

## **Radical Approach to E-Learning System in Higher Educational Institution in Sultanate of Oman**

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### **Abstract**

The rapid pace of the occurrence of new information leads to the need for adaptation to new knowledge and competences required by the labor market. The traditional teaching and learning methods cannot face the knowledge amount and the dispersion of the qualifications, jobs and activity domains, which become more and more specialized and interconnected. The impact of globalization and the challenges of the new millennium has brought in a revolution in education spurred by the development of computer digitization and the internet. The research method used in the study is literature survey research which provides a description and critical evaluation of the work related to the research problem prevailing in the E-Learning system to enhance the education. Today, the education is enhanced by the use of computers, Internet and Intranets for delivering instruction and tracking learner results and other training-related data. It is about a new blend of resources, interactivity, performance support and structured learning activities. E-Learning will address the needs of the learners and provide quality programs which enable a basic understanding of the modern world. E-learning concept offers the prospect of a radical new approach of the higher educational process. At present, most universities and colleges in Oman have either introduced an e-Learning plan or have implemented such a plan. Moreover, many students have taken fully online courses or have experienced Internet-based classes. New and unexpected problems have emerged with the increase in e-Learning. Current e-Learning programs are severely limited in scope simply because they continue to operate within classroom-based educational paradigms. Broader educational strengths of e-Learning are not yet being fully realized. Diverse digital environments should be created in the universities where academics can experiment with technology enhanced learning tools and discuss the pedagogy underpinning their uses, in order to be able to facilitate student engagement. New tools and practices will confront both teachers and students with the possible needs for new skills.

Traditional universities and colleges must transform themselves by adopting e-learning system which will enable people to study at any university in the world, from home. Recent strategic decisions in the Ministry of Education in Oman have led to plans for developing some online content for every subject in education sectors. These high-quality exemplar modules will inspire future developments and improvement. Oman may be able to position itself as a leader in developing and providing high quality e-Learning material with a true flavor of Arabic culture.

Keywords— E-Learning, Higher Education Institution, Education, Technology, Digital Environment

## **Introduction**

The impact of globalization and challenges of the new millennium has brought in a revolution in education spurred by the development of the computer. The rapid pace of the occurrence of new information leads to the need of the professional adaptation to new knowledge and competences required by the labor market. The traditional teaching and learning methods cannot face the knowledge amount and the dispersion of the qualifications, jobs and activity domains, which become more and more specialized and interconnected. Today, universities all over the world uses e-learning system and the number of students enrolled in distance programs is rising [9]. Traditionally the role of universities is to produce, distribute, and apply knowledge to various contexts [13], [14]. Unquestionably, research, education, and service to the larger academy and greater society are major functions of most universities. In the present era of knowledge-based societies, however, there remains a great need to move beyond the traditional roles for universities [16], [15].

## **E-LEARNING CONCEPT**

E-learning is not about taking a course and putting it on the desktop. It is about a new blend of resources, interactivity, performance support and structured learning activities [10]. E-Learning will address the needs of the learners and provide quality programs which enable a basic understanding of the modern world. This system emphasizes on independence of the learner and

places the responsibility for learning on the learner. E-learning stimulates ability to discover new ideas and it promotes construction of new knowledge [9]. Online discussions allow students to enter comments whenever it is convenient for them. This makes it possible that more discussion will take place and much more information will be exchanged in the group than if only one person can speak at a time, like in the traditional classroom environment. The most important aspect of e-learning is interaction, which leads to the creation of online learning communities that diminish isolation by bringing together in a common venture to increase the exchange of ideas, collegiality and networking [12].

Higher educational institutions have been using the Internet and other digital technologies to develop and distribute education for several years, but e-learning concept offers the prospect of a radical new approach of the higher educational process focused on the opening up traditional universities for those unable to attend on-campus and face-to-face forms of teaching and for lifelong learners in the workforce at a time when effective use of knowledge is seen more and more as the key to economic success [3].

### **FACTORS OF E-LEARNING**

Many factors affecting E-learning as a new teaching-learning tool has added significant value to the learning and development processes globally. Notwithstanding the benefits offered by e-learning there are several factors that are instrumental in affecting the e-learning set-up of an organization [6]. Some of these factors are listed below

- A higher educational institution culture that encourages the usage of technology as a major learning enabler.
- Academic staff who encourages blended learning more than the routine chalk and talk method.
- The ability of the major stakeholders to learn, unlearn and relearn as technology driven learning would have less shelf life and is prone to alterations.
- The learner necessarily must be motivated for self-paced learning which in turn depends on the learning environment prevailing within the organization.

