (21.1%) make use of social networking while 23 (9.2%) utilize music resources. Online shopping accounts for 2 (0.8%). The Faculty of Social and Management Sciences has 5 (2.6%) using e-mail resources. 42 (22.2%) use research

databases and 8 (4.2%) use virtual library resources. Blogging and search engines account for 2 respondents (1%) with e-books having 59 (31.2%). Newsfeeds are used by 27 respondents (14.2%) while 38 (20.1%) use social networking resources. 6 (3.1%) use music resources while none of the respondents in this faculty use online shopping resources. Search engines are the resource that respondents use most often when accessing the internet as seen in the table.

Table 6: Indicate level of satisfaction with the internet resources

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	High	23	23.9	24	24.7	15	39.4	36	36	30	34
2	Average	65	67.7	59	60.3	19	50	56	56	48	54.5
3	Low	4	4.1	11	11.3	3	7.8	5	5	7	7.9
4	Very low	4	4.1	3	3.1	1	2.6	3	3	3	3.4
	Total	96	99.8	97	99.9	38	99.8	100	100	88	99.8

Table 6 seeks to identify respondents level of satisfaction with internet resources. The Faculty of Arts has 23 respondents (23.9%) that are highly satisfied. 65 (67.7%) are averagely satisfied while 4 (4.1%) have both a low and very low level of satisfaction. In the Faculty of Education we have 24 respondents representing 24.7% having a high level of satisfaction. 59 (60.3%) have an average satisfaction level while 11 (11.3%) have a low level of satisfaction. 3 (3.1%) have a very low level of satisfaction. From the Faculty of Law we discover that 15 respondents representing 39.4% are highly satisfied, 19 (50%) are averagely satisfied, 3 (7.8%) have a low satisfaction level and 1 (2.6%) have a very low level of satisfaction.

The Faculty of Science had 36 respondents (36%) who were highly satisfied while 56 (56%) were averagely satisfied. Others that had a low and very low level of satisfaction were 5(5%) and 3(3%) respectively. In the Faculty of Social and Management Sciences we have 30 respondents (34%) highly satisfied. 48 (54.5%) are averagely satisfied while 7 (7.9%) have a low level of satisfaction. This is capped off with 3 respondents (3.4%) having a very low level of satisfaction.

Table 7: Indicate your most preferred source of information

		Faculty									
S/N	Items	Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	Internet	75	68.1	66	57.8	26	61.9	82	68.9	73	66.9
2	Library	31	28.1	31	27.2	15	35.7	30	25.2	29	26.6
3	Colleagues/friends	3	2.7	10	8.8	1	2.3	5	4.2	5	4.5
4	Others (specify)	1	0.9	7	6.1	-	-	2	1.7	2	1.8
	Total	110	99.8	114	99.9	42	99.9	119	100	109	99.8

Table 7 looks at respondents preferred source of information. In the Faculty of Arts, starting with the internet, we discover that 75 respondents (68.1%) responded in the affirmative. 31 (28.1%) chose the library as their preferred source of information while colleagues/friends took up 3 (2.7%). 1 (0.9%) made use of other sources of information.

From the Faculty of Education we have 66 respondents representing 57.8% using the internet as the preferred source of information. The library accounts for 31 (27.2%) while colleagues/friends and others account for 10 (8.8%) and 7 (6.1%) respectively. The Faculty of Law has 26 respondents representing 61.9% using the internet as their preferred source of information. 15 (35.7%) make use of the library while 1 (2.3%) consult colleagues/friends for information. No other source of information is used by respondents in this faculty. In the Faculty of Science 82 respondents representing 68.9% use the internet as their most preferred source of information. 30 respondents (25.2%) use the library while 5 respondents (4.2%) make use of information

obtained from colleagues/friends. 2 respondents (1.7%) make use of other sources of information. The Faculty of Social and Management Sciences has 73 respondents (66.9%) making use of the internet as their preferred source of information. 29 (26.6%) use the library while 5 (4.5%) consult colleagues/friends. 2 (1.8%) use other sources of information. The internet is the most preferred source of information as it has the highest response rate across the different faculties constantly maintaining greater than 50%.

Table 8: What are your challenges in using internet resources?

