

# The Role of Internet and Effects on Nigerians

**Osahenwemwen, O. A.**

Electrical/Electronic Engineering Department  
Ambrose Ali University, Nigeria  
Email: osahenwemwnaustin@gmail.com

**Ogbeide K. O.**

Electrical/Electronic Engineering Department  
University of Benin, Benin City, Nigeria  
Email: ogbeidek2002@yahoo.com

**Abstract** – This study highlighted the various effect of Internet on Nigerians; literature work was deployed to exhaustively harness the important of Internet in economical development, social activities etc. Data were obtained from Network “k” mobile communication network in Nigeria, which involves voice and data usage intensity for various years in Nigeria. Questionnaires were deployed in Ekpoma environment to determine the busy hours of data usage from the subscribers. It is observed from the analysis that there is a geometric increase in data package (Internet) usage, were compared to voice usage over the years in Nigeria. In addition, it is observed that the busy hour lies between 6.00 am to 12:00noon hrs witnessed the highest number of subscriber data usage intensity, followed by the period between 12.00noon to 6.00 pm. These peak hours which lies between 6:00 am to 12:00 were probably caused by internet activities such were e-banking, online admission and clearance, YouTube activities, social medium etc, engaged by Nigerian populist in gust of information. Also, a better quality of service is experienced from the internet service in the night between 0.00 to 6.00 am due to low number of subscribers’ usage. Therefore, data package (Internet) provider should increase data package transmission channels along side with increase in demand.

**Keywords** – Internet Services, Pornographic, Subscribers, Usage and Data Package.

## I. INTRODUCTION

The use of Internet has become imperative to human existence. The Internet plays a great role in social network, e-commerce, entertainments, communication etc. However, man has enjoy various benefits and faced with little challenges from the Internet system. The Internet is a global system of interconnected computer networks that use the standard internet protocol suite (TCP/IP) to serve several billion users worldwide [1]. The Internet began as a network funded by the US government to support projects within the government and at universities and research laboratories in the US but grew over time to include most of the world's large universities and the research arms of many technology companies. The use of Internet by a wider audience only came in at 1995 when restrictions on the use of the Internet for commercial traffic were lifted [2,3]. The Internet is a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW), the infrastructure to support email, and peer-to-peer

networks [4,5]. Historically the word Internet was used, as early as 1883 as a verb and adjective to referred to interconnected motions. Starting in the early 1970s the term Internet was used as a shorthand form of the technical term internetwork, the result of interconnecting computer networks with special gateways or routers. It was also used as a verb meaning to connect together, especially for networks [1,6]. The terms Internet and World Wide Web are often used interchangeably in everyday speech; it is common to speak of "going on the Internet" when invoking a web browser to view web pages. However, the Internet is a particular global computer network connecting millions of computing devices; the World Wide Web is just one of many services running on the Internet. The Web is a collection of interconnected documents (web pages) and other web resources, linked by hyperlinks and URLs. In addition to the Web, a multitude of other services are implemented over the Internet, including e-mail, file transfer, remote computer control, newsgroups, and online games. All of these services can be implemented on any intranet, accessible to network users. Consumer use of the Internet first became popular through dial-up internet access in the 1980s and 1990s. By the first decade of the 21st century, many consumers used faster, broadband Internet access technologies [7, 8, 3].

The Internet access, involves the connection of individual computer terminals, computers, mobile devices and computer networks to the Internet, enabling users to access Internet services (for example, email and the world wide web, Internet service providers (ISPs) offer Internet access to the public through various technologies that offer a wide range of data signaling rate (speeds). Since the mid-1990s the Internet has had a tremendous impact on culture and commerce, including the rise of near instant communication by email, instant messaging, Voice over Internet Protocol (VoIP) "phone calls", two-way interactive video calls, and the World Wide Web with its discussion forums, blogs, social networking, and online shopping sites [9,10,11]. Increasing amounts of data are transmitted at higher and higher speeds over fiber optic networks operating at 1-Gbit/s, 10-Gbit/s, or more over the Internet. Many people use the World Wide Web to access news, weather, sports reports and to find out more about their interests areas. People use chat, messaging and email to make and stay in touch with friends worldwide, sometimes in the same way as some previously had pen pals. The Internet has seen a growing number of web desktops, where users can access their files and settings via the Internet. Social networking websites such as Facebook, Twitter, and Myspace have created new ways

