Towards Integrating New Technologies in Communication Education in Nigeria

ENWEREM, Chuks Odiegwu
Department of Mass Communication
National Open University of Nigerian
&
CHUKS-ENWEREM, Christie Uche
Department of Education Administration
University of Benin, Benin City, Nigeria

Abstract

Communication educators have the responsibility to train and nurture young learners to ensure good understanding and practice of mass communication especially in the key sequences of Print, Public Relations and Advertising, Film, Broadcast and the New Media among others. The explosion of the new media, however, has presented obvious skills challenges, which have the prospects to affect educators' capacity to effectively and efficiently conduct teaching in the key relevant areas. This study aims to determine the current digital status of Nigerian educators, the extent of their digital compliance as well as their level of awareness of the fundamental technological requirements for contemporary communication education. Through qualitative and quantitative approaches, the paper assesses the prevailing situation in delivering learning to the digital natives within relevant institutions, the challenges associated with it, the level of professional development programmes available to communication educators and the extent to which they are equipped for teaching digital natives. Result indicates low level awareness of the basic and applied technological requirements of communication teaching among communication educators. It is suggested that a deliberate step be taken within the ivory towers to address the situation. The authors therefore propose the NOUN's Open and Distance Learning approach for enhancing educators' professional capacity for 21st communication education.

Keywords: Communication, Digital Immigrants, Mass Communication, Digital Natives, Educators, Film, New Media.

Introduction

Changing world of technology, including the advent of the new media, has brought along numerous changes in the practice of mass communication (Alao, 2012). These changes are manifesting in and shaping the practice of various adjuncts of mass communication such as Public Relations and Advertising (PRAD), Print Journalism, Broadcast Journalism, Cinematography, Film, among others (Usaini & Ekeanyanwu, 2011). All these changes are apparently enhanced and dictated by technology as postulated by McLuhan (1964).

UNESCO (1997, 1971) observed many years ago that 'recent and current advances in electronic and space technology suggest that society today faces the challenge of communication revolution' (p.3). With these changes occurring at the professional practice level, it is to be expected that the teaching and learning of the subject will also change. Therefore, teachers of mass communication who are "not-digitally compliant" may be unknowingly facing the challenge of teaching "digital" subjects to a more "digitally compliant and savvy" students. Since teachers impart new knowledge to their students, then when non-digital teachers teach the new subjects the outcome would be less than adequate. In this increasingly dynamic environment, the ability to stand up to these challenges and remain relevant, respectable, and respected by students and society, requires that an educator gets adequately equipped to undertake his role effectively.

Of the 154 Federal, State and Private universities operating in Nigeria (NUC, 2017), many offer courses in mass communication or its siblings - media studies or communication arts or other forms of the subject. Apart from the universities, there are also other institutions like television colleges, polytechnics among others which also offer courses in mass communication and related disciplines, thereby producing graduates in the discipline. These suggest that mass communication is quite relevant to the country's present and future growth and development (Melkote, undated). By extension, the need to examine and understand how the educators are being adequately equipped to effectively render their services in this dynamic environment is also very paramount.

Statement of the Problem

As media technology grows and gets more sophisticated, educators face the challenge to also match these changes with the appropriate capacity to ensure that learners get adequately trained. As today's students ultimately become tomorrow's practitioners in Advertising and Public Relations, journalists, broadcaster's, film producers, or educators themselves, the need to incorporate digital skills in their methods of teaching becomes quite necessary; this occasions a need for the educators to get adequate digital knowledge.

Communication education requires teachers to be adequately prepared and technologically equipped on a continuing basis to discharge their functions optimally.

The failure of this will mean that the outputs (graduates) will be negatively affected in the long run. In the same vein, impact of the digital-native generation and their learning style will also be huge; this demands therefore, that the learning preferences of these digital natives need to be infused into education and training, and for communication educators in particular, this will help if we truly wish to maximise the potential of this generation within our universities. Failure to match learners' expectations with adequate digital capacity from educators will affect the capacity to provide appropriate education and training to digital natives which in turn will result in less engagement with the course, and hence less effective learning. By extension, this will cost educators (the institutions) time and money beyond what they expected.