S/N	Items	Faculty									
		Arts		Education		Law		Science		Social and Management Sciences	
		F	%	F	%	F	%	F	%	F	%
1	Fluctuating network	64	33.8	60	31.3	34	33.6	82	35	68	35.9
2	Power outage	24	12.6	26	13.5	13	12.8	25	10.7	18	9.5
3	Lack of skill	7	3.7	9	4.7	6	5.9	9	3.8	5	2.6
4	No money to buy airtime	28	14.8	30	15.6	12	11.8	38	16.2	32	17
5	Internet facility does not exist on campus	17	8.9	18	9.4	6	5.9	22	9.4	20	10.6
6	The internet room is always crowded with students	14	2.1	7	3.6	6	5.9	14	5.9	6	3.2
7	Slow internet speed	35	18.5	29	15.1	18	17.8	37	15.8	28	14.8
8	Lack of technical assistance	10	5.2	13	6.7	6	5.9	7	2.9	12	6.3
	Total	189	99	192	99.9	101	99.6	234	99.7	189	99.6

Table 8 shows the challenges faced by respondents when making use of internet resources. In the Faculty of Arts we have fluctuating network accounting for 64 respondents (33.8%). Power outage takes 24 respondents (12.6%) while lack of skill accounts for 7 (3.7%). No money to buy airtime was responsible for 28 respondents (14.8%) having challenges in accessing internet resources. 17 (8.9%) were of the opinion that internet facilities do not exist on the campus which hindered them from accessing the internet. 14 (2.1%) stated the internet facilities were always crowded with students which hampered their internet access. Slow internet speed and lack of technical assistance had 35 (18.5%) and 10 (5.2%) respectively.

The Faculty of Education had 60 respondents representing 31.3% complain of fluctuating network. 26 (13.5%) complained of power outages while 9 (4.7%) declared lack of skill as their own hindrance to accessing internet resources. 30 (5.6%) indicated no money to buy airtime as their challenge while 18 (9.4%) picked lack of internet facilities on campus as their own hindrance. Crowded internet rooms hindered 7 respondents (3.6%) and slow internet speeds and lack of technical assistance hindered 29 (15.1%) and 13 (6.7%) respondents respectively. From the Faculty of Law we discovered that 34 respondents (33.6%) giving fluctuating network as the reason behind their having difficulty accessing internet resources. 13 (12.8%) had power outage as their own challenge while 6 (5.9%) could not access internet resources due to lack of skill. 12 (11.8%) had no money to buy airtime while internet facilities not existing, crowded internet rooms and lack of technical assistance accounted for 6 respondents (5.9%) having challenges in accessing internet resources. On the other hand, slow internet speed made 18 respondents (17.8%) experience challenges in accessing the internet.

The Faculty of Science has 82 respondents (35%) who said that fluctuating network was why they had difficulty accessing internet resources. 25 (10.7%) said their own challenge arose as a result of power outages. 9 respondents (3.8%) on the other hand gave their own challenge as being lack of skill while 38 (16.2%) were hampered by not having money to buy airtime. Internet facilities not being available on campus accounted for 22 (9.4%) having issues using internet resources. Crowded internet rooms made it difficult for 14 respondents (5.9%) while 37 (15.8%) were discouraged by slow internet speeds. Dearth of technical assistance made 7 respondents (2.9%) have challenges making use of internet resources.

From the Faculty of Social and Management Sciences we have 68 respondents (35.9%) pick fluctuating network as the reason behind their experiencing challenges in accessing the internet. 18 (9.5%) gave their own challenge as being power outage. On the other hand lack of skill and no money to buy airtime hindered 5 (2.6%) and 32 (17%) respectively. 20 (10.6%) stated that lack of internet facilities on campus hindered their internet access while 6 (3.2%) gave their own challenge as being overcrowded internet rooms. Slow internet speed hindered 28 (14.8%) and lack of technical assistance made accessing internet resources difficult for 12 respondents (6.3%).

VIII. DISCUSSION

In the Faculty of Arts, a greater number of respondents make use of internet on a daily basis ditto to Faculty of Education, Science, Law and Social and Management Science. Majorly students surf the internet to do assignments which they ranked most high in all the faculties, followed by social networking, news update and research in this order. In the Faculty of Science, a considerable number of students use the internet for research. This reflects the paucity of Science printed Journals in most university libraries, hence students tend to explore the advantage of availability of science databases and publications in Open Access Journals (OAJ).

