Acquisition and Utilisation of Digital Media in the Teaching and Learning of Mass Communication in Tertiary Institutions in Akwa Ibom State, Nigeria

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Abstract

This study employed the survey research method using the instrument of questionnaire to assess the acquisition and utilisation of digital media in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State, Nigeria. The population for this study was 53 lecturers and 292 students of the Departments of Mass Communication in selected tertiary institutions in Akwa Ibom State, making a total of 345 as the sample size. However, only 312 responded to the study. From their response, we found out that there is a near absence of digital media in the teaching and learning of mass communication as only an insignificant few attested to their existence. Although, there are benefits derivable from the use of digital media tools, there are far reaching disadvantages as the respondents enumerated several factors that make the environment not conducive for the use of digital media in the teaching and learning of mass communication to include lack of technical-know-how, absence of training, and lack of basic infrastructure to aid in the deployment of digital media in the teaching and learning of mass communication in Akwa Ibom State. Based on these findings, it was recommended that proprietors of higher institutions in the state should made efforts to digitise the training offered in their departments of mass communication so as to produce the right kind or professionals/practitioners needed in 21st century media practice.

Keywords: Digitisation, Survey, TOE Framework, Digital Media Education, Nigeria

Introduction

The new technology that surrounds us today is rapidly changing our society in an overwhelming pace. Our environment has entered a period of rapid and intense change caused by the revolution in Information and Communication Technologies (ICTs).

ICTs have revolutionised our way of life, ranging from the ways in which people work, the ways that they communicate and interact with one another, the display of unprecedented levels of productivity in our workplaces, among others. With this revolution, more innovative developments are still expected since the society is not static but dynamic.

These profound changes are also witnessed in the teaching and learning processes where greater communicative potentials and participation are experienced. It has also prompted changes in education. Attallah & Shade (2006, p. 238) maintain that, "the shift to digital communication coupled with other technological developments has broken the barriers between traditional or "old" media industries as well as those between the broader media and communication sectors." The digital media have the characteristics of allowing for greater storage capacity and the speed of transmission as well as facilitating infinite reproduction capacities. Its flexibility enables users to directly alter, integrate images, audio, video, graphics, texts, sounds, etc., and by so doing open up a communicative realm of participation that is virtually unprecedented.

Wood (2014) sees digital media as electronic modes of communication that store and manage data in digital forms. Thus, when one communicates face-to-face, one does not have digital, electronic systems mediating between him and the other person or persons; however, when one uses digital media tools, one's messages go through computer technologies that digitise, store, and send information. Digital media have brought together previously separated and discrete media forms into a combination of digital technologies. This convergence has unified media form, contents, cables, wireless networks, satellite transmission, electronics, telecommunications, computer hardware and software, entertainment, publishing, broadcasting, among others, thus creating a merger of media empires.

Statement of the Problem

Digital media have over time been a reliable assistance in the teaching and learning process. However, effective digital media application might be the most significant issue in their usage, as this is directly related to the success of these technologies to create optimal e-learning experience. Educational institutions therefore need to create a balance in the use or the deployment of digital media for educational purposes, and thus achieving the desired learning outcomes.

Advancement in technology offers a challenge to 21st century teaching and learning protocols. This informs the need to review the traditional teaching and learning methods. It also poses the need for media teachers to acquire the requisite skills and experiences to make learning not just interesting but worthwhile. It is also important for all mass communicators to have the requisite practical skills in order to be more effective in managing the growing task in the media world, especially in this 21st Century. The possibilities of having teachers who are more skilled in digital

media and the requisite capacity to engage the students cannot be overemphasised. Our experience so far is that this expectation is still a reverie.

This scenario may have informed the emerging complaints from media industry experts and managers that graduates of mass communication in our study locale are not technology savvy with regard to 21st century expectation that requires heavy deployment of digital technology in media practice. We therefore wonder if the absence or inadequate use of digital media in the teaching and learning of mass communication is influencing the quality of mass communication graduates in Akwa Ibom State? Also, what might be the quantum of digital media tools acquired and utilised in the teaching and learning of mass communication among tertiary institutions in Akwa Ibom State? This scenario and the posers raised above to address it form the problem that necessitates the current study.

