

TOWARDS A TECHNOLOGY MODEL FOR EFFECTIVE COMMUNICATION IN EDUCATION: THE CAMPUS RADIO CONCEPT

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Abstract. Education as a concept can only be discussed in the context of communication. In theory and in practice, education implies transfer of knowledge which in simple terms is about coded information from one party that ‘knows’ or custodies such information to another party that is the recipient of such information. Technology, seen as materials and as know-how, permeates all aspects of education, from the source (teacher or knowledge pool) to the receiver (student or learner) whether in formal or informal settings. This paper reviews the radio broadcasting system in Nigeria as a tool for mass communication. It presents a technology model for effective communication that can be applied in the specific area of radio broadcasting particularly in the developing country context where other aspects of information and communication technology are fairly rudimentary or grossly inadequate. It makes a case for compulsory ‘Campus’ radio systems which are at present very few in institutions of

higher learning in Nigeria because of the prohibitive cost of purchase, installation, maintenance, as well as paucity of technical personnel.

Keywords: technology model, effective communication, education, campus radio, information

Introduction

Education retains its pride of place as a socializing activity in all societies today. The central issue in education is teaching; the central outcome is learning and change in behaviour. These two can only take place as intended in a framework of communication where communication implies flow of ideas, information or messages from one party - the source which custodies the material - to another party, the receiver which is the target or the beneficiary of the material.

It is not sufficient to initiate information or ideas; it is sufficient and enough when the target audience or receiver understands and makes good use of what is offered. This is reflective communication with a bent towards development communication which justifies the definition of communication by United Nations International Children's Emergency Fund¹⁾ as

[a] two-way process for sharing ideas and knowledge using a range of communication tools and approaches that empower individuals and communities to take actions to improve their lives.

This is quintessential communication in education and no other medium best suits this position particularly in a developing country framework as the radio. If communication is to improve lives, it should be accessible; that means it should be affordable. It should be such that the average person with average

cognitive ability can understand and use materials offered. This is where technology for proper encoding comes in; and the communication should reach the user where needed and in good quality.

Broadcasting is generally seen from two perspectives or models – public and private or commercial where emphasis is on whether the operational modus aims at profit-making or it is a public service exclusively. However, even public radio station operators particularly in developing countries know that sustainability is a critical issue and such borders on funding for maintenance of facilities, qualified personnel, and quality programmes as well as constantly updating the technology of operations where technology refers to equipment and methods. Thus, public broadcasting outfits must at least break-even, which implies operating along business lines. Community radio conceptualization is like a midway between these two and could be for-profit or not-for-profit.

This paper discusses the place of communication with focus on institutions of higher learning in Nigeria and presents a technology model for effective communication which can be regarded as the theoretical framework for the concept and operation of campus radios. It reviews the operation of the radio in Nigeria as a broadcasting medium conceived at inception by government to meet the need for public enlightenment. It considers campus radios as community radios involved in specialized broadcasting to meet the needs of institutions that have them. Radio stations provide information and entertainment, and these are very important in educational institutions. The paper also reviews some of the bottlenecks to the use of radio but submits that the Campus Radio concept needs attention and assistance by donor agencies within and outside Nigeria.

Communication and effective communication

Communication becomes effective when the intended consequence is realized in an information transfer process. It implies that the sender and the receiver are on the same page and that expected action or outcome is realizable. Brown²⁾ defines both communication and effective communication thus:

[C]ommunication is the process of sharing information, thoughts, and feelings between people through speaking, writing, or body language. Effective communication extends the concept to require that transmitted content is received and understood by someone in the way it was intended. The goals of effective communication include creating a common perception; changing behaviours and acquiring information.

Communication is critical for development reason *development communication* is an expanding area of study and application. Anaeto & Anaeto³⁾ note that communication is at the heart of development effort particularly in developing countries. Mefelopulos (2012) asserts that development communication techniques find application in information dissemination; education; behaviour change, social marketing, social mobilization; and media advocacy, and community participation. In our context, the radio is regarded as a veritable instrument cum medium for development communication in education.

Communication is based on, and part of technology. Unfortunately, Africa is still behind in the art, science, and use of technology in daily operations including education. Berman (2008) states that Africa was far behind Asia in use of technology and presented data as in Table 1.