to socialize and interact. Users of these sites are able to add a wide variety of information to pages, to pursue common interests, and to connect with others. It is also possible to find existing acquaintances, to allow communication among existing groups of people. Sites like LinkedIn foster commercial and business connections [10, 12, 13]. YouTube and flickr specialize in users' videos and photographs. Today, many Internet forums have sections devoted to games and funny videos; short cartoons in the form of Flash movies are also popular. Over 6 million people use blogs or message boards as a means of communication and for the sharing of ideas. The Internet pornography and online gambling industries have taken advantage of the World Wide Web, and often provide a significant source of advertising revenue for other websites. Although many governments have attempted to restrict both industries' use of the Internet, in general this has failed to stop their widespread popularity [11,14,15]. Many people use the Internet to access and download music, movies and other works for their enjoyment and relaxation. Free and fee-based services exist for all of these activities, using centralized servers and distributed peer-to-peer technologies. Some of these sources exercise more care with respect to the original artists' copyrights than others [16]. Cyberslacking can become a drain on corporate resources; the average UK employee spent 57 minutes a day surfing the Web while at work, according to a 2003 study by Peninsula Business Services. Internet addiction disorder is excessive computer use that interferes with daily life. Psychologist Nicolas Carr believe that Internet use has other effects on individual's life, for instance improving skills of scanning and interfering with the deep thinking that leads to true creativity. The new York Times suggested that social media websites, such as Facebook and Twitter, helped people organize the political revolutions in Egypt where it helped certain classes of protesters organize protests, communicate grievances, and disseminate information [14,16,17,2 ].

The term censorship in internet referred to government's restriction on some sites, in Burma, Iran, North Korea, china, Saudi Arabia and United Arab Emirates restrict what people in their countries that can access the Internet, especially political and religious content. This is accomplished through software that filters domains and content so that they may not be easily accessed or obtained without elaborate circumvention [13].

In Norway, Denmark, Finland, and Sweden, major Internet service providers have voluntarily, possibly to avoid such an arrangement being turned into law, agreed to restrict access to sites listed by authorities. While this list of forbidden URLs is supposed to contain addresses of only known child pornography sites, the content of the list is secret. The used of internet to promote pornography are on the increase. It has been established that over 30,000 persons view pornographic websites every second, and internet user send over 1.7 million pornographic mails every minute, nearly two hard-core pornographic videos are released in the USA alone every hour, while over two

million pornographic movies are rented there every day. Research recorded, that the effect of pornographic movies as resulted to potential influences on rape, domestic violence, sexual dysfunction, and difficulties with sexual relationships, and child sexual abuse [14,8,13]. Many countries, including the United States, have enacted laws against the possession or distribution of certain material, such as child pornography, via the Internet, but do not mandate filtering software. There are many free and commercially available software programs, called content control software, with which a user can choose to block offensive websites on individual computers or networks, in order to limit a child's access to pornographic materials or depiction of violence [1, 4].

The term Internet broadband refers to the wide bandwidth characteristics of a transmission medium and its ability to transport multiple signals and traffic types simultaneously. The medium can be coaxial, optical fiber, fiber, twisted pair cables or wireless. In contrast, baseband describes a communication system in which information is transported across a single channel. Broadband refers to a communication bandwidth at least 256 kbit/s. Each channel is 6 MHz wide and it uses an extensive range of frequencies to effortlessly relay and receive data between networks. In telecommunications a broadband signaling method is one that handles a wide band of frequencies [18, 19].

