Issues and challenges of e-learning in higher education: A Malaysian perspective

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Abstract

The e-Learning Centre (i-LEC) of UiTM was established to serve as the core unit in initiating the university’s e-learning activities. Main functions of the centre are to carry out planning, acquiring, coordinating, training and facilitating, implementing and servicing functions to create a learning environment where lecturers provide Web-based contents and design online learning activities. Universiti Teknologi MARA, with fifteen branch campuses spread throughout the country offers indeed vast untapped resources as far as expertise and infrastructure. This paper attempts to describe the University’s efforts to embark on e-learning in a big way. Some practical, technological and policy issues and challenges will be discussed.

Keywords: E-Learning, Globalization, Life long learning, Malaysia, Universiti Teknologi MARA

1.0 INTRODUCTION

The world is getting smaller especially in the field of tertiary education. The diffusion of information and communication technology (ICT) has enabled institutions of higher learning to offer their educational services to a wider market place and in many instances, beyond geographic locations. The demand for education, on the other hand has been growing so rapidly in the last few decades most particularly among adults. This phenomenon is closely related to the change from the industry-based economy to the emerging knowledge-based economy. The new economy focuses on human capital – the major contributor to development, thus appealing to corporations and businesses to invest on educating and retraining of their people. It has been suggested that human competencies that are established from a learning culture could contribute to the competitiveness of the enterprise (Murray and Donegan, 2003).

Further advancement of ICT has also created opportunities for education and training materials to be made more accessible (Leacock, 2005) electronically through e-learning which, facilitates organizational learning in terms of its flexibility of delivery and for its obvious economic benefits such as reduction of costs, time and quality of training (Comacchio and Scapolan, 2004).
2.0 INTERNATIONALIZATION OF HIGHER EDUCATION

The development of e-learning seems to coincide with the call by UNESCO for greater collaboration among institutions of higher learning around the globe. Through the World Conferences on Higher Education and the Higher Education Partners’ Meetings lead by UNESCO, member states are encouraged to strengthen international cooperation in higher education. Malaysia, as a member state is working closely with UNESCO to become an active player on the international scene. Under the leadership of the Rt. Hon. Minister of Higher Education, all of the institutions of higher learning are jointly moving towards developing an internationalization agenda for Malaysia.

As a developing country Malaysia offers a competitive environment for businesses to be set up locally. As a growing number of multinational corporations are established in this country, universities are faced with new challenges: 1) to prepare graduates who are acceptable by those corporations and 2) to extend access to higher education for people who need to enhance their qualifications without having to leave their job.

Those challenges have created a different outlook for the higher education sector – to cater for the needs for international curriculum and to support life-long learning. International and intercultural dimensions have to some extent provided exciting features in curriculum development. Graduates or products of an internationally recognized curriculum would find it easier to get a placement in different countries and ultimately be employed by multinational companies worldwide and that such curriculum would promote the training of students who are global, versatile, self-confident, internationally experienced and sensitive to cultural variations in dealing with new international matters. (Sahol Hamid & Sohaimi, 2005). Due to the increasing demand from both the private and public sectors, life-long learning has been given serious attention by the policy makers, through which e-learning was identified as a prospective mechanism.

3.0 UNIVERSITI TEKNOLOGI MARA (UITM)

Universiti Teknologi MARA (UiTM) is Malaysia’s premier institution of higher learning that has experienced a phenomenal growth since its inception in 1956. The university has expanded nationwide with 3 satellite campuses, 12 branch campuses, 6 city campuses, 25 franchise colleges and a smart campus for the future. Its formation is based on a vision of outstanding scholarship and academic excellence that is capable of providing leadership in all fields of internationally recognized professional study.

The university has the broadest range of disciplines that any one university can boast of - from hotel and tourist management to accountancy to communication and media studies to medical and health technology, encompassing 23 faculties and close to 250 academic
programmes spread over Science and Technology, Social Sciences and Humanities and Business Management.

