

## International ICT Cooperation on eLearning in Asia

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### **Abstract**

*My case study on International ICT Cooperation related to eLearning activities in Asia is the ongoing project on [e-University in HRD for e-government] which we are responsible for management. Participating governments and International organizations are as follows: Thailand, Philippines, Vietnam, Indonesia, Malaysia Japan, ITU, APEC and JICA.*

*The purpose of this presentation is to examine and evaluate the usability and efficiency of eLearning programs at Waseda University for ITU, APEC and JICA.*

*The main key issue is to establish "e-University networks" as a centre of excellence in HRD for e-government through eLearning vocational courses/system by using new networking technology. Also, it is useful to promote strong partnerships and interactive collaboration among academic institutions, government and industry in supporting HRD requirements in the new economy under cross-cultural societies. It is recommendable to implement ICT online training and research programs for fulfilling the need of the new environment of digital society. Networking collaboration among the above-mentioned governments, universities, and international organizations is extremely fruitful. Preliminary findings are described as follows:*

- *Urgent need is identified to build a global standard system for international key infrastructure of*

*broadband and ubiquitous networks on eLearning activities.*

- *Solution is necessary on internal Digital Divide among central government, local governments & private sector, which might be applicable to Asian countries.*
- *Both APEC and ITU are the best tools for implementing International ICT cooperation on eLearning in the region for standardization and conformance.*
- *Pioneering research should be conducted among university, industry and government on projecting the future eLearning scheme in Asia with quality assurance.*

*Finally, as a chair of APDMEN (Asia Pacific Distance Multimedia Education Network), I propose the establishment of the new association on eLearning in Asia.*

### **1. Introduction**

The purpose of this presentation is to examine and evaluate the usability and efficiency of eLearning programs at Waseda University with ITU, APEC and JICA. The main or key issue is to establish "e-university networks" as a center of excellence in HRD by implementing eLearning vocational courses/systems using new networking technology. Also, it is useful to promote strong partnerships and interactive collaboration among academic institutions, government and industry. This will be

achieved by supporting HRD requirements in the new digital economy under cross-cultural societies. It is recommended that online training and research programs should be implemented in ICT to fulfill the needs of the new information society environment. Networking collaboration among the above-mentioned governments, universities, and international organizations in Asia will be extremely fruitful and productive.

This paper will introduce 4 eLearning programs which are currently under active operations at Waseda University. I am responsible for two of them- CIO online program, and e-university in HRD for e-government. Finally, as a chair of APDMEN (Asia Pacific Distance Multimedia Education Network), I would like to propose the establishment of the new regional association on eLearning in Asia.

## 2. Ubiquitous Society in Broadband Age

Both the proposed Ubiquitous Network and the e-Japan Strategy Phase 2, which were announced in July, 2003, have co-relationships on the concept such as:

- The shift of emphasis from the development of ICT Infrastructure to the Promotion of ICT Utilization has been introduced.
- The Ubiquitous Network (connected anywhere, anytime) will be the goal of the next eLearning environment

Priority on the development of eLearning infrastructure will be shifted to the promotion of utilization. In this regard, the e-Japan Strategy Phase 2 will have emphasis placed on application and utilization rather than network/ information infrastructure. Based on structural reforms, pioneering ICT utilization of application, content, and service such as eLearning will become more popular to both suppliers and users.

National trends and issues on both ICT and socio-economic development in Japan are easily characterized. The following items indicate a new implementation list for both

trends and issues.

- I. Promotion of eLearning is essential to enhance international competitiveness
- II. Application of business management models to eLearning is a key for success
- III. Digital society with eLearning programs brings about synergy effect on regional economic development
- IV. Technological Innovation in eLearning contributes to technology-oriented community development
- V. Information security issue is an emerging agenda
- VI. Manpower development in ICT is important to realize the Digital opportunity
- VII. Strengthening competitiveness by increasing ICT investment in eLearning
- VIII. e-Democracy could be achieved by the participation of e-people via eLearning
- IX. Leadership is needed to establish a national eLearning framework.

