ELEARNING AND BORDERLESS EDUCATION IN ASEAN- NEW PROSPECTS AND CHALLENGES

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Abstract

Rapid expansion of Internet and increasing use of portable devices in ASEAN has created new opportunities for borderless education. Although very powerful in its impact, eLearning is still struggling to fully integrate with traditional methods of Face-to-Face (F2F) teaching and learning. For the last few centuries F2F doctrine of teaching and learning has dominated the education scene on campuses, but new technologies have created a borderless arena for education and training. Internet has also changed the meaning and context of socializing. F2F interactions are now augmented by on-line chats and forums. Increasing use of social networks such as Facebook, Twitter, Google+ and LinkedIn has changed the way people learn. New technologies and expansion of eLearning not only have shaken the traditional basis of education but also widened its horizon across business, industry, military, health care and education worldwide. eLearning have presented fresh approaches to bringing reforms in education at all levels, from elementary to higher education. Increasing use of touch screen portable devices such as iPhones, iPads, Tablets and a variety of other smart devices are forging new ways of learning. This paper examines the role of eLearning in transforming the nature of education in ASEAN. Internet has become a great equalizer to help reduce the digital divide in ASEAN. To emphasize the significance of eLearning this paper will discuss a set of new tools available in Web 2.0 for enhancing eLearning. Overall purpose of this paper is to review the literature as well as discuss various efforts being made for creating a common framework for on-line teaching to improve the quality of education across ASEAN.

Keywords: ASEAN, Borderless Education, eLearning, Internet, Social Networks, Web 2.0

Introduction

Traditional teaching methods, especially F2F teaching emphasizes the importance of culture and context in understanding what occurs in the classroom and help students to construct knowledge. According to Schunk, D. H. (2000) this perspective has been closely associated with many contemporary learning theories, most notably the developmental theories of Vygotsky (1925), Bruner (1956) and Bandura's (1994) social cognitive theory. Meaningful learning occurs when individuals are engaged in social activities. For the most of the last century it was accepted that learning would require F2F interaction. Not anymore. The advent of Internet and web based social networks has changed the context of socializing. Table-1 given below provides basic differences between F2F learning and eLearning.

Internet has also changed the meaning and context of learning as well as socializing. F2F interactions are now augmented by on-line chats and forums. Increasing use of social
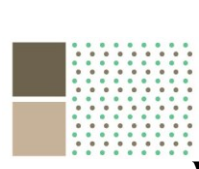
networks such as Facebook, Twitter, Google+ and LinkedIn has changed the way people socialize and learn. In this highly connected, always switched-on world, on-line social networks make more sense than ever before. They offer anyone who needs to learn a new skill, prepare for a new job, or pursue a new career the opportunity to complete training, get a certificate, or earn a degree without moving or leaving their current employment.

According to Truit (2009), the Internet has proven particularly fruitful in situation where F2F encounters in which an expert might actually exacerbate the problem of asymmetrical information-situations in which an expert uses his/her information to make others feel lesser. eLearning has tremendous capability to remove such a asymmetry that has been a part of traditional F2F instruction. eLearning can enable students to pace their learning in their own ways. This is a critical difference between F2F teaching and eLearning.

Table 1 Differences between F2F and eLearning

Questions	F2F Learning	eLearning
How does Learning Occur?	Social, meaning created by each learner (personal)	Distributed within a network, social, technologically enhanced, recognizing and interpreting patterns
What factors influence Learning?	Engagement, participation, Social, Cultural	Diversity of Networks
What is the role of memory?	Prior knowledge, remixed to current context	Adaptive patterns, representative of current state, existing in networks
How does transfer occur?	Socialization	Connecting to nodes or portals
What types of learning are best explained by this theory?	Social, vague, ill defined	Complex learning, rapid changing core, diverse knowledge sources

