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Application Of Modern Communication On Technology

Ojo Titiloye Oyeyinka
Lecturer, Department Of Mass Communication, Tai Solarin University Of Education, Ijagun, Ogun State, Nigeria
Odegbenle Lateef
Lecturer, Department Of Broadcast Media, Nigerian Institute Of Journalism, Ogba, Lagos, Nigeria
Akinreti Qassim Olalere
Head, Foreign Desk, Voice Of Nigeria, And Part-Time Lecturer, Nigerian Institute Of Journalism, Ogba, Lagos. Nigeria
Goke Rauf
Head, Mass Communication, Moshood Abiola Polytecnic, Abeokuta, Ogun State, Nigeria
Tsebee Asor Kenneth
Acting Head Of Department, Mass Communication, Al Hikmah University, Ilorin, Kwara State, Nigeria
Owolabi Razak Olakunle
Senior Editor, News Agency Of Nigeria , Lagos, Nigeria
Nwaolikpe Onyinyechi Nancy
Department Of Mass Communication, Babcock University, Ilisan, Ogun State, Nigeria
Jegede Omolayo
Senior Manager, Babcock University Radio Station And Lecturer, Department Of Mass Communication
Babcock University, Ilisan, Ogun State, Nigeria

Abstract:
The study examines the application of modern communication on technology. It assesses the impacts of new technology and its effectiveness on media operations. The paper explores secondary sources in its data collections and it found that the new media are not independent rather emerged gradually from the metamorphosis of older media and are purposefully invented to enhance or strengthen their outputs .It also discovered that the new technology has facilitated a wider spectrum of media coverage with ease, otherwise turning the whole world to a "global Village" The study concludes that though the older media are gradually getting out of vogue ,they remain the stepping stones and pushbuttons for the new emerging technological innovations. The study, therefore, recommends that media practitioners should strive tirelessly to train themselves on the new media and that government and private investors should invest heavily on modern technology for accessibility and productivity amongst others.

1.Introduction

Technology has gone a long way in affecting human life in a manner which cannot be easily measured. We are living today in terms of great changes, that is, the information age where technology influences our lives far more than we could ever imagine as we are at the crossroad of the new information millennium and age of electronic innovation seems to have sneaked on us unprepared. No wonder that Marshall McLuhan (1964, 11-12) in his popular book entitled "Understanding Media" asserted;

"After three thousand years of explosion, by means of fragmentary and mechanical technologies, the western world is imploding. During the mechanical ages we had extended our bodies in spac. Today, after more than a century of electric technology. We have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned... As electrically contracted, the globe is no more than a village."

Based on the foregoing, Media is one major area in which technology has affected and are passing through technological changes as they adapt to Digital technologies in

all forms of operations . The technological developers today are having a significant effect on every facet – from the news gathering , presentation of the news and as well news organization 's structure.

This paper discusses the influence of technologies on the activities of the media. It also provides an overview of the changes that the digital age has brought to media practitioners everywhere.

2.Methodology

The study utilises secondary sources in its data collections and it carefully sourced from libraries, archives, internet, Newspapers, Magazines and other desk study.

3.Theoretical Framework

The study examines Mediamorphosis Theory as propounded by RogerFidler in 1997. Fidler (1997) describes the metamorphosis as the transformation of communication media usually brought about by the complex interplay of perceived "needs, competitors, political pressures, social and technological innovations ". The theory assumes that the media are complex adaptive systems, therefore, the media like any other systems quickly response to external pressures with an instant process of self -reorganization .The Theorist opines that new media do not arise spontaneously and independently, rather, emerge gradually from the metamorphosis of older media. He argues that the new media are the innovations of the old ones that are purposefully invented to enhance or strengthen to meet a wider audience's needs through modern technology. In other words, the new emerging genres of communication media propagated their dominant tendencies on earlier forms of media inventions.