Objectives of the Study

This study generally sought to assess the acquisition and utilisation of digital media in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State, Nigeria. In specific terms, however, the objectives of the study are to:

1. find out the digital media tools available in the teaching and learning of mass communication in tertiary institutions Akwa Ibom State;
2. ascertain how often digital media tools are used in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State;
3. examine how lecturers and students of mass communication in tertiary institutions in Akwa Ibom State utilise the digital media in the teaching and learning process;
4. ascertain the benefits derivable from the acquisition and use of digital media in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State; and,
5. determine whether the lecturers and students have the capacity and an enabling environment to make optimal use of digital media in the teaching and learning of mass communication in institutions in Akwa Ibom State.

Research Questions

The research questions derived from the objectives of the study were:

1.   What are the digital media tools available for the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State?
2.   How often are digital media tools used in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State?
3.   To what extent do lecturers and students of mass communication in tertiary institutions in Akwa Ibom State utilise digital media in the teaching and learning process?

4.   What benefits are derivable from the acquisition and use of digital media in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State?

5.   Do lecturers and students have the capacity and the enabling environment to make optimal use of digital technology in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State?

Theoretical Framework and Literature Review

This study is based on Davis (1986) Technology Acceptance Model (TAM), the Technology-Organisation-Environment (TOE) framework and Roger's (1995) Diffusion of Innovation (DOI) theory. Several researches, theories and perspectives have been carried out to determine information systems and their usage. Of all the theories, the Technology Acceptance Model (TAM) is considered the most influential and commonly employed theory for describing an individual's acceptance of information systems.

Technology Acceptance Model (TAM), adapted from the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and originally proposed by Davis (1986), assumes that an individual's information systems acceptance is determined by two major variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness (PU) refers to the degree to which a person believes that using a particular system would enhance his/her job performance while the Perceived Ease of Use (PEOU) is the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). The TAM was developed to evaluate the acceptance and adoption of technological innovations based on an individual's view of the perceptions related to ease of use and usefulness of the system.

The Technology-Organisation-Environment (TOE) guide was developed in 1990 (Tornatzky & Fleischer, 1990). It identifies three aspects of an enterprise's context that influence the process by which it adopts and implements a technological innovation: technological context, organisational context, and environmental context.

Technological context describes both the internal and external technologies relevant to the firm. This includes current practices and equipment internal to the firm as well as the set of available technologies external to the firm.

Organisational context refers to descriptive measures about the organisation such as scope, size, and managerial structure. In the organisational structures, issues such as how human and material resources move are noted. In this context, we question if the business or firm is organised along individual or team structures; the point of intersection, departure etc. Issues of how individual and corporate goals are aligned also form part of this context. Environmental context is the arena in which a firm conducts its business - its industry, competitors, and dealings with the government (Tornatzky & Fleischer, 1990). The TOE

framework provides a useful analytical guide that can be used for studying the adoption and assimilation of different types of IT innovation (Oliveira & Martins, 2009).

A look at Roger's Diffusion of Innovation (DOI) shows that individuals are seen as possessing different degrees of willingness to adopt innovations, and thus it is generally observed that the portion of the population adopting an innovation is approximately normally distributed over time. Breaking this normal distribution into segments leads to the segregation of individuals into the following five categories of individual innovativeness (from earliest to latest adopters): innovators, early adopters, early majority, late majority, and laggards. Oliveira & Martins (2009) note that DOI is a theory of how, why, and at what rate new ideas and technology spread through cultures, operating at the individual and corporate levels. According to them, the innovation process in organisations is much more complex. It generally involves a number of individuals, perhaps including both supporters and opponents of the new idea, each of whom plays a role in the innovation-decision-making process.

In view of this, for digital media tools to be acquired and utilised by lecturers and students in the teaching and learning of Mass Communication, they should be aware of it, develop interest in it, evaluate it and also try it for possible adoption. Learning is one activity humans engage in whether consciously or unconsciously. It is an aspect of life where new knowledge and skills are garnered. Cook & Hunsaker (2001) define learning as the acquisition of knowledge, skill, or values through study, practice, or experience. Learning is usually considered to lead to relatively permanent changes in behaviour, as the learner develops capacities for functioning in the environment. Verderber, Verderber & Sellow (2014, p. 391) note that:

> Because audience members differ in how they prefer to learn, you will be most successful when you address learning styles. You can appeal to people who prefer to learn through the feeling dimension by providing concrete, vivid images, examples, stories, and testimonials. Address the watching dimension by using visual aids. Address the thinking dimension by including definitions, explanations, and statistics. Addressing the doing dimension by encouraging your listeners to do something during the speech or afterwards. Rounding the learning cycle in this way ensures that you address the diverse learning style preferences of your audience and make the speech understandable, meaningful, and memorable for all.

