Research of E-Learning Standardization in China

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Outline

▶ 1. Current situation of networked education in China

▶ 2. E-learning standards researches in China

▶ 3. Quality certification standards of networked education

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Background

- Higher education enlarges scale (2002)
  - Students number exceed to 16 Millions
  - 14% enrollment proportion
  - Pressures of school capability, hardware and teaching resources
  - Education quality and employment problems

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Who can run the program?

- a famous university with excellent teaching personnel and stuff
- Having good campus-networking and online teaching resources
- with a good plan
- with good experiences for IT in Education

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Pilot Universities

- Till the end of 2002, China has approved **CRTVU** (Central Radio and TV University) and other **66 higher colleges and universities** as pilots to develop modern distance education
- 17 in Beijing (including CRTVU), 8 in Shanghai, 6 in Sichuan
- More than 1.3 million students of NE

Learning Centers

- Total number of learning centers (excluds CRTVU's)
  - 966 in 2001
  - 1968 in 2002 } Increased by 1002
- Learning centers in the west
  - **added up to 374, occupying 19.0% of all out-campus learning centers**
- Administration audit on learning centers
  - **1170 passed the audit on the province level, with the passing proportion of 59.5%**

Recruitment

- Number of Recruitment
  - total to 1.3 Million fresher
- Recruitment Levels and Specialties
  - 11 kinds of recruitment
  - 140 specialties
- Situation of Graduates
  - In 2002, five pilot universities have graduates, with number of 32, 641

Teaching Resources

- The total courses: 8,557
- The courseware be used: 3,609
  - 54.3% courses are provided for themselves students, 25.1% courses for others
  - rate used by from 100 to 500 users: 32.4%
  - courseware for above 5000 users are few, only with 3.6%

Distance Education Platforms

- Teaching platforms for DE
  - satellite delivery system (56.7%)
  - tele-conferences system (10.4%)
  - audio-conferences system (16.4%)
  - video-conferences system (53.7%)
- network teaching platform (totally having 94 platforms)

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Learning Support Services

- Establishing learning state documents
- Various Teaching modes
  - **face-to-face instruction**
  - **self-study**
  - **cooperative learning**
- Flexible learning locations
  - **learning centers**
  - **campus of pilot universities**
  - **homes**

2. E-Learning Standards researches in China

- Chinese Educational Technology Standardization Committee (CETSC)
- Frameworks of E-Learning Technology Standards
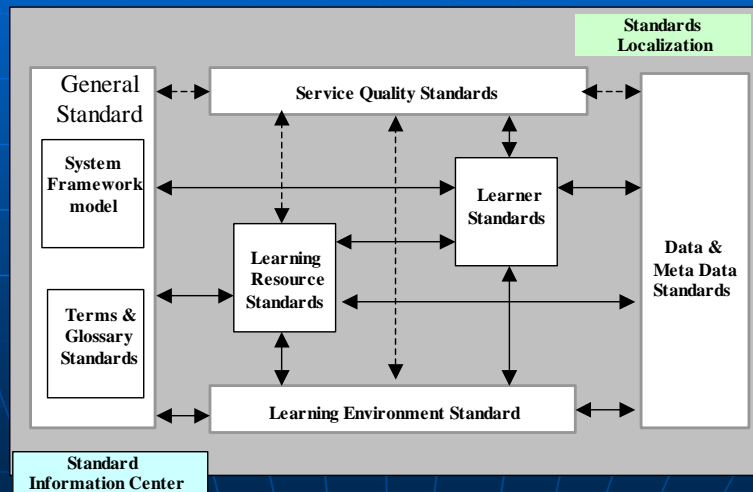- E-Learning Technology Standards and Sub-standards

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Chinese Educational Technology Standardization Committee (CETSC)

- Founded in December 2002
- Have put forward 10 sub-standards based on two-year fully proof and practice
- Participated concerned work of international standardization.

