The Role of E-Learning in Tertiary Institutions

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Abstract— This paper aims to discuss the role of E-learning in the new Higher Educational Environment in the digital age which creates student- centered learning and educational practice, offering new more flexible learning methods. This study investigates the effectiveness of using E-learning in teaching in tertiary institutions. In institution of Higher Education, the issue of utilizing modern Information and Communication Technologies (ICT's) for teaching and learning is very important. It looks at the meaning of E-learning as given by different researchers and the role E-learning plays in higher educational institutions in relation to teaching- learning processes and types of E-learning .It also emphasize on the impact of E-learning in tertiary institutions of learning.

Keywords—E-learning, Information and Communication Technologies, Tertiary Institutions.

I. INTRODUCTION

E- Learning is construed in a variety of contexts, such as distance learning, online learning and networked learning [14]. In the context of this paper all of these instances will be considered to describe learning that utilizes Information Communication Technology (ICT) to promote educational interaction between students, lecturers and learning communities [8]- [12] argues that the fast expansion of the internet and related technological advancements, in conjunction with limited budgets and social demands for improved access to higher education, has produced a substantial incentive for universities to introduce e- learning courses. [12] continues, that if universities do not embrace e-learning technology that is readily available, they will be left behind in the pursuit for globalization.

II. THE CONCEPT AND DEFINITION OF E-LEARNING

The internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information [10]. Technology-based e- learning encompasses the use of the internet and other important technologies to produce materials for learning, teach learners and also regulates courses in an organization[6]. There has been extensive debate about a common definition of the term e-learning. Existing definitions according to [4] tend to reveal the specialization and interest of the researchers. E-learning as a concept covers a range of applications, learning methods and processes [7]. It is therefore difficult to find a commonly accepted definition for the term e- learning and according

to [9] and [5], there is even no common definition for the term. In some definitions e- learning encompasses more than just the offering of wholly on-line courses. For instance, [9] noted that e- learning has transformed from a fully-online course to using technology to deliver part or all of a course independent of permanent time and place. Also, the [6] describes, e-learning as the use of new multimedia technologies and the internet to increase learning quality by easing access to facilities and services as well as distant exchanges and collaboration.

E-learning refers to the use of information and communication technologies to enable the access to online learning-teaching resources. In its broadest sense, [1] defined e-learning to mean any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies.

III. TYPES OF E- LEARNING

There are diverse ways of classifying the types of e-learning. According to [2], there have been some classifications based on the extent of their engagement in education. Some classifications are also based on the timing of interaction.[2] divided e-learning into two basic types, consisting of computer-based and the internet based e-learning. According to [2], the computer based learning comprises the use of a full range of hardware and software generally that are available for the use of Information and Communication Technology (ICT) and also each component can be used in either of two ways; Computer managed instruction and computer-assisted learning. In computer assisted learning, to him, computers are used instead of the traditional methods by providing interactive software as a support tool within the class or as a tool for self-learning outside the class. In the computer-managed instruction, however, computers are employed for the purpose of storing and retrieving information to aid in the management of education. The internet-based learning according to [3] is a further improvement of the computer-based learning, and it makes the content available on the internet, with the readiness of links to related knowledge sources, for examples e-mail services and references which could be used by learners at any time and place as well as the availability or absence of teachers or instructors [3].

IV. IMPORTANCE OF USING E- LEARNING IN EDUCATION

The development of multimedia and information technologies, as well as the use internet as a new technique of teaching, has made radical changes in the traditional

process of teaching [13]. Some of the advantages that the adoption of e-learning in education includes: -

- E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.
- E-learning is cost effective in the sense that there is no need for the students or learners to travel.
- It is flexible when issues of time and place are taken into consideration.
- E-learning always takes into consideration the individual learners differences.
- The use of e-learning allows self-pacing.
- E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators etc.

V. THE ORGANISATIONAL STRUCTURE OF UNIVERSITIES

Over the past decade the structure of higher educational institutions has changed, partly due to the introduction of technological initiatives. [3] Supports this opinion and contends that as e-Learning is now facilitating a more flexible learning approach, contemporary institutional structures are less robust than in previous years. In addition, [8] states that technology in general has not only improved knowledge storing methods and learning techniques but has also acted as a catalyst to combat the barrier of inflexible organizational structures. This view suggests that to fully experience the benefits of technological advancements in higher education, such as e-Learning, universities must have flexible organizational structures. According to [4] the structure of today's universities must be 'changeable' in order to integrate distance learning courses, and those institutions that will not or cannot change their structure to incorporate this technology may be bypassed by other educational providers, such as virtual universities and independent educational services. It might well be the case that corporate universities which hitherto only offered training to its employees will be in competition with the higher education sector. [7] argues that such a wide acceptance of e-Learning methods in higher educational institutions will create broader repercussions regarding organizational structure. This point is illustrated by [4] who suggests that universities are currently inexperienced concerning the acceptance and incorporation of e-Learning and other technological changes into their organizational structures. [4] Considers that this lack of experience will initiate the following reactions within universities. Firstly, ambiguity towards future technology strategy and how to incorporate new technological advancements into organizational structure and secondly, how to cope with the diverse range of teaching courses and learning programmes ongoing within the university comprising of full time and part time students. [9] Suggests one of the challenges facing traditional universities intending to transform organizational structure to incorporate technological innovations is coming to terms with the process design for distance learning courses, without ignoring the organizational, managerial and financial constraints. Although advocates of