On how students gain access to the internet, the research outcome showed that a greater number of respondents, quite above fifty (50%) percent in all faculties gain access through personal mobile phones. A considerable number of respondents in all the faculties also gain access in the cybercafé. Only very few respondents in all the faculties gain access to the internet through the platform provided by the University (wired or wireless internet access). As at the time this research was conducted, the e-library provided by Universal Service Provision Fund (USPF) had not been made functional. Since very few students can afford to have personal laptops and ipads, then the majority of students who could not afford these electronic devices will have to use their phones (the most affordable) device. Most preferred location which respondents gain access to the internet is their homes/hostels followed by the cybercafé . It could be deduced from the high ranking of 'home' that student surf information from the internet at convenient periods when lectures no longer hold. It could also be inferred that the high response rate of respondents gaining access to the internet from home is also tantamount to the high rate of response for the use of mobile phones to gain access and high ranking for assignment hence these are usually done at home (either hostel or home).In all the faculties, search engines as an internet resource had the highest ranking followed by e-mail and social networking respectively. This outcome showed that the high ranking for search engines tallies with the fact that students use the internet mostly to do assignments. Search engines are metadata sites that provide answers to varied or diverse academic questions. Table 6 was on level of satisfaction with the use of internet resources. Respondents were asked to rate their level of satisfaction as high, average, low and very low. In all the faculties, a greater number of respondents indicated their satisfaction for the use of internet resource to be average while few indicated highly satisfied and very minute number of respondents indicated their satisfaction as low and very low. The high average rating of satisfaction indicates that respondents needs are adequately met while making use of the internet.

Table 7 was on the respondents most preferred source of information. The table presents a clear picture that from all the faculties students prefer the internet as their source of information. Interestingly, Jagboro (2003) noted that there are now thousands of internet 'homepages' which serve as information sources for institutions and organizations. Most universities, polytechnics and colleges of education all over the world have established their presence on the internet thereby making it possible for researchers to access past and current research publications. Prospective students can also access information on courses being offered by institutions.
The internet is also conceived by students and researchers alike as panacea to the high cost of acquiring or buying printed textbooks. Obviously, students will prefer the internet to any other source of information. The issue of mobility of source of information is another significant factor for preference for the internet. The library is fixed (immovable) but the internet could be accessed anywhere (movable).Table 8 showed the challenges students faced in using internet resources. Greater number of students from all the faculties indicated fluctuating network as their greatest challenge. Obviously, one of the problems plaguing internet connectivity in Nigeria is lack of robust bandwidth which usually results in fluctuating network. The respondents rating for other challenges were very low which suggests that there are challenges that could easily be managed or adapted to if the network is stable.

IX. CONCLUSION

The fact that the internet has come to stay cannot be ignored. The economic, political, education and social life of any nation in the present information age is solely dependent on how well such nations adopt information and communication technology (ICT) in the running of its affairs. Information and communication technology has revolutionalized every aspect of life and has wrought changes that are cost-effective, sustainable, preservable, retrievable, transferable and shareable. The internet is one of the means by which ICT has been

brought to bear positively on human existence. Its development in 1969 and subsequent use has transformed the educational sector beyond all imaginable extent. The internet facilitates global access to information which undoubtedly accelerates research, enrich education, share the learning of the rich with the poor or bridges the knowledge gaps between the privileged and the under-privileged communities and lays the foundation for uniting humankind in a common intellectual exchange and quest for knowledge, which would lead to the development of the society (Budpest, 2002).

The gains of internet usage are tremendous particularly in the educational institutions of learning. Its adoption and usage has brought an end to the crisis of getting published and having access to scholarly publication engendered by the global economic recession. Researchers and students surf the internet to have access to scholarly information which enhances the quality of teaching, learning and research in academic institutions. To harness the full potentials of the internet in academic institutions, functional and sustainable ICT infrastructure need to be developed. The infrastructure will have to be functional in terms of use and sustainable in terms of equipment and facilities maintenance which include among others regular power supply and large bandwidth to enhance network speed.

This paper studies internet resource use by undergraduates in Adekunle Ajasin University and based on the findings and their interpretation in this study, conclusions are drawn as follows;

[1] That undergraduates use internet resources on a daily basis mostly for assignments, research, reading, social networking and news update purposes
[2] Undergraduates across all the five (5) faculties in Adekunle Ajasin University gain access to internet resources majorly through personal mobile phones and cybercafés. The proportion of undergraduates using the University's internet connectivity is abysmally low
[3] Respondents gain access mostly at home and cybercafés (around or outside the university). This was basically informed by the fact that students/undergraduates gain access through their personal mobile phones and the factor of affordability. Since only few of the respondents can afford ipads, laptops and desktops, the option left is to use what is affordable and the most convenient setting to use such is home or hostels where undergraduates are most free.
[4] Undergraduates in all faculties access or most often use search engine facilities on the internet followed by e-mail and social networking. Search engines provide direct answers to queries, this accounts for their choice of use.
[5] Respondents rated their level of satisfaction with the use of internet resource as average while they rated internet as their most preferred source of information and fluctuating network as their major constraint or challenge using internet resources.

