Redefining Tertiary Education in Nigeria towards Knowledge Society with Emerging Technologies

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ABSTRACT

This paper discusses possible ways of redefining tertiary education in Nigeria towards a knowledge society with emerging technologies. There has been a paradigm shift in tertiary education globally and a lot has to be done for Nigerian educational system to take her place in the 21st Century. The state of public institutions in Nigeria is worrisome and needs urgent intervention if there must be a society that will promote and contribute to the growth and the development of the country. Critical issues that will lead to redefining tertiary institutions in Nigeria such as building of learning resource centres, enforcement of anti-plagiarism test for quality research, enforcement of ICT- literacy for digital immigrant university teachers, design and introduction of university customized learning management system, the curriculum review and review of the university teachers welfare package were also discussed.

KEYWORDS: Tertiary Education, Knowledge Society, Emerging Technologies.

1.   INTRODUCTION

The Nigeria educational system has gone through the most difficult situation and has suffered a hard hit over the years ranging from insecurity to pandemic to industrial strike actions by tertiary teachers and to climate change all of which have had major impact on education at all levels most especially tertiary education. The pandemic era revealed how backward most tertiary education in Nigeria is as most institutions stood still and academic activities suspended while institutions in other nations across the globe shifted to different Learning Management Systems to keep teaching and learning uninterrupted. Jacob (2020) noted how the Federal Ministry of Education has directed all educational institutions in Nigeria to shut down and allow students to go home as cases of reported COVID-19 increased to 13. This is believed to be when the pandemic had not escalated. Meanwhile, some private-owned institutions which had earlier integrated digital technology in academic activities were able to beat the situation as matriculations and convocations were even held virtually.

Tertiary education comprises all formal post-secondary education, including public and private universities, polytechnics, colleges of education, technical training institutes, and vocational schools. There is need to look inwards, shake and change the status quo if there must be a knowledge society by ensuring that the emerging technologies are integrated into teaching and learning in Nigerian institutions. Knowledge society can be described as a syndicate or society capable of generating knowledge or ideas in their areas of interest, field of study or profession and converting their common ideas to a useful event that will lead to national growth and development.

2.   TECHNOLOGIES IN HIGHER EDUCATION

Technology has the capabilities of shifting education from teaching to learning in digital age as digital learners and teachers have wide-access to information beyond the four-walls of classroom buildings. According to Iruonage (2015), teachers are not expected to perform miracles without the necessary teaching tools like functional libraries, current books and modern laboratories as he further noted that classrooms need modern instructional technologies and computers connected to the Internet, projectors, audio-visual and video conferencing equipment, and others. It is disheartening to observe that some university teachers are yet to improve themselves and adapt to the world of technology. According to Musawi (2011), it is important to know the way through which technology is used to support learners, and make learning more efficient and the learning experiences more memorable, improve access to ideas and information, enhance and extend an individual's abilities to express themselves. Technology has paved way for collaborative learning among the students as well

as exposed universities teachers to the wealth of knowledge distributed by other scholars across the globe through different educational websites and links. Learning resource centers, use of anti-plagiarism checkers, activities of ICT-complaint teachers and use of learning management platforms are all technology-driven.

STATE OF HIGHER INSTITUTIONS IN NIGERIA

It is a well-known-fact that even though the government is trying her best in the funding and revitalization of higher education in Nigeria, there are still a lot to be done in the area of infrastructure and human factor. Iruonagbe (2015) stressed that education is the cornerstone of a nation; something is obviously wrong with any society that does not take its educational institutions seriously as corruption and mismanagement of funds are at the centre of the sordid state of university system in Nigeria. Universities in Nigerian have played significant roles in ensuring growth and development in the county but all yielded very little progress when compared to other developing countries as a result of infrastructural progress, academic instability, educational policies and most importantly inadequate funding of university education in Nigeria (Umar et al, 2017). Private institutions in higher education seem to be leading in Nigeria in the global rating because the stakeholders are bent on continuously investing heavily in getting the best of standard of education.