One thing that makes learning interesting and memorable is the application of digital media in the teaching and learning styles of the students. Digitisation is about the breaking down of old traditions and moving on to ongoing trends. The "old" classroom setting is paving the way for a more technologically advanced learning experience. This makes sense as digital devices supplant the blackboard encounter with a more technologically-

based setting. Learning here is accompanied by technology or by instructional practice materials that make effective use of technology. This innovative learning experience encompasses a wide range of practices, including blended and virtual learning, e-textbooks, mobile learning, online learning, adaptive learning, personalised learning, virtual reality, technology-enhanced teaching and learning, among others.

Digital media invoke creativity and improve the quality of the teacher's output through the provision of digital materials and access to digitised archives, while strengthening the student's learning experience through their exposure to quality learning products and expanded learning opportunities. They take advantage of the brain's ability to make connections between verbal and visual representation of contents, leading to a deeper understanding which in turn supports the retention of learning and improves understanding. They diminish the overwhelming nature of text and help students to manage the cognitive load, which increases retention. They are also able to connect with learning groups and other educational systems that make education convenient.

Digital media are therefore an all-important asset in the learning environment. Some institutions which are aware of their necessity have stopped at nothing to acquire not just the different types, but also the needed skills to aid their utilisation. It allows the teachers and students to advance communication techniques. Digital media help to create conducive interactive sessions in the classes and bridge the gap in communication between the educator and the educated.

Colin & McCartan (2016) observe the fast-paced evolution of the technology in the modern age. It is difficult for media educators without the essential practical media skills to work at optimal capacity on their job of educating students. Dickson (2009) points out that media educators need to acquire the necessary practical media skills to be effective, because if they do not, they run the risk of learning neglected and outdated skills which will in turn result in an incomplete and inadequate education. They need to learn new skills to excel in a fast-paced modern media world.

Digital media have provided an improved scheme of teaching and learning. Every teacher needs to take advantage of these technologies: graphic media, audio, video images, and so on to ensure that a modern learning environment compatible with the actualities of the 21st century society, takes place. What students see is retained longer in their memories and intellect especially when it comes in the form of digital media technologies. This is of great importance in the development of mass media communication in schools since the teachers are equipped with the right skills which help them perform their duties outstandingly. The use of digital media in the teaching and learning of mass communication opens endless doors of opportunities to both the teacher and the students. With digital media, the students are assured of a better, interactive, appealing, engaging study environment while the teachers are faced with an array of strategies to make learning

fun and interesting in which the students look forward to.

According to Omar & Bidin (2015, n.p.),

> The accessibility of the organised media technologies everywhere in the school will work as an impetus and could guarantee that the students study better. Moreover, they could enable the students to easily understand the concept of the lessons taught. Engaging different senses simultaneously in a study room creates a stimulating environment and a better chance of students actually learning as well. What students hear, they might forget? What they see they remember for a while? What they say? They definitely remember. But what they experience? They will never forget. This underlines the importance of using advancements in technology to help the intellectual and educational growth and awareness of not just students, but also educators and communicators.

Digital media had long been involved in the educational system. Bulunmaz (2016) points out that the development of technology, in general, has made it important for the involvement of digital media in education, because students now live in an electronic world of computers and all kinds of technologies, not only in the traditional classroom education setting of chalkboards, tables, notebooks, and pencils. Digital media are considered useful tools in teaching and learning of mass communication because they pass on bold and precise information with fewer margins of error. Digital media communications are made possible through the use of digital technologies hence, the features of manipulation, convergence and speed as Wood (2014) enumerated.

Research Methodology

The research design adopted for this study was the survey method. The survey research method was adopted using questionnaire to elicit answers, views and perspectives from lecturers and students of mass communication on the acquisition and utilisation of digital media in the teaching and learning of mass communication by tertiary institutions in Akwa Ibom State. Creswell (2012) describes survey research designs as, procedures in quantitative research design in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviours, or characteristics of the population. Wimmer & Dominick (2016) adds the survey allows researchers to examine many variables, lifestyle information motives, intentions, among others. Using a 10-item questionnaire which sought answers to the issue in view, the respondents were asked questions to elicit answers on the acquisition and availability of digital media, the benefits derivable from so doing, and the optimum usage of digital media in the teaching and learning of mass communication in their institutions.

