

## Trends and Forces for eLearning in Thailand

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### INTRODUCTION

10 to 15 years ago, when learners were not within the vicinity of the instructors, eLearning was then known as “Distance Education”, two main objectives being the ability to respond to people living in the remote areas with education needs and sharing resources such as instructors and other education tools for instance.

Today, with the needs for people to catch up and keep up with the trends, innovation and general development continue. But now time flexibilities and location independence have become

important. Fortunately technology has come much closer to the people and electronics communications have suddenly become a savior in terms of bridging the gap between knowledge and people. The new era of eLearning has started.

eLearning has come a long way from the very early days of distant education in the early 80’s to the use of electronics medium such as CD ROM’s in the 90’s before finally moving into the Internet-based learning today. Several types of media have been used to provide means of learning as shown in Figure 1.

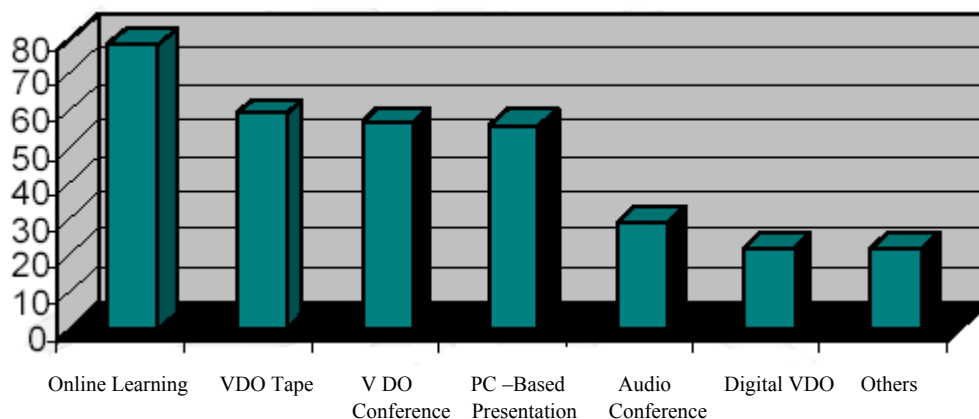


Fig.1 Usage (%) of eLearning media

(Source (IDC))

### Where we came from?

While eLearning in Thailand today is nothing new, most people at all levels have not been aware of it but are rapidly getting familiar with it. Barriers such as culture, organization, limited technology and

availability low household penetration of the ICT such as telephones, Satellites, PC’s, Internet connections, broadband and etc. are still with us, albeit diminishing at a desirable pace. eLearning is considered as the learning method whereby contents are

delivered to learners whenever and wherever learners are and want.

Like in other parts of the world, Tele-Education is something that relates to Technology availability. However, technologies available during the last decade did not appear to support well the education sector. They were rare, limited and relatively expensive for educational purposes. Multimedia presentation is a well-presented (and well tested) form of learning that

requires a large bandwidth for the transmission of the contents to all destination users, certainly pushing the broadband diffusion too. Figure 2 indicates the development of narrow band to broadband. Riding along with the technology development, contents too have been developed gradually from a very text-based to graphics, and video finally.

Narrowband	Early Broadband	True/Ultra Broadband
Downstream speeds of up to 56Kbps	Downstream speeds over 200Kbps	Symmetric speeds (downstream and upstream) over 10Mbps
Single user	Multi-user	Multi-user, multi-appliance/device
Single service (Internet or phone)	Dual service (Internet plus telephony)	Multi-service (Internet plus Phone plus Video/TV plus other)
Basic e-mail, Basic web-browser	Media rich email and web-browser	Media rich email and web browser
Basic information exchange/ e-commerce	Rich information exchange/ e-commerce	Multi-media applications and Multi-appliances
Asymmetric (simple consumer) — no interactivity	Asymmetric (sophisticated consumer) — limited interactivity	Multi-node interaction (sophisticated producer/consumer/peer) — full interactivity
Text capable	Graphics capable	Video capable

Source: The Allen Consulting Group and Ericsson

Fig.2 Evolution of Broadband

In Thailand, technologies deployed in the early days relied rather heavily more or less on Satellites such as Thaicom which was mainly as a one-way broadcast form as well as and two-way communications by using video conferencing systems for remote classrooms as it was the only high coverage medium. ISDN and Fiber Optics were also used as terrestrial transmission means.