Above emphasizes the need for encouragement of technological development and use in Africa. It is disheartening that many foreign media and information sources while focusing on Africa tend to concentrate on programmes such as traditional dances, music, food, and others as practice without encouraging Africans to work on developing the technology even for those areas of their interest. There is no gainsaying the fact that the formal school system is the best place to encourage development and use of technology. This paper focuses on one aspect – the use radio in teaching and learning.

Table 1. Technological usage in Asia and Africa

	Asia	Africa
Population	3.9 billion (59% of world population)	923 million (14% of world population)
Gross Domestic Product	\$3,197	\$1,079
Fixed Telephones	48% of world total	<2% of world total
Cell Phone Subscribers	1.137 million (29% of its population)	198 million (21% of its population)
Broadband Subscribers	104 million (2.6% of its population)	1 million subscribers (0.1% of its population)

Source: International Telecommunication Union, 2007, in Berman, 2008.

The radio in Nigeria

The history of the radio is generally dated to 1825 and credited to Guglielmo Marconi but as an effective medium of mass communication, the first radio news programme is said to have been broadcast on August 31, 1920 by station 8MK in Detroit, Michigan owned today by CBS Network in the United States of America using the all-news format station. Despite her status as ‘new-foundland,’ Nigeria joined the train as early as 1933 through the instrumentality of the country’s colonial authority, the British. The government of Britain set up the Radio Distribution Service (RDS) in 1933 at Lagos, Nigeria to facilitate access of the people (Nigerians, business people, and officers of the Empire) to the foreign radio broadcasts of the British Broadcasting Corporation (BBC) using loud speakers at selected locations. The name was changed to Radio Diffusion Science (RDS) in 1935. By 1950, it was again changed to Nigeria Broadcasting Service (NBS) with stations at Lagos, Kaduna, Ibadan, and Kano. The

designation changed again to Nigeria Broadcasting Corporation in 1957 following further reorganization. New stations were established at Port Harcourt and Calabar, both in South-South Nigeria.

Radio broadcasting for education sector commenced in 1962 following assistance from the Ford Foundation of the United States of America (USA) along with the BBC. A National School Broadcasting Service was established, with lessons being broadcast to primary, secondary schools, and teacher training colleges. The unit was based at Ibadan in the Western Region.

The NBC and Broadcasting Corporation of Northern Nigeria were merged in 1978 to form the Federal Radio Corporation of Nigeria (FRCN) which at present oversees 37 FM/AM/SW stations throughout the country operating through Zonal offices as Radio Nigeria. The external service tagged Voice of Nigeria (VON) took off in 1961 broadcasting to West Africa. It is said to reach about 100 million people using 15 languages through its four national stations at Enugu, Ibadan, Kaduna (former administrative headquarters of the three old Regions in Nigeria) and Abuja.

Community radio broadcasting in Nigeria appears to have a recent history. Up until 2015, radio had been a popular “mass” broadcasting medium with the aim of both public and private operators being to reach large audiences. The opening of a “community” radio station at Kutugi, Niger State on 29th September 2015 by the World Bank is regarded as marking the coming of the quintessential community radio concept in Nigeria. It aimed at public enlightenment with respect to ‘Fadama’ agricultural practice. Several stations with the aim of presenting programmes with large local content relevant to specific locations have since sprung up. Campus radios fall into this model of radio broadcasting.

The radio versus other mass media in Nigeria

Probably because it was the first medium of mass communication, the radio retains the number one position in Nigeria with respect to mass communication. The British colonial administration used it early, as far back as 1933. The

radio continues to reach most of the people of Nigeria irrespective of demographics. Umaru Pate⁴⁾ notes:

[I]n Nigeria, the radio still maintains the position of the leading source of information as well as a key element of influence in the society. This is due in part to culture, economics, and structural as well as systemic factors. Many of the cultures in the land are oral-oriented; in many of Nigeria's communities, people talk and listen far more than they read or write. Secondly, the prevailing economic status of the majority of citizens coupled with an unattractive reading culture limits the reach and influence of the print medium in the land; fairly obvious reasons of reach and cost, a 2012 Gallup survey showed that computers are generally out of reach and thus internet access.