It has been argued, Levin and Arafela (2002, p.1), that today's children and teenagers are using more technology than their counterparts fifteen years earlier, and they even incorporate technology seamlessly into their lives. As found by The Pew Internet and American Life Project, Internet use by teenagers, is as follows:71 % had used the Internet as a major resource for research projects; 58% had used a Website set up by a class or school; 34% had downloaded a study aid; and 17% have created a Website for a school project.

This is an indication that these students are already attuned to technology-driven lives as they are already immersing themselves in the digital worlds (Prensky, 2001, p.3), and in fact cannot conceive of their lives without technology not to contemplate receiving communication education that is not digitally driven. If this happened in the US, there is every reason to believe that it could also be happening in Nigeria which requires that adequate preparation be made for it as we now operate in a borderless society. There is a need, therefore, to examine, with the goal of uncovering where necessary, any existing gaps in the teaching and learning of communication in Nigeria's institutions of higher learning in the light of changing technology (Yau, 2001).

Objective of the Study

The overall objectives of this study is to determine the extent to which communication educators are technologically and digitally equipped to discharge their duties of imparting knowledge to their learners consistent with new technology with the aim of determining, where necessary, what could be done to upgrade their knowledge. The specific objectives in this study include:

1. To determine Mass Communication educators' technological/digital competence level in relation to new trends in the field of Mass Communication, including advertising, public relations, online journalism, among others;
2. To determine the extent to which they update their knowledge in digital education and how it is reflected in the teaching of their students;
3. To determine the level of training by communication educators to update themselves.

Research Questions
1.   What is the level of Mass Communication educators' technological/digital competences in relation to the new trends in the field of Mass Communication, including advertising, public relations, online journalism, among others?
2.   To what extent do communication educators update their knowledge of digital education and is the knowledge reflected in their teaching of their students?
3.   What level of training do communication educators engage in to update themselves?

Theoretical Framework
The paper is anchored around the assumptions of Technology Determinant Theory, which explains how humans come to accept and use technology in their everyday life. McLuhan (1964), defines media as anything that amplifies or intensifies a bodily organ, sense or function. By this, he viewed every new form of media innovation (such as the Internet), to be an extension of human faculty. McLuhan further argued that family life, work place, school (education), health care, friendship, religion, politics, etc. – all are touched by communication technology. This theory helps in better situating this paper with regard to how digital technology is reshaping the teaching and learning of communication in our universities and the imperative of meeting up with the challenges it poses.

Literature Review
Many studies have been conducted on the need for academics to embrace technology. Eurydice (2010), Garfield and Burrill (1996), discuss the tendencies among educators and their inclination to know and embrace technology as a method to enhance teaching. These studies may not be directly focused on communication educators; they are nevertheless relevant in enlightening this study. Several initiatives in both developed and developing nations suggest growing awareness for the integration of computer-aided teaching into the overall teaching methods to enhance students' uptake.

    Bhalla (2014) notes that support for the computer as a tool for teaching and learning may be growing; however, among teachers and school management, there is a general unwillingness to promote its use (Lidtke, 1979; Russek, 1991; Harris, 2000; and Neiderhauser and Stoddart, (2001). Baylor and Ritchie (2002); Graham and Hans (2000) note that regardless of the amount of technology and its sophistication, on its own, technology will not be used unless faculty members have the skills, knowledge and attitudes necessary to infuse it into the curriculum. A large part of this problem, according to Okinaka (1992), is not having the knowledge of or expertise with computer-based instruction. In their various studies, Kurina (2000); Aduwa-

Ogiegbaen and Iyamu (2005) discovered that teacher's lack of confidence is one of the major obstacles in implementation of computers in teaching-learning process.

According to Bhalla (2014):

> Over past 20 years, the educational potential of computers has been explored by educationalists. Therefore, being prepared to adopt and use technology and knowing how that technology can support student learning must become integral skills in every teacher's professional repertoire. Within the framework of these changing roles, the responsibility for learning would fall more and more on the teachers.