Tertiary teachers in public schools have been agitating for funding and revitalization of higher institutions by state and federal governments. The request, yet to be fully considered and implemented has led to series of industrial strike actions by a union called Academic Staff Union of Universities (ASUU). This has continued for long as the recent one took as long as eight months. Tertiary students also have been sternly affected by staying longer than required before graduation. The implications of the current state of public tertiary institutions in Nigerian are so glaring among which are brain drain, loss of Nigerian scholars to institutions abroad, inability of fresh graduates above age 30 to get employment in some organizations because of age limit.

There are still areas calling for government's attention to have a knowledge society. These include the building of Learning Resource Centre (LRC), enforcement of anti-plagiarism test for quality research, enforcement of ICT-compliancy for digital-immigrant lecturers, designing and introducing customized Learning Management System/e-learning platforms for tertiary institutions, review of curriculum to accommodate emerging technologies. These are discussed below.

BUILDING OF LEARNING RESOURCE CENTRE (LRC)

Learning Resource Centre (LRC) is a facility within the school that supports all education subjects and resources (both manual and electronic) that are beneficial to students and academic staff for the purpose of teaching, learning and other educational activities including research among others. For LRC to be established, financial resources, space and stakeholders' interest are required. Print materials and electronic resources (ICT gadgets), study carrels, desk, chairs, shelves and adequate lighting and separate halls for collaborative learning are needed in LRC which will attract financial resources to be provided and constructed. Jacob (2021) stated that the objective of tertiary education in Nigeria can only be realized when the tertiary institutions environment is peaceful, secured and conducive for teaching, learning and implementation of research programme. Students and teachers should be able to have a place on campus where information needed to build on their existing knowledge can be made available. Building ICT compliant learning resource centers is believed will provide access to wide range of information needed to sustain education.

The nation's economy would not allow the academic staff to be able to afford all the equipment required for teaching and research activities. Due to the same economic conditions and government apathy, the content and quality of services of most Nigerian university libraries have deteriorated to such a level that the quality of the products of such universities has also been adversely affected (Womboh and Abba, 2008). External intervention is needed for tertiary education to be what it ought to be as internally generated revenue may not be able to meet all the requirements.

ENFORCEMENT OF ANTI-PLAGIARISM TEST FOR QUALITY RESEARCH

Plagiarism has been on the rise in higher institutions. There have been cases where completed or published work/projects were being replicated by undergraduate and graduate students. In most cases, these students seemed to get away with it in compliance with their supervisors. Students' access to old projects at the faculty and university libraries as well as easy access to on-line publications seems to have given rise to these malpractices among students. If this is not well handled, there will be scarcity of critical thinking, creative ideas and new contributions to knowledge in the society. There are several plagiarism checkers such as Enago Plagiarism Checker, Plagiarism Checker X, PlagScan, Unicheck and several others which some higher institutions have embraced. Although there are many factors that cause plaigiarism in higher institutions among

which are inability of the students to beat the deadline for the submission of their work and students' ignorance of the repercussion, however, it is pertinent to ensure fight against plagiarism for new and quality research as well as educational integrity in all higher institutions of learning in Nigeria. To curb this misconduct, Šprajc et. Al (2017) advised that teachers should be able to transmit the knowledge of moral beliefs to students in such a way that they will be able to cope with plagiarism while Sibomana et al. (2018) suggested institutionalization and dissemination of anti-plagiarism policy and using technology in detecting plagiarism among students' work.

ENFORCEMENT OF ICT-LITERACY FOR DIGITAL-IMMIGRANT LECTURERS

Having ICT compliant-environment in higher education requires teachers' cooperation and adaptation as they automatically become indispensable because they will have to teach it, teach through it and also teach with it. The world has gone digital and this has become imperative in education globally as it has enlightened both the teachers and students through free access to wealth of information, ability to develop critical thinking, learning collaboratively and embracing new ideas.