## II. METHODOLOGY

The various benefits from Internet are holistically considered in this study and the minor drawback which needed to be managed by government agencies was highlighted. The compares between data package and voice usage intensity were obtained from Network "k" mobile communication network in Nigeria for over a decade. User or subscribers intensity in three Months of investigation in Ekpoma Environment was considered using questionnaire. Also the drawback effect from Internet on Nigerian and possible solution were highlighted.

## III. DATA PRESENTATION

Data obtained from Network "k" involves voices usage intensity, data usage intensity and respective years are presented in Table .1. User or subscribers Intensity in three Months in Ekpoma Environment were also considered in this investigation presented in Table 1.

In Fig .1 shown both voice and data user intensity with the corresponding years was presented. From the Figure 1, it shows that geometric increase in demand for voice calls and data services. Also it is observed that there is increase in data package service due to data package (internet) activities, which involves e-banking, online admission and online Clarence, researches work, social mediums etc. Therefore the data package dedicated transmission channels in mobile communication networks should be increased along side with the subscribers demand.

Table 1 The obtained Data from Network “ k “ and Ekpoma Environment

S/N	years	Voice usage intensity	Data usage intensity	User Intensity in three Months of investigation in Ekpoma Environment	
				Time	Data user intensity
1	Below 2005	1,040226	341	0.00 to 6.00 am	618
2	2005-2007	5,411902	1,006219	6.00 am to 12.00 noon	12,316
3	2008-2010	11,008261	9,831014	12.00 noon to 6.00 pm	10,712
4	2011-2013	14,608831	15,018643	6.00 pm to 0.00	8,101

#### IV. DATA ANALYSIS, RESULT AND DISCUSSION

Based on the data obtained from Table 1 the data analyses were presented in Fig.1 and Fig.2.

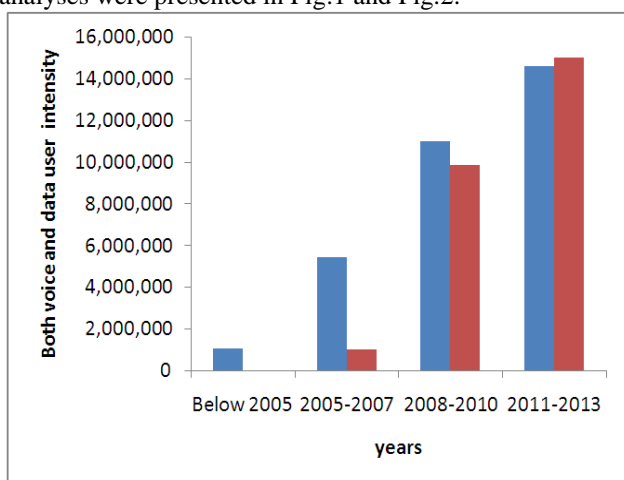


Fig.1. Both voice and data user intensity in various years.

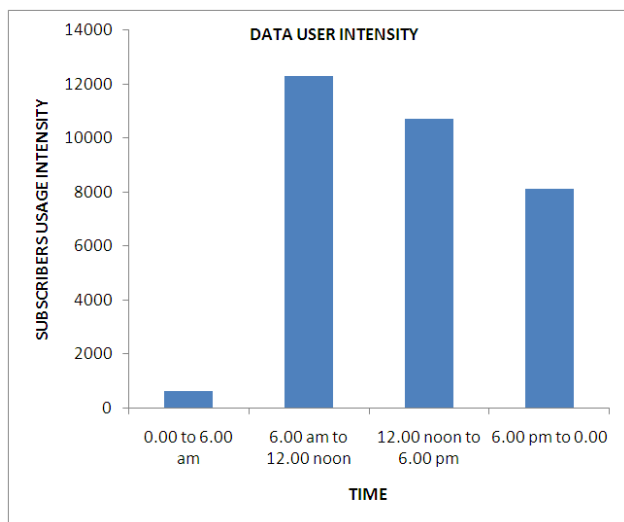


Fig.2. Number of data user intensity in hour's duration

In Fig 2, it is observed that the busy hour lies between 6.00 am to 12:00 noon hrs witnessed the highest number subscriber data usage intensity, followed by the period between 12.00 noon to 6.00 pm. These peak hours which lies between 6:00 am to 12:00 were probably caused by internet activities such are e-banking, online admission and clearance, YouTube activities, social medium etc, engaged by Nigerian populist in gust of information. Also,

