



Asia-Pacific  
Economic Cooperation

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**2006/HRDWG/SYM/005**

Agenda Item: 4

## **Human Capital Investment, Innovation and Globalization, Establishing Governmental Agenda for e-Learning Development in Taiwan**

Purpose: Information  
Submitted by: Taiwan



**APEC Symposium on Open Source  
and Open Course for E-Learning  
Ha Noi, Viet Nam  
4 - 6 December 2006**

# Human Capital Investment, Innovation and Globalization

- Establishing Governmental agenda for e-Learning development in Taiwan"



<http://elnp.ncu.edu.tw/>

數位學習國家型科技計畫

National Science and Technology Program for e-Learning

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## 1. Introduction



Taiwan government launched a five-year National Science and Technology Program for e-Learning (ELNP) in 2002.

### Program goals:

- To establish the e-learning industry
- To create enterprise competitive advantage
- To promote Taiwan's international status
- To increase social welfare.

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## 2. Problem Analyses



Demand



Supply

- Lack of golden examples
- Lack of standards
- Lack of materials
- Lack of laws and regulations.
- High cost of courseware development

- Small market size, unclear value chain
- New and small suppliers
- Insufficient expertise and technologies

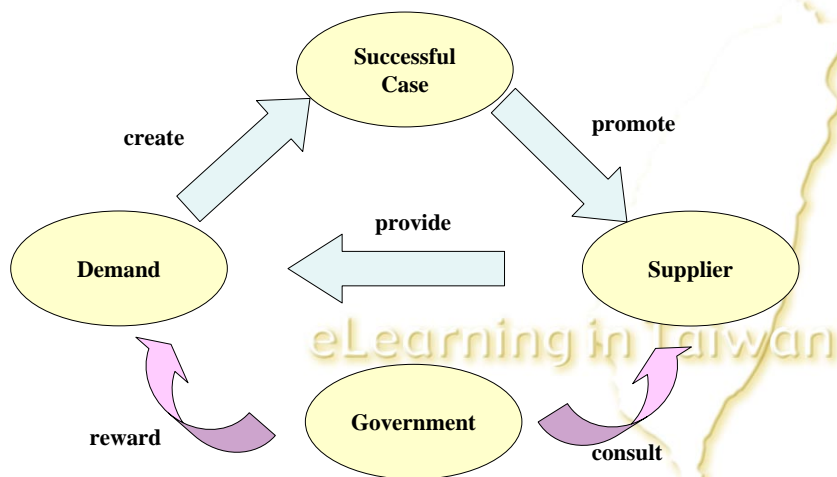
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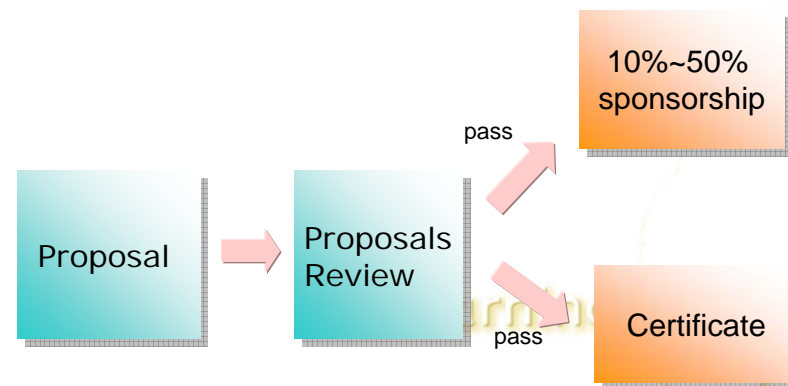
### 3. Strategies to Stimulate the e-Learning Development

#### 3.1 Proposed Model



### 3.2 Method

#### •Demand Side: Reward



### 3.2 Method (cont.)

#### •Demand Side: Reward

The Items of Reward Program	Year
a. Enterprise learning networks	(2003, 2004, 2005)
b. Industry learning networks	(2003, 2004, 2005)
c. Golden model of application	(2003, 2004, 2005)
d. Digital contents	(2003, 2004)
e. Learning service networks	(2004, 2005)
f. Golden example of digital content	(2004, 2005)
g. Outsourcing teaching materials	(2005)
h. Innovative applications	(2005)