At the same time, many advanced technological challenges appeared in parallel with globalization and technology revolution especially in the telecommunications sector. When we talk about media for learning, initially, many types of media came into our mind like newspapers, radio, television, and etc. But only one media that responds to three basic requirements of mass learning: *widespread coverage, two-ways and*

*interactive* and that was the beginning of the “*Internet*”. This is because the global network – Internet, has provided the infrastructure for the new (digital) economy that affects the way people live, learn and work, and the way government interacts with civil societies that are very quickly transforming from traditional communities into modern knowledge-based communities - the so called the “*Information Society*”.

In order to build an Information Society, not only the Telecom infrastructure, but people must be pushing to change for new ways of living, learning and working through the use of advanced information technology and knowledge development. Unfortunately, the inappropriate infrastructure has moved the focus on how to have people get access to Internet and give less priority or important

to the education contents especially edutainment by which bandwidth is the prerequisite. Broadband would then be a major playing role of leading Thailand to the new era of learning.

From the survey of The Pew Internet & American Life Project's survey of American broadband Internet users shows the evidence that broadband is changing what people do online. 61% of broadband users spent more time online at home, and one third stated that they do more work-related tasks since they obtained a broadband connection in the house.

The Internet can help improve the quality of education, and reduce the costs of delivering education; no doubt about that. According to NetDay's survey, more than 80 percent of teachers say that computers and Internet access improve the quality of education. Besides the education, knowledge from the enterprise market is so important to the country like Thailand in which building up competitiveness is the key success factor to compete in the global market. The role of ICT could create new (global) opportunities for how businesses are conducted; which means they may enter into the foreign markets virtually overnight.

### **Government and its roles**

Government views the increase of PC and Internet penetration at home is the starting point in leading Thailand move forwarding to Information Society and increasing country's competitiveness. *Digital Divide* seems to be the major challenge for the government. Many projects have been delivered to bridge the gap such as *SchoolNet*, *UniNet*, *TambonNet*, and *Distant*

*Learning Foundation* etc. Technologies are still in Bangkok as we may see from the survey of National Statistics Office indicated that 34.9% of Internet users are in Bangkok and 59.2 % of households in Bangkok have Internet access.

Even the new generation seems to be more aggressive in moving to the technology-consumption faster than ever. In fact, Internet and sending email is becoming closer and closer to their daily life. And Ministry of ICT plays quite a good role in lowering the costs of acquiring a PC at home with more affordable software. Moreover, the policy to deploy the broadband throughout the country with the target of reaching 1 million subscribers within 3 years can be seen as building long-term country's competencies and responding to the IT 2010 plan to build human capital, to promote Innovation and also to Invest in Information Infrastructure as well as promote Information Industry too. These three areas focus on raising the technological capability from "Dynamic Adopters" to "Potential Leaders". Canadian Broadband Task Force stated that whenever people would have better access to information sources, this could enable the rural public to become better informed and more involved in the national politics and local governance.

Figure 3 illustrated the growth of narrow band against broadband. Narrow band means in the future just (fixed) voice communication, while broadband will go for non-voice multimedia applications and contents. According to the chart, number of broadband users can increase significantly after the year 2008.