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Frameworks of E-Learning Technology Standards

		Standards Localization
General Standard	Service Quality Standards	
System Framework model	Learner Standards	Data & Meta Data Standards
	Learning Resource Standards	
Terms & Glossary Standards		
	Learning Environment Standard	
Standard Information Center		13

E-Learning Technology Standards and Sub-standards

- Standard Sorts
  - Global Standards
  - Interrelated Standard of Teaching Resources
  - Interrelated Standard of Learners
  - Interrelated Standard of Teaching Environment
  - Quantity standard of education services
  - Standards localization
  - trailed Research Projected
  - Others

more…

3. Quality certification and Assurance of e-Learning

- Quality certification standards and assurance of e-learning
- Certification standards for web-based Courseware
- Certification standards for Networked Teaching Process

Quality certification and assurance of e-learning

- In 2001, Chinese Ministry of Education started up the program "Research and Practice of Networked Education Quality certification", includes:
  - Networked Education College
  - Learning Centers
  - Web-based Course
  - Basic Courses of Networked education
  - … …

Certification standards for web-based Courseware

- The first certification standards in China for web-based courseware
- Based on several years' research of CAI and aboard investments of international assessment & certification standards for network courseware
- Through three periods: survey, discussion and experiment－－ finally formed
- Been utilized and played important roles in the evaluation of the "Program of New Century Network Courses" which were organized by Higher Education Press, receiving consistent affirmation of experts and teachers

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Certification standards for web-based Courseware (cont.)

- 6 components, 32 scales and 40 indexes
- The option requirements of third-level are divided into "M" (must, 17 items), "O" (option, 19 items), "E" (encourage, 4 items)
- Passing certification requires that total score reaches 60 and all the "M" items must be passed

more…

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Certification Standards for Networked Teaching Process (NTP)

- Characters of NE teaching process
- Framework of teaching process certification (PASE)
- Reference of standards and literatures
- Certification Standard for Network Teaching Process

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Main characters of NTP

- Teaching Process is not "complete"
- Learning process is controlled by student.
- Teaching goals are achieved by activities
- Distribution of self-study units is not well-proportioned
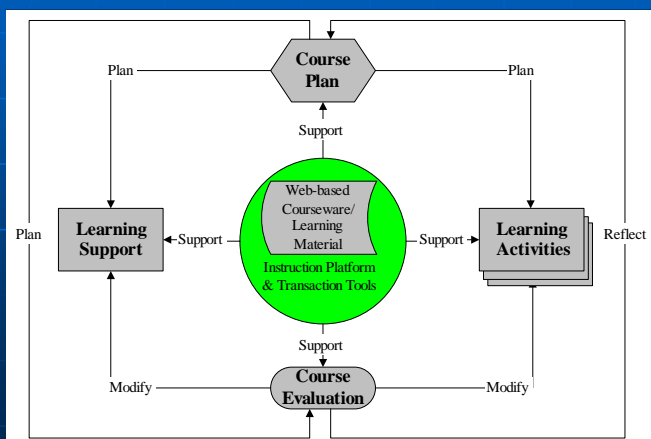- Learning units are designed to complete learning activities

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Framework of NTP: PASE

- Course Plan：teacher preparation, student preparation, resource preparation

- Learning Activities：motive stimulation, learning strategy, interaction and guidance.

- Learning Support：environment, faculty, efficiency

- Course Evaluation：various evaluation modes

- **PDCA (Plan - Do - Check - Act) methods of ISO9000**

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PASE Model

Course Plan
Learning Activities
Learning Support
Course Evaluation

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Reference of standards and literatures

- Quality on the Line: Benchmarks of Success in Internet-Based Distance education

  (Institutes of Higher Education Policy)

- Distance Education，Guidelines for Good Practice

  (America Foundation of Teachers)

- Distance Learning Guidelines

  (Higher Education Quantity Assurance Association of Great Britain)

- Standards in Open & Distance Learning

  (Opening and Distance Education Quantity Council)

- Educational Quality Assurance Model

  (Korean National Open University)

- ……

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Certification standards for NTP

- Course Plan
  - Faculty
  - Student
  - Teaching Resources
- Learning Activities
  - Teaching Activities
  - Management of Teaching

- Learning Support
  - Learning Support Environment
  - Learning Monitoring Personnel
  - Support Rage
- Course Evaluation
  - Tests and Assessment for Students
  - Assessment Activities of Course

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