

# Building an Internet Learning System for All



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# Outline

- Background information
- Current problems and issues
- Concrete measures and strategies
- Future prospect
- Conclusion

# Background information

- **Statistics for Primary to high Schools as of Feb. 2002**
  - Schools 3,792, Teachers: 202,000, Students: 3,600,000
- **Work Flow & ICT role**
  - MOE: National Master-plan and Budget
  - 25 Municipal/county offices : Regional strategic plan and budget
  - Schools: Action plan and Implementation

# Background information (continued)

- **Infrastructure** : all schools equipped with hardware infrastructure for Internet-based learning ( at least 1 computer lab for each school with 1 PC per student in computer class )
- **Internet-based resources** : many teaching and learning materials and various platforms, while the Internet-based learning contents still need improvement.
- **Information literacy** : Internet application have become one of the capability indicators of the 1<sup>st</sup>-9<sup>th</sup> Grade Curriculum Alignment.
- **Internet content development** : high school students still lack sufficient literacy for Internet-based learning and ability of participating in the development of content.

# Background information (continued)

- Recent content developing activities : MOE has brought together scholars, teachers, industries, social education facilities and private organizations in promoting the development of high quality e-learning content, including :
  - “Cyberfair” contest: the activities encourage students to conduct project-based research and content development in a team collaboration approach



# Background information (continued)

- Lifelong learning WebTitles: subjects including Knowing Taiwanese Folk Art, the Call of Formosan Tree Frogs and Birds of Jinmen, and other titles
- Web teaching plans recruitment : a platform for publishing and promoting high quality works for k-12 school teachers.
- “websites for children” contest: encouraging the development of high quality websites
- National Teaching and Learning Resource website  
The “learning Gas Station”



# Background information (continued)

- Lifelong Learning Law completed : a lifelong learning website platform as a portal to consolidate related resources need to be built for the public
- digital divide : The Internet promotion policy in the past put less attention to social issues, result in resource allocation imbalanced and a digital divide between urban and rural areas
- Joint effort with private sectors : Subsidies are given to team-up college and high schools students to encourage IT services in remote schools. Also a joint venture with ERA Telecom to experiment a satellite broadcast online English teaching project for remote schools.

# Current problems and issues

- **Copyright protection** : Since e-learning content involves the obtainment of intellectual property rights, to balance between the rights of the creators and the convenience of usage for users is essential. A standardized and streamlined process of digital copyright issues should be established.
- **Funding for local governments** : Local governments will be responsible for constantly updating and maintaining related information on website. Some of the local governments lack the required funding and human resources for the task.

# Current problems and issues (Cont.)

- **sustainable operation of e-learning websites** : a long-run development of e-learning websites needs to be planned, also “human” factor should be more emphasized instead of technology or facilities consideration.
- **Customized design of content**: different layers of information according to user’s age or needs should be provided Ex: introduction to scenic spots on the top layer; culture, folklore and lifestyle goes one layer deeper; in-depth report placed on more layer down; papers on academic journals will be placed in the deepest layer.

# Current problems and issues (Cont.)

- further involvement needs to be encouraged : Senior/vocational high schools teachers and students need to be more encouraged to utilize digital learning technology for creative learning and collaborative learning.
- Remote areas' physical and social factors : some remote areas hindered by unstable data transfer rate due to geographic factors, and some residents have less exposure to culture shocks and opportunity to utilize information technology.

# *The post-Internet phenomena in Education*

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- ◎ Loss of soul—Loss of meaning
- ◎ People, the relationship between people, the organizations and communities made of people, etc,--everything seems to be **digitized**.
- ◎ People's psychological space is reduced to a series of **rapid, virtual, non-traditional** stimulation.
- ◎ The boundary of time, place and method of human **education, learning** and **social interaction** are allowed to be expanded or even broken down.

# *The post-Internet phenomena in Education (Cont.)*

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- ◎ Limited sensual cognition experience, sex and violence, bystander effect → weakened altruistic behavior, concealment of one's sincerity, readiness to express negative emotions and character.
- ◎ **Internet addiction** ~ **computer as mental Ecstasy**—causing damage to students' family and social life, alienation from family and friends, degraded performance at school or work, lying about Web-surfing, physical symptoms

# *Why is the Internet addictive?*

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## (1) Biological factors:

Web surfing stimulates the secretion of neurological hormone that induces euphoria or decreases sense of discomfort.