A key issue in the "e-Japan" strategy for eLearning is how to formulate selective policies for further deployment of Broadband on eLearning in the short term. Our study indicates that eLearning is of vital importance in accelerating and mobilizing the tremendous resources in the educational sector and policies for the development of broadband for eLearning will play an important role for HRD in ICT. Smooth integration between university facilities and vendor supply of hardware and software should be made for promoting nation-wide eLearning networks. It is quite important to integrate both.

The historical trends of formulating the National Plan are described as follows: Basic IT Strategy (2000.11.) => e-Japan Strategy (2001.1.) => e-Japan Priority Policy Program => e-Japan 2002 Program, which shows the following 5 Priority issues:

- Ensuring security and reliability of advanced information & telecom

networks

- Digitalization of administration and application of IT in public sector areas
- Facilitation of e-commerce
- Promotion of education and development of human resources
- Formation of the world's most advanced information & telecom networks.

The e-Japan Strategy, Part 2, which was announced in July, 2003, is currently under operation.

### **3. Quality assurance for University Consortium with conformance and standards**

The Digital Campus Consortium (DCC) is a consortium of corporations and educational institutions, based at Waseda University and committed to realizing a new model of university education for the 21st century, using eLearning systems. The DCC supports the establishment and organization of a mutual communication consortium among universities, the Cyber-University Consortium (CUC), which is more directly in charge of developing exchange classes and conducting joint research projects involving students and teachers in universities in the Asia-Pacific Region.

The DCC is committed to opening up education globally, and to undertaking activities aimed at promoting the "virtual university" to strengthen the connection among educational institutions. Plans are underway to promote model joint classes among universities, to produce and construct the infrastructure management that is needed for the CUC, and to plan business models connecting the academic and business communities.

The DCC conducts feasibility studies for the development of the CUC. To that end, it promotes the creation and management of model courses and joint classes among participating universities; conducts

infrastructure planning and construction; and establishes model programs connecting the academic and business communities. The work encompasses the following areas:

1. Joint classes and multi-point seminars (seminars held in various places)
2. Exchange programs for students and teachers (study abroad); communications among staff
3. Collaborative research projects.

The DCC also augments and utilizes information received from the CUC, special techniques, and human resources, in order to connect academia and industry on a business level. The following areas are critical:

- (1) Putting human resources to work in a borderless learning environment
- (2) Technology transfers between academic research and business communities:

To support the formation of the CUC among universities in the Asia-Pacific Region, to realize the following:

- Growing active International Intellectuals.
- Globalization of Education.

To create the new business model through supporting the formation of the CUC, such as framework teaching materials development, collaborative planning and management, etc. The work of the DCC encompasses implementation of the above items.

### **4. Business Consortium supporting eLearning**

The eLearning Consortium Japan (eLC) was established in April, 2001, to promote eLearning. Key activities of eLC are as follows:

- (1) Promotion of eLearning technology standardization.
- (2) Publication of guidelines related to eLearning.
- (3) Provision of information concerning eLearning.
- (4) Education of the people engaging in

construction, operation, and administration of eLearning systems.

(5). Certification of eLearning system and content as standard-conformed product.

Accepting the members from not only vendor companies but also user-side companies and individuals, eLC tries to develop know-how to maximize the effects of eLearning and to widely provide information concerning eLearning.

The advantages of eLC for members are: (1). Acquisition and provision of information related to eLearning. Members are able to daily acquire latest and enormous information concerning eLearning services and products as well as SCORM standard and interoperability. They also have a chance to promote their own services and products via web-page. (2). Cooperation and alliance with other members. The members, by knowing each other, have opportunities to establish human connections which benefit business cooperation and alliances. (3). Training on eLearning technology. There are a lot of training chances concerning eLearning technology through committee activities.

## 5. HRD for CIO via eLearning

Emerging concern with CIO (Chief Information Officer) in Public and Private Sectors in Japan has been growing recently.

- CIO in Private Sector has become popular since the beginning of 1990's. It is essential for companies to create ICT Strategy on cost, security and management system. However, there is a lack of understanding of the role and responsibilities of the CIO
- CIO in Public Sector. The government established the Federal CIO Council for coordination of the inter-agency activities.
- Methodology for HRD and Support System in the Private Sector has led to the establishment of professional graduate schools on CIO and the

redefinition of the role and function of the CIO.

