



Asia-Pacific
Economic Cooperation

2006/HRDWG/SYM/007

Agenda Item: 6

Strategy for Sharing Educational Resources in e-Learning

Purpose: Information

Submitted by: Thailand



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

Abstract

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The Thailand Cyber University (TCU) was established with the purpose to solve several crises occurring in Thailand's higher education. The major crisis is the wide range of higher education quality because of too many universities and the inadequate quantity of lecturers. Encouraging educational resources sharing among instructors is one strategy to minimize the gap of education quality. The educational resources repository will benefit not only lecturers in universities but also be the university's student for using as learning resources at their learning.

One of TCU's strategies is to create the cooperation among universities for offering e-Learning, an online teaching and learning method. The cooperation among the universities is to create the curriculums, courseware and contents that can be shared with each other. This method can help the universities to save their budget from investing on redundant content. The quality content from the major universities will be shared to the small universities for using in the teaching and learning process. Infrastructure for sharing is also important, so TCU has invested on the central infrastructure for sharing educational resources such as server for hosting share content, related hardware and software for produce quality contents and enabling sharing system. Also, the TCU has established the portal web, www.thaicyper.go.th, using the Learning Management System, called the TCU-LMS, which is freeware and open source. The TCU has provided the TCU-LMS to more than 200 educational institutions and encourage them to start create their own content in their local TCU-LMS and further sharing in National TCU-LMS.

Strategy for Sharing Educational Resources in e-Learning

November 4th 2006 Hanoi

by

Supanee Sombuntham

Director of Thailand Cyber University Project



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Introduction

- The good educational resources will support teachers to teach conveniently and also help learners to understand the content better.
- Thailand has 160 higher educational institutes with the very wide range of educational quality.
- The Commission on Higher Education (CHE) has a major responsibility to raise the quality of the universities as well as minimize the quality gap among them.
- The CHE has initiated many projects to raise the quality of education under the concern of efficient and effective way.

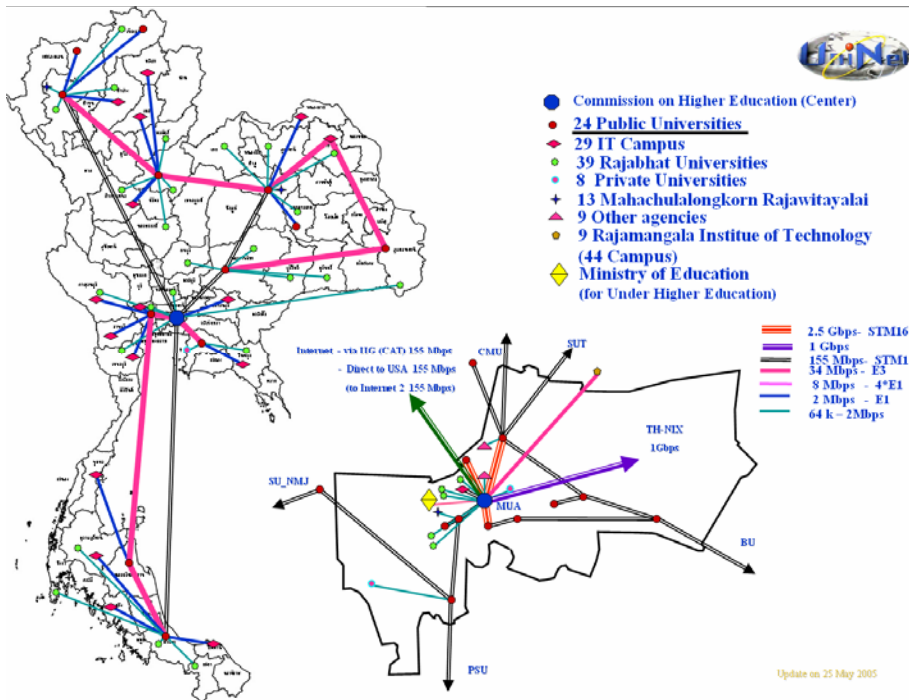
3

2

Inter-University Network (UniNet)

- The CHE initiated the inter-connection between universities network and founded a central body for cooperation among the higher educational institutions in the beginning phase.
- The UniNet was founded in 2002.
- The UniNet network is an important infrastructure to connect the government universities and enable them to communicate with each other as well as to the world outside.
- At present there are 176 universities and institutions which have joined the UniNet.

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Central Academic Resources System

- The CHE has created a central academic resource system and provided academic resources to all government universities.
- The academic resources include E-book, E-journal, and E-library.
- Every university in the network can use the educational resources easily and rapidly via UniNet.

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Thailand Cyber University Project

- The CHE has established the Thailand Cyber University in **2005** to be an organization that operated e-Learning with efficient and cost-effective approaches.
- The TCU has developed the TCU-LMS to be the national LMS which is freeware and open source.
- The TCU has set up the portal web, www.thaicyperu.go.th, to host contents produced by universities.