## (2) Psychological factors:

1. The freedom of face-to-face contact with others allows escape from the demands and conditions in the physical world.
2. Decreases the frustration stemming from direct interaction with others
3. Computer logics are much easier to follow and free of the complexity of the interaction in human society.
4. The requirement of active and concentrated operations makes it easier for users to become dedicated.

# *Why is the Internet addictive?*

## *( Cont. )*

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### (3) Social and community factors:

1. **Peer pressure** → the information technology phobia mentality
2. **Cultural trends** → cyber cafe culture → the emergence of a sub-class and its sub-culture.
3. **Parents' attitude** → 47% of parents living in Taipei City find it acceptable for their children to play online games in cyber cafes.

# Literacy of Internet-based learning

- Understanding the cyber space of teenagers and preteens
  - the virtual reality and reality of cyber space
  - the emergence of cyber cafes and their management
  - the BBS phenomenon and its influence
  - types of computer game and their influence on teenagers
  - The application of Internet-based learning materials
- Safety issues in using the Internet
  - adopting the right attitudes toward friendship in cyberspace
  - knowing the danger of casual sexual encounters found on the Internet
  - knowing and avoiding Internet addiction
  - personal information protection and security of Web-based transactions
  - protecting the computer from computer viruses

# Literacy of Internet-based Learning (continued)

- Teaching the public about information ethics
  - there is ethics and rule of law in the cyberspace, just like in the physical world
  - the concepts of copyright of Internet-based materials and intelligence property rights
  - knowing the positive and negative influences of the Internet, involving the general public in preventing indecent information from exerting influence on teenagers and children
- Fostering positive learning attitudes
  - “timely” application of information technology
  - active learning, creative learning, collaborative learning
  - incorporate contents of learning in education of living and life using the “learning by doing” method

## 中小學教師網路素養與認知

教師  起來--認識青少年的網路世界

參考資源

教戰守策

留言板

關於我們

站內搜尋

- 網路素養
- 網路交友
- 網路沉迷
- 網咖現象
- 網路遊戲

### Welcome

學生上網看色情圖片!

學生上網咖打電動!

學生沉迷於網路交友!

學生上網找一夜情!



親愛的老師，您遭遇到以上的難題嗎?「教師e起來」網站提供了網路素養、網路交友、網咖現象、網路沉迷和網路遊戲等五大主題的豐富資訊，希望協助您更進一步了解這些現象與影響，並幫助青少年養成正確的網路態度。老師們，請您跟我們e起來!

生命如同一顆永恆的鑽石，  
透過學習，生命產生光和熱。  
一切學習的啟蒙來自老師，  
有太多人值得我們去學習，  
學習~去希望、有信心，  
去慈愛、有智慧...

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# 生命教育

使用本網站，建議使用Microsoft IE 5.0或Netscape Communicator 6.1以上之版本，  
並將解析度設定為800 x600將可得到最佳的效果。

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教材資源

智慧寶庫

生命體驗

教師社群

網路教學

生命教育團體

## 活動快訊

### 九十一年暑期生命教育研習會

日期: 91.08.12~08.14

時間: Am9:00~Pm4:30

地點: 台中市向上國中

主辦單位: 福智文教基金會

# Concrete measures and strategies

- **joint-effort encouragement** : in “The Challenge of 2008 : e-Generation Human Capacity Building” Plan, will involve teachers, scholars, industries and private groups (learning communities, foundations, community groups, etc.) in joint development of **e-learning content, teaching materials design, technical support, platform construction and maintenance, and assistance for remote schools.**
- **Professional manpower recruit** : Draw inspiration from the British model of using post-doc researchers to assist school development, and recruit military draftees with doctoral or master degrees in related fields to develop web learning content, platform and bridge the digital divide.

# Concrete measures and strategies (continued)

- Information exchange mechanism : Establish and utilize open formats and adopt common standards to facilitate the integration and exchange of resources.
- Developing e-learning content for k-12 schools
  - Construct the Six Major Learning web-sites of Life Education, Nature and Ecology, Technology Education, Health and Medicine, History and Culture, and Arts and Humanism
  - Consolidation of digital resources in social education facilities
  - Construct e-learning materials and teaching plans in accordance with the 1<sup>st</sup>-9<sup>th</sup> Grade Curriculum Alignment, combining the resources of teaching material resource centers at local government,
  - Involve learning communities with similar interests in helping with the sustainable management of the learning websites

# Concrete measures and strategies (continued)

- Guiding senior/vocational high school students in contributing e-learning content
  - Using the “learning by doing” activities in the Six Major Learning Networks, encourage students to share their learning experience and use collaborative learning approach via the Internet.
  - Reward colleges and high school student IT clubs that participate in developing online learning content or promote the use of online learning.
  - Develop online learning materials on various subject using IT tools.
  - Encourage senior high schools to develop community-wise online learning programs to integrate learning resources in communities.
  - By organizing Cyberfair and web content development contests, encourage students to develop online learning contents with local characteristics.
  - Encourage social education organizations to hold online science expo and online art exhibitions to spike students’ interest in participation.