The most relevant feature of eLearning in colleges or universities is that it brings engagement. eLearning can bring information and data in various formats and can be easily interpreted with click of a mouse. eLearning, if designed by an expert team, can support learning objectives and outcomes in a more scientific manner than the traditional teaching. What is essential and important to understand is that eLearning is not just complimentary or a standalone solution. eLearning addresses different learning styles and provides an opportunity for immediate assessment. eLearning has flexibility, it provide choices and can help in analysis, evaluation and improvement of key factors of teaching-learning process. eLearning in higher education can bring high levels of interactivity and engage students in an active learning process suited to their needs and abilities, hence, giving them an immersive learning experience. eLearning if properly implemented can enable students in ASEAN to develop high order thinking skills and prepare them for lifelong learning. This paper provides an overview of eLearning in higher education in ASEAN and recommendations for cross accreditation for harmonizing of higher educatifon across the region. It also highlights the role of eLearning in the expanding market of education in ASEAN. It attempts to provide insight into the changing landscape of education across the region.

Why eLearning is a better alternative to traditional model of F2F learning?
Methodology for this paper includes survey of new and emerging technologies and services for online learning.

For the last few centuries enormous amount of money has been poured into setting up colleges and universities all around the world. Attending F2F classes to attain knowledge, academic degrees and recognition had been part of human history. The top down hierarchical nature of traditional education has produced some good results for those who could buy their admission to Ivy League universities but also created enormous barriers for those who could not afford to go to the elite institutions.

After World War-II as North American and European economies expanded, Western societies began to institutionalize education. Big universities with distinct departments were created. Gradually educational processes were standardized. These processes were largely focused on *managing* education, just as they managed any other business process. This industrialization of teaching-learning process led to a structured approach to education with the following key characteristics: big campuses, big budgets, standardized educational processes and controlled access to knowledge. But this *structured* approach to education, which helped universities to become highly successful in the last two centuries, has three clear limitations in the fast paced world created by the Internet: it is too expensive and resource consuming, it lacks flexibility, and it is elitist and insular. Further, in the interconnected world powered by the Internet and now the social media, the traditional university is not the only source of new ideas. Internet has changed the nature of academia. eLearning represents a bottom-up innovation that involves spontaneous cooperation of free enterprise and people from all around the world. To understand the pitfall of traditional structured F2F education and the lessons these hold for universities in ASEAN, it is useful to explore how an expensive and structured approach of on-campus learning has begun to show its limits.

The new concept of cloud computing is based on a new paradigm in which of data and applications reside in the network, not in the devices owned by users. There are three key drivers of change shaping the new landscape of higher education. These new drivers have led to the creation of what experts call as on-line learning. A brief discussion of the three major developments in eLearning is given below.

i. Production of new content- In recent years there has been a tremendous shift in the ways new knowledge is produced. Democratized tools of production of new knowledge have given birth to millions of personal blogs and web sites. It has also enabled global collaboration to create new content on Internet sites e.g. Wikis and social networking services e.g. Facebook, Twitter, Google+, U-Tube and LinkedIn.

ii. Access to new content- Anyone with a connection to the Internet can now access vast reservoir of knowledge residing in the cloud. With increasing ubiquitous 3G and 4G and other broadband capabilities the ease of access has led to a dramatic increase in the number of users in Asia. There is also an exponential growth in broadband penetration world-wide. Figure 1 given below depicts the dramatic rise in the population of Internet users in Asia in 2011. It now amounts to about 44.8% of the global share. According to the data provided by http://www.internetworldstats.com as of December 2011 the number of Internet users in Asia has reached 114,304,000 persons. With the increasing Internet penetration rate of 26.2% more than half of the population in Asia is connected to the Internet, either creating or using resources. By all appearances, it seems that we are standing on the front wave of ubiquitous