4.Literature Review

4.1.Globalization Of Communication

The world is on the threshold of a new medium and the industrial revolution. A revolution which promises to be at least as significant as that which has brought most of the growth of the world's economy in the past two centuries. A revolution which promises to have just as far reaching an impact on a wide variety of aspects of life, and a revolution with global reach Of course, media are at the epicenter of the revolution . As the new millennium dawned, media globalization tracked the rise of the sun across the world . At the beginning of the 21st century, millions of people can communicate with each other in real time , across national boundaries and time zones through voice , text, and pictures and increasingly a combination of all these. In a digitally linked globe, the flow of data across borders has grown exponentially boosting international commerce, more and more of which is being conducted through new technologies (Brown, A., 2004).

The new information technology, especially the satellites broadcasting systems and the spectacular explosion in the number of subscribers to the internet and the boom in its applications have tremendously encourage the media to become international and to develop global broadcasting networks.

The concept called globalization has radically propelled media digitalization, the term indicating the manners in which our modern enclave are increasingly connected by these networks and their products that operate on a world scale. It is established that the world is more wired as a global audience with access to electronic media. The fantastic feat of the spread of media distribution and reception system has come to the fore , for instance, by the end of 1980s radio signals were globally sufficient and transistors had overcome infrastructural barriers while "Nationally based television services had been established in all but the smallest poorest of African and Asian countries". Globally, the number of television receivers moved from 192 million in 1996 to 873 million in 1992. Alvarado (1980) established that even China, the third largest producer of television receivers goes beyond RTV reception and have potential global reach. (Alvarado, 1988 and Boyd et al, 1989).

Today, the analysis of international communication has been traditionally concerned with the government –to-government information exchanges in which a few powerful states dictated the communication agenda. (Fischer and Merill, 1976).

4.2.Application Of Modern Communication On Technology

Evolution in media technology always shift control farther from one development to the other over the millennia. The shift is obviously rapid , today , the evolutions are characterized by the recent proliferation of the digital technologies .

Nowadays, there is, however a convergence in digital technology. This convergence is fuelled by accelerating miniaturization of equipment and the ability to compress data into tiny digital bits for storage and transmission. Interestingly all the media companies whether their products traditionally relied on print, electronic or photographic technology are involved in the convergence.

The development in computer technology is , however, enabled all electronics media to utilize some digital elements in their operations. Indeed, the new media have replaced the old media and even compliment them by enhancing their capabilities. (Bagdikian , B. 1990).

4.3.Television

Increasingly, television equipment is adopting digital technology in virtually every area possible. The quality of production of a well engineered digital video system is independent of the storage and transmission medium depends only on the quality of the conversion and compression processes.

Television communication networks are now developed to handle data that carry digital video and audio over indefinite distances without quality loss. Indeed, digital broadcasting television makes use of all these techniques to eliminate the interference, fading and multipath reception problems of analogue broadcasting. (Garrison, 1998). Before the arrival of computer, communication technologies were typically analogue, the merge of digital world of computers with almost all communication technologies created a communication revolution (Dennis, 1998)

In fact, with the invention of the integrated circuit in the 1960 and microprocessor in the 1970s , digital broadcasting seems to have taken a solid footing in global broadcasting (World Radio, T, V handbook, 2002 Edition).

4.4.Image Globalisation

The cross- boarder T. V stations development accelerated image globalisation at the end of 1980s. Some are privately owned general interest channels(Super channel, Star T.V) while others are specialised in newscasting (CNN, Euronews,e.t.c), Leisure (Disney Channel) or music programmes (MTV,MCM e.t.c) These stations transmitted and reach millions of homes around the globe via cable networks or via collective individual reception of satellite signals (Dizzard, 2000)

In a bid to get language impediments of their ways and increase their audience, cross-boarder stations invested increasingly in national language programs (CNN, Star TV) or multiplex sound channels enabling televiews to choose among numerous languages. However, the success of cross- boarder television is due to arrays of factors that are basically technological in nature. These are the boom in satellites, the proliferation of installed bases of dish antennae over extensive regions of the world, progress in miniaturization of TV control rooms, camera and small scale transmission stations which together have done away with distance and time (her have done away with distance and time (York, 2000) .

