## **ICT-based Education for Development:**

## The Case of Vietnam

(Prof.Dr. Phan Van Que, Dr. Tran Duc Vuong)\*.

#### ABSTRACT

The advancement of information and communication technologies (ICTs) in recent years has changed the socio-economy in Vietnam. The uses of ICTs in education contribute greatly to the improvement of the educational system in terms of quality and quantity.

In recognition of the important role and impact of ICT in improving the teaching and learning environment, many educational institutions are trying to accelerate the ICT application. E-learning, a new provision of ODL in Vietnam is attracting attention of the policy makers, practitioners, and learners, etc.

Computers and virtual databases with broadband internet connections are providing for richer entertainment and

\*Prof. Dr. Phan Van Que is a Vice President of Hanoi Open University, Vietnam and also SEAMOLEC Governing Board member from Vietnam. Dr Tran Duc Vuong is a Director of Center for Research & Development in Distance Education, Hanoi Open University.

learning environments, However, it requires collaboration and partnership of relating institutions for better improvement.

 $The \, rest \, of the \, article \, will \, describe \, Vietnamese \, case \, on \, ICT-based \, education \, development \, through \, partnerships \, among \, related \, institutions.$ 

#### Introduction

Globalization, a key reality in the 21st century, has already influenced education. The reality is shaped by an increasingly integrated world economy, new application of ICTs, the emergence of an international knowledge network, and other forces. Internationalization is defined as the variety of policies and programs that universities implement to respond to globalization. These typically include some type of inter-institutional partnership.

This paper describes a picture of ICT application for Distance education development in Vietnam. It includes four main issues:

- Demand for human recourses development and educational improvement
- ICT infrastructure and possibility of e-learning development
- Further enhance DE and e-learning for life-long learning society
- ICT based educational partnership for development.

# Demand for Human resources development and Educational improvement

Despite remarkable progress Vietnam has made for the past few years, more needs to be done to eradicate poverty and improve living standards. Rapid economic growth and programs targeting poverty and social equity need to be sustained. This implies a need to develop human resources to meet the increasing demand for a more skilled and productive workforce

Currently, there are 45 million working people out of the population of 86 million, ranking 2<sup>nd</sup> in the region and 13<sup>th</sup> in the world. The skilled workforce increased from 7.6% (1986) to 30% (2007). The total higher education students leaped to 1,696,500 (2008).

According to the General Statistics Center, there are still 80% of the workforce working in the industry have not been properly trained. There are around 10 million trained out of 45 working people. Especially, 65% workforce in the areas of agriculture, forestry, fishery, but 3.85% out of them have been trained. This causes low productivity and slows down the competitiveness of the economy.

The educational system includes 2 categories: formal and informal. Formal education operates basing on full-time, face-to-face schooling. Informal education consists of two sub-categories: (1) part-time face-to-face training and (2) distance learning. By law (Education Law 2005), all modes of education are equally recognized. The system is grasping opportunities, however, facing difficulties and challenges

#### Distance Education

The Government and the people of Vietnam have been aware of the philosophy of "life-long education", "education for all" and "building a learning society". Developing the human recourses will always be a pressing need. With the population growth of 1.2 million/year, there will be 100 million by 2020. Statistics from the MoET shows that 62.7% of the population are in the working age; only 32% of them have been trained; 60% of the labors are working in agriculture, forestry, fishery, but most of them have not been trained.

Though the number of conventional universities and colleges is increasing, they cannot meet the demand of the people for education because of lacking physical facilities and lecturers. Distance education has its target students, especial, those who are not accessible to face-to-face courses for various reasons, such as financial difficulty, geographical isolation or employment involvement. The MoET has set the objective that DE will serve 20% of the total students through out the country in 2010 and 30% by 2020, i.e., there will be 300,000 DE students in 2010 and 500,000 DE students by 2020.

Most of the distance education providers use print material as the main medium supplemented by CD, VCD, CD-ROM. E-learning, a new DE technology, is being utilized by many institutions and it reveal promising prospect.

