INTEGRATING INFORMATION AND COMMUNICATION TECHNOLOGY IN THE PLANNING AND ADMINISTRATION OF TERTIARY EDUCATION IN NIGERIA

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Abstract

This paper examines the potentials of Information and Communication Technologies (ICTs) in the planning and administration of tertiary education in Nigeria. It reviews the trend of ICTs and Nigerian tertiary educational system by highlighting the complex managerial problems being faced in educational institutions due to paucity of information as well as poor capacity for information management. The value and the relevance of ICTs to educational development are discussed and emphasis was placed on the fact that for Nigerian educational institutions to be relevant in the rapidly-evolving world of technology, remaining up-to-date with basic information-communication system is mandatory. The article concludes by suggesting that the curricular of Nigerian tertiary educational system need radical overhaul to make it Information Communication Technologies-focused and friendly to be able to fare favourably well with those of developed nations.

Keywords: Development; Education; Information; Technologies, Communication.

Introduction

Information and the technologies for its management have become critical factor of production, decision making, growth and development in all facets of life. Information technology has far-reaching implications in the realization of social functions of education. These functions deal with the transmission of culture, skills and preparation for working life, the care taking of youths and the promotion of peer-group relations. The

impact of technology worldwide has led to the globalization of information and communication education. The effect of technology can be experienced at all levels and forms of education. It makes demand on school curricula from pre-primary to tertiary level. Consequently, there is the need to provide information and communication technology environments in Nigerian educational system so that teachers can improve their instructional delivery processes.

The first recorded formal attempt to plan Nigeria's education was by the British colonial Government in 1925. The so- called educational plan came out in the form of memorandum, specifying the principles upon which the educational system should be based in Nigeria and also in all the other British Colonial territories. The implementation of this plan proved to be unsuccessful and the plan subsequently failed to achieve its set goals. The Nigerian administrators were uncommitted to the plan because in their own view, the stakeholders, whom the plan was set out to benefit were not involved in the process. It also failed because of inadequate physical facilities due to underestimation of eligible students, arising from poor data collection and poor analysis of data which would have been avoided by use of Information and Communication Technologies (Longe and Akindemowo, 2008).

A reliable information on the educational system and the environment according to Bello (2008), provides a better tool to design a successful policy for the system. Information plays a vital role in educational planning and this relates to the view of Nwankwo (1985) that it is an integral part of the main plan and achievement of educational activities. It is further identified that the paucity of information is responsible for the most of the educational complications. The fact still remains that information is clearly a vital asset to any educational system and the basic principle is that, it must be totally exploited, stored, managed, maintained, processed and retrieved for use in support of the desired stated goals and objectives. Bello (2008) affirms that no

meaningful decision or planning can be made without appropriate and timely information.

Advances in Information and Communication Technologies (ICTs)

In a technical sense, Information and Communication Technologies is the convergence of computer systems with telecommunication network to acquire, process, store, retrieve and transmit data and information. However, in a broader context, it encompasses information storage tools such as Compact Disc Read only Memory (CD-Rom), magnetic tapes, computer files, databases and networks, and internet-based tools and technologies. Such systems and tools evolved and developed because of the need to appropriately manage information being generated at explosive rate.

The tools and infrastructure vital to the effective management of information as indicated above fall within the domain of information technology. The birth and growth of digital data networks for voice and data, integrated digital services for voice, data and picture and Information Communication Technology (ICT) have been phenomenal. It has transformed the economic, social, cultural, and educational facets of man's experience at individual, institutional, national and international levels.

Research evidences however confirm that educational institutions in Nigeria and Africa in general lag behind in exploiting internet potentials for educational development. Omewu (2004) reports that despite increase in internet usage over the past twelve months, the ratio of usage was 1;5,000 people. Of this figure, South Africa stands topmost with as many as 600,000 users. According to him, the number of internet users at the end of 1999 was 0.001 million out of Nigeria's population of about 140 million people. But internet readiness of Nigeria's educational institutions is even more distressing.