Incorporating digital technology in an effective and focused way can be of immense benefits for students, academics and management. To deliver the potential according to Belmonte & Looker (2014), educational institutions therefore need to develop a clear vision, strategy and plan to get the most value out of their digital investments as well as the digital capacity and capability to respond to these opportunities, including the use of data analytics to generate insight from 'Big Data'. India's National Policy on ICT in School Education, MHRD (2009, Rev. 2012), presents three stages of ICT literacy as competencies for students and teachers. These are: Basic level and includes - operate a computer, manage data, word and data processing tasks, troubleshoot basic storage, use input output devices, e-mail – web-surfing - search engines, anti-virus; operate-manage content from external devices (sound recorders, digital cameras, scanners etc.); Intermediate level includes create - manage content using software applications, use digital devices, websites, search engines; and Advanced level which includes database applications, use of ICT for problem solving, audio-video communication, research, documentation, presentation, cooperative - collaborative learning, cyber - copyright issues. These levels or stages constitute set of competencies for teachers and students (Bhalla, 2014).

The literature on new technologies or new media technologies has led to some terms that are worth explaining within this context:

Digital Natives, Digital Immigrants: Prensky (2001) uses "Digital Natives" to describe those born within or after the explosion of digital technology about 20 years ago. Prensky asserts that Digital Natives are used to receiving information in a fast-paced manner, preferring their graphics *before* their text rather than the reverse. Prensky describes Digital Immigrants as those not born in the digital world; they use language that sets them apart from "Digital Natives" and reveal their 'non-native' status through an accent described as "Digital Immigrant accent". This accent manifests itself in a number of ways, including such acts as first printing out a digital document to edit it offline, rather than editing it online, among other examples.

Digital Teaching: Morris (2017) defines digital teaching as any type of teaching and learning that is facilitated by technology or instructional practice that makes effective use of technology. Morris notes that digital teaching occurs across all

learning domains, encompassing the application of a wide spectrum of practices including blended and virtual learning.

Open and Distance Learning (ODL): According to Alaneme and Olayiwola (2013), distance education provides greater flexibility to individual learning; its primary goal is the provision of learning at a time, place and pace of the individual learner.

Digital competence in teaching new trends in Advertising: New trends are driving advertising practice and as these new innovations in advertising technology render old tactics obsolete, the central, important question becomes 'how are the educators and teachers responding or catching up and how are they imparting these new trends in their students?' Dhanik (2015) provides in a summary, four key areas where digital trends are reshaping the practice of advertising. These include:(1) Mobile video advertising (through this, advertisers now reach consumers when they are paying attention as they cannot hide from their phones/tablets; (2) Native advertising (which is the practice of featuring ads that emulate the content and style of their own site; (3) Viewable impressions (this is an idea which allows that advertisers to pay only if their ads appear on a user's screen for a verifiable minimum duration contrary to paying for ads that would/were not viewed by consumers; and (4) Behaviour data (which allows advertisers to target group of people across multiple advertising properties based on an analysis of online searches, Internet browsing habits, etc..

As Lamble (2008) notes, to be able to cope with the new challenges, teachers/educators require new skills; they are expected to be on top of the development to be able to impart the knowledge to their students. In Nigeria, how far this has been the case remains a subject of study.

Much of news journalism has shifted from print to online and the differences between a successfully run online newspaper is the amount of professionalism that goes into a medium as well as the credibility that follows it. Such online news publications in Nigeria include premiumtimesng.com, thecitizenng.com thecable.ng and thenicheng.com, among others. There are also the online versions of conventional newspapers, among others. Many of the successful online newspapers are managed by reputable journalists who made their mark as print journalists (GOCOP, 2015).

This underscores the fact that professionalism is essential for the success of online journalism, hence the need for the teachers to update themselves and teach the students in accordance with the new trends.