Although there are several institutions studying mass communication, the researchers purposively chose the University of Uyo (UNIUYO), Akwa Ibom State University (AKSU), and the Akwa Ibom State Polytechnic, Ikot Asurua, which have had

track records of teaching and learning of mass communication over the years. The population of this study was made of 53 lecturers and 292 final year students of mass communication departments in select tertiary institutions in Akwa Ibom State. Students in the final year class were purposively chosen due to the number of years they had put in already in their study, while all the lecturers in the selected institutions studying mass communication were selected. Table below shows the population of lecturers and students in the final year class studying mass communication in three tertiary institutions in Akwa Ibom State.

Table 1: Lecturers and Students of Tertiary Institutions Studying Mass Communication

Institutions	Lecturers	Final Year Students	Total
UNIUYO	21	148	169
AKSU	13	54	67
AKSPOLY	19	90	109
TOTAL	**53**	**292**	**345**

Source: Field Survey 2019

Data Analysis and Presentation

Since the population was not too large for the study, the census method was adopted. Hence, 345 respondents made up the sample size for the study. To get to the respondents, copies of the questionnaire were administered based on availability. However, only 312 copies of the questionnaire were returned and adjudged usable for the study. Of the 53 copies of questionnaire sent out to lecturers, 45 returned while 267 copies were returned by students in the final years in the selected institutions making a total of 312 respondents for the study. The data analysis and presentation will be based on the 312 copies of the questionnaire that were returned by the respondents and found usable.

One of the objectives of this study was to determine if digital media tools are deployed in the teaching and learning of mass communication in the selected higher institutions of learning in Akwa Ibom State. Table 2 below shows 100 percent agreement that digital media are part of the learning process in those institutions. In other words, both lecturers and students are in agreement that digital media are deployed in their Departments of Mass Communication of their various institutions of higher learning. The significance of this is that all the respondents have used several forms of digital media in the process of either teaching or learning mass communication.

Table 2: Use of Digital Media in the Teaching and Learning of Mass Communication

	Responses		
Respondents	**Yes**	**No**	**Percentage**
Lecturer	45	-	14%
Students	267	-	86%
Total	**312**	**-**	**100%**

Source: Field Survey 2019

Another main objective of this study was ascertain the forms of digital media used in the teaching and learning of mass communication in the selected higher institutions of learning. Table 3 below shows that 32% of the respondents use power point production/presentation in the teaching and learning of Mass Communication. Power point tools help to make presentation more interesting and improve audience s focus as well as help the presenter to be more improvisional and interactive with the audience. However, very insignificant numbers of respondents use video production tools and digital design tools for newspapers/magazines/books production in the teaching and learning of mass communication.

Table 3: Forms of Digital Media Used in the Teaching and Learning of Mass Communication

Digital Media Tools	Responses		Total & (%)
	Lecturers	**Students**	
Digital editing tools	14	60	74 (24)
Photo-production editing tools	4	20	24 (8)
Digital visualisation tools	3	32	35 (11)
Power point production/presentation	12	89	101 (32)
Digital film/ video production tools	3	41	44 (14)
Video production tools	3	12	15 (5)
Digital design tools for newspapers/magazines/books	3	7	10 (3)
Data analysis tools	3	6	9 (3)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 4: Frequency of Usage of Digital Media in the Teaching and Learning of Mass Communication

Frequency	Lecturers	Students	Total/%
Daily	25	35	60 (19)
Weekly	10	38	48 (15)
Bi-weekly	5	53	58 (19)
Monthly	5	69	74 (24)

Bi-monthly	-	47	47 (15)
Yearly	-	25	25 (8)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 4 above shows that the 24 percent of respondents used the digital media in the teaching and learning of mass communication on a monthly basis. This implies that digital media tools are not regularly used as should be the case in a practical course such as mass communication.

On the issue of how digital media tools are deployed in the teaching and learning of mass communication, 31% said they use such tools for research and information gathering and another 31% claim they use them for one-on-one communication. The significance of this is that digital media tools are used in the teaching and learning of mass communication on a more personal basis than in a general classroom setting. See Table 5 below for more details of the responses.