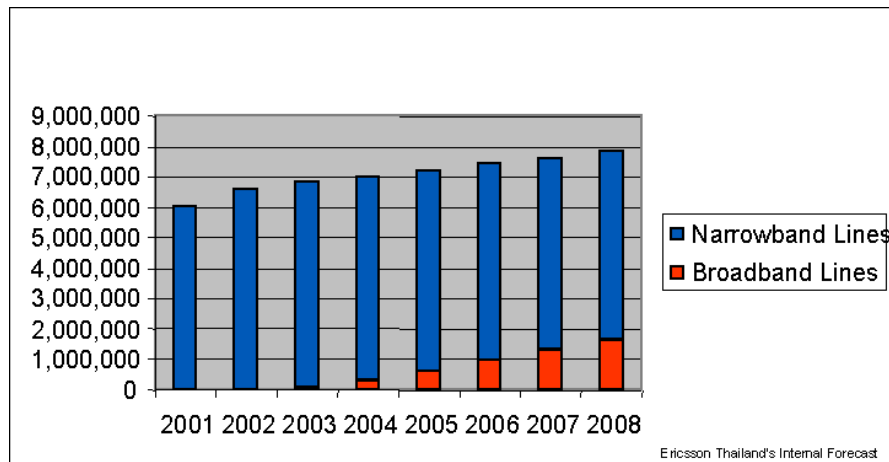


Fig. 3 Growth of narrow band (Fixed voice) and broadband

Even then we see that it's still a long way to go, as people today who are able to access the technologies are people who live in big cities only. However, Thailand is quite slow in deploying the services including the necessary (broadband) infrastructure and transforming the ways of learning and the (digital) contents are very rare too. In some open universities such as Rhamkhamhaeng University, and Sukhothai Thammathirat University, it's true that they are working on eLearning projects but they are still familiar with one way broadcasting or two-way video conferencing through the satellite and Fiber Optics. This is because the digital contents available may not deliver to the learners or students by means of using effective broadband ADSL for lack of availability. However, A paradigm shifting from TV broadcast or videoconference to the Internet is happening.

Kids find lots of fun in learning (effectively) with multi-media learning contents at home or after classes. In addition, eLearning will be suitable for working people who are most likely to have limited free time to attend fixed courses at fixed locations for various reasons. The important thing is the majority of employees in the new economy are skill-based and the training in these areas is not similar to what we are conducting in the tradition way, Technology

that enables appropriate learning and quality of learning (and contents) must be taken into consideration.

Advances in broadband access technologies provide important opportunities for both developed and developing countries. Expanded broadband deployment will benefit education. However, the diffusion of broadband throughout the country requires high demand for computers and Internet access. It is the priority for Thailand to adopt a national broadband policy (including low-cost Internet access) and the deployment of broadband networks and services in parallel with effective learning and quality of contents. The timely deployment of broadband infrastructure and services has the potential to generate enormous societal and economic benefits and their availability is crucial to most public and private services and the economy as a whole too.

Perceived market for Broadband in Thailand is still high price and unseen benefits of having much greater bandwidth. Minister of ICT, Dr. Surapong Suebwonglee wants to see more ADSL broadband deploying with more affordable pricing. At present, fixed line operators such as TOT, TA and TT&T are providing broadband services in some areas and it seems that TA is ahead of them aggressively especially in the entertainment sectors by synergizing

among their business group such as ISP, UBC cable TV, TAO (Mobile phone) and etc. The incoming of IP network and IP-based ADSL (Ericsson's EDA DSLAM) will respond to the market needs of having broadband deploying faster, more efficient with high bandwidth. Users and Learners can enjoy the multimedia learning contents and lead to the increase in number of users. Content Developers will then see opportunity and economically market size.

### **Enablers for eLearning**

We can hardly disagree that eLearning would be the trend for future learning. Interesting questions are how and when. We could see people living today with the environment that requires speed. At the same time, costs of acquiring knowledge and information in the traditional way seem to be higher and higher. On the technology side, it becomes closer to daily life with much more affordable than ever. Therefore, it is not questionable of how, and in fact time is more important since we think that majority of people will be moving to the new way of electronics learning. I would think that of the 5 major forces instrumental to pushing eLearning to happen faster are:

1. *Community* - People come to believe that the new way of learning is by online electronics. That means they have to change their behaviors and paradigms. Thai people are usually familiar with attending lectures in classes (almost one-way). However, to have a successful and effective eLearning class, students must continuously interact with their lecturers as well as their co-learners. Both learners and instructors or lecturers have to change the way of presenting knowledge to the class, by both lecturing and collaboration. There are many tools available in the market for this collaboration such as NetMeeting, collaboration and

conferencing tool that allow students to interact across the Internet in real time with file transfers to facilitate document sharing etc. Only with sincere belief and paradigm shift towards eLearning, can a community of learning be set up to produce effective learning environment.