Methodology

The study used the survey research method and the questionnaire as the instrument for data collection. The study took the opinion of communication educators in Nigeria who are lecturers in universities, polytechnics and other similar institutions, where they teach courses such as public relations and advertising, print and broadcast

journalism among others. The purposive sampling technique and the convenience sampling technique were adopted. The population of study was communication academics chosen because of their direct relevance to the subject of study and also because through the association, members are spread across the length and breadth of the country, making the sample representative enough.

Secondly, the samples were conveniently selected. The researchers took advantage of the large gathering of communication educators at Kuru, near Jos Plateau State, during the annual conference and general meeting of the African Council for Communication Education held from October 26 to November 3, 2017, to administer their questionnaire. It would have been almost impossible to gather such a number outside that meeting. Sixty five copies of a self-completing questionnaire were therefore administered to gather data from the respondents. Frequency and percentage tables were used to analyse the data with the aid of Google forms. Responses were 'I have no idea,' 'I have a slight idea' and 'I am very knowledgeable,' used to indicate respondents' level of digital knowledge and skill.

Population and Sample of Study
Population of this study comprised mass communication educators in the departments of mass communication, communication arts or media and communication at federal, state or private universities in Nigeria. The researcher used a convenience sampling technique and took a sample of 65 educators. The study was initially made to use 10 percent of the ACCE members as sample size; however, the membership strength of the Council could not be confirmed despite several efforts at the Secretariat, hence 65 persons, being a fraction of attendees at the conference was used.

Data Presentation and Analysis
The questionnaire was administered to 65 respondents only who were meeting at a venue. Out of this number, 59 copies were correctly filled and returned. Based on the returned copies, the following data were extracted.

**Table I: Mass Communication Educators'
Technological/Digital Knowledge/Competence Level**

S N	Item	Not knowledgeable (%)	Slightly knowledgeable (%)	Very knowledgeable (%)
	Use of computer	20.4	5.5	74.1%
	Use of projector	15.5	31	53.4
	Use of printer	15.3	16.9	67.8
	Use of Scanner	22	18.6	59.3
	Digital camera use	17.2	25.9	56.9
	Desktop operation	28.6	33.9	37.5
	Internet for communication	6.9	13.8	79.3
	Copyright material	12.7	27.6	65.2
	Updating knowledge with computer	10.2	16.9	72.9
	Using Internet to share information with students	**9.1**	**43.6**	**47.3**
3	New media and PR & Ad/Promotion			
	Social media for Ad/Promotion	**16.1**	**48.2**	**35.7**
	Knowledge of Native advertising	**33.3**	**35.1**	**31.6**
	Knowledge of viewable impression in advert	**26.8**	**51.8**	**21.4**
	Knowledge of behavioural data in advertising	**39.3**	**39.3**	**21.4**
	Knowledge of online journalism	**15.5**	**32.8**	**51.7**

Table I above is a summary of both the knowledge and competency levels of educators as indicated in their responses. At the basic level of the knowledge of computer operating system, respondents showed an excellent understanding at 74.1 percent on the average. This means that the majority of the lecturers interviewed are aware and conversant with the computer and its operating system and as such are amenable to learn and integrate technology into their teaching method if properly guided. The table further shows that in about six cases, the knowledge/competency level of the educators was below 50 percent, especially in the areas that have much to do with the application of digital knowledge. This is an indication that knowledge and competency upgrade is necessary among communication educators. However, their knowledge of online journalism is impressive at 51.7 percent.

Table 2: The Gender of Respondents

Gender	Number of Respondents	%
Male	28	48
Female	29	52
Total	58	100%

Table 3: The Age of Respondents

Age of respondents	Number of Respondents	%
18 – 30 years	3	5.2 %
31 – 40	20	35.1
41 – 50	20	35.1
51 – Above	15	24.6

Table 2 above looks at the gender composition of respondents and shows almost an equal split between male and female respondents which indicates that both genders are on equal footing with regard to technological competencies. There is no difference in terms of sex or gender, in the capacity of educators to be digitally knowledgeable. Table 3 shows that those lecturers between the age bracket of 31 – 40 years and those between the age of 41 – 50, dominate the pack as they show more inclination to being digitally savvy than their counterparts.