- The culture of continuous learning which in turn makes the major stakeholders having a proactive 7x24x365 approach forms the backbone to e-learning

## **E-LEARNING TO ENHANCE EDUCATION**

Technology continues to gain ground in higher education and has already enhanced the on-campus student experience, through student portals, Internet access, digital libraries, and the availability of laptops, handhelds, and other portable devices. E-learning is becoming part of the mainstream of educational programs. Digital technologies have also dramatically changed academic research, thanks to the rapid acceleration of computer and network performance, which has allowed researchers to access and manipulate massive data sets, to simulate, model and visualize more complex systems, and to strengthen international communication and collaboration in research [7].

The dramatic growth and rapid expansion in providing online courses together with the increasing interest in distance learning and budget restrictions have resulted in increasing adoption of various kinds of online learning systems in Higher Education (HE) institutes. As the technology becomes increasingly reliable, accessible and user-friendly, higher education institutes are looking to exploit the full potential of the Internet [8]. E-learning facilitates the process of learning by increasing the accessibility and availability of learning materials, up to date content, personalized instructions, cost effectiveness, self-paced learning, multimedia, and interactivity. It plays a vital role to convert an organization into a learning organization; moreover, it is accelerated in higher education institutes to support effective learning in the context of lifelong learning [23].

Using e-Learning systems, course lecture contents such as that delivered in traditional classroom settings, can be saved to the 'knowledge server' to add the cumulative knowledge stored by a university. Such content can then be used by students, as well as others who may be interested. Further, the quality of the 'knowledge server' will likely only get better with time, especially as more information and data is gathered and archived. Clearly, e-Learning goes beyond the

limitations imposed by time and space (such is typical in traditional educational systems) to provide learning opportunities for all members of the general public. E-Learning also can enable one to enjoy high quality academic programs. Moreover, since e-Learning is based on self-regulated learning, universities should evolve to become learner-centered educational entities, further contributing to the continued innovation in Higher Education institution [17].

A number of key technologies have merged to support education. Together they form the tools of e-Learning, in other words, using the Internet and various computer programs to enhance traditional education. Some of these technologies are identified under general categories such as 'Learning Management Systems' (LMS), 'Content Management Systems' (CMS) or e-Learning Systems. Within these are more specialized tools such as chat rooms, discussion boards, quiz or testing systems, collaborative or general document management tools and student tracking tools to name just a few.

E-Learning can disconnect and reconnect many things in the educational process. For instance, it can disconnect the student from being physically present in the place where the educational material is delivered. It can also disconnect the student from having to lock into a common learning time with a lecturer and students. At the same time the electronic environment of e-Learning reconnects the student in two key areas. First of all, e-mail or messaging puts them more directly in touch with their lecturer at any time. Questions are raised when they are relevant to the student. Students can be connected to one another through discussion boards and collaborative tools. These are continuously available so that the student interacts at personally convenient times. They also remove the time pressure of having to vocalize questions and answers quickly in front of other people. More dreams realized. E-Learning disconnects students from dependence on paper notes and textbooks. Instead they can be connected to continually updated data sources and can grow their personal set of references and notes in a way that is readily portable and available on into their working career [4].

## **EDUCATION INSTITUTION TO ADOPT E-LEARNING TECHNOLOGY**

Traditional universities and colleges must transform themselves by adopting e-learning system which will enable people to study at any university in the world, from home [20]. To achieve this transformation, universities will have to introduce strategies and policies which implement flexible academic frameworks, innovative pedagogical approaches, new forms of assessments, cross-institutional accreditation and credit transfer agreements, institutional collaboration in development and delivery, and, most crucially, commitment to equivalence of access for students on and off-campus [7].

The pressures on higher educational institutions to adopt e-learning are substantial; however, the ability to do so can be constrained by numerous barriers, not least the availability of funding. The pressure to adopt e-learning should also be seen in the context of the pressure on higher education systems to reform and modernize in terms of curricula, teaching methods, expanded learning outcomes, new types of students, qualifications frameworks, quality assurance etc. [7].

In the present economic context, universities and colleges need to grasp more directly the challenges and opportunities presented by the lifelong learning potentials. The two key drivers underlying the adoption of e-learning are:

- the need to up skill the population to meet the challenge of the information and knowledge society.
- the need for accessible and flexible access to tertiary education to meet the changing nature of society and the lifelong learning agenda.