Given the almost limitless potential of the internet for research and learning, it is surprising how the Nigerian educational institutions carry on these processes without access to internet based resources. Advances in information technology have great potentials for teaching, learning and research. They offer opportunities to achieve social and system functions of education, which according to Omekwu (2004) are:

Information Technology and Teaching:- Information technology has made the work of the teacher a lot easier, faster and less stressful. Through computer- based tele-conferencing, a single teacher can teach over a thousand students in various lecture theatres simultaneously. Teachers can also visit specialist websites on the world wide web (WWW). Yumba (1996) has indicated that the www is the latest search tool on the internet and has become the most popular way of locating and retrieving information. Website information will keep the busy lecturer current, confident and in control of his classroom and content of lecture.

Information Technology and Learning:- The dynamism of information technology has created a complete new world of learning. Concepts such as web-school, web-teachers, online learning modules and courses provide limitless opportunities for skill acquisition and development. Dada (2000) captures this scenario more appropriately by asserting that computer- assisted learning shall become the vogue while instructions in basic techniques of face- to- face interaction would diminish. Lectures may be conducted on-line than in lecture rooms. The emphasis would be getting students started at their own pace, on computer assisted learning programmes.

Information Technology and Research:- Dada (2000) also argues that information technology would fundamentally affect research, conferences and publishing. He says:

> *The emergence of cyberspace and electronic publishing already*
> *shows how information can beget information and how one site*
> *can lead to many others. Since research runs on the wheel*

of information, information technology provides the researcher
with information without the restriction of time, space or
format. Large information is obtained from single CD-ROM.
A researcher can visit libraries from his desktop, conduct
literature searches relevant to his work. He can download;
print or order online needed materials. Moreover, with
search engines like Google, Mama, Alta Vista, Lycos and Yahoo,
researchers can obtain information on almost all subjects from
all over the world. Pp22.

Relevance of ICTs to Educational Planners and Administrators

Olowe (1991), emphasized that reliable sources of information would yield relevant performance, hence coordination is achieved much easily when accurate information is received and used by planners and administrators. To buttress this assertion, it was contended that management is the process of coordinating individual and group activities through planning, organizing, staffing and controlling of its human material; financial and information resources towards the achievement of predetermined objectives of educational planning. All these may not be possible without effective information management (Akanni, 1987). Another research finding asserted that information management is important to the life and health of educational planners as the flow of blood is to the life of an individual. It was also acclaimed that processing of information contributes significantly to the success of an organization and thus modern administrators should be knowledgeable about information techniques and concepts (Bello, 2008).

The importance and the assertion on the vital role of information to all organizations are inexhaustible. There is growing credence in the world today that information is now on the lead and whoever has information is always better. The intensity of the search for information

on educational planning will depend on the level of uncertainty that is prevalent. And whenever the uncertainty is high, the search for information is likely to be intensive and continue until the uncertainty is reduced to a tolerable level. Furthermore, it is noteworthy that information is as important as any other management resource or input, and more importantly, is the ability to utilize the acquired information for effective and accurate planning of education for the attainment of educational set goals. Hence, information has gradually attained an eminent positions in organizations to be considered alongside other factors such as financial, material, and human resources and facilities. According to UNESCO (1979), information gives the possessor power and influence over and above the authority, he may be legally vested with. In any organization, power, that is, the ability to get things done, flows into the hands of those who have the most as well as the most up to date information. People are more likely to be guided by those who know more and better. Thus, the first principle in achieving managerial effectiveness is to have access to the most valuable and up- to- date information. Hence, it is believed that most of the problems of educational organizations in Nigeria may be traced back to the problems of poor management of information on education. Such problems can only be eliminated in our educational organizations through accurate and timely availability and use of information needed for planning to respond to situations such as adequacy of educational statistics.

Opeke (1982), reiterated this belief that, human and material resources become better conserved when planners have access to quality, timely and relevant information which are important results of information management. Thus, information management attempts to utilize the information resources of organizational members to full potential. Such an administrative stance is likely to improve the planners' access to both quantitative and qualitative information as well as to improve the planners' ability to interact effectively with its

environment- a situation that will assure that optimum decisions are made based on clear insights.