4.5.Radio

Radio is the most widespread part of the media on every continent. It assumed the cheapest, easiest to access and allow communication flow with audiences where ever they may be. In the last few years, through technology, radio has considerably evolved around the world. In Nigeria, radio is much more popular and have wider coverage than television or the written press.

Radio broadcasting is nowadays immune to technological upheavals. In terms of multiplexing, the miniaturization of receivers, the diversification of power supply frequency modulation and the considerable improvement in quality of reception (UNESCO Courier, Paris, 1997, p. 39) acceptability of digital technology by professional audio broadcasting studios and systems such as digital stereophonic sound system. To cap it up, all digital radio data system (RDS) has improved and transform radio listening.

Moreover, the RDS service developed in 1980s is in use in several countries like Nigeria, this help auxiliary signal to be simulcast in stereo with the main programme identification signals of the transmitter, display of a station in unencrypted form and steadily track the optimum transmitter which can easily hold drivers to stay tuned. The new digital system called Digital Audio Broadcasting (DAB) has overcome the weaknesses of traditional technique by digitizing the audio signals.

The DAB system combines several programmes or services unlike analog radio that has its programme corresponds to a single frequency . The significant advantages of DAB is that its overcome transmission interference problems (Towards Digital Radio By Satellites, 1996, No 17)

Finally, the DAB system is currently tested almost everywhere in the globe. The introduction of this digital technology presupposes heavy financial investment in terms of transmission equipment, the development of new decoders and production of new digital programmer.

4.6.Print Media

Electronic mail has come to be a major communication weapon for print journalists. They are presently studying to take the opportunity of its speed, low cost, convenience, flexibility, power and security despite the hardware and computer literacy requirements and accessibility problems. Aside from this, they also use electronic mail to locate hard- to –find sources and to reschedule interviews.

Moreover, the electronic mail has of course replaced print media fax machines in the process of transferring of information into newsrooms. It is faster, more reliable, personalized and required less use of paper. Technology has in no small measure promoted and made print media news gathering and production more efficient, faster and cost effective. Most Nigerian Newspaper used internet and world wide web in some manner to distribute news forms of information.

Precisely, in 1998, over 4,900 online newspapers had been floated throughout the world and the majority of these were in United States Of America. However, Nigerian newspapers are not exceptionally in this wonderful trend. Their content standard is maturing and original edition content is increasingly developed. These innovations in publications paved way for accuracy as well as speed in reporting information. Online journalism, nowadays, has been appreciated tremendously in terms of interactivity, personalisation, quality and convergence. (Gubark, T. And Varis , T. 1982)

In addition newsrooms are making a relentless effort to use computer and computer training in gathering news encouraging a number of Nigerian daily newspapers who is now using the internet and world web to search for and collect information.(Bansal, 2009).

4.7.Film

Digitalisation has permitted extensive margin of communication technologies. The digital film camera contains charged couples of devices with an indefinite life. It requires little power and does not need to warm up It produces sharper color pictures of movie objects and its depth can be reduced in bright light. The CCD elements are noise devices and can be made sensitive so that economies in studio lighting can be made, Moreover, outdoor working in poor light condition is now possible with a digital camera.

Notwithstanding, digital video is also a process that uses computer technology and language to create, store and transmit video images . It can take an enormous amount of signal bandwidth whether it is on a cable or transmitted over the air. Video compression allows that information to be compressed into a smaller bandwidth. This seems to be an advantage when one is dealing with a limited space and it is much easier to manipulate and modify than the analogue . (Drook, 1997)

Video editing is the re-arranging or modifying segments of video to form another piece of video. Non- linear editing systems are computer based and it covers both video and audio edition (NLAE) system that can perform random access on the source materials. Non- linear editing for film and TV post production is a modern editing method that involves being able to access any frame in a video clip with the same ease.