connectivity. And the more that we are connected, the more we want to find new avenues to engage with one another and share ideas and information in ways that were not possible just a few years ago. In this highly connected, always switched-on world, Social Networks makes more sense than ever before.
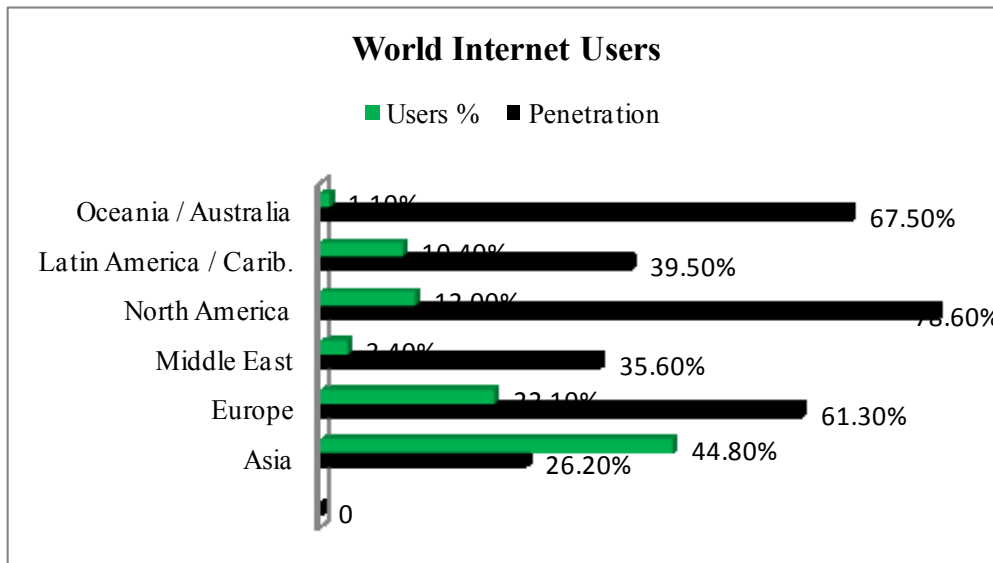

World Internet Users

■ Users % ■ Penetration

- Oceania / Australia: 1.10% | 67.50%
- Latin America / Carib.: 10.40% | 39.50%
- North America: 13.00% | 78.60%
- Middle East: 3.40% | 35.60%
- Europe: 22.10% | 61.30%
- Asia: 44.80% | 26.20%
- 0

Figure 1 Internet Users & Penetration
(Source: http://www.internetworldstats.com)

iii. New mode of storage of content - Increasing use of portable storage devices such as flash USB sticks and smart phones is changing the ways we store and retrieve information. The falling cost of storage is shifting the mode of storage from individually owned devices to the network or the cloud. Google Docs, MSN Skydrive and Apple iCloud provide a range services that can be integrated with on-line teaching. Much of the newly created knowledge (Figure 2) is now residing in the Internet infrastructure.

Figure 2 Google Applications

As shown in Figure 3 below, Apple's iTunes-U brings the power of the iTunes Store to education, making it simple to distribute information to university students and faculty as well as to lifelong learners all over the world. With an iTunes-U site, a university can have single home for all the digital content created or curetted by educators, which can then be easily downloaded and viewed on any Mac, PC, Laptop, iPod, iPhone and iPad. Apple's iTunes-U is home to more than 300,000 free lectures, videos, readings, and podcasts from universities all over the world. Universities such as Yale, Stanford, UC Berkeley, Oxford, Cambridge, and MIT, as well as broadcasters such as Public Broadcasting Corporation (PBS) offer free content on iTunes-U. Content ranges from lectures and presentations to syllabi and campus maps. Unfortunately, iTune-U is still not available in every member nation of ASEAN.

Figure 3 iTune-U

Globalization of higher education is the result of increased interconnectedness enabled by Internet technologies. Thanks to the Internet, students all over the world can now find best places to have their education as well as jobs. This ever-increasing ability to connect to the Internet or the cloud is also resulting in the expansion of eLearning, which in turn is making higher education more competitive.