Table 4: Summary of Knowledge and Competency Levels

Knowledge/ Competence in	No Idea	Slight Idea	Very Knowledgeable
Use of Social Media for advertising	16.1	48.2	35.7
Mobile Video in Ad	35.1	40.4	22.8
Native Ad	33.3	35.1	31.6
Viewable Impression	26.8	51.8	21.4
Total	**111.3**	**175.5**	**111.5**

Table 3 shows that in the four key variables of Social Media use; Mobile Video in Advertising; Native Advertising and Viewable Impression, the respondents indicated more of 'No idea' and 'Slightly knowledgeable' than 'Very knowledgeable'. This outcome, therefore, suggests that the majority of the communication educators who took part in the survey are not very digitally compliant.

Discussion of Findings

Findings from the study indicate low levels of technological knowhow and competence among Mass Communication educators relative to the new trends in the field of Mass Communication, including advertising and public relations. However, the average level in online journalism is reasonably high. This is shown from the percentage of the total respondents that said that they were either knowledgeable, slightly knowledgeable than not knowledgeable at all.

The first question sought to know the respondents' general knowledge level with the use of computer operating system; 74 percent indicated that they were very knowledgeable while 20.4 percent said they were slightly knowledgeable. However, questions which dealt with their specific knowledge of the use of simple office/communication items as projector, printer, scanner and digital camera, respondents indicated mixed levels of knowledge and by implication mixed levels of use. Moreover, questions that are directly related to educators' understanding and use of the desktop publishing as well as the use of the Internet for communication also showed that the respondents are far from being digitally compliant. The question, "To what extent can you operate the desktop publisher", showed that only 37. 5 percent said they can, while 33.9 percent said they can slightly do so while 28.6 percent cannot operate it at all. If one added the 'cannot' to 'can slightly do' the total of 62.5 percent are incompetent with the tools. It is, therefore, worrisome that many lecturers do not have a good knowledge of desktop publishing and one may wonder how they would be able to teach this subject to their wards that may already be conversant with the subject.

At the basic level of the knowledge of computer operating system, respondents showed an appreciable understanding at 74.1 percent. This means that the majority of the lecturers interviewed are aware and conversant with computer and by extrapolation, can easily learn and integrate technology into their teaching method if properly guided. The guidance could be initiated by management either at the departmental, faculty or University levels.

Findings also show that respondents indicated above average knowledge of the basic technology communication technology tools such as projector, printer, scanner and digital camera among others. An average of 59.35 percent knowledge of these tools is posted, showing just an average level of knowledge of these tools, an indication that these teachers are not very far away from being digitally compliant. As they have a high potential to integrate technology into their trade.

The question, 'Describe your competency level in the use of the Internet for

communication' showed encouragingly that 79.3 percent are competent while only about 20 percent are not. In terms of their ability to use copyrighted material available on the net, 55.2 percent said they were capable; while a total of 44. 8 percent are either not capable or are slightly so.

The respondents' ability to share information with their students using the Internet showed that the knowledge level is also shared nearly equally between 'knowledgeable' and 'not knowledgeable' as indicated by 47.3 percent of them saying that they have the knowledge and 52.7 percent that said they are not knowledgeable or are slightly knowledgeable. Interestingly, responding to the question, 'To what extent can you update your knowledge and teaching skills using the computers,' 72.9 percent said they are capable; 16.9 percent said they are slightly capable while 10.2 percent said they cannot.

To the question, 'What is your knowledge of Social Media for product advertising/promotion', 64 percent said they either were not knowledgeable or were slightly so. Also their knowledge of 'native advertising' is low with only 31.6 percent saying that they have good knowledge of it; 35.1 said they have a slight idea and 33.3 percent said they have no idea at all.