## **National Policy on ICT**

The application and development of ICT and E-learning has been highly approved of by the Government. The Decision No. 246/2005/QD-TTg by the Prime Minister on approval of "The Strategic development of ICT in Vietnam towards 2010, with a vision to 2020" is the most important for developing ICT and E-learning. The Strategic Development Plan aims at the following objectives:

- To improve Vietnam with e-citizen, e-Government, e-enterprises, and e-trading;
- Internet subscribers account for 8% 10% of the population, Internet users account for 25% 35%, and there will be 10 computer holders per 100 inhabitants by 2010.
- Most of Government employees, teachers, doctors, students, and 30% of the population will be able to exploit the advantages of ICT and Internet.
- Products of ICT training at universities will reach the advanced position in ASEAN.
- ICT will play a leading role in transforming Vietnam into a communicational and knowledged society, an industrialized and modernized country by 2020.

# **Key Programmes**

- "Developing and Improving Telecommunications

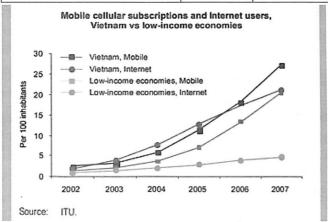
- and Internet Infrastructures", headed by the Directorate General of Post and Telecommunications
- "Developing IT Human Resources", implemented by the Ministry of Education and Training.
- "Establishing and Developing the Software Industry", by the Ministry of Science, Technology and Environment.
- "Establishing and Developing the Hardware Industry", executed by the Ministry of Industry.

## **Internet Development and ICT Application**

According to the International Tele-Communication Union (ITU), Vietnam ranks in the World top ten for fast ICT development, and stays at the 17<sup>th</sup> of the top 20 for the ratio of the population to use the Internet.

	2007	August
		2009
Statistics on Internet		
Development		
Users		
Users per capita	22.04	25.44
Total International	12,580	64,603
connection bandwidth of VN		-
Total domestic connection	26,744	90,969
bandyjdth .	(0.70.1	117.100
Dot VN domain names	60.604	117.100

Dot VN domain names	60,604	117,100
Total broad bandwidth subscribers	1,294,111	2,694,587
	÷	



Nearly 60% the population use mobile phones.

# **E-learning Situation**

Currently, all 63 provinces and cities have completed a program of Internet development in universities, colleges, and schools. Most of government organizations and agencies at central and provincial levels have access to the Internet. Half of secondary schools and provincial hospitals are networked, while 92% of companies are linked with the Internet.

Vietnam has 16 universities providing distance learning at different levels for around 200,000 students. However, e-learning programs account for only 15%. The largest program on ICT training is conducted by the National University of Ho Chi Minh City (<a href="www.uit.edu.vn">www.uit.edu.vn</a>), which has a capacity for 10,000 students. The National University Hanoi (<a href="www.uww.e-learning.edu.vn">www.e-learning.edu.vn</a>) is also a leading institution in researching and providing e-learning.

## Besides, E-learning is being operated at:

- Hanoi Open University (<u>www.topica.edu.vn</u>)
- Hanoi University of Post and Communication technology (<u>www.</u> pttcl.edu.vn)
- Faculty of Education Hanoi National University (<u>www.eduf.</u> <u>vnu.edu.vn</u>)
- Hanoi IT centre (<u>www.hanoi-ittc.edu.vn/daotao</u>)
- Hanoi National Economic University (<u>www.neu.edu.vn</u>)
- Danang EA College (<u>www.dayhoctructuyen.com</u>)
- Can Tho University (<u>www.dec.ctu.edu.vn</u>)
- Hanoi Pedagogical University (www.el.hnue.edu.vn/lwp)
- Ho Chi Minh City Open University (www.ou.edu.vn/dttx)
- Danang University (<u>www.dbavn.com/elearning</u>), (<u>www.ud.edu.</u> <u>vn</u>)
- Hue University (<u>www.it-jsc.com</u>).

Some private enterprises are successful in providing e-learning to secondary school students. For example, (www.truongthi.com. vn) runs tutorial courses to those who expect to pass the national admission examination for universities; (www.hocngoaingu.com.vn) operates English courses, which are beneficial to secondary students.

Statistics from a recent survey shows that, although there is a number of institutions providing web-based courses and programs, most of which are in the form of "office-word", "pdf" and "html". There should be more programs developed in the form of multimedia packages, such as CD-ROM and two-way-interaction programs on the Internet. The shortage of multimedia packages for education is due to the limited funding and investment. The accessibility to the Internet in urban areas is quite good. Most of the educational institutions are equipped with new generation computers and broadband while quite a number of institutions in the rural areas do not have adequate computers and the internet connection is mainly relies on dial-up modem.