Table 5: Responses on How Digital Media Tools Are Utilised in the Teaching and Learning of Mass Communication

How Digital Media Tools Are Utilised	Lecturers	Students	Total & (%)
Practical teaching/learning	10	58	69 (22)
Research/Information Gathering	10	88	98 (31)
Audio projection	10	18	28 (9)
TV/Radio/Newspaper/Advertising Production	5	16	21 (7)
One-on-one Communication	10	88	98 (31)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 6 below indicates several benefits derivable from the use of digital media in the teaching and learning of mass communication. Forty-three respondents (14%) said digital media tools boost their understanding of otherwise complex explanations. This means that complex explanations are made simple through the use of graphics, pictorial representations, films/audio clips, among others. This response should challenge management of these institutions to do more in terms of digital media application in mass communication pedagogy.

Table 6: Benefits Derivable from the Use of Digital Media in the Teaching and Learning of Mass Communication

Benefits derived	Lect	Stud	Total & (%)
Boost Understanding of otherwise complex explanations	11	32	43 (14)
E-Learning	-	33	33 (11)
Knowledge Acquisition	5	24	29 (9)

Speed and Accuracy	6	28	33 (11)
Bridges the gaps b/w Theories & Practical	-	26	26 (8)
Simplified Learning	-	25	25 (8)
Access to educational materials and information from different sources	8	15	23 (7)
Increase Retention	-	15	15 (5)
Spontaneity	5	10	15 (5)
Interactive Learning	-	10	10 (3)
Easy Reproduction	5	30	35 (11)
Media Literacy	-	8	9 (3)
Effective Learning	-	6	6 (2)
Easy Comprehension	5	5	10 (3)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 7: Enabling Environment to make Optimum Use of Digital Technology in the Teaching and Learning of Mass Communication

Enabling environment	Lecturers	Students	Total & (%)
Yes	10	65	75 (24)
No	35	202	237 (76)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Data in Table 7 show that 237 respondents (76%) did not have the capacity and the enabling environment that allow the use of digital media optimally in the teaching and learning of mass communication. Where 237 respondents (76%) decried the absence of an environment that permitted optimal use of digital media in the teaching and learning of mass communication, it shows that the use of digital media is not encouraged, or better, not supported in these tertiary institutions.

Table 8: Capacity for Optimal use of Digital Media in the Teaching and Learning of Mass Communication

Capacity building	Lecturers	Students	Total & (%)
Seminars/Conferences	5	15	20 (6)
No formal training	5	41	46 (15)
Self-trained	15	31	46 (15)
Well-equipped computer labs	5	21	26 (8)
Internet services	5	23	28 (9)
Non-existent facilities	5	66	71 (23)
Obsolete/inadequate facilities	5	70	75 (24)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 8 shows that while there were obsolete and inadequate facilities (23%) for the teaching and learning of mass communication, some were non-existent (23%). This indicates that these institutions did not provide lecturers and students with the needed environment for the acquisition and utilisation of digital media thus creating a situation for self-help/development, which invariably accounts for the low incidence in application/deployment.

On the issue of factors that predispose or support Lecturers and Students to use digital media in their teaching and learning experience in the Departments of Mass Communication studied, Table 9 below shows that 16% of the respondents decried the lack of technical know-how, 13% each complained of computer illiteracy and lack of basic infrastructures respectively. Incidentally, these three aspects are pivotal for a successful integration of digital media tools in pedagogical concerns.

Table 9: Factors that make the Environment Not Conducive for the use of Digital Media in the Teaching and Learning of Mass Communication

Responses	Lecturers	Students	Total & (%)
Lack of Technical-Know-How	5	46	51 (16)
Lack of Fund	5	5	10 (3)
Computer Illiteracy	3	38	41 (13)
Ill equipped studios	5	11	16 (5)
Absence of Requisite Technology/Poor Network services	10	23	33 (11)
Restrictions for fear of malfunction	-	58	58 (19)
Poor Electricity Supply	5	21	26 (8)
Absence of Training	7	11	18 (6)
Insecurity	-	20	20 (6)
Lack of Basic Infrastructures	5	34	39 (13)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 10: Suggestions for the seamless Use of Digital Media in the Teaching and Learning of Mass Communication

Responses	Lecturers	Students	Total & (%)
Entrenchment of digital media use from Primary Schools	5	11	16 (5)
Computerized School Platforms/NUC Certification	7	19	26 (8)
Training and Re-training	10	35	45 (14)
Provision and Maintenance of essential facilities	5	23	28 (9)
Conferences and Seminars	3	12	15 (5)