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Thailand Cyber University Project

- At present there are almost 300 open courseware courses.
- There are over 15 universities jointly creating Certificate Programmes, Bachelor's Degree Programmes and Master Degree Programmes.
- There are more than 10 e-Learning programmes available now.

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5 The Cooperation from the Universities in the Network

The cooperation from the universities.

- sharing several innovative ideas
- helping to create the necessary contents
- jointly conducting the research to improve the quality standard of e-Learning.

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6 Open Source TCU-LMS

The Learning Management System (LMS) was initially created in 2000 and the TCU has developed it to be the shareable LMS which is open source software. The system includes:

- Content management system,
- Student management system,
- Production tools.
- Several support and service systems such as web board, chat room, collaborative group system.

TCU provides TCU-LMS in English version to the world.

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TCU-LMS Features

- The TCU-LMS supports e-Learning system to both students and teachers
- The TCU-LMS consists of three modes for students, teachers, and administrators.

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The screenshot displays the TCU-LMS website interface. At the top, there is a header with the TCU logo and navigation links. Below the header, there are several sections:

- Members' login:** A form with fields for User ID and Password, and an Enter button.
- New Courseware on TCU:** A section listing various courses, including "New Course: 'Inter001 : Presentation With Media'", "New Courseware on TCU" (with sub-sections for Computer Basics, The Internet and World Wide Web, Productivity Programs, and Computer Security and Privacy), and "New Course: 'Inter001 : Presentation With Media'".
- TCU Vision:** A section with a video thumbnail and text about Dr. Pavith's vision for the TCU (Thai video).
- List of Universities in Consortium:** A list of universities including Chulalongkorn University, Kasetsart University, Naresuan University, Silpakorn University, Chiang Mai University, Mahidol University, Mae Fah Luang University, The University of the Thai Chamber of Commerce, National Institute of Multimedia Education (NIME), Japan, King Mongkut's Institute of Technology Ladkrabang, Sukhothai Thammathirat Open University, Prince of Songkla University, and Rangsit University.
- Open Courseware:** A section with a thumbnail for MITOPEN COURSEWARE.
- Links:** A section with various icons and links.

At the bottom, there is a footer with a "Users Online" counter showing 38 users and a "Done" button.

TCU-LMS Features - Students

The screenshot shows the 'Student Main Menu' of the TCU-LMS. At the top, there is a navigation bar with links: Main, Choose Course, Classroom, My Document, Attendance Report, My Profile, Support, and Logout. The main content area is divided into three sections:

- User Information:** Displays 'User ID : student', 'Name : Student Student', and 'Expired Date : 01/01/3000'.
- TCU Services:** A row of four icons representing 'TCU Mail', 'TCU Community', 'TCU Radio', and 'Digital Library'.
- Announcements:** A large empty rectangular box for displaying notices.

TCU-LMS Features - Students

The screenshot shows the 'Choose Course' interface. It features a search form with the following fields:

- Search for Courses:** A dropdown menu.
- Curriculum:** A dropdown menu.
- Field of Study:** A dropdown menu.
- Sub-field of Study:** A dropdown menu.
- Keyword:** A text input field.
- University/Organization:** A dropdown menu.
- Faculty/Division:** A dropdown menu.
- Department/ Subdivision:** A dropdown menu.

Below the search form, there is a 'Page : 1/6' indicator and a 'Record : 150/251' indicator. A 'List' section at the bottom shows a single course entry with details like '1. 1021205 - วิชาฝึกสอนและการจัดการศึกษาขั้นพื้นฐาน'.

TCU-LMS Features - Students

The screenshot shows the 'Course Description' page for 'TCU-2549052 :: e-Learning Thai Language'. The page includes a detailed table of course information:

Course ID	TCU-2549052	Programme	ปริญญาตรี
Course Name	e-Learning Thai Language	University/Organization	มหาวิทยาลัยไซเบอร์ไทย
Available period	17/06/2006 to 16/06/2010	Faculty/Division	คณะมนุษยศาสตร์
Course Provider	มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University	Department/Subdivision	ภาควิชาภาษาอังกฤษ
E-mail	tcuinfo@hotmail.com, support@mail.thaicybun.go.th	Instructor	

The page also features a 'Guideline to study' sidebar with a tree view of chapters (1-25) and an 'Announcements' section at the bottom.

TCU-LMS Features - Students

The screenshot shows a lesson titled 'Writing 1 : Introduction to the Thai Alphabet'. The main content area displays the text 'Introduction to the Thai Alphabet' and 'The 44 consonants of the Thai Alphabet' on a decorative background. The interface includes a navigation bar with 'Previous' and 'Next' buttons, and a 'download lesson' button at the bottom. A sidebar on the left shows a 'Guideline to study' with a list of chapters from 1 to 21.