Waseda University will start providing new on-line courses for CIO in collaboration with government and business sectors as well as international organizations. These major courses will include the following core competencies: Leadership Development, Risk Management, Management of Technology, Information Security and etc.

I would like to propose international collaboration between Japan and Asia in HRD for CIO and to establish CIO training programs at Graduate School Level at both Waseda University and universities in Asia. Common curriculums on the competencies such as HRD for CIO as Chief e-Government Officer, IT Strategist, e-procurement Specialist, Security Specialist, Budget Management and IT solution are needed. The concept of a New Graduate School is unique. There are three major characteristics, since these are needed for establishing the World Class CIO and Networks of CIO:

- on-line Course (Distance learning)
- Master degree course for working people, and
- Internship program for the Private and Public Sectors.

As for cooperation with Asia, the Asia Broadband Initiative Program was introduced with 2010 as the target year of achievement including HRD in ICT program. Relevant measures for Introducing and Diffusing Broadband Platforms are as follows:

Preparation of Common Key Infrastructures, Assurance of network security, Preparation of rules on intellectual property rights and appropriate application thereof, Support and cooperation for diffusion of IPv6/ Promotion of Use of Broadband Platforms (e-government, eLearning etc.)/ Promotion of Digital

Content Distribution Development of multiple-language translation technologies/ Promotion of digital archives/ Support for Developing National Strategies/ Policies and Schemes/ Support for Developing Economies.

## **6. Networking e-University - ICT Cooperation on eLearning with usability and efficiencies in Asia**

The next example of International ICT Cooperation, related to e-learning activities of Waseda University in Asia, is the distance learning project on "e-University in HRD for e-government" in which we are responsible for management and implementation. Participating governments and international organizations are Thailand, Philippines, Vietnam, Indonesia, Malaysia Japan, ITU, APEC and JICA.

The project purpose is, firstly to establish "e-University networks" as a centre of excellence in HRD for e-government through eLearning vocational courses/system by using new networking technology. Secondly, it will promote strong partnerships and interactive collaboration among academic institutions, government and industry to support HRD requirements in the new economy. Thirdly, to implement ICT online training and research programs for fulfilling the needs of the new environment of digital society. Fourthly, developing networking collaboration among the above mentioned governments, universities, and international organizations is another priority.

An urgent need has been identified to build a global standard system for international key infrastructure of broadband and ubiquitous networks on eLearning. A solution is necessary for the internal Digital Divide between urban and rural areas, highly educated and poorly educated people, which might be applicable to Asian countries. APEC, UNESCO and ITU have the best tools for implementing international ICT

cooperation on eLearning standard in the region. Pioneering research among universities, industry and government is needed for projecting the future eLearning scheme in Asia.

Both usability and efficiencies of eLearning will depend on the selection and combination of 5 delivery access means e.g.,

- Telephone - ISDN, Frame Relay, Pictoretel
- Internet - Dial up, ADSL, Optical Fiber
- Mobile - mobile Internet, Broadband Mobile
- Broadcast-CATV, TV
- Satellite - Communication Satellite, Broadband Satellite

All of them have merits and demerits in terms of cost, speed, usability and efficiencies as well as quality assurance. We should make various testbeds to investigate the best performance among them. There is a need for conformance and standards for networking universities in Asia with UNESCO, ITU and APEC.

## **7. Conclusion**

My academic observation and analysis with various practical experiences working in UNDP and with ITU and APEC on major issues in the field of eLearning has hinted that the Agendas in HRD are as follows:

- lack of effective capacity building models, financial resources and qualified teachers/ trainers in Asia,
- Digital Divide in skilled & unskilled manpower both in international and domestic communities.
- Priority shift in HRD programs for eLearning towards the Information Society.
- eLearning is killer content for sustainable economic growth and e-Democracy.

Therefore, as chair of APDMEN (Asia Pacific Distance Multimedia Education

Network) which linked 20 major universities in 10 countries, I will suggest establishing the effective networking scheme for e-university with quality assurance and creditability in Asia as well as more specifically, the Center of excellence Program in HRD for ICT in ASEAN. In this regard, comprehensive/dynamic collaboration among academia, government and business communities in the region will be the key for success. And I am sure that this conference and MICT will create the mission for the core of my proposals.