UiTM has forged linkages with other universities and professional bodies, such as the Association of Chartered Certified Accountants (ACCA) UK, Chartered Institute of Transport (CIT) UK, Institute of Chartered Secretaries and Administrators (ICSA) UK, Institute of Electrical and Electronic Engineers (IEEE), USA, Institute of Electrical Engineers (IEE) UK, Institute of Marketing UK, Institute of Administrative Management UK, Chartered Institute of Building (CIOB) UK, and many others around the world. Some of these ties go back a long way, such as with Ealing Technical College in the 60s and Ohio University in the 80s and they have become a benchmark for UiTM’s academic programmes and research.

Those achievements stated above are based on the university’s philosophy, vision and mission:

**Philosophy:** A belief that every individual has the ability to attain excellence through the transfer of knowledge and the assimilation of moral values so as to become professional graduates capable of developing knowledge, self, society and nation.

**Vision:** To establish UiTM as a premier university of outstanding scholarship and academic excellence capable of providing leadership to Bumiputras dynamic involvement in all professional fields of world-class standards in order to produce globally competitive graduates of sound ethical standing.

**Mission:** To enhance the knowledge and expertise of Bumiputras in all fields of study through professional programmes, research work, and community service based on moral values and professional ethics.

Today, the university has an enrolment of nearly 100,000 students spread throughout the country registered in all the different modes of study and disciplines. UiTM being a pioneer institution of higher learning is totally committed to producing a significant number of Bumiputra professionals who are skilled in a broad spectrum of competencies covering a wide range of industrial and vocational requirements and therefore when given the mandate that UiTM students enrolment will be expected to increase to 200,000 in ten years time, the university responded positively as it will contribute towards increasing the national productivity and improving the livelihood and standard of living of the people of Malaysia.

**4.0 E-LEARNING AS A SOLUTION**

To respond to the challenge of 200,000 student enrolment and internationalization of higher education, the management of the university is confident with the potential of the
technology, most especially the growing availability of internet connections. E-learning could be the solution to the growth of the student population for the university within the time stipulated and the promotion of life long learning by taking advantage of the technological opportunity. Here the most promising innovation is the concept – and the developing reality – of open educational resources (OERs). The term refers to open course content, open source software and tools. Essentially OERs apply to teaching and learning the basic principle of sharing that underpins academic research.’ (Daniel et.al, 2006). For this to take place four requirements need to be fulfilled: the four ‘A’s of e-learning that is accessibility, appropriateness, accreditation and affordability. (D’Antoni, 2002).

With reference to UiTM, firstly, the e-learning experience must be made accessible to learners and instructors for it have any impact. Technical infrastructure and technology are placed and being upgraded from time to time by the management to ensure accessibility campus wide although many students who live off campus may have varying degrees of online access and bandwidth. Secondly, in terms of appropriateness, course content are developed by lecturers who are teaching the course on a full time basis and the web based material prepared are to fit learners needs to further enhance their understanding and performance. Thirdly, regarding accreditation, discussions are underway as it is a key concern to all involved in e-learning to promote trust and confidence especially in cross-border e-learning offerings. And fourthly, the issue on affordability, is mainly to ensure that the opportunities of e-learning are affordable especially to learners. Digital divide among learners is a concern as technical deficiencies can impede course activities, especially in online distance-learning activities.

For UiTM, e-Learning could support on-campus teaching as well as distance learning. Academics can put study materials online for learners to access and also improve learner support by creating online discussion. This can free up face-to-face teacher-student time to give more time for debate and study. Arguably e-learning is easier for students who are self-managing, which means it is easier for mature students and post-graduate programmes.

Moving some activities online for example tutorials and assessment online and lectures out of the classroom not only reduces demands on buildings but also creating efficiencies because digital materials are much cheaper to produce, copy, distribute, adapt and share than other formats. Even more importantly, well-designed e-learning course content can improve understanding and encourage deeper learning which is essential to the success of most students.
5.0 UiTM DISTANCE AND E-LEARNING ROADMAP

The online learning initiative for UiTM began since 1973 with the establishment of the Off Campus School which provides off campus learning opportunities (for certificate and diploma programmes) to individuals aspiring for higher education and improved qualifications but who are unable to take advantage of traditional modes of education. In 1990 the function and responsibilities of the Off Campus School were expanded to include distance learning programmes through the use of study manuals and audio recordings. In 1995 the Off Campus School name was changed to The Institute of Education Development (InED) and since July 2000, it began to offer online programmes (diploma, degree and masters) via the internet. Currently the Institute has an enrolment of 8,000 students and has successfully produced 3,000 graduates since its establishment.