A National Bureau of Statistics survey in 2011 as quoted by Umaru Pate⁴⁾ on access to information communication technology revealed the following: (i) 80% of Nigerians had no access to computer or internet; (ii) 44.7% had access to television

Also, a Gallup survey in 2012 as indicated by Umaru Pate⁴⁾ showed that 92.6% of those interviewed had radio sets at home; 93.6% listened to FM stations while 28.7% and 45.3% listened to SW and AM respectively. By then, national internet access was 3.6% of the population.

Television is a popular form of broadcasting in Nigeria and is improving although its growth is limited by the fact that it is expensive to buy and to repair or maintain and its use depends entirely on availability of electricity which is a serious problem in developing countries particularly Nigeria. To boost its use, the National Broadcasting Commission is expanding its technology. Ibrahim Kawu,⁵⁾ Director General of Nigeria's National Broadcasting Commission, indicates that the agency is developing the Digital Switch Over (DSO) process which he notes, is potentially a major driving force for national development of the country. The DSO involves change over from analogue to digital television.

The nation looks forward to the completion and operationalization of the system although it may be long in coming, given the enormous financial requirements both for government and citizens and the fact that even the United States started on the path just in 2008. The International Telecommunications Union had given a deadline of June 17th, 2015 to all nations to go digital.

Although there has been a phenomenal increase in internet access in Nigeria such that Nigeria ranks first in Africa and 8th in the world as stated by Vanguard⁶⁾ this statistic refers to the educated corps rather than the generality. Even among the educated, the high cost of access remains a limiting factor. A student that must browse for assignment for just one day has to spend N500 (about \$1.39) for internet access. Such an amount can provide food for an entire day for an average student in an economy struggling to recover from recession. Getting some lectures from radio station free of charge would be welcome any day.

Mobile phones are fairly a common tool in the hands of Nigerians. The National Bureau of Statistics⁷⁾ which is the agency of the Federal Government of Nigeria that gathers, analyzes, disseminates, and stores data, reported that in 2014 there were 179, 973, 274 mobile phones (Global System for Mobile or GSM) in the hands of Nigerians. On the Code Division Multiple Access (CDMA) platform, 3,812, 184 Nigerians had access. Although the ratio of ownership cannot be read from above vis-à-vis population, the National Population Commission, the Federal agency that oversees population and demography, indicated that Nigeria's population by 2016 was 183, 234, 791 apparently a result of projections using the 2006 National Census as the base. The next census is scheduled for 2018. Kawu⁵⁾ quoting the same source states that Nigeria's population as at 2017 was 198 million with 55% of that being the youth group. He observes that as at 2017, there were 700 radio and television stations in Nigeria, but the country remains poorly covered by the broadcast media.

Radio in education

Radio is very effective as an educational medium because it can span great distances and therefore has a wide coverage; is relatively low cost and thus available to more students some of whom may be poor; and most do not require use of electricity and are thus of considerable importance in developing countries where electricity supply is often severely limited. Duby (1990) submits that “No other medium has the educational power of stimulating and developing abstract thinking of its audience and enriching and activating the listeners’ imagination ... It is non-visual, functions in real time, and its codes are auditory.” This last point implies that it is only the radio that is completely accessible even to persons with sight disability. Although they can hear a television broadcast but hearing alone would not make it complete; they may even feel worse, knowing that they are missing something due to no fault of theirs.

Radio as a medium for teaching can be traced to 1921 when the Latter Day Saints’ University in Salt Lake City, United States of America was granted an educational broadcast licence by the Federal Government. India, which is a developing country, had an early beginning in educational broadcasting when it commenced the service by 1928 as noted by Das.⁸⁾ Ullah & Khan (2017) note that frequency modulated (FM) radio has been widely used in Pakistan in formal and informal education following their study in the Peshawar District of Khyber Pakhtunhwa Province. Educational broadcasting has grown very fast in Asia and Africa. Berman (2008) opines that developed countries can learn from developing countries on use of radio in education or distance learning. He however states that compared with Asia, Africa is still at the “rudimentary stage of development in their educational practices, policies, and uses of educational technologies.”