The e-learning strategy is aimed to support the higher education sector as it moves towards adopting e-learning appropriately, using technology to transform higher education into a more student-focused and flexible system, as part of lifelong learning for all who can benefit [18].

The main reasons for adopting e-learning at the higher educational level is:

- enhancing reputation.
- developing information skills/literacies.

- widening access.
- supporting the disabled students.
- improving quality of teaching and learning.
- increasing flexibility.
- reducing cost/improving cost-effectiveness.

### **TUTORS KNOWLEDGE ON E-LEARNING TECHNOLOGY**

Academic staff acceptance and engagement is a key factor in the successful implementation of the institutional e-learning strategy. The support of senior management is essential for the wider adoption of new practices, but innovations cannot be adopted without buy-in from rank and file academic staff that, in their role of subject matter experts, and in accordance with the tradition of academic freedom, can often choose whether or not to change their teaching practice [9]. At the higher education institutional level, staff attitudes to e-learning is ranging from highly skeptical, to highly supportive, particularly with regard to the pedagogical effectiveness of fully online programs.

It is quite clear nowadays that for e-learning to become a dominant learning pattern, technology alone will not suffice. Students need digitally confident academics. The new technologies require the academic faculty to assume new responsibilities and to develop a range of new skills. Many studies specify a long list of roles which teachers are expected to undertake when utilizing the new technologies in their teaching [1], [22], [2]. Wilson and his colleagues [2], for instance, specified the following tasks which teachers are expected to perform in online teaching: Provide syllabi, instructional resources, communication tools, and learning strategies; monitor and assess learning and provide feedback, remediation, and grades; identify and resolve instructional, interpersonal, and technical problems; and create a learning community in which learners feel safe and connected and believe their contributions are valid. Definitely a long list of responsibilities which most of the professors have not been prepared for in their socialization processes into the academic world [11].

## **E-Learning Practice in Oman Higher Educational Institutions**

Diverse digital environments should be created in the universities where academics can experiment with technology enhanced learning tools and discuss the pedagogy underpinning their uses, to be able to facilitate student engagement [1], [19]. New tools and practices will confront both teachers and students with the possible needs for new skills.

Sultanate of Oman, being a developing country, has gone through many social changes that have, in turn, altered the Omani society needs. Technology, on the other hand has exerted a tremendous impact on the Omani societal setting and contributed to even more needs. Sultanate of Oman is one of the important countries in the Middle East with rapid progress in education with advanced teaching and learning technologies. The Universities and colleges in Oman have introduced the latest e-Learning in order to keep the pace of the technological revolution in the field of higher education [5]. There is need for the improvement from the university management side to improve the pleasant e-learning environment for learning [21]

At present, most universities and colleges in Oman have either introduced an e-Learning plan or have implemented such a plan. Moreover, many students have taken fully online courses or have experienced Internet-based classes. New and unexpected problems have emerged with the increase in e-Learning. Such problems include: the development and maintenance of infrastructure; stabilization, enhancement, and standardization of operational systems; management of academic records and policy issues; quality and management of course contents; increased faculty workload; and the general lack of support for learning, to name a few. Further, current e-Learning programs on offer are severely limited in scope simply because they continue to operate within classroom-based educational paradigms. Broader educational strengths of e-Learning are not yet being fully realized [17].

## **CONCLUSION**

An e-Learning system is nothing without educational content. Just like the early days of the world wide web, the initial content in e-Learning will likely be simple copies of lecture notes and

references. However, it will soon go well beyond this. Anyone can see that an online bookstore is vastly different to just reading a book store's inventory list. Similar enrichment of the learning process is expected as educators learn to develop material in a way that exploits the special features of the online environment for educational advantage. This does not happen without commitment. Recent strategic decisions in the Ministry of Education in Oman have led to plans for developing some online content for every subject and every age group in the primary and secondary education sectors. These high-quality exemplar modules will inspire future developments and improvement [4].

The process of the lecturer verbally delivering educational content to a roomful of students has changed. e-Learning is rapidly becoming an essential component of Oman's educational process in all the universities and colleges and brings with it the most significant changes. With its rapidly growing workforce of adaptable and well-educated graduates, Oman could have a unique role to play with e-Learning in the region. Oman may be able to position itself as a leader in developing and providing high quality e-Learning material with a true flavor of Arabic culture [4]. The successful implementation of e-learning strategy at higher educational institutions level requires not only adoption by enthusiastic innovators but also institutional structures must be put in place to support the sustainability and mainstreaming of e-learning initiatives.

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