Despite the roles ICTs can play in education, schools in Nigeria have yet to extensively adopt them for teaching and learning (Torruam, 2012). Integrating hybrid learning in higher education in Nigeria is believed will make the work easy for teachers as they can switch in-between the conventional method of teaching and online teaching which makes learning ubiquitous. It is quite unfortunate that most of the digital-immigrant teachers show lack of interest interacting with technology. Digital immigrant teachers are those who have for long been in teaching profession before the digital surge. While some have adjusted and embraced the evolution some see no reason as they are being attached to the status quo. Even with their smart phone, they can do little or nothing with it aside from answering and relieving calls. Alade (2020) in his study on curriculum implementation status and adoption of ICT resources in distance learning programme of the Nigerian Teachers' Institute observed that the adoption of many ICT resources are inadequate except the use of mobile phones with 70.0% adoption.

There have being series of ICT trainings going on in tertiary institutions. Tertiary teachers should be compelled to appreciate the gesture and run with it. It is absurd for higher institutions to be producing non-digital graduates in the digital world.

DESIGNING AND INTRODUCING CUSTOMIZED LEARNING MANAGEMENT SYSTEM/ELEARNING PLATFORMS FOR TERTIARY INSTITUTIONS.

There have been several e-Learning platforms/application which have been adopted by many institutions of learning such as Moodle, Google classroom, Coursera, BlackboardLearn, Udemy School etc. Some e-learning software were being subscribed for, some institutions engaged the services of software designers while some are free and open to the public for usage. The e-learning platforms give opportunities for students to learn outside the 4-walls of the conventional classrooms using their smartphones, tablets and laptops among others. Some institutions use e-learning platforms for full online courses, while some use it for hybrid learning. Moreover, e-learning platforms encourage collaborative learning, enhance communication, improve interactions among students, and also provide access to knowledge.

However, some of the free ones seem to have restrictions except the user consult the authorized administration which may not yield any positive result at the end of the day. Bangladesh is one of the nation's their educational institutions are at their early stage of adopting technologies. Sarker et al (2019) in their study on the use of e-learning at higher educational institutions in Bangladesh discovered that e-learning has been well accepted by most of the students as they are found routinely spending time on the LMS on a regular basis for watching lecture videos, viewing course information, reading postings of the fellow students in the forum but at the same time were being confronted with some constraints as the learning materials were not properly designed to allow much interaction between students and their lecturers.

Engaging the services of National Universities Commission (NUC), Curriculum planners, software designers and experts in various professions/subjects to come together and deliberate on this project will ensure uniformities in the e-learning platforms or application for courses being offered and minimum uniformities in the delivery of instructions in the universities. This after being achieved can be improved on to suit the changing technologies.

REVIEW OF CURRICULUM TO ACCOMMODATE EMERGING TECHNOLOGIES.

Curriculum review with the view of having a knowledge society in mind will definitely transform higher education in Nigeria. As earlier mentioned, engaging the combination of curriculum planners, educational technologists, educational software designers and experts in courses/subjects being offered in higher institutions

will do justice to the transformation. The work of these experts should reflect a continuum from the basic education level through the secondary to the tertiary level. The Foundations need to be laid at the lower levels so that att the tertiary level, we should be thinking of consolidating the digital skills the foundations of which had already been laid. This is true as we review the curricula for both learners and their teachers.

Obviously, it is the products of our secondary schools that populate the tertiary institutions. As a result, we believe that when a solid digital foundation is laid prior to the tertiary level, we can confidently anticipate substantial success at the said tertiary level.

3. CONCLUSION

University teachers are the key players in tertiary education. Their demands are not out of place considering the state of the nation's economy. Despite the crucial role of academic staff in human capital development and nation building, academic staff welfare and concern in Nigeria tertiary institutions particularly the public universities appear to have been neglected and treated with disdain by the government at all level in Nigeria (Okolocha et al, 2021). When the universities' teachers are properly taken care of, working with whatever innovation in the institutions will be made easy. The government, whether at the state or federal level should, as a matter of urgency, look into the issue of higher education in Nigeria in order to have a knowledge society that will contribute to the growth and the development of the country.

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