traditional approaches to higher education may argue that courses should be taught in fixed locations using somewhat rigid organizational structures, the opinions of many writers suggest that e-Learning methods will greatly change future higher educational systems. [12] Describes how the broadening geographic distribution, flexible learning environments and variety of educational models that are offered by distance learning facilitate improved education, and if universities do not embrace this technology they will be left behind in the pursuit for globalization and technological development.

The impact of e-Learning initiatives will have direct effects on the future structure of universities on both strategic and tactical levels [4] Strategically, universities will experience issues concerning face to face versus virtual environments, how many buildings to keep and most importantly whether to maintain the existing organizational framework. On a tactical level, the changing role of lecturers, the changeable learning environment and the design of e-Learning facilities will all contribute to a potentially more flexible organizational structure. Despite the apparent dysfunctional effects the implementation of distance learning techniques can assert on university structure, [9] adds that contemporary university structures must be changeable and adaptable, able to embrace new learning and communications technology offered through e-Learning, or face the consequence of limiting students direct access to global knowledge repositories that have the ability to extend higher education.

VI. INCORPORATING ELEARNING IN ORGANISATIONAL STRATEGY

[7] Expresses the view that if universities are to compete in a global higher education market them must embrace the technological advancements and use them as a strategic tool, capable of transforming educational and business practices. [7] Considers that e-Learning initiatives will not only give universities a new channel of educational deployment, they will also support strategic objectives by assisting asynchronous discussion consortiums and networked communities. It may be that e-Learning strategies within universities could be orientated around technological capabilities. [5] Opposes this assumption and contributes that higher educational institutions should not be influenced by features and functionality of software, instead of focusing on e-Learning as a tool to support learning. [5] further advocates that e-Learning is a valuable strategic business tool, that when implemented 'properly' could modernize higher education, but when deciding an effective strategy it is imperative to consider that distance learning is a means to an end, not the end itself. [3] details that any university incorporating e-Learning initiatives into organizational strategy must take into consideration the following; the financial constraints of the strategy, suitability of the technology, implementation of the technology and the range of e-Learning requirements within the institution. If sufficient attention is given to all these considerations, the university is in control of its distance learning future [3].

[5] asserts that a number of established universities are embracing the use of technology in higher education, especially

in distance learning disciplines, without understanding or addressing the business or educational requirements. In the opinion of [7] this could be fatal for universities, who must not let fundamental educational processes be overshadowed by the implementation of new information technology strategy. The inference is that universities which do not incorporate e-Learning effectively as part of an overall learning strategy will do so at the expense of survival. The above considered a variety of views regarding the effect and potential effect e-Learning can have on universities as organizations. The use of advanced technology in higher educational is inevitable [4] it will contribute to the demise of communicational, geographical and inflexible learning boundaries. [1] Remarks that when organizations participate in restructuring internal processes, e-Learning will assist in optimizing business processes and will eradicate inefficiencies through shared knowledge and improved communication between departments and employees. To be successful within any organization, the evidence suggests that e-Learning must be implemented as part of an organizational strategy to support learning. [5] argues that e-Learning requires systematic implementation and if not structured properly could lead to chaos. [3] states that for higher educational institutions, an effective strategy does not assure success, as the technical issues in distance learning delivery will always be significant. Perhaps, this point highlights the inexperience of universities with regards to incorporating technology effectively, and justifies the need for external partnerships and alliances. This is particularly so for aspects of infrastructure and internal change management structures. This view is supported by [4] who comments that through alliances with organizations, e-Learning course material can be designed to challenge students in real business situations in addition to underpinning academic Endeavour. Rather than a paradigm shift to an online model, a delicate balance needs to be established between the more formal traditional structures and procedures of the university and the new administrative functions required to rapidly respond to changes in the online education market and ensure competitive advantage and ultimate survival of the virtual campus.

VII. CONCLUSION

E-learning involves the use of digital tools for teaching and learning. It makes use of technological tools to enable learners study anytime and anywhere. It involves the training, delivery of knowledge and motivates students to interact with each other, as well as exchange and respect different point of views. It eases communication and improves the relationships that sustain learning. Despite some challenges discussed, the literature has sought to explain the role of e-learning in particular and how eLearning has made a strong impact in teaching and learning. Its adoption in some institutions has increased faculty and learner's access to information and has provided a rich environment for collaboration among students which have improved academic standards. The overall literature which explains the role of e-learning suggests the need for its implementation in tertiary institution for faculty, administrators and students to enjoy the full benefits that come with its adoption and implementation.

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