Despite the position above, Gunner et al. (2011) state that radio is regarded as “Africa’s medium with the ability to transcend barriers to access, facilitate political debate, and shape identities.” Thus, Da Costa (2012) indicates

that of 11 countries of Africa surveyed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 2011, local commercial radio grew by an average of 360% between 2000 and 2006 and community radio by 1,386% during the same period. Educational institution-based radio stations are regarded as community radios.

There are unique and advantageous roles of radio in education. Das⁸⁾ observes that “radio speaks to an individual, so also to millions at a time ... hence the individual can think the broadcast is meant for him ... the student takes the broadcast as very intimate to him.” This enhances learning and absorption of materials. Das⁸⁾ also indicates other advantages of radio in education to include that they are cheap to buy and to maintain and are portable so that they can be moved from place to place by learners. These cannot be said of television sets which are expensive to purchase, costly to maintain and run (require electricity), and most cannot be moved around.

Studies by Tripp & Roby (1996) in the United Kingdom as cited by Vyas et al. (2002) show that radio has a greater value for weak students as a supplementary learning tool than other tools. Reports for the Agency for International Development by Tripp & Roby as cited by Vyas et al. (2002) indicate that radio is more cost-effective and results in a greater learning effect size than textbooks or teacher education. Where there is no teacher or qualified person, radio can suffice. Vyas et al. (2002) however list the limitations of radio to include: (i) interaction is limited; (ii) instruction is uninterruptible and not reviewable (which means learners cannot stop a lecture to ask questions or request for clarification); (iii) pace of instruction is fixed for all students (implies that radio is not sensitive to the plight of slow learners despite an earlier position that radio is good for weak students); (iv) time for reflection on content is minimal; (v) note-taking is difficult (implies that after-lesson self-study is limited). (vi) feedback and clarification are generally unavailable (this is the subject of and rationale for the next section of this paper).

Technology model for communication

There are dozens of models of communication, from the seminal and path-breaking model by C.E. Shannon in 1948, to the Shannon-Weaver model and the Bertalanffy SMCR model among others. The essential features include a source of communication, the message, the channel, and the receiver. Within these are the activities or processes which make the communication intelligible or otherwise, including the encoding, the influence of noise, and the role of technology by way of the know-how and materials cum equipment.

Of crucial significance is the feedback from the receiver to the sender. The loop is essentially technology-based. It is critical in education because it is the immediate means of ascertaining long before summation assessment, that information passed has achieved the goal intended. In teaching practice exercises reactions from the taught are given high scores in assessment of student-teachers. A technology-dominated model of communication suitable for a school setting with the radio in mind as the channel is in Fig. 1.