With the explosive growth of the Internet, in 1999 the university began to consider incorporating e-learning into its education offerings not only limited to distance learning but also to complement on-campus programs. The main challenge was how best to create a potentially powerful learning environment that could enhance full-time on-campus education in the shortest time possible. The university embarked on a pilot project with twenty lecturers from different faculties selected based on their interest and commitment on e-learning and use of technology in teaching. The platform chosen and used by this pilot group was Lotus Learning Space 5 (LLS 5). Subsequently two more ICT group of lecturers were trained and efforts were drastically geared towards equipping faculties with Technology-Enabled Classrooms to encourage lecturers to adopt technology in their teaching. The achievement of the project was limited due to infrastructure and software limitation and time constraint to train all lecturers as content developers. After three years, 23 courseware of highly multimedia interactive mode were completed and uploaded online.

6.0 ACQUIRING UiTM E-LEARNING PLATFORM: (http://i-learn.uitm.edu.my)

In 2003, UiTM decided to evaluate other e-learning platforms as alternatives. Among the criteria for evaluation are the ease of use, positive user feedback, performance issues, integration with students and staff information and cost–benefit analysis of acquiring and managing the platform. After a software trial, product comparison and gathering of feedback from other institutions, UiTM decided to acquire an open-source platform based on open source technology, thus making it cheaper in terms of software licensing. This is the main benefit of acquiring the platform to the university.
The platform is a UiTM customized portal called ‘i-learn’, a learning management system that provides tools such as: course development and management tools, content management tools, communication and collaboration tools, assessment tools, personal information management tools, system management tools and web-based email to create UiTM online teaching and learning environment.

Using the platform, lecturers can upload and manage their course content online from anywhere, work, home or while vacationing. They can conduct online quizzes, test and tutorials. Lecturers can also share their digital contents with other lecturers and the system has been developed to ease maneuvering by even lecturers with least knowledge of ICT.

For the students, they have access 24/7/365 from anywhere and with the least amount of bandwidth. This also means that they can just use their dial-up internet access at home or GPRS and still have access to the system almost as fast as anyone accessing with broadband internet or a lease line. Students can access their course contents from anywhere, they can be at their hometown and still study without taking all the heavy materials with them.

7.0 PROMOTING E-LEARNING

The university e-Learning Centre, since its establishment in 2005 began promoting the e-learning portal to all lecturers campus-wide and to all its branch campuses. Hands-on workshops and personal advice were provided to academicians on the use of the e-learning platform. At the end of each workshop, the lecturers were able to upload at least one course or subject online. Lecturers were also trained to use all the interactive tools provided in the portal to enable them to effectively communicate with their students. The achievement of these efforts was shown when at the end of 2005, the number of online subjects or courses uploaded by the lecturers have reached almost 1600 courses.

8.0 CURRENT SCENARIO

The e-learning strategy of the university is to create a learning environment where lecturers provide Web-based contents and design online learning activities. Collaborative sessions are carried out synchronously or asynchronously to provide learning enhancement to a course. Students will access and/or download the contents and participate in online activities. Classroom based tutorials could be replaced by online learning materials and activities which the students worked through in their own time, at their own pace, but continued to take part in regular face-to-face lectures or workshops with their lecturers. The main objective of the e-learning strategy in this initial stage was to encourage and support the university academicians to complement their conventional face-to-face teaching with online teaching and creating quality web mediated teaching.
materials for students to access to further enhance their understanding and academic performance.

9.0 FUTURE PLANS AND DEVELOPMENT

First, the establishment of an e-learning centre for the university with full-time, advanced technical skills and learning design expertise is crucial to ensure proper planning, monitoring and development. The unique pedagogy of e-learning requires special skills in learning design and instructional design. The challenge to the lecturer is how to make the integration of the Net to a course be really interesting; and the collaborative sessions alive, exciting and the exchange of ideas continuously flowing. Course contents must be presented in an engaging way and not just online lectures and that collaborative offerings must be planned with proper technology and infrastructure in place.