X. RECOMMENDATIONS

The following recommendations are made with the intention to remedy the limitations or challenges so as to enhance effective use of internet resource by undergraduates in all faculties of Adekunle Ajasin University

[1] The university management should pay more attention to the provision of adequate ICT infrastructure facilities in the university. According to Echezona and Ugwuayi (n.d) that access to excellent internet connectivity link students, researchers, professors, library clientele among others to information superhighways for international academic and research information delivery and utilization.
[2] The university management should establish functional ICT laboratories in all faculties stocked with sufficient number of computers for students to use in gaining access to internet resources. Mejiuni (n.d) once expressed dismay over lack of ICT facilities in Nigerian universities. Also stating that it is a disappointment and not a failure on the part of academic libraries but of universities and governments. He stressed further that universities in Nigeria rather than be producers of the technology required for access to knowledge base worldwide are consumers and do not provide infrastructure to support the technology that they consume.
[3] The greatest constraint undergraduates encounter in gaining access to internet is fluctuating network as the findings in this study revealed. ATIC 2006 report showed that University of Jos had 6000 Kbps (uplink and downlink) while Bayero University Kano had 4500 Kbps (uplink and downlink) bandwidth. These two universities had the highest bandwidth. The current bandwidth of the University is 572 Kbps. This is quite low. The University should increase the bandwidth reasonably so that information could be obtained faster on the internet. Though in line with Greaves (2008) opinion in Echezona and Ugwuanyi (n.d.) that there is disparity in the bandwidth between the developed and developing world due to the

regulatory and competitive environment. In the developed world the institutional bandwidth is 50 kbps per client while in the developing world it is about 0.5kbps. government should put in place policies that would seek for the establishment of national backbone as in the case of Bangladesh rather than provisioning of VSAT to enhance good speed of internet network in the country.

[4] Not only should adequate provisions be made for internet facilities, but the university community should be made aware that such facilities are available for their use.

REFERENCES

[1] Aqil, Mohammad and Ahmad, Parvez (2011) "Use of the Internet by Research Scholars and Post-Graduate Students of the Science Faculty of Aligarh Muslim University" ***Library Philosophy and Practice, 2011, pp. 1 – 8***

[2] Azad and Islam (1997) "Overview of Internet Access in Bangladesh: Impact, Barriers and Solutions" Retrieved on 15th October, 2012 from http://www.isoc.org/inet97/proceedings/E3/E3

[3] Beranek, Leo (2000) "Roots of the Internet: A Personal History" ***Massachusetts Historical Review, Vol. 2, pp. 55 – 75***

[4] Budapest Open Access Initiative (2002) Retrieved on 20th October, 2012 from http://tinyurl.com/6pmxf9

[5] Chen, Wenhong et al (2008) "The Global Villagers: Comparing Internet Users and Uses Around the World" Retrieved on 20th October, 2012 from http://www.ryerson.ca/~jboase/site_assets/The%2520Global%2520Villager%2520-%2520Chen,%2520Boase,%2520and%2520Wellman.pdf

[6] Committee of Inquiry into the Changing Learner Experience (2009) "Higher Education in a Web 2.0 World" Retrieved on 20th October, 2012 from www.jisc.ac.uk/media/documents/publications/heweb20rptv1.pdf

[7] Corcoran, Marlena (1997) "Worst Case Scenarios: The Fiction of the Internet" ***Leornado, Vol. 30, No. 5, pp. 343 – 348***

[8] Echezona and Ugwuayi (n.d) African University of libraries and internet connectivity: Challenges and the way forward

[9] Economical and Political Weekly (2005) "Governing the Internet" ***Economic and Political Weekly, Vol. 40, No. 46, pp. 4789 – 4792***

[10] Evans, R. (1996) "Brave New World" ***Focus on Africa (January – March), pp. 56***

[11] Greaves (2008) "Making strategic Discussions about bandwidth" ***INASP Newsletter, 1(35), pp. 3 – 5***

[12] Guthrie, Doug (1999) "A Sociological Perspective on the Use of Technology: The Adoption of Internet Technology in U.S. Organizations" ***Sociological Perspectives, Vol. 42, No. 4, pp. 583 – 603***