Social Networks and Learning Models
According to Steve Wheeler (2010) evolution of social networks and personal learning environments (PLEs) has given rise to two distinct models of social learning. The first model called Amazon model treats all new media such as blogs, discussions, file sharing chat, social networks as learning resources. In other words, every technology that is in use today is a type of learning resource [6].
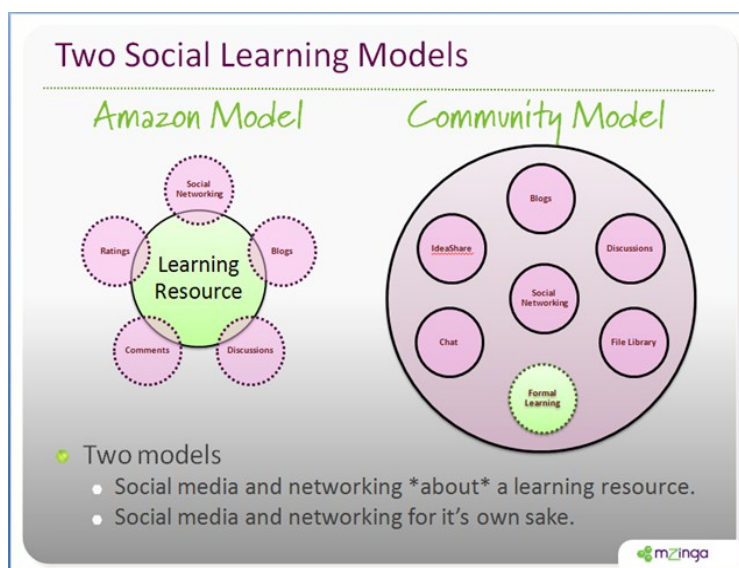
Figure 4 Two Social Learning Models
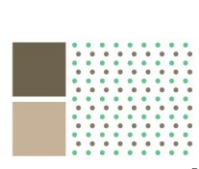(Source www. stevewheeler.blogspot.com)

The second model treats each and every technology as a distinct resource including social networks. Formal learning for the purposes of attaining a certificate or a degree in F2F or in a VLE is also a part of the community of resources. The second community model emphasizes the role of each technology in relation to its purpose. In this model formal learning has a very distinct purpose than an on-line forum, file sharing or chat. Interplay of these new methods and their role in enhancing learning requires further research. And do not forget that there are many good things in the cloud. Now a day the users believe that virtual world can transform into a real experience. Well, in the end learning is a personal journey and the virtual and social learning environments are both responsible for changing the ways we learn.

eLearning landscape in ASEAN
In its annual report of 2011-12 it is mentioned that one of main purposes of the ASEAN Charter is to "develop human resources through closer cooperation in education and life-long learning, and in science and technology, for the empowerment of the peoples of ASEAN and for the strengthening of the ASEAN Community". This highlights the very strong focus on the social dimensions of development in ASEAN and represents ASEAN's aspirations to promote greater educational cooperation among member states and to strengthen education within them, in order to narrow the development gaps, to prepare youth for regional leadership, and to increase the competitiveness of the people.

With regard to cooperation in higher education, which is overseen by the ASEAN University Network (AUN) Secretariat, numerous activities and projects have been initiated and convened in line with the priority 3 of the ASEAN 5-Year Work Plan on Education (2011-2015) and the growing number of cooperation frameworks with ASEAN Dialogue Partners (e.g. ASEAN Plus Three and East Asia Summit frameworks). The AUN, which comprises more than 26 leading universities of ASEAN, has officially launched the ASEAN Credit Transfer System (ACTS) to enhance and facilitate student mobility among AUN member universities. The system will be open to non-AUN member universities subsequently.

Meanwhile, AUN has also embarked on Quality Assessment initiatives (QA) to maintain, improve and enhance teaching, research and overall academic standards among member

universities. Efforts are also underway to develop more ASEAN-related content that can serve as common source references in universities in the region. This is with a view to enriching education materials on ASEAN, and also enhancing awareness, understanding and a sense of ASEAN identity among the diversity of cultures and education systems.

Major eLearning Initiatives in ASEAN
Charmonman S. (2005) in his paper cataloged the growth of eLearning in higher education in ASEAN. There have been many changes since his paper was published in 2005. However, a summary of the eLearning initiatives started in 2005 and beyond is given below. Following is a slightly modified version of the paper authored by Charmonman S.

University Brunei Darussalam, (www.ubd.edu.bn) in Brunei was established in 1985, offering Bachelor's, Master's and Ph.D. degree programs. Since then university has developed several eLearning projects to support the existing on-campus programs and is now fully established and providing a variety of eLearning degree programs.