Secondly, continuous quality improvement of online programs through intensive research and development initiatives. Research and development has to be carried out to help with the refinement of the implementation and the evolution from learning management system (LMS) to learning content management system (LCMS). Merely posting information online would not be sufficient for effective teaching and learning to take place. How well designed and rigorous this research and development is, will determine the final outcome or the quality of the e-learning implementation. This is part of a quality assurance practice. An assessment of the graduates produced measured against the objectives and goals of the course as well as the mission and vision of the university will determine how far e-learning has succeeded.

Thirdly, internationalization and commercialization of web-enhanced online courses. The university currently offers distance learning programs to a population of students throughout the country whose only option to pursue higher education was through the internet because of their work, family and travel commitments. Collaboration with the graduate school of the university, postgraduate programs could also be offered fully online to a wider range of local, regional and international students. Currently, the university has about 200 international students and their enrolment could be increased through e-learning.

10.0 ISSUES, CHALLENGES AND POLICY CONSIDERATIONS

The need for tertiary education should not be underestimated. Stiff competition and the ever increasing demand for knowledge workers in the knowledge-based economy require universities to extend tertiary education to qualified candidates. Physical space may be limited to full-time on-campus students only, but the majority of university students...
maybe following the e-learning programs. E-learning could be the solution for the current demand of the new generation towards learning. Their ICT-savvy nature and inquisitive minds work well through e-learning.

Much has been said about the independent nature of e-learning, where students manage their own learning environment, their pace and progress. The challenge for instructors and tutors is to constantly motivate their students and to promote quest for knowledge, and eventually to improve the intelligence level of the society. Whether the learning outcomes of each online course are geared towards developing intellectual personality, creativity, innovative and critical thinking need to be explored.

Another challenge of e-learning on the lecturers is the amount of time required to develop online course contents and to teach traditional classes. In addition, lecturers tend not to initially comprehend that e-learning instruction differs fundamentally from traditional approaches and requires a major commitment of time and training.

E-learning frequently requires hands-on activities, whether participating in an online discussion or creating a Web page about research activities. This introduces new issues and challenges for students, including computer experience and confidence, computer ownership, technical problems, self-motivation and time management. Digital divide is still an issue for many developing countries. It is indeed a fundamental issue and needs proper attention and solution.

Intellectual property (IP) and copyright issues may have not been fully addressed. Many of the components and constituents of an e-learning course are copyrightable matters and has been the subject of much debate. In the long term, it is preferable for the institution to promulgate an IP policy. Faculty member involvements in the e-learning are always concerned about the materials they developed and offered online. Very few institutions in Malaysia have an IP policy, and those that do have are still very one-sided policies (in favor of the institution). A balance needs to be struck to encourage the faculty’s contribution to IP and e-learning course.

At the heart of teaching and learning, there are always the information resources, traditionally provided by the university library. In the e-learning environment, the development of digital libraries would be considered the best support for both the instructors and students. Many journals and books in the digital form are available for libraries to subscribe to from the service providers at a discounted educational rate. Many locally produced materials are not digitized, thus limiting their access to e-learning students.
11.0 CONCLUSION

E-learning has established itself as an option in tertiary education and is poised to take a larger role. Its obvious attraction for students/learners are related to the flexibility it offers them in terms of time, pace, location and access to course material and related resources. It also provides immediate feedback on progress using online assessment. It can free teacher-student shared time to focus on understanding, rather than skill-practice or the transmission of information.

For UiTM, moving into e-learning requires a holistic approach and careful thinking about the desired outcomes on teaching and learning. While improvements will continue to be made on software and systems, to ensure good platform and good students’ access require higher investment. Whether e-learning will surpass the popularity of on-campus University education has yet to be proven. Certainly for a small nation like Malaysia, its presence on the world education map has just been initiated. A lot of support has to be garnered and partnership welcomed. In a global village, collaborations are the core to success.

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