Nothing moves when there is no information flow. Information is the current that keeps the organization rolling to progress. The manager, as a monitor, perpetually scans his environment for information, interrogates his liaison contacts and his subordinates and receives unsolicited information, much of which as a result of the network of personal contact he has developed. Moreover, by virtue of sort of information for his organization, as a disseminator, he must share and distribute much of this information.

ICTs and the Future of Nigerian Tertiary Educational System

The impact of information and communication technologies on educational development cannot be over emphasized. There is pressing need for effective computer based data collection and data analyses for educational planning and administration in Nigeria. Teaching and learning process need to be technologically updated. In developed countries, digital technology in the form of e- learning systems and other innovations, have greatly complemented the conventional methods of teaching in classrooms and lecture theatres that still prevail in Nigeria. The fields of internet, e- learning, e-commerce are now well established in developed countries and long overdue for serious political, financial, and professional support in Nigeria (Akindemowo, 2000).

The influence of digital technology has spread well beyond previous barriers in the world, and in Nigeria, changes are gradually occurring in the educational system. The National Universities Commission has taken an impressive step in the setting up of a virtual library which promises unlimited access to current educational resources for teaching and research. Internet access has also provided a source of relief to those Nigerian students that are able to utilize it, providing access to data such as examination results from the Joint Admission and Matriculation

Board, National Education Certificate Examinations and other educational services.

Information management studies in tertiary institutions is an area in which further research should be carried out. This is because the activities of, and information generated by administrators in tertiary institutions form part of the raw data that top level administrators, planners and policy makers in educational system need for decision making. Besides, the administrators in the institutions are also custodians for the efficient and effective administration in the institutions so that the educational goals set are achieved. Knowledge of information acquisition and management by administrators in educational institutions is therefore vital, not only to improve the generation and timely supply of the desired information, but also as a step forward to afford more efficiency and effectiveness on decision-making and administration.

Developing countries need to rebuild their educational systems on the foundation of information technology. The rebuilding process must begin now if they are to remain relevant to the international education system. This is because education system in developed nations is being operated on the wheel of strong information technology support systems.

Secondly, Nigerian educators need to acquire two other forms of literacy, via Computer Literacy which is the basic computer skill necessary to operate and survive in the current information technology revolution. Educators without computer literacy will become increasingly obsolete both personally and professionally. Personally, the educator needs computer skills because every aspect of life: shopping, banking, and so on is becoming computer- driven.

Thirdly, the future of Nigerian higher educational institutions must brace up to the challenges information technology poses to educational administration. Admission test, records, students profiles should be accessed and verified on-line. School fees and staff salaries could also be

processed on-line. Information technology seems to be the answer to the exploding admission rate, crowded classroom, limited books and research materials and teaching staff. Thus, education system in developing nations is symbiotically related to information technology and is faulty without a priority of provision accorded to information technology application.

Conclusion

Planning generally, depends on information, but in most developing countries such as Nigeria, educational planning is severely hampered by lack of adequate information. This always informed the use of inaccurate and inadequate statistics in educational planning. This implies that reliable information on the educational system and the environment will provide a better tool to design a successful policy. The complexities of our schools and also the efforts of educational planners to meet the educational challenges in the new millennium call for the use of a reliable and adequate management information system to facilitate effective educational planning. The use of management information system in educational planning will not only facilitate smooth and timely decision making which will improve our educational standard, it will also help in identifying and accomplishing goals and purposes of education.

It has therefore become imperative for educational planners and administrators to use information technology in their everyday job in tertiary institutions.

Recommendations

In view of the challenges posed by information technology to educational developments in tertiary institutions in Nigeria, a number of issues must be addressed, such as:

- every educator must engage in constant self- development in information technology; educators of the future need this skills to appropriately guide their students.
- National University Commission should provide personal computer for each teaching, research and senior administrative staff of the Nigerian University system. In the alternative, each of such staff should acquire a personal computer in order to develop and sustain appropriate information and communicative skills.
- the curricula of our tertiary educational system need radical overhaul to make it ICT focused and friendly. This is essential if they will produce ICTs skill graduates.
- it is amazing how libraries of higher institutions hope to support teaching, learning and research without adequate internet access and connectivity; such libraries should be fully automated in order to be part of cyberspace libraries.

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