TCU-LMS Features - Students

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone

Web Board

0000481 กลุ่มงานสอน (Collaborative Group) คืออะไร Read : 12
Ans : 0

Course : TCU-EPR001 (ความรู้พื้นฐานอิเล็กทรอนิกส์ (Principle of e-Learning))

เข้าไปแล้วมันแจ้งว่าคุณยังไม่ได้เข้ากลุ่มงานสอน

User ID : stepropatcharee (พัชรวิ) E-mail : patcharee_chulaporn@yahoo.com
 Date : 24/11/2006 Time : 13:18:48

Answer

File Admin Preview Reset Save Upload

Acrobat Download Excel Flash Html Picture Media Powerpoint Quicktime Real Word Any File

Reply :

Paragraph Font Style Font Size B I U

TCU-LMS Features - Students

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone

Chat Room

Room : ADMINPRO_TCU-EPR001

stepropomprom : ไม่รู้คืออะไร (24/11/2006 01:52:29)
 stepropomprom : อืม สวัสดิ์ครับ (24/11/2006 01:52:38)
 stepropatcharee : มันได้รู้จักใช้ AntiVirus ได้รึยังเพราะมันสามารถจัดการไวรัสได้ทันเห็น สนใจมาได้ (24/11/2006 12:34:41)
 stepropatcharee : อืม มันได้ใช้ AntiVirus (24/11/2006 12:37:09)
 stepromaneerat : hi (27/11/2006 08:49:03)
 steprosarawut : ... (27/11/2006 11:28:58)
 steprosirimat : ช่วยด้วยค่ะ พิมพ์ข้อความในบอร์ดไม่ได้ละ (28/11/2006 12:01:05)
 steprosirimat : เอ้อ... ก็พิมพ์จาย เครื่องงาเป็นไรต่อ... (28/11/2006 12:01:51)
 steprokulnit : เข็มที่มันเข้าไม่ได้ มาใช้ที่ทรงนะ (29/11/2006 08:47:08)
 steprosarawut : การบ้านยากจัง ไม่เคยสอนด้วยจ้ะ (29/11/2006 11:22:40)
 steprosarawut : ไม่ทราบว่ามีใครโหลดpdf ได้บ้างทรงนี่ย (29/11/2006 11:23:15)
 steprosarawut : ช่วยส่งมาให้หน่อยได้ไหมครับ (29/11/2006 11:23:24)
 steprosarawut : ขอขอบคุณครับ (29/11/2006 11:23:31)
 stepromaneerat : 5555 (29/11/2006 18:38:12)
 steprosirimat : พิมพ์ในเว็บบอร์ดไม่ได้เลยละ ส่งส่งตามไปส่ง staff แล้ว มันไม่ได้รับของกับ... เสร็จจิง (30/11/2006 16:03:16)

Message : Send Name: steprochank Colour: black Font type 1

Type message and choose an icon: [Icons] Clear

TCU-LMS Features - Students

Collaborative Group

» Groups » test (Accessibility | Help | Sign-Out)

Home | Forums | Chat Room | Inbox | Calendar | Library | Drafting Room | Members | Administration

Home 0 users online

News & Announcements
 No news or announcements found.
[Go to Archive](#)

New Files Library
 No files found.
[Go to Library](#)

Drafting Room
 No files found.
[Go to Drafting Room](#)

Upcoming Events
 No entries found.
[Go to Calendar](#)

Forums Chat Room
 Inbox Calendar
 Library Drafting Room
 Members

Signed in as teacher (Group Admin). Thursday November 30th - 5:16 PM

TCU-LMS Features - Students

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone

Main Choose Course Classroom My Document Attendance Report My Profile Support Logout


Attendance Reports : Detail

Course ID : TCU-2549052 Course Name : e-Learning Thai Language

bene	Benedict Anderson	Minutes	Score
Topic ID	Topic Name		
guideline	Guideline to study	0	--
part1	Part 1 : Speaking and Listening	0	--
part1_chapter1	Chapter 1 : Hello	8	--
part1_chapter2	Chapter 2 : How Are You?	14	--
part1_chapter3	Chapter 3 : What Is This?	0	--
part1_chapter4	Chapter 4 : Where Do you Stay?	0	--
part1_chapter5	Chapter 5 : Members of A Family	0	--
part1_chapter6	Chapter 6 : Eating Thai Food	0	--
part1_chapter7	Chapter 7 : Tastes of Thai Food	0	--
part1_chapter8	Chapter 8 : Beverages	0	--
part1_chapter9	Chapter 9 : Eating Noodles	0	--

[Print](#) [View Summary](#)

TCU-LMS Features - Students



www.ThaiCyberU.go.th

Main Choose Course Classroom My Document Attendance Report My Profile Support Logout

Test Reports : Summary

Test ID : 1500102x01 Test Name : แบบทดสอบก่อนเรียน All registered students in this course Page 1

No.	User ID	First Name - Last Name	Highest Score/Total Score	%	Number of Test Sessions
1	048266910	อำนาจรณ์ บุญมาก	10 / 100	10%	1
2	4928854	เมษาวิ สุริยะ	45 / 100	45%	1
3	amosa15	ธนภัทร อโนลา	22 / 100	22%	1
4	amruda	ศรีสุดา อนันตสุข	100 / 100	100%	1
5	banklong	สิมห์ศักดิ์ ศรีทองเพชร