a better quality of service is experienced from internet service in the night between 0.00 to 6.00 am due to low number of subscriber's usage. Also, the uses of Internet in Nigeria can be well managed by government agencies to restrict people by use of software from visiting some site, example is pornographic site. Research has revealed that the effect of pornographic movies as resulted to potential influences on rape, domestic violence, sexual dysfunction, and difficulties with sexual relationships, and child sexual. The use of social networking websites to pursue common interests should be regulated by government agencies in Nigeria.

#### V. CONCLUSION

The need for Internet services are on the increase, therefore the appropriate agencies most wake up to their responsibility to ensure Internet services are provide to boost social network activities, e-commerce, e-banking entertainments, communication etc. Also the uses of Internet were highlighted with their various advantages and little disadvantages. From this study, it is observed that both voice and data user intensity with the corresponding years has witnessed geometric increase in demand for both voice calls and data services. Also, it is observed that increase in data services, which involves e-banking, online admission and online Clearance, researches work, social mediums etc. Therefore the data dedicated transmission channels in mobile communication networks should be increase along side with the subscriber demand to meet the presence challenges. In addition, numbers of data usage intensity were considered with various calibrated hours, of 6 hours each in a day for period of three months. It is observed that the busy hour lies between 6.00 am to 12:00 noon hrs witnessed the highest number subscriber data usage intensity, followed by the period between 12.00 noon to 6.00 pm. These peak hours which lies between 6:00 am to 12:00 were probably caused by Internet activities such are e-banking, online admission and clearance, YouTube activities, social medium etc, engaged by Nigerian populist in gust of information. Also, a better quality of service is experienced from internet service in the night between 0.00 to 6.00 am due to low number of subscriber's usage. However, government should ensure that restrictive laws on all forms of pornography, especially on the Internet.