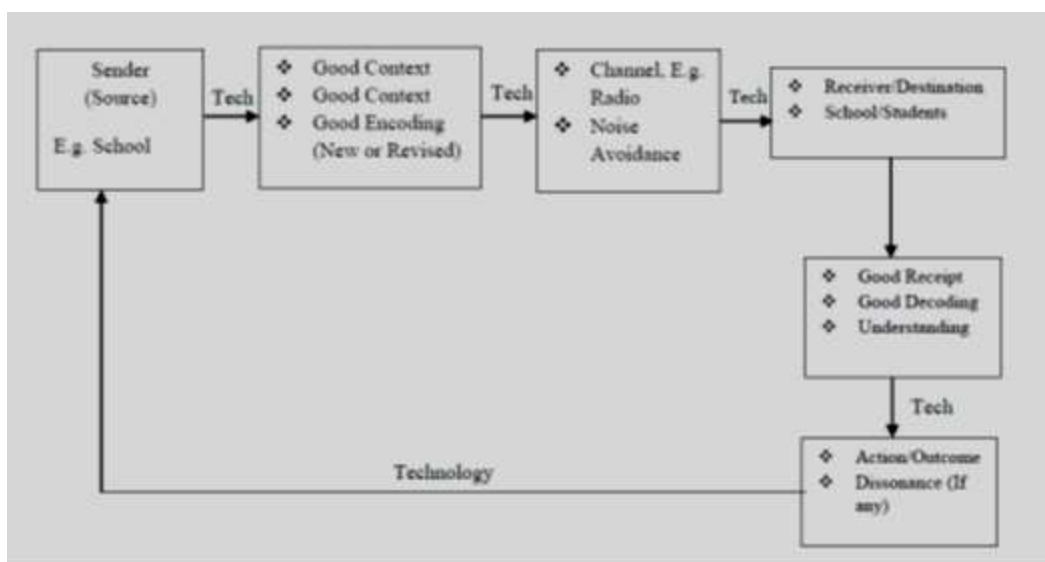


Figure 1. Technology model for effective communication

This model is a modification of the Shanon-Weaver model of communication. The highlights are as follows: (i) *Sender* – this is the source of information. It could be a teacher or an institution that makes use of radio for teaching purposes; (ii) *Encoding* – the information such as lecture material is properly encoded to take care of the syllabus, the contexts, the cognitive level of the target audience, and the technology available at the level of encoding, the channel, and the receiver. For instance, a script for the screen would not be appropriate for a radio facility and for students who have no access to functional television including source of power. Radio sets use battery and for all students at the tertiary level, their mobile telephones have FM reception capability; (iii) *The Channel* – the channel is the radio in our context. Institutions of higher learning are expected to own radio broadcasting facilities on-campus. In Nigeria, many of them have been assisted by Tertiary Education Trust Fund (TETFund) to establish radio broadcasting facilities. This Federal agency obtains 2% of profit before tax of incorporated companies, pool such monies, and share to publicly owned institutions of higher learning throughout the country; (iv) *Receiver* – the student is the destination of information flow. The institution would also include the libraries and the teachers. The technology used include radio sets or mobile phones. Proper encoding, good channel, good instruments for receipt and prior knowledge of codes should ensure that the destination understands, interprets, and makes use of the information sent. It is expected that the students make use of what they have received for writing examinations and carrying out assignments. Where the information received is not as expected (incomplete, warped, incorrect) dissonance is expected and student or students should be in the position to ask questions or seek for more information. In radio stations in Nigeria, phone-in programmes take care of this aspect. The technology needed is the mobile phone for students while the station has a special desk set to take in multiple calls; (v) *The Source* – the source is expected to provide more, or revise information already sent and the cycle is repeated till the student is satisfied and planned objective is achieved.

The model is different from the Shanon-Weaver model in the aspect of the loop for feedback. In education, asking questions during lecture and responses by the teacher are key aspects of the communication process. In assessing student teachers in Faculties of Education in universities and Colleges of Education, class reaction carries a sizeable score in the teaching practicum.

The model above takes care of the limitations of radio in education as indicated by Vyas et al. (2002). The feedback loop requires that campus broadcast stations have the specialized telecommunications system that can enable interaction between students and teachers of which the teachers should be in the studio to take questions. Lesson notes can be prepared in form of modules and given to students. In Nigeria, the prime distance learning agencies (particularly those owned by the government such as National Open University of Nigeria (NOUN), National Teachers Institute (NTI) always make provision for periodic one-on-one interaction with teachers to strengthen the written modules and radio broadcasts.

Recommendation

The advocacy here is for support of international donors for the sourcing, distribution, installation, and operationalization of radio broadcast facilities (Campus Radio) in institutions of higher learning across Nigeria to go along with some spare parts and electricity generators as components. It is known that owning and running radio stations is over a century old; the first college radio station began broadcasting on October 14, 1920 from Union College, Schenectady, New York operated by Wendell King, an African-American student at the school. It is also advocated that the preferred type is the frequency modulation which is very popular in Nigeria particularly for targeted audiences such as rural communities as it is the case in Senegal as stated by Dia (2002). In Nigeria, campus radios are regarded by the regulatory agency as community radios. Given the funding pattern of the institutions, acquisition of such facilities with

internally generated revenue is a mirage. There is so much to spend money on, yet so little trickles into the institutions.

As to whether students have the technology to benefit from such facilities, the answer is an emphatic yes, although there are no statistics to back up this claim. This is because it is highly unlikely that any student in an institution of higher learning has no mobile phone and most mobile phones have factory installed FM application.

The number of students at the three tiers of tertiary education in Nigeria continues to be a subject of ‘guesstimate’ for several reasons. In the first instance, no institution of higher learning in Nigeria can accurately indicate at any point in time how many students it has, full time, part time, line programmes (degrees, diplomas, certificates), professional courses, and ad hoc programmes. If this is true, it is simply impossible to determine the total number of students in institutions of higher learning in Nigeria. The number ranges from as low as 1000 for new institutions to as high as 60,000 for some ‘first generation’ universities, Colleges of Education, and Polytechnics.