Cambodia started university-level eLearning in 2004. The National Institute of Business (www.nib.edu.kh) supported by Japan Overseas Development Corporation (JODC) started offering eLearning based Bachelor's and Master's degrees in many fields of study such as Accounting and Finance, Sales and Marketing and Business Management. The Ministry of Education, Youth and Sports promotes education for all through online learning. University of Cambodia (www.uc.edu.kh) now offers a variety of eLearning programs and provides free email accounts with wireless Internet access.

Many universities in Indonesia now provide eLearning. The earliest example is provided by Indonesian Open Learning University (IOLU) which along with on-line courses also provided on-line services such as calendar, forum, online tutorial and chat. Another example is Trisakti University (www.trisakti.ac.id) which in 2005 offered Master of Management in eLearning mode and is now providing a score of eLearning degree programs such as Bachelor of Management, Bachelor of IT, Master of Accountancy, Master of Industry Technology and Ph.D. in Economics and many more.

In the year 1995, ten higher-learning institutions in Laos were integrated into the National University of Laos (www.nuol.edu.la). In August 2004, with the support of Kobe University in Japan and Japan International Corporation Agency (JICA), it organized lectures on the topic of "International Economics" which were given in Kobe and attended in interactive mode by 120 students in Vientiane. Now many universities in Laos offer eLearning programs.

Large numbers of universities in Malaysia are now offering university-level eLearning degree programs. The first in the line was University Tun Abdul Razak (UNITAR). UNITAR (www.unitar.edu.my) was established in 1997 as the first virtual or eLearning university in ASEAN. The second Multimedia University (www.mmu.edu.my) was established in 1999. It offered two accredited eLearning degrees programs, namely, Bachelor of Management, and Bachelor of Business Administration in Human Resource Management. MMU now offers many new degree programs.
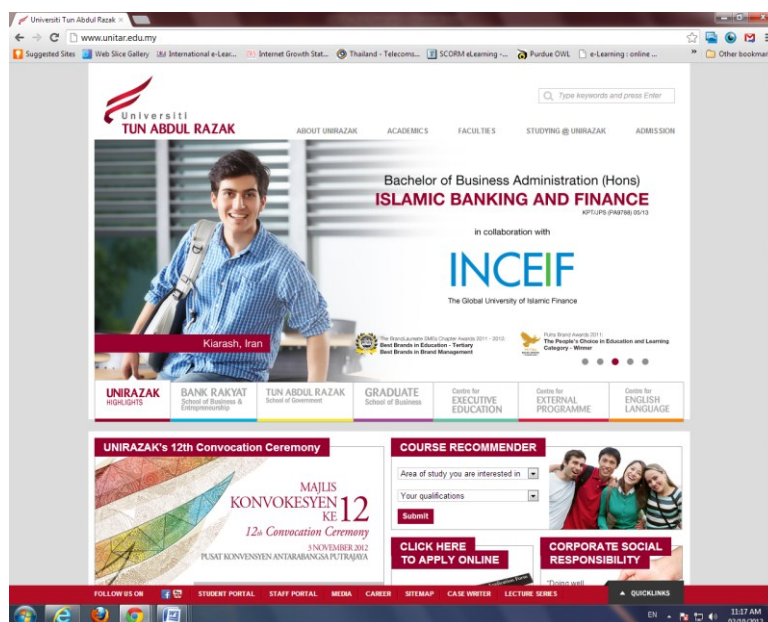
Figure 5 University Tun Abdul Razak (UNITAR)

The third example of Malaysian universities offering eLearning is the University Technology MARA (www.uitm.edu.my) which was established in 1956. In the year 2005, it provided 3 satellite campuses, 12 branch campuses, 6 city campuses and 25 franchise colleges which offered a variety of eLearning programs. The fourth example in Malaysia is the Universiti Putra Malaysia (www.upm.edu.my) which was established in 1931. The fifth example in Malaysia is the Open University Malaysia, (www.unitem.edu.my) which was established in the year 2000. It now provides many degree programs delivered by using a variety of Learning Management Systems (LMSs).