2. *Appropriate ICT deliverable* – In order to have a community of learning, a large and growing base of computers in homes as well as in workplaces must be mandatory. Government cannot just focus on the widespread penetration of home computer and Internet usage, but broadband diffusion needs to be implemented soon. This is because the world of learning has moved from text-based to multimedia.
3. *Affordable Pricing* – ICT ministry has even launched a program to address provincial home market and enabled people in the rural areas to have home computers. In addition, low-cost software has been introduced to support the hardware program and in turn Thailand can now see quite a low cost of Microsoft licenses and freeware such like Linux and Pladao being deployed. Ministry sponsored low cost software's and cheap computers as a result of high competitions and reduced production cost have for the first time allowed Thai people to be able to afford reasonable computers at home in larger and growing quantities. However, people still perceive that Internet access cost is still too high. This is the barrier to the use of Internet for education. Broadband access fees are also still relatively high and are considered as a premium. Affordability is still an important consideration as far as broadband was concerned. The

situation improves when major telecom operators start to deploy more broadband at more affordable prices – 2000 baht per month steadily going down to less than 1,000 baht per month, at last.

4. *(Quality and Localized) Contents* – We may hear people continuing to say that we pay too high for broadband access with only narrow band contents available. As long as broadband contents are not available, it is not worthwhile for people to go for eLearning as most of the texts seem to be too boring for most learners or multimedia contents with narrow seems unacceptable. Broadband diffusion will make developers seriously produce improved and valuable contents. It is important not to forget the localization as Thai students do not love studying non-Thai contents and this is why almost well known foreign (English) contents did not succeed in Thailand market. We cannot wait for the contents before introducing infrastructure rather like the “*chicken and egg*” situation. All broadcasting contents could be used initially in order that people will get familiar with learning via Internet.
5. *Nationwide Coverage* – The deployment of affordable broadband and Internet access could possibly increase the demand for quality non-English contents in countries such as China and Korea. High coverage can also generates high demand; bring down the costs of development due to the economy of scale.

In summary, eLearning Trend and low price of broadband access can certainly be seen in the very near future due to the change in Technology and other driving forces as stated in the beginning. Technology as defined in the early days as major barrier

will no longer be the barrier anymore, but it turns to the enabler instead. Global broadband market almost accepts and goes with ADSL technology, which today could provide a higher and acceptable speed of more than 8 Mbps downstream. The only challenge to eLearning today would be the paradigm and quality of contents, with the supports from the government to make this market really happen.

## References

- Canadian National Broadband Task Force. (2001). *The New National Dream: Networking the Nation for Broadband Access Report of the National Broadband*
- ELearnFrame. 2000. *Facts, Figures and Forces Behind e-Learning*. August
- NECTEC and NSTDA. 200. *Statistics of Internet in Thailand*. {Online}. Available URL://www.nitc.go.th/internetuser/internet1.html
- Pastore, M. 2001. *Teachers say Internet improves Quality of Education*. [Online]. Available URL: //www.clickz.com/stats/education/article.php/5951\_734761
- Pew Internet & American Life Project. 2000. *The Broadband Difference*. “How online American’s behavior changed with high speed Internet connections at home”.
- The Allen Consulting Group. 2003. *True Broadband Exploring the Economic Impacts*. An Ericsson Contribution to Public Policy debate. September
- Thuvasethakul, C. and T. Koanantakool. 2002. “National ICT Policy in Thailand”. Presented at Africa-Asia Workshop. 25-29 March. Kula Lumpur and Penang. Malaysia