More than three quarters of the respondents said they have little or no idea or knowledge about 'viewable impression in advertising;' only 21.4 percent said they have the knowledge, 51.6 said they know slightly and 26.8 percent said they have no knowledge about it. In the same vein as above, questions bordering on respondents' knowledge of behavioural data in advertising indicate that only 21.4 percent of the respondents have a convenient knowledge of the new trend in advertising on social media; 39.3 percent said they have a slight idea while 21.4 percent said they have a sound knowledge of it.

It is, however, gratifying to note that the lecturers' knowledge of Online Journalism is above average. To the research question 'what is your knowledge level of online journalism?' more than half of the respondents, representing 51.7 percent, reported being very conversant with the new trend in journalism on the net; 32.8 reported being slightly conversant while 15.5 said they are not conversant with it. This result appears consistent with what is generally observable among practitioners as many seem to have branched into online journalism with little effort.

It is necessary to note that the research questions dealt more with the cognitive level of knowledge; hence, a low level cognition is a pointer to probability that the psychomotive and affective levels would also be low. However, the study did not extend its search to those other domains of knowledge. These other levels are hereby recommended for further studies.

Summary and Conclusion

Communication educators impart knowledge to their students in the understanding and practice of mass communication in the key sequences of Print, Public Relations

and Advertising, Film, Broadcast and the New Media among others. In Nigeria, the explosion of the new media, including the Internet, in nearly two decades has presented obvious skills challenges which can affect educators' capacity to effectively and efficiently teach these key areas. The new media and their associated requirements present a challenge for communication educators, many of who received analogue training and are considered "digital immigrants", in their effort to competently and satisfactorily handle teaching of the "digital natives."

The ability of communication educators to integrate new technology skills into their teaching is important to enhance their confidence and capacity to deliver teaching to the young learners. On the other hand, inability of the educators to update and upgrade their skill set will have a negative impact on their ability to educate their students efficiently and effectively. This study has been involved in determining the level of preparedness of communication educators for the task of imparting knowledge to the young learners. Open and Distance Learning approach is therefore suggested as one of the ways communication educators could build digital capacity through continuous learning.

Recommendations

Findings from this study suggest that Nigerian communication educators generally have just a basic understanding of the operating system of the computer as well as the basic technology tools to initiate effective digital education. It, however, reveals that the deeper aspects of digital technology in the subject matter of mass communication, is still lacking among the educators. This suggests that the products that come out from mass communication departments, in terms of graduates, may not be digitally compliant in the key areas of Public Relations and Advertising, among others. The implication is that the future practitioners of this career may find themselves handicapped if they do not quickly upgrade themselves. The only area the teachers seem to have upgraded sufficiently well is in the area of online journalism. This, though, can be understood given the ease of embarking on it on the Internet.

Following these conclusions, it is hereby recommended that a deliberate effort should be made to help faculty members integrate technology into their teaching practices; this can be done by employing digitally savvy and motivated young people to work closely with faculty members and while they make effort to bring them up to speed in terms of digital competence. In addition, faculty members should be made to undergo technology courses to enhance an easy transition from analogue to digital teaching. Above all, in-service trainings and workshops on how to integrate technology into the teaching of mass communication should be a regular feature in the lecturers' career development programmes. Furthermore, the research questions dealt more with the cognitive level of knowledge of the educators; it is hereby recommended that further studies should also be investigated to determine the psychomotor and affective domains of knowledge of the educators.

References

Aduwa-Ogiegbaen and Iyamu, S. E. (2005). Using Information and Communication Technology in secondary schools in Nigeria: Problems and prospects. *Educational Technology and Society*, 8(1), 104 – 112.

Alaneme, G. C. And Olayiwola, P. O. (2013). Appraising the organization and management of   distance learners' support services: A case study of some Nigerian universities. *West African Journal of Open and Distance Learning* (WAJOFEL), 2 (2), 11 – 26.

Alao, A. (2012). Changing technology and the Nigerian mass media.*Kuwait Chapter ofArabian Journal of Business and Management,* 2(3), 94 – 101.