[13] Igbal, S. M. (1999) "Internet in Bangladesh: State of Art and Changes Needed to Prosper Bangladesh Internet Country Paper presented in Workshop on Internet: South Asian Realities and Opportunities, Dhaka, April 5 – 8. Retrieved on 15th October, 2012 from http://www.internetworldstats.com

[14] James, Matthew L. (2010) "Cyber Crime 2.0 Versus the Twittering Classes" Retrieved on 14th October, 2012 from http://www.cyberlawcentre.org/genl0231/Cybercrime_%26_Twittering_Classes_PL.pdf

[15] Kaaya, Janet (n.d) "Implementing e-Government Services in East Africa: Assessing Status through Content Analysis of Government Websites" Retrieved on 15th October, 2012 from http://www.ejeg.com/issue/download.html%3FidArticle%3D21

[16] Kofoworola, Jagboro (2003) "A study of Internet Usage in Nigerian Universities: A Case Study of Obafemi Awolowo University, Ile-Ife, Nigeria", Continuing crisis in Scholarly Communication, Part II, University of California at Santa Barbara (Spring)

[17] Kraut, Robert et al (1999) "Information and Communication: Alternative Uses of the Internet in Households" ***Information Systems Research, Vol. 10, No. 4, pp. 287 – 303***

[18] Leiner, Barry M. et al (1997) "The Past and Future History of the Internet" ***Communications of the ACM, Vol. 40, No. 2, pp. 102 – 108***

[19] Margaret, Tan and Thompson, S. H. Teo (1998) "Factor influencing the adoption of the internet, ***International Journal of Electronic Commerce, Vol. 2(3), pp. 5 – 18. http://www.jstor.org/stable/27750854***

[20] Mejiuni (n.d) "Open Access Adult Education and Development in Nigeria" Retrieved on 14th October, 2012 from http://www.76.12.54.203/work/openaccess/assets/open%20Access%20%20Nigeria.pdf

[21] Meijers, Huub (2005) "Internet Use, Institutional Quality and Economic Growth: An Explorative Study" retrieved on 20th October, 2012 from http://meijers.unu-merit.nl/pdfs/Technology%2520and%2520growth,%2520an%2520explorative%2520study%2520v1.pdf

[22] Ogunkunle, Abiodun R. and Fomsi, Esther F. (2010) "Internet Literacy for Research Development Among Lecturers in Tertiary Institutions in Rivers State, Nigeria" ***Journal of Emerging Trends in Educational Research and Policy Studies, Vol. 1, No. 2, pp. 55 – 60***

[23] Page, Kelly and Uncles, Mark (2000) "Perceived Ease of Web Use and Perceived Usefulness of the Web: Multi-item Scale Development" retrieved on 20th October, 2012 from http://anzmac.info/conference/2000/CDsite/papers/p/Page1.PDF

[24] Phillips, Ronnie J. (2000) "Digital Technology and Institutional Change From the Gilded Age to Modern Times: The Impact of the Telegraph and the Internet" ***Journal of Economic Issues, Vol. 34, No. 2, pp. 266 – 289***

[25] Rodriguez, Carlos (2006) "Educative Uses of ICT, Technological Skills and Academic Performance of the Venezuelan University Students (Barineses): A Casual Perspective" ***International Journal of Education and Development Using Information and Communication Technology, Vol. 2, Issue 4, pp. 28 – 43***

[26] Rahman (2004) "Internet Revolution in Bangladesh" ***The Bangladesh Observer, Saturday January 24. Retrieved on 14th October, 2012 from http://www.bangladeshobserveronline.com/new/2004/01/24/it.html***

[27] Roknuzzaman, M. (2006) "A Survey of Internet Access in a Large Public University in Bangladesh" ***International Journal of Education and Development Using Information and Communication Technology, Vol. 2, Issue 3, pp. 86 – 105***

[28] Selwyn, Neil (2011) "Social Media in Higher Education" Retrieved on 20th October, 2012 from http://www.educationarena.com/pdf/sample/sample-essay-selwyn.pdf

[29] Shapiro, Andrew L. (1999) "The Internet" ***Foreign Policy, No. 115, pp. 14 – 27***

[30] Teitelbaum, Joshua (2002) "Dueling for 'Da'wa': State vs. Society on the Saudi Internet" ***Middle East Journal, Vol. 56, No. 2, pp. 222 – 239***

[31] Wellman, Barry et al (2002) "Examining the Internet in Everyday Life" Retrieved on 20th October, 2012 from http://groups.chass.utoronto.ca/netlab/wp-content/uploads/2012/05/Examining-the-internet-in-Everyday-Life.pdf