# Open Course-wares for Teachers and Students

The Ministry of Education and Training (MoET) has created a platform for sharing courses between institutions, teachers and students. Since 2007, under the sponsorship by Vietnam Education Foundation (from USA) and Masachuset Institute of Technology, an Internet portal namely "Vietnam OpenCourseware Program" (VOCW) has been in operation. All the courses are from the International institutions. The mission of VOCW is to make the Open-Course-Ware features rich, useable, re-useable, and accessible at no cost firstly for academic environment, and later on to all in the society. Currently, there are 1,101 courses online <a href="https://www.vocw.edu.vn">www.vocw.edu.vn</a>.

courewares contributed by the universities online. The electronic library is accessible to all. Another portal namely "Vietnam Online library for E-teachers" for teachers to exchange knowledge, experience and view is now in operation. This website has been jointly created by a foreign institution and a Vietnamese enterprise, <a href="https://www.giaoan.violet.vn">www.giaoan.violet.vn</a>.

"Partners in Learning" (PiL) is an initiative of Microsoft through close cooperation with government leaders and educators by providing instruments and knowledge for schools and teachers to reach their full potentiality in transferring and sharing knowledge. With the global scale and local implementation, this program has brought in innovative pedagogic methodology combined with IT to schools. As of end 2008, some 20,000 teachers in many provinces and cities of Vietnam have taken part in this program.

Recently, the largest Internet provider in Vietnam (VDC) has just opened the Mega E-learning portal to all its ADSL clients (nearly 2 million) free. The courses are offered on the website www.hocmai.infogate.vn and www.beat.infogate.vn.

Distance education technologies, especially ICT, not only facilitate improving the quality of distance education but also change the methodology in conventional institutions so that the quality of the HR created by the whole educational system will be improved. It is important to note that "The distance learning landscape has been transformed by ICTs, allowing for real growth in numbers and types of providers, curriculum developers, modes of delivery and pedagogical innovations" (Executive Summary, UNESCO 2009 World Conference on Higher Education, p. xvi).

training courses to managers and practitioners, either online or face-to-face methods to particular groups of participants. Areas of training and pilot-testing should focus on (1) interactive webbased design and development, (2) SMS-enabled technologies.

### Conclusion

Although e-learning in Vietnam is at initial stage, it has a promising prospect due to its technical strength and effectiveness of disseminating knowledge. Furthermore, Vietnam like other Southeast Asian countries, where resources in the form of physical educational infrastructure and academic expertise are in relatively short supply, while the need for access to quality education is increasing demographically.

As e-learning is a fast and effective medium in Distance education, multicultural education can be widely disseminated among the countries for mutual understanding and benefit in the era of globalization for development.

However, compared with many regional countries, e-learning in Vietnam faces some difficulties which resulted from undeveloped infrastructure, unpopular internet coverage in rural and remote areas. For the teacher community, the exploitation of internet resources is generally popular in urban zones and big cities, not elsewhere. Besides, several common difficulties in carrying out e-learning are the unpredictable possibility of reaching expected results of skill-based subjects which require frequent communications among participating members and guiding teachers.

Therefore, to create high efficiency of the e-learning program in Vietnam, the program actually needs concrete strategies. For e-learning, the continuation and promotion of training course contents are very important. Attractive and qualified contents need money and effort. As a result, to have such contents, contributions from individuals and organizations are very important. The successful strategy for carrying out e-learning is also the orientation to build contents for e-learning.

For the e-learning and Distance education to be effective and successful there should be mutual responsibility, contribution and sharing of the policy-makers, educators, managers, government bodies, relating institutions, and the DE learners throughout the country.

## References

- 1. Ministry of Post and Communication, "Strategic Development Plan towards 2010, vision to 2020", Hanoi, 2005
- 2. Government of Vietnam, "Direction to Build Learning Society until 2015", Hanoi May, 2005
- 3. Digital Review of Asia Pacific "ICT in Vietnam", 2009
- 4. Tran Duc Vuong, Ministry level Research on DE Technologies, June 2009
- 5. www.moet.gov.vn, 2009, Statistics for download
- 6. www.businesstraining.vn, March 2009
- 7. www.tienphong.vn, November 2008
- 8. www.vietnamlearning.vn, July 2009
- 9. www.unesco.org/en/wche2009/ September 2009