Proper Management of the facilities	2	11	13 (4)
Free Access to Facilities	-	37	37 (12)
Inculcation into every teaching	-	21	21 (6)
Network Accessibility and Availability	-	18	18 (6)
Creating a digital based Environment	3	12	15 (5)
Provision of E-library/Standard Digital Studio/ICT Centres	2	10	12 (4)
Constant power supply	5	22	27 (9)
Free Wi-Fi	-	24	24 (8)
Provision of a well-equipped digitally sensitive classrooms	3	12	15 (5)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Table 10 above summarises the views of the respondents on what should be done to ensure an efficient and effective deployment of digital media in the teaching and learning of mass communication. Fourteen percent of the respondents (14%) called for training and re-training on the use of digital media while most of the students identified free access to facilities, inculcation of digital media tools into every teaching, network accessibility, and availability of free Wi-Fi facilities, as ways to bring about greater use of digital media in the teaching and learning of mass communication.

On the issue of whether the non-acquisition and the non-utilisation of digital media tools in the teaching and learning of mass communication was responsible for the large number of poorly trained media personnel in Nigeria, a majority of the respondents (69%) were positive that such could be a major source of concern. This shows a relationship between the acquisition and availability of digital media tools in the teaching and learning of mass communication and the quality of graduates produced by our institutions of higher learning. The summary of the views is presented in Table 11 below.

Table 11: Responses as to whether Non-acquisition and Non-utilisation of Digital Media Tools in the Teaching and Learning of Mass Communication was Responsible for the Large Number of poorly Trained Media Personnel in Nigeria

Responses	Lecturers	Students	Total & (%)
Yes	38	176	214 (69)
No	5	81	86 (28)
Indifferent	2	10	12 (3)
Total	**45**	**267**	**312 (100)**

Source: Field Survey 2019

Discussion of Findings

The findings of the study are discussed using the research questions as guide.

Research Question 1: What are the digital media tools available in the teaching and learning of Mass Communication in tertiary institutions in Akwa Ibom State?

Data from Table 2 above show that all the respondents (312) used one form of digital media or the other in the teaching and learning of mass communication. This is an established fact as the use of digital media tools enhances the transmission of knowledge. To support this, the data in Table 3 indicate that most of the respondents used mostly power point production for presentation, while a few of them used digital editing tools, photo-production editing tools, digital visualisation tools, digital film production tools, and digital video production tools, among others in the teaching and learning of mass communication.

Technology has made digital media into several tools essential for mass communication training and the practice. In today"s technologically advanced age, the use of digital media tools for educational purposes are widespread hence their importance to both lecturers and students. However, most of the respondents were not engaged in other digital media tools for data analysis, digital video production, and digital design tools for newspapers/magazines/books production, which are also essential for participatory learning. Therefore, lecturers and students need to gain hands-on experiences to meet the demands of a complex technological media landscape as well as stand at par with their counterparts in other parts of the world.

Davis (1986) Technology Acceptance Model (TAM) explains this further. According to Davis (1986), two major variables, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) of technology will determine the acceptance of technology. Although most of the respondents were conversant with the use of some digital media technology in the teaching and learning process due to their perceived usefulness, some of them were not engaged in other digital media tools for data analysis, digital video production, and digital design tools for newspapers/magazines/books production, perhaps due to their belief that using a particular system may not be free from effort.

Blundel (2004, p.46), notes that, "if the receiver is likely to find a message difficult to absorb, the likely solution involves using more than one communication channel, and on encoding messages in several ways such as texts and graphics. The use of multiple channels and encoding can have the effect of reinforcing a message, which is particularly important when the task involves a degree of persuasive communication." Digital media tools help make education more interesting for both the lecturer and the student; their acquisition and utilisation are advantageous in a practical course such as mass communication.

Research Question 2: How often are digital media tools used in the teaching and learning of Mass Communication in tertiary institutions Akwa Ibom State?

For efficiency of purpose**,** digital media tools are vital in the teaching and learning of mass communication. Respondents (24%) in Table 4 used the digital media tools more often on monthly bases. It has also been observed that 25 respondents (8%) used digital media tools on yearly bases. This is a great disadvantage to learning as the power of retention lies in the sense of sight and holds lasting retention abilities than literature. According to Boyd (2007, p. 411), "the future is digital. By turning sound and pictures into computer codes, they can be squeezed into even smaller signals". This brings to mind the need to integrate the use of digital media tools in the teaching and learning process in order to produce a lasting impact in the minds of both lecturers and students alike.