This method was inherent in the cut and glue world of film editing, particularly in this digital age . Compared to the linear method of tape –to- tape editing, non- linear editing helps editors in working on low resolution copies of the video and also make it possible to edit broadcast quality .(Bansal, 2009)

4.8.Internet

The internet is the fastest growing medium that has ever been recorded in history. The survey shows that from 1995 to 2012 the number of internet users had grown by almost 2000 per cent (NUA internet surveys, 2012). The internet blends different communication devices turning them to hybrid media. It is an information system where pe0ple can search for information through the search mechanism and also a medium where people can create a medium where people can create their own content and distribute it widely using the platform of the world wide web.

The term internet refers to the architecture of the system and the web is the software that enhances the sending of individual E-mails. The internet is, therefore, traces its ancestry to a US Department of Defense project begun in the late 1960s. The credibility of information found on the internet is of varying standards ranging from State – Of – the – art valid and practical information on unreliable materials. Internet created common interest groups which is easier in the history of communication. People with similar interest exchange ideas with similar minded internationally. Moreover, it has extended the public domain by enabling counter cultural groups to express their views and communicate with each other in a public forum. (Fountain, A. 1995)

Finally, the internet is a noticeable contribution to the issue of convergence, that is , the integration of major different media capabilities forming new combinations. The internet has made possible with the advent of digital technology to mix and convert content from video media, computer and other media into new forms. (Janet, 2001).

4.9.World –Wide Web

From a sizzling array of new technologies, the world wide web emanated in the mid 1990s as another powerful new mass medium. It is defined as interconnected computer savers that use universal codes to allow people who are not tech savvy to choose from among thousand interconnected web sites on every computer server in the system.

The genius of the web is that on screen, the pages are linked to others . People browse the web and through it they can switch simultaneously to what interest them without the use of any kinds of on screen indexing and cross referencing of news broadcast. Interestingly, every major mass media outfit has connected to the web. The technology access is inexpensive and straightforward that thousands of people have their own web sites.

Significantly, the web helps people to read a newspaper on-line now. (Foust , 2005)

5.Conclusion/Recommendations

Technology is obviously a significant tool through which the socio- cultural trends are able to change the existing communication relations in society. As a result of these changes in the society and shifting power relations in social communication, media practitioners of the future will no longer be allowed to practice traditionally as used to do. The new technology has had a revolutionary impact on the media practice. It is perhaps not only changing the media's old role of intermediary, it also offered a broad range of new technologies with which to deliver messages. The latest technologies of new media make news gathering and production more efficient, faster and cost effective. They as well enhance producer's creativity and promote new ideas to old ones.

According to Bolter and Grusin (1999) in their study of the characteristic features of digital observations. First, they are of the opinion that the digital media attempt to make transparent the interface through which the users accesses media contents. Secondly, they describe how digital media combine content from other sources and reassembled it in the new digital environment. Therefore, considering their scholarly approach, one can deduce that digital media reproduces other media forms and provides a leeway to access them, it enhances other media by adding multimedia elements and also, it absolves other media contents and blend it in the digital or networked environment

The study, therefore, recommends that Media Practitioners should endeavor to train themselves on the new media technology. With today's information technologies, it is easier for the government to gather, organize and store a huge amount of information, so, government should invest heavily on technologies for effective operations. Also, courses on new media and technologies should be introduced as part of the curriculum of Mass Communication in our tertiary institutions. Moreover, Journalists should be encouraged to develop themselves in terms of websites evaluation and design that gives easy access to information.Finally ,Media practitioners should always take advantage of on-line research and useful web contents. On- line newspapers should be encouraged since most of them have adopted web technology innovations.

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