### 3.2 Method (cont.)

#### •Supply Side: Consultation

##### ➤ Quality Service

- ✓ e-Learning materials and service quality certificate
- ✓ Materials and learning system interoperation standard certificate (ADL SCORM)
- ✓ High quality learning environment

##### ➤ Knowledge Service

- ✓ To provide market intelligence, trend information, and successful cases
- ✓ To promote collaboration and sharing
- ✓ To enhance enterprise competitiveness



## 3.2 Method (cont.)

### •Supply Side: Consultation

#### ➤ Law Service

- ✓ A legal system beneficial for industry development
- ✓ Government reward policy consultation
- ✓ Strengthen the copyright through a series of amendments in law

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## 3.2 Method (cont.)

### •General Service

#### ➤ Personnel Training

- ✓ e-Learning course training and expertise qualification certification
- ✓ International specialists of e-Learning course training
- ✓ Training for people with disability

#### ➤ Promote Activity

- ✓ Activities of successful cases sharing
- ✓ To engage the people and medium attention at e-Learning
- ✓ To award prize to promote the company applied e-Learning

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## 3.2 Method (cont.)

### •General Service

#### ➤ International Cooperation

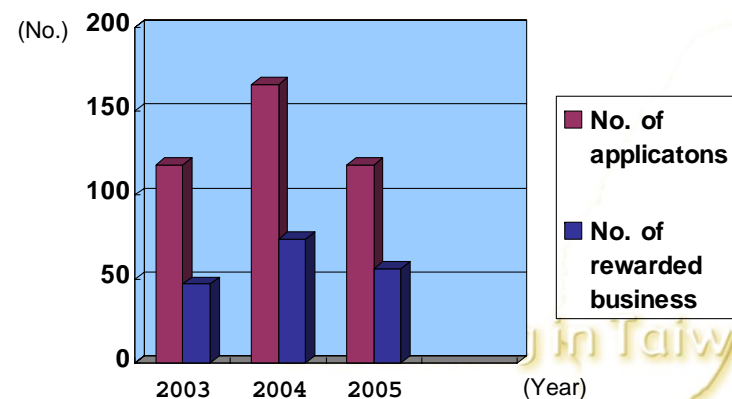
- ✓ To form alliance with international organization
- ✓ To participate in the international competition and exhibitions
- ✓ To seek overseas business opportunities