## REFERENCES

- [1] Enrique Bigne, Carla Ruiz, Silvia Sanz. (2005). The Impact of Internet user shopping patterns and Demographics on consumer mobile buying behavior, Journal of Electronic Commerce Research, VOL. 6, NO.3, 2005 pp1-17.
- [2] David Smahel, Ellen Helsper, Lelia Green, Veronika Kalmus, Lukas Blinka and Kjartan Ólafsson, Excessive Internet Use among European Children available at <http://www.lse.ac.uk/media@lse/research/EUKidOnline/EU%20Kids%20III/Reports/ExcessiveUse.pdf>.
- [3] Gabriel weimann, (2005). How modern terrorism uses the internet, the Journal of International security affairs, No .8
- [4] Michele L. Ybarra and Kimberly J. Mitchell (2004). Youth engaging in online harassment: associations with caregiver child relationships, Internet use, and personal characteristics, Journal of Adolescence 27 (2004) 319–336,.
- [5] Salih Usun, (2003). Educational Uses of Internet In The World and Turkey (A Comparative Review), Turkish Online Journal of Distance Education-TOJDE July 2003 ISSN 1302-6488 Volume:4 Number:3.
- [6] Odede Israel (2013) Attitude of undergraduates towards educational usage of the Internet: A case of library schools in Delta and Edo States of Nigeria International Journal of Science and Technology Educational Research, Vol. 4(4), pp. 57-62, page4-9.
- [7] OlatomideWaheed Olowa (2012), An Assessment of Internet Uses, Practices, and Barriers for Professional Development by Agricultural Science Teachers in Lagos State Hindawi Publishing Corporation, Education Research International, Volume 2012, Article ID 503264, 7 pages 564.
- [8] Tshteo, Vkglim AND Ryclai (1997). Users and Uses of the Internet: The Case of Singapore, international Journal of Information and Management, Vol 17, No. 5, pp. 325-336.
- [9] Bukky Olufemi Omotayo (2006). A Survey of Internet Access and Usage among undergraduates in an African University, The International Information and Library Review, Vol 38, Page 215-224.
- [10] Kashif ur Rehman, Ahmed Imran Hunjra, Nadeem Safwan, Abrar Ahmad (2010). Students' attitude towards the uses of internet, Internation Journal of Business and Management, Vol 5, No 6 , page 78-94.
- [11] Timothy L. Thomas, (2001), The Internet in China: Civilian and Military Uses, Information&Security An Internationall Journal Volume 7, pages 159-173.
- [12] Vivek Srivastava, Jiterndra Karira and Megha Vij (2012).The X international uses and opportunities, VSRD International Journal of business and Management research, VSRD- IJBMR, Vol. 2(5)
- [13] Udegbe k.(2014, February 5). Is pornography harmless or toxic to Nigerians, Vanguard Newspaper, Pp 19
- [14] Janet morahan-martin, Phyllis Schumacher (2003) loneliness and social uses of the internet, computers and human behavior Vol. 19 issue 6,page 659-671
- [15] J. Van Akkeren and D. Harker (2005), The Mobile Internet and Small Business: An Exploratory Study of Needs, Uses and Adoption with Full-Adopters of Technology, Journal of Research and Practice in Information Technology, Vol. 35, No. 3, August 20, page 205-217.
- [16] The Internet and its uses in Education, [Online] available at <http://www.openhouse.org.uk/virtual-university-press/vuj/> [accessed: 24 March 2013],
- [17] Wang, Y.m. (2007). Internet Uses in University Courses. International Journal on E-Learning, 6(2), 279-292. Chesapeake, VA: AACE. Retrieved March 9, 2014, Available at <http://www.editlib.org/p/19869> [accessed on 5 march, 2014].
- [18] Rappaport, S.T. (2003). Wireless Communication Principles and Practice, 2<sup>nd</sup> Edition, Prentice-Hall of India Private Limited New Delhi, page 42-108.
- [19] Mike Benigeri and Pierre pluye, (2005). Shortcomings of health on the internet, oxford Journals, health promotion international, volume 18, issue 4, Pp 381-386.

## AUTHOR'S PROFILE



### Engr. Dr. Osahenvemwen, O. A.

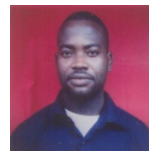
MNSE; COREN REGD.

Date of birth is on 31st, August, 1975, Place of birth is at Benin City, Edo State, Nigerian. Educational background qualification obtained with dates include; Doctor of Philosophy (Ph.D) in telecommunication specialized in teletraffic obtained

in 2014, Master Degree in Electronic and Telecommunication obtained in 2005 both at University of Benin, Bachelor Degree in Engineering (B.ENG) in Electrical and Electronic obtained at Ambrose Alli University and Health Safety and Environmental Officer (HSE component SPDC Accredited) both obtained in 2003.

He work experience includes; knowledge of both land line and mobile communication syatem. Expect in traffic analysis (teletraffic) and performance in mobile communication networks .Also knowledgeable in LAN Protocol, WAN protocol and TCP/IP suit. Design, installation and maintenance of PABX intercom system for Institutions .Computer knowledge in MATLAB software and java program. Senior Lecturer position, with Ambrose Alli University, Ekpoma till day. Good in academic research works, co-author above 30 published journals in telecommunication field..

Member of Professionals bodies such as Nigeria Society of Engineers (NSE) with Reg. No 20418 and the Council of the Regulation of Engineering in Nigeria (COREN) with reg. No: R20, 800.



### Ogbeide O. K.

was born in Benin, Edo State of Nigeria. He received his B.Eng., M.Eng. and Ph.D degrees from the University of Benin, Benin City in 2005, 2008, and 2014 respectively in Electrical/Electronic Engineering. His research interest includes communication systems Engineering, Pathloss modeling and Design of Electronics circuits.