Amber, T. and Morris, N. (2017). Is digital technology changing learning and teaching? The big debate. Digifest 2017 programme. Retrieved on 11 April, 2018 from www.jisc.ac.uk

Baylor, A. L. and Richie, D. (2002). What factors facilitate teacher skills, teacher morale and perceived student learning in technology – using classrooms. *Computer and Education,* 39(4), 395 - 414.

Belmonte, D. and Looker, I. (2015). Digital: transforming the learner and teacher experience.   Retrieved on 13th April, 2018 from:www.Pwc.blogs.com

Belmonte, D. and Looker, I. (2005). Demand-driven skills: Adaptable and diverse workforces. *Global Education Leader. Retrieved on 13/4/2018 from* www.pwc.blog.com.

Smith, D. B. and Tyler,C. (2011). Effective inclusive education: Equipping education professionals with necessary skills and knowledge. *Prospects,* 41(1), 323–339. DOI 10.1007/s11125-011-9207-5

Eurydice Audiovisual and Culture Agency, (2010). Focus on higher education in Europe 2010: The impact of Bologna Process.DOI 10.2797/38158.

Garfield, J.B. and Burrill, G. (1996), Research on the role of technology in teaching and learning statistics: Proceedings of the 1996 International Association for Statistical Education, (IASE) Round Table. Pp. 226 – 283.

Guild of Corporate Online Publishers, GOCOP, (2015).Membership Profile. Retrieved on January 16th, 2018, from www.cocop.com.ng.

Graham, S. and Hans, K. (2000). The role of self-regulation and transcription stills in writing and writing development. *Educational Psychologist,* 35(1), 3-12. DOI. 10.1207/515326985EP3501

Levin, D., and Arafela, S. (2005) "The Digital disconnect: The widening gap between Internet savvy students and their schools." *Pew Internet and American Life Project*. Retrieved 14/4/2018 from http://www.pewInternet.org

Lidtke, V. L. (1985). The alternative culture: Socialist Labour in Imperialist Germany. *The Journal of Modern History*, 58(4). 983 – 985.

Ludtke, V. L. (1964). German social democracy and German state socialism, 1876-1884,*International Review of Social History*, 9(2), 202 – 225.

McLuhan, M. (1964). Understanding media: The extensions of man. London and New York: Routledge.

Melkote, S. R. (Undated). Management and future of Mass Communication and Media. *Journalism and Mass Communication,* Vol. II.

NUC (2017) National Universities Commission. List of Federal, State and Public Universities. Retrieved on March 28th, 2018, from: www.nuc.edu.ng.

Okinaka, R. (1992). The factors that affect teacher attitude toward computer use.ERIC Educational DocumentED346039, In Akifocat, M., and Akdemir, O. (2008).An investigation of primary school science teachers' use of computer application. *The Turkish Online Journal of Educational Technology*, 7(4), 34-47.

Prensky, M. (2001). Digital natives, Digital immigrants. *On the Horizon,* 9(5), 1 – 6.

Steven, Q. and Steven, L. (2008:35). Online newsgathering: Research and reporting for journalism. Amsterdam: Focal Press.

Stoddart, T. and Neiderhauser, D. L (1993). Technology and educational change: Computer in the secondary schools, 9 (2), Pp. 5-22. DOI.10.1300/J025v09n02_02

UNESCO (1997). World communication report: The media and the challenge of the new technology. Retrieved on 23rd March, 2018, from: www.unesco.org.

UNESCO (1970). Mass media in society: Need of research. Retrieved on 10th April, 2018 from: www.unesco.org.

Usaini, S. and Ekeanyanwu, N. T. (2011). Perceived role of entertainment television in shaping the social behaviour of teenagers. *The Nigerian Journal of Communication,* 9(1), 153-182.

West African Journal of Open and Flexible Learning, 2 (2), 27 – 37.

Yau, J.T.K. and Hawamdeh, S. (2001). The impact of the Internet on teaching and practice of journalism.*The Journal of Electronic-Publishing,* 7, (1). DOI: http://dx.doi.org/10.3998/3336451.0007.102