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## 3.3 Primitive Results

### •Demand Side: Reward

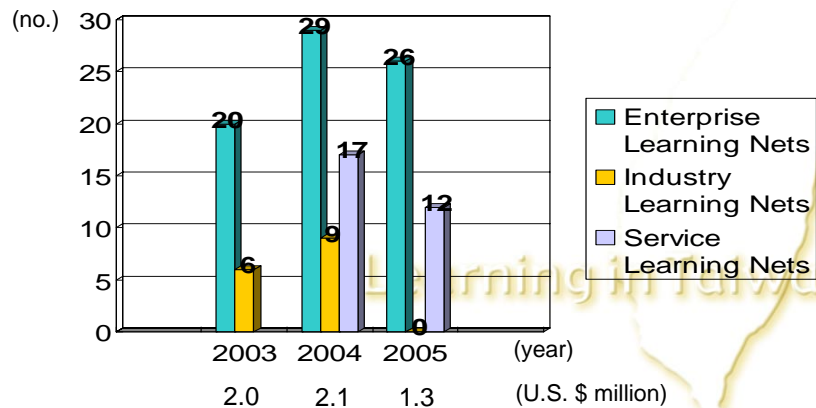




### 3.3 Primitive Results (cont.)

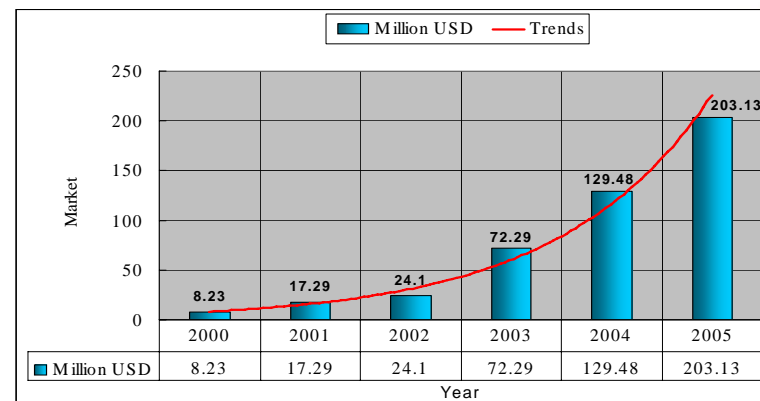
#### •Demand Side: Reward

The reward no. of enterprise learning net, industry learning net, service learning net, and reward amount.



### 3.3 Primitive Results (cont.)

#### •Supply Side: Consultation



Market Size of e-Learning Industry in Taiwan



### 3.3 Primitive Results (cont.)

#### •Supply Side: Consultation

##### ➤Quality Service

- ✓ Standards for quality certification
- ✓ 10 courseware/ 28 learning service vendors
- ✓ America ADL SCORM 2004 certification (1st in Asia)

##### ➤Knowledge Service

- ✓ Conferences
- ✓ 1005 e-Learning knowledge objects
- ✓ 2021 professional contributions
- ✓ Successful cases publication on media

##### ➤Law Service

- ✓ Formal regulations
- ✓ 100 FAQ of the copyright issues



### 3.3 Primitive Results (cont.)

#### •General Services

##### ➤Personnel Training

- ✓ More than 2000 people (e-learning profession)
- ✓ International conferences & certificate programs
- ✓ 16 people with disability as e-tutors

##### ➤Promote Activity

- ✓ More than 20 large promotion activities
- ✓ Adoption rate of large enterprises grew from 14% to 35%
- ✓ Award ceremony



### 3.3 Primitive Results (cont.)

#### •General Services

##### ➤International Cooperation

- ✓ International Plugfest II 2006 conference
- ✓ ASTD e-Learning courseware certification
- ✓ Innovative Technology of Brandon-Hall Excellence in Learning Awards

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### 3.4 Discussion

#### Purposes of e-learning adoption:

1. Costs, flexibility
2. Performance improvement
3. Incorporation between training and human resource management
4. Integration of e-learning and knowledge-based management system
5. Combination of e-learning, customer services, and marketing functions
6. Employee training
7. Overseas subsidiaries training

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### 3.4 Discussion (Cont.)

#### Major challenges:

1. Upgrade e-learning techniques and specialists
2. Enlarge domestic market size, and reach economic scale
3. Discover international business opportunities

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### 4. Conclusion

- A model for promoting the e-learning industry:
  - ▲ learning from golden examples
  - ▲ financial award and expert supports
  - ▲ enlarging the market and applications
- e-Learning application:
  - ▲ From traditional training to the value chain
- Critical factors for sustaining e-Learning industry:
  - ▲ innovative e-Learning performance
  - ▲ learning effects increasing
  - ▲ cost reduction

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## 4. Conclusion (Cont.)

- Cross the chasm
  - ✓ applied e- Learning to target industry
  - ✓ established various types of e- Learning application
- Standard is important for interoperation and reuse of materials and learning system.
- International communions accelerate the development of e-Learning industry.
- e-Learning provides opportunities for minority groups and improve social welfare.



## 5. Future Work

- The development of e-learning industry will focus on valued-added services.
- Cross the chasm to reach the “early majority” group
- Perform as the liaison within the e-Learning supply chain:
  - ✓ promote active cooperation
  - ✓ leverage mutual resources and survive in the competitive market
  - ✓ target the Chinese-speaking market worldwide



**Thanks for your attention!**

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