Digital technology has transformed the educational system – the means and method of studying, the modalities of learning, and the approach, are determining forces to the success of most programmes of institutions making use of it especially in this digital age. Digital media tools offer intrinsic opportunities that should be explored in every learning situation. The speed at which it changes what can be learned and produced and also the ease involved makes it essential in the teaching and learning process. The frequent use of digital media tools especially for training purposes in the field of mass communication will improve the quality of teaching and learning. This brings to mind the need to embed it in every learning opportunity.

Roger s Diffusion of Innovation (DOI) sees individuals as possessing different degrees of willingness to adopt innovations. Accordingly, the portion of the population adopting an innovation is approximately normally distributed over time. This in a way explains the frequency accorded the use of digital media tools in the teaching and learning of mass communication. The rate new ideas and technology spread from earliest to latest adopters is predicated by the how and why such technology is utilised.

Research Question 3: Do lecturers and students of Mass Communication in tertiary institutions in Akwa Ibom State utilise digital media in the teaching and learning process for?

Answers to Research Question 3 can be found in Table 5 where respondents enumerated what they use digital media tools for. These include practical teaching and learning, research, information gathering, audio projection, TV/radio/newspaper and advertising production. The majority of the respondents (31%) said they used the digital media for research/information gathering and communication.

Supporting this position, Wood (2014) identifies creating identity and connecting with others as other uses of digital media. According to the author, digital media bring about the ease of manipulation, convergence and nearly instant speed. Mass Communication is practice oriented. Lecturers and students need to be adequately equipped with the requisite training to utilise digital media tools in the teaching and

learning of Mass Communication to avoid the fear of producing half-baked graduates in the field.

Supporting this, 214 respondents (69%) in Table 11 expressed the possibility of churning out large numbers of poorly-trained media personnel where there are no acquisitions or utilisation of digital media in the teaching and learning of Mass Communication. The reason for this is not far from the absence or inadequate use of digital media in sharing knowledge in the course. No one can dispute that the infusion of digital media technology can improve our educational system.

According to the Technology-Organisation-Environment (TOE) framework which stipulates several contexts for the adoption of a technological innovation, the organisational context describes measures about the organisation such as scope, size, and managerial structure, which influences the utilisation of technology in its domain. The use of digital media in these tertiary institutions is therefore a product of the availability of these technologies in the teaching and learning process. Where availability and utilisation are achieved, learning is made easy.

Research Question 4: What benefits are derivable from the acquisition and use of digital media in the teaching and learning of Mass Communication in tertiary institutions in Akwa Ibom State?

The use of digital media tools is beneficial to the respondents as it boosts their understanding of otherwise complex explanations, provides E-learning experience, knowledge acquisition, speed and accuracy, bridges the gaps between theory and practice and simplifies learning. Other benefits include access to educational materials and information from different sources, increased retention, easy reproduction, media literacy, effective learning, spontaneity and easy comprehension.

In line with Tornatzky & Fleischer (1990) s Technology-Organisation-Environment (TOE) guide, the technological context describes both the internal and external technologies relevant to the firm to include current practices and equipment internal to the firm as well as the set of available technologies external to the firm. The study of mass communication in tertiary institutions is one among many courses of study that requires the utilisation of digital media in its teaching and learning. The essence is to build bridges between students knowledge and the learning objectives of the course. Digital media tools are an all-important aid in every facet of life. In the teaching and learning process, they not only engage students, but aid in their retention of knowledge, motivate interest in the subject matter and also illustrate the relevance of many concepts. They further help the students to get more useful information that make learning impactful.

As practical as mass communication is, digital media tools provide the essential features that propagate learning. They help to sustain interest in the subject as well as boost the process of retention for future recall. Our higher institutions need to be remodelled comparatively with their counterparts in other parts of the world so that the full potentials that lie in the use of digital media tools are fully tapped.

Sparks (2010, p. 245) points out that although traditional educational system thrives on print technology, it has been overtaken by digital media technology. According to the author, "by the time today‟s children arrive in the classroom, they have spent hours processing electronic information in a non-linear, acoustic fashion. When they encounter the print-based educational system of the typical classroom, there is a huge incompatibility."