Since this paper is about institutions of higher learning in Nigeria, it is necessary to state their number which should indicate the requirement of radio stations. As at last count (using information from the Joint Admission and Matriculation Board, the agency that is solely authorized to conduct admission examinations into all institutions of higher learning in Nigeria which also means the institutions listed by the agency from time to time are the accredited institutions in the country), there are 293 tertiary educational institutions in Nigeria as at August 2017 distributed as in Table 2.

The total changes frequently as the supervising agencies conclude approval of new institutions. At one radio station per institution, there should be 293 radio stations in institutions of higher learning across Nigeria. As shown in Appendix 1, only 44 institutions are listed as at now as those that have radio stations. This implies that 249 institutions of higher learning in Nigeria do not have radio broadcasting facilities, yet, all of them need at least one each.

Table 2. Number of Tertiary Educational Institutions in Nigeria as at August 2017

Ownership	Universities	Polytechnics	Colleges of education
public	43	85	48
private	53	37	27
	96	122	75

Source: Desk Research

Challenges

There are three possible challenges to the drive for campus radio stations across Nigeria. The first is the high cost of acquisition of a full complement of machines, equipment, and tools for effective service delivery. The cost of installation can also be daunting. This is the reason most of the campus radios in existence were funded by the Tertiary Education Trust Fund (TETFund).

The second challenge, even for those that have been lucky enough to set up the stations is the National Broadcasting Commission (NBC) which is the agency of the Federal Government that regulates radio broadcasting in the country. This agency appears to limit campus radio operations supervised as community radios because of the requirements for license. The requirements appear to be so onerous that schools would rather function without radio stations. Those that attempt to broadcast even as trial runs face prosecution and imprisonment in line with the Act establishing the agency. This challenge is however surmountable with due diligence and patience.

The third bottleneck has to do with availability of spare parts for the imported systems. Everything about radio broadcasting in Nigeria is imported. However, the importers do stock spare parts although at high costs. Akashoro et al. (2013) have studied operations of radio stations in Nigeria; they submit that “operational sustenance” is a major challenge, and it is influenced by ownership and advertising patronage. Advertisement ties in with licensing, for, despite the

level of equipage, a station is not allowed to seek advertisements if it has not been licensed. Campus radios are generally owned by institutions of higher learning in Nigeria. There is the conflict in vision versus operational reality: they should be not-for-profit, yet the institutions can hardly afford the cost of maintenance of equipment and certainly, they can hardly afford the cost of purchase of new equipment to catch up with developments in the sub-sector.

Technical manpower both for running and maintenance is also a problem. This is often managed by way of training and retraining. Where students are used for broadcasting (particularly in institutions that have departments of Mass Communications or Communication Studies), constant training becomes a desideratum because of the high turnover of trained or talented student broadcasters.

Aside from funding, the most serious problem any campus radio station faces is that of electricity. It is in fact the most serious development constraint in developing countries including Nigeria. Micro, small, and medium enterprises find that a large chunk of their operational expenses goes for sourcing electricity. The common feeling in Nigeria where bulk electricity generation and distribution are entrusted almost entirely to public companies is that the inability to supply enough quantity is because importers of generators – very powerful people – work against any government effort at providing stable power to citizens. Any city that enjoys up to twelve hours of electricity a day is regarded as an exception if not an aberration.

It is thus very important that any assistance to institutions with respect to purchase of broadcasting equipment must supply a standard generator to enable the station to operate optimally. One is not aware of any radio station in Nigeria that broadcasts for twenty-four hours a day. The commonplace language in most radio stations is, ‘We apologize for the break in transmission which was caused by a cut in public power supply.’ There is also the need for desk top telephone unit or console to facilitate phone-in activities.

Above constraints do not however negate the crucial need for the campus radio as a tool for communication in the teaching and learning process. Where they are available, information flow beyond academics is possible, as in the administration of the institutions giving out information on plans and debunking rumours. Radio facilities are also very important for students in communication arts and even where such specialization is not being offered, availability of a radio station could motivate establishment of such Department. And campus radio is a veritable source of entertainment wherever they are located.