In 2004, Japan's Ministry of Economy, Trade and Industry supported the eLearning Center in Myanmar (www.yangon.com.mm). It offered preparatory materials on WBT (eLearning system from WBT System Ltd. in Ireland) for IT engineering examination. Later an MBA program which graduated 180 students was expanded in eLearning mode. Host of new eLearning degree program are offered now.

Several universities in the Philippines have started eLearning degree programs. The first example is the University of the Philippines Open University (www.upou.org).
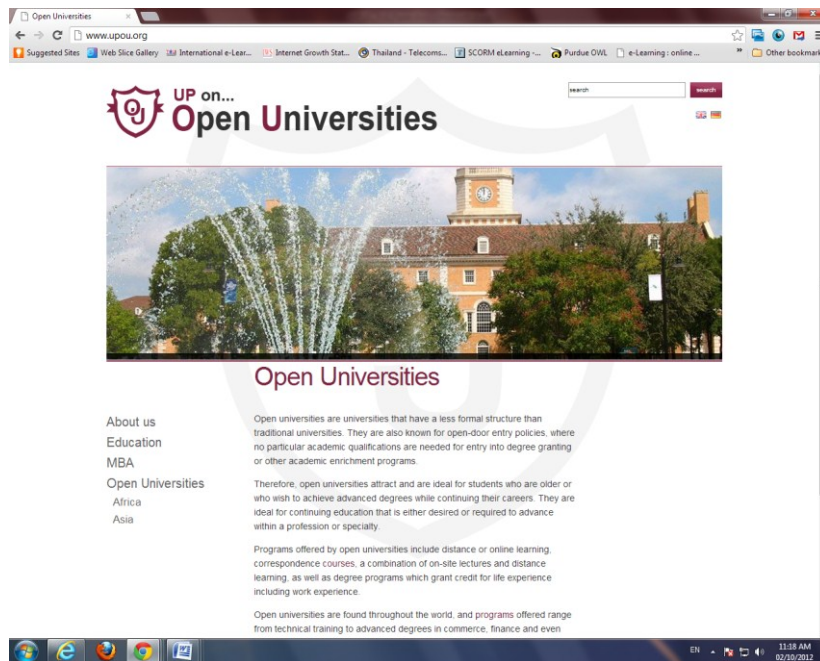
Figure 6 Philippines Open University website

It was established in 1995. Now it has more than 30 learning centers. The second example is De La Salle University (www.dlsu.edu.ph) which is a Catholic university founded in 1911. The Graduate School of Business in this university offers two modes of online courses. The first is provided in blended mode and the second one is fully online.

There are many universities in Thailand that are now offering eLearning programs. The first example is the Assumption University (www.eLearning.au.edu). The second example is Thailand Cyber University (http://www.thaicyberu.go.th/) which was established by the Office of the Commission for Higher Education. TCU has completed a huge number of courses. Four universities have joined TCU, including Chulalongkorn University, Kasetsart University, and Naresuan University. Many more universities are now joining and full degree programs are now being offered. The third example is the oldest and the most prestigious Chulalongkorn University (CU) which has several eLearning projects. The fourth example is Ramkhamhaeng University (RU) established in 1971 as the first open university in Thailand. RU has been offering eLearning courses for students abroad such as in the US and UK. RU is also developing several new eLearning programs. The fifth example is Sukhothai Thammathirat Open University (STOU) which is the second Open University in Thailand. STOU has been offering eLearning Ph.D. program from Australia. STOU is now offering its own eLearning programs.
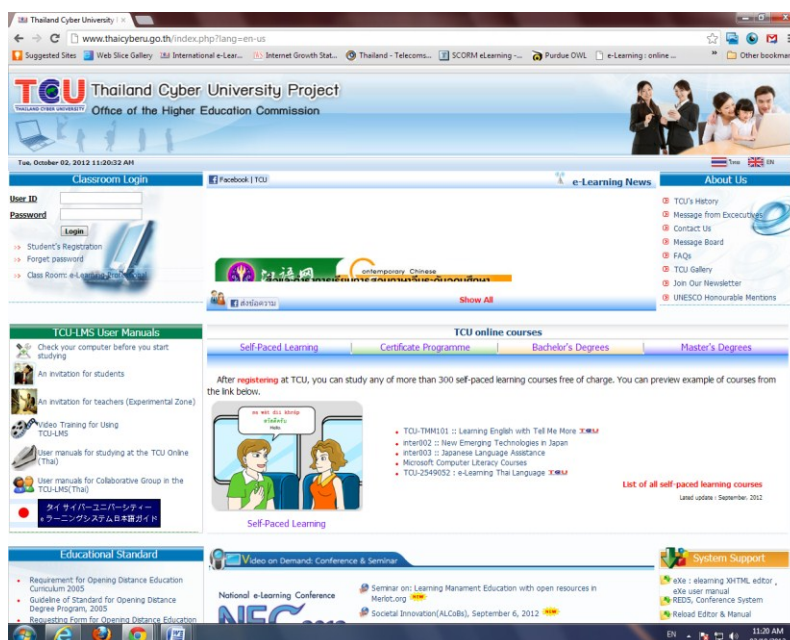
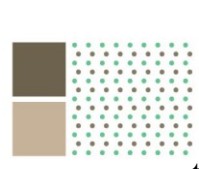**Figure 7** Thai Cyber University (TCU) website