According to Wood (2014, p. 317), digital media are also prevalent in education at all grade levels and all types of institutions. Students and faculty alike are relying on more and more types of technologies for teaching and learning. Griffin & Bone (2014) maintain that we can retrieve and transmit information quickly and efficiently, and we can connect instantly with individuals who are not physically present. Digital technology helps people do many parts of their work faster than ever before, saves considerable time, helps in writing and rewriting documents and reports, aids in compiling images and graphs, and creating videos and web sites.

Research Question 5: Do lecturers and students have the capacity and the enabling environment to make optimal use of digital technology in the teaching and learning of mass communication in tertiary institutions in Akwa Ibom State?

The data in Table 7 show that 237 respondents (76%) did not have the enabling environment that allows the use of digital media optimally in the teaching and learning of Mass Communication. Only 75 of the respondents (24%) had enjoyed such situations. As small as this may be, there is therefore the need to adequately employ the use of digital media tools in the teaching and learning of mass communication. Imagine a crop of ill-trained media personnel and the devastating consequences that await the society. It is better imagined. Confirming this, the data in Table 8 show that while there were obsolete and inadequate facilities (23%) in the teaching and learning of mass communication, some were non-existent (23%). However, 46 respondents (15%) took to self-development by undertaking private training.

Table 9 lists several factors that make the environment unsuitable for the use of digital media tools in the teaching and learning of mass communication. While some of the respondents (16%) decried the lack of technical know-how, 13% complained of computer illiteracy and lack of basic infrastructures respectively. To others, lack of funds, ill-equipped studios, absence of requisite technology, poor network services, and restrictions for fear of malfunction, absence of training, insecurity, and lack of basic infrastructures, among others, were identified. It is hoped that in an environment

where these challenges are addressed, digital media can effectively be integrated into the school system.

With the above-mentioned challenges which impede a smooth and efficient teaching and learning of mass communication, what then should be done for the seamless use of digital media? Respondents in Table 10 called for the entrenchment of digital media use from primary schools, the institutionalisation of a computerised school platforms, National Universities Commission (NUC) certification, training and re-training, provision and maintenance of essential facilities, organising conferences and seminars, proper management of the facilities, free access to facilities, embedding digitisation into every teaching, network accessibility and availability, and creating a digital-based environment. Still others suggested provision of e-library, standard digital studios and ICT centres, constant power supply, free Wi-Fi and the provision of a well-equipped digitally-structured classrooms.

In line with this, McLuhan (1964 as cited in Sparks, 2010) believes that education would be successful in the electronic age only to the extent that it adapts to the new electronic forms. Sparks (2010), however, feared that this process of adaptation would not be easy because the way of print dies slowly.

Subsequently, the Technology Acceptance Model (TAM), the Technology-Organisation-Environment (TOE) and the Diffusion of Innovation (DOI) theories supports this position as they postulate that the technological context, organisational context, and environmental context of mass communication be adequately considered for a rewarding teaching and learning experience.

Conclusion

It is clear that the media profession can neither be practised without technology nor can it be successfully taught without the use of digital media tools. In this era of digitisation, there is a great revolution in the communication sector that tertiary institutions should key into it in order to produce a crop of practitioners who can compare with their counterparts in other parts of the world. To come to terms with these digital realities, a student of mass communication necessarily needs to have a high level of literacy in the use of digital media tools. This should be promoted at the earliest stage of education to serve as the spring-board for further development.

Although digital media tools should be an integral part of the teaching and learning of mass communication, more skills are demanded from the lecturers if the students must stand up high in this age of information technology. The findings from this study have revealed a great disadvantage in the teaching and learning of mass communication in this part of the clime, which must be given immediate attention in order to improve the quality of graduates trained on a yearly basis. The need for training and re-training is paramount and cannot be overemphasised.

Recommendations

The following are the recommendations from the study:

1. Basic and long term training and are required for mass communicators if they are to acquire the media skills required for improving their performances as teachers and students. This will afford the students with requisite professional experiences and insights into the media industry where the media technologies are applied on a daily basis.

2. Tertiary institutions teaching mass communication should be certified by National Universities Commission (NUC) to be fully digitalised before they can commence training in the course.

3. Periodic training and re-training on the use of digital media tools for effective learning should be implemented in the tertiary institutions for lecturers and students. This would help simplify previously difficult topics.

4. Lecturers and students proficiency should be taken into consideration when using digital media since their proficiency at informal communication does not translate to digital competence.

5. Provision of adequate digital media tools and an enabling environment that encourages its integration in the teaching and learning of mass communication should be accorded attention.

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