Conclusion

Communication and education are interwoven. Use of technology by way of trained manpower and equipment undoubtedly, would enhance academic and related activities particularly in institutions of higher learning. It is hoped that donor agencies would lend a hand by financing the purchase, transportation, installation, running and maintenance of campus radios in institutions of higher learning in Nigeria.

APPENDIX

SOME CAMPUS RADIO FACILITIES IN NIGERIA

1. 103.7 - Radio UST FM (University of Science and Technology)
2. 88.5 - Uniport Unique FM (University of Port Harcourt)
3. 96.1 - ICEFMUJ (University of Jos)
4. 98.9 - Rock FM (Plateau Polytechnic)
5. 101.1 - Diamond FM, University of Ibadan, Ibadan
6. 89.1 - Lead City University Campus Radio FM, Ibadan - Lagos Toll Gate, Ibadan
7. 94.5 - Great FM, Obafemi Awolowo University, OAU Ile-Ife)
8. 107.3 - Varsity Radio (Adekunle Ajasin University, Akungba-Akoko)
9. 92.1 - OOU FM (Olabisi Onabanjo University, Ago-Iwoye)
10. 95.9 - Hebron FM (Covenant University Radio Station, Ota)
11. 89.1 - Hope FM (Babcock University Radio station, Ilisan-Remo)
12. 89.1 - Click FM (Ibrahim Babangida University, Lapai) Radio
13. 92.3 - Search FM, Minna (Federal University of Technology, Minna)

14. 101.1 - Nasarawa State University Mass Communication Department FM
15. 105.9 - NOUN FM (National Open University of Nigeria) Victoria Island
16. 103.1 - Unilag FM (University of Lagos)
17. 95.7 - LASU Radio (Lagos State University, Ojo, Lagos)
18. 89.3 - UNILORIN FM
19. 98.5 - KASU FM (Kaduna State University Radio)
20. 102.5 - Teachers Radio (Nigeria Institute of Teachers NTI)
21. 98.9 - B.U.K FM (Bayero University, Kano)
22. 98.5 - KASU FM (Kaduna State University Radio)
23. 103.2 - Federal Polynek, Owerri FM
24. 90.90 - IMSU STAR FM
25. 98.7 - Caritas University FM Radio
26. 106.9 - Gouni FM (Godfrey Okoye University) Radio, Enugu
27. 106.5 - Stallion FM (Federal College of Education, Ehu-Amufu)
28. 96.7 - Voice FM, Nsukka (FRCN)
29. 106.5 - ESUT RADIO, Enugu
30. 107.2 - IMT RADIO, Enugu
31. 90.5 - Okada Wonderland FM (Igbinedion University Radio), Okada
32. 100.1 - UNIBEN FM (University of Benin Radio), Benin city
33. 94.1 - Hillside FM (Auchi Polytechnic Radio), Auchi
34. 103.7 - Delta State University (DELSU FM), Abraka
35. 89.9 - Benue State University, BSU FM, Makurdi
36. 107.1 - Tansian Radio (Tansian University) FM, Umunya
37. 91.5 - Blaze FM, Oraifite
38. 93.3 - Madonna Radio (Madonna University) FM, Okija
39. 94.1 - Unizik (Nnamdi Azikiwe University) FM, Awka
40. 100.7 - UNIUYO FM (University of Uyo)
41. 104.9 - Heritage FM (Heritage Polytechnic, Eket)
42. 101.9 - ABSU FM, Abia State University, Uturu
43. 101 - Flame FM (Federal College of Education (Technical), Omoku)
44. 101 - Kenpoly FM (Ken SaroWiwa Polytechnic, Bori)

NOTES

1. <https://www.unicef.org/cbsc/>
2. <https://www.livestrong.com/article/69309-effective-communication/>

3. <https://uniprojectmaterials.com/mass-communication/radio-as-a-tool-for-rural-development-a-case-study-of-bokkos-local-government-area-of-plateau-state/project-topics-materials-for-final-year-students>
4. <https://www.ndr.org.ng/broadcasting-politics-and-strategic-interest-amidst-security-concerns-in-nigeria-by-prof-umar-u-a-pate/>
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