There are many eLearning projects supported by the Ministry of Education and Training (MoET) of Vietnam with its own portal (www.eLearning.com.vn). For example, Cho University (www.ctu.edu.vn) which was founded in 1966 offers Bachelor's, Master's and Ph.D. programs. There are over 15,500 students at the university with an additional 14,500 at satellite training centers. Complete eLearning degree programs are now being offered by other universities in Vietnam.

Open Educational Resources (OER) - Another trend in higher education
The expansion of Internet as well as on-line learning has spawned many interesting initiatives to provide high class content to the users free of charge. Initiatives such as Open Educational Resources (OER) are not new but they are not exactly commonplace or well understood within the educational community or beyond. OER is content that is provided free through an open public license and made available for others to reuse and modify for teaching and learning purposes.

The most well-known example of OER is that of Wikipedia, a free encyclopedia available for anyone to view and edit and contribute to. The community works to keep it clean and updated through a democratic non-profit self-regulation process. Debate about the legitimacy of Wikipedia as an academic source is heated and the openness with which anyone can access and contribute to the information is seen as both a blessing and a curse, something where accessibility and standards have not always found harmony.

In USA, a lesser-known but more-academic alternative is being created by Khan Academy. This free online world-class education is available free to anyone to use. Podcasts and iTunes U and sites such as http://www.openculture.com/ also show great potential. In terms of policy, OER is about to enter the mainstream in a big way. In September 2012, with the signing of the California Bills SB1052 and SB1053, the state embarks to create the nation's first Open-Source Textbook Library. The state will seek to determine the 50 most widely-taken lower-division courses in the California higher-education system. These in all likelihood, will also be some of the most widely-taken courses across the country. They will

then seek to create textbooks for these courses that will be free in digital form and in print for $20 or less. The ripple effect of this new initiative should spread way past California, USA and throughout the whole world including ASEAN. With quality publisher-grade peer-reviewed options becoming newly available in open format and competing against the high-priced publishers' textbooks, faculty will need to pause to review these and see how they can be used in their classroom as well as in eLearning programs. The bigger impact will be in showing faculty and educators that open-source textbooks are of a quality worth considering.

All countries in ASEAN are promoting eLearning but there are major issues with regard to accreditation and many more serious problems of harmonizing courses, programs, semester schedules and academic standards. As ASEAN integration approaches 2015 to promote development and free flow of skilled manpower, there should be cross accreditation and harmonizing of education sector in ASEAN. With the Internet becoming a great equalized, the first option is for all ASEAN governments is to recognize all eLearning degree programs across the region. The second option is to set up an ASEAN commission for accreditation and harmonizing of all eLearning programs. AUN can play an important role in bring about such changes. Which also means that AUN to provide free membership to all entities- universities, NGOs, state agencies and private sector in the region. In this respect, a lot can be learned from American model of higher education.

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