# Concrete measures and strategies (continued)

- Examining the cause, current status and solutions of digital divide
  - Survey and reexamine the standards for digital learning environment and redefine the range of digital divide. Set up achievement indicators as criteria for evaluating digital divide.
  - Create a friendly learning environment and respond to personal needs to make people more motivated and willing to use the computer and the Internet.
  - Recruit urban and local student clubs and student volunteers to provide community service. Arouse and motivate public awareness of the convenience of information access and application by e-learning.
  - A dedicated central government agency or a standing promotion organization should be established to integrate related resources and create a sustainable mechanism.

# Concrete measures and strategies

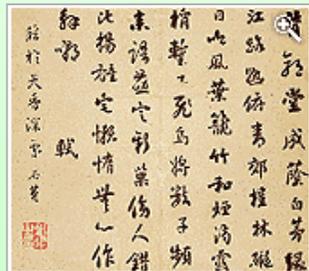
(continued)

- improvement measures for bridging the digital divide
  - Supply students and teachers with abundant online teaching materials for supplementary learning, thus achieving the resource sharing.
  - To increase learning opportunities for teachers in remote areas, information technology training courses for teachers on outlying islands using distant learning are in planning.
  - Subsidize schools and students from remote areas or disadvantaged groups in purchasing IT education equipments.
  - Encourage universities and private organizations to assist the promotion of IT education in remote areas.
  - Define the information capability indicators for learners and students as the criteria for measuring the improvement of equity of education opportunities and balanced development of quality.

# Concrete measures and strategies (continued)

- **Information segmentation** : Define the three levels of lifelong learning online platform, centered on the theme of “learning”. The database is constructed on the principle of “layered offering.”
  - Tourism portal: electronic map, travel planner
  - Introduction to local culture, education, ecology, landscape and religion
  - In-depth, intellectual information, including: national culture database, integration with existing database in National Library.

# lifelong learning platform



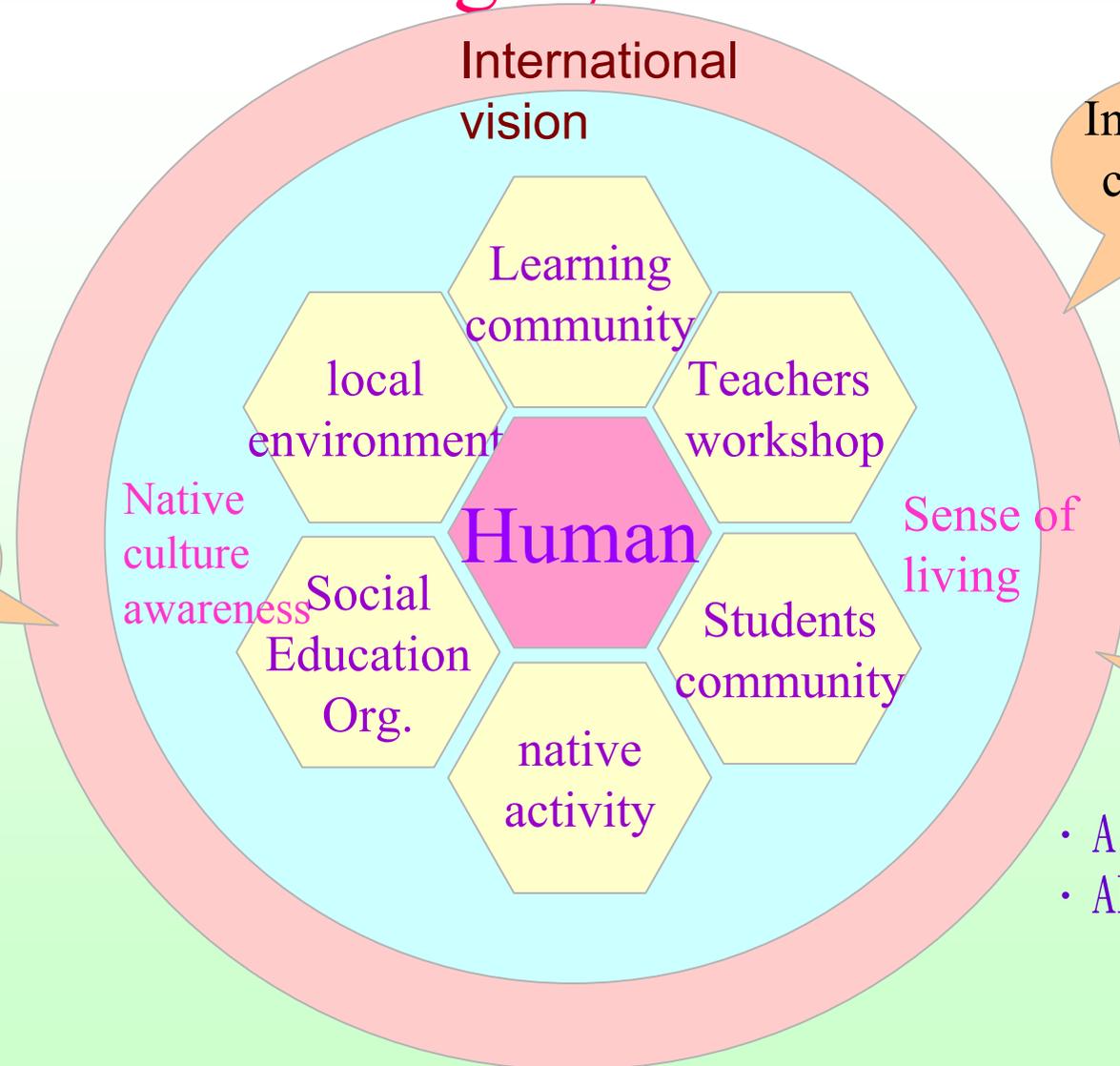
# Future prospect

- In keeping with the implementation of *1<sup>st</sup>-9<sup>th</sup> Grade Curriculum Alignment*, provide more complete, systematic, diversified, close-to-life, in-depth **educational content** and information.
- The **lifelong e-learning content** will encompass learning resources in nature, culture, ecology, medicine, and health, to enrich the life of the general public by providing information on leisure and travel, and by increasing public awareness of local culture, history and industries

# Future prospect(continued)

- Create an online learning environment centered on **human factor**, all facilities are designed so as to promote equality and mutual respect among people.
- Provide **diversified learning channels** and high quality web content through the Internet, and bridge the digital divide.
- Through **learning communities**, teachers' workshops, student IT clubs and similar organizations, learning contents can be shared, collectively created and improved. Mechanism for collaborative learning can be established to improve the creativity and competitiveness of our people.

# Building an Internet Learning System for All



International conference

- GCCCE
- ICCAI

International PBL

- Cyberfair
- Speak-out

International collaborative learning

- AJET
- APEC cyber school

# Conclusion

- **Integrated resources** : create abundant online learning content for students and teachers in high schools and elementary schools. Online teaching materials and activities may be shared, discussed over, improved and developed collectively.
- **active and collaborative learning** : Train students to use the Internet by using diversified online learning resources.
- **Increased involvement** : encourage senior/vocational high school students in developing, innovating and applying online learning content. Excellent works should be recognized and published. High schools will integrate the educational resources in communities.

# Conclusion(continued)

- **Bridging the digital divide** : Widely implement and improve the IT education infrastructure in all levels of schools to create a favorable environment. Teachers in remote areas will be better trained to integrate IT into their teaching activities and upgrading their teaching skills.
- **Increasing learning opportunities** : For the handicapped and disadvantaged students, a better environment for using IT can increase their opportunity in learning. Sharing online teaching resources will help eliminate the inequity of learning activities between urban and rural schools.

# Conclusion(continued)

- Lifelong learning : Provide the public with web-based learning resource platform to learn anything, anytime and anyplace. This will enrich the spiritual life of the public and enhance its intellectual level.
- Cultural recognition and preservation : The characteristic construction of proper e-learning content will make the public have better understanding and affection about protecting the native culture and local environment.
- Advocating the basics of education : Promote the value of making good use of technology to enhance the welfare of the entire human race. Use the Internet for broadening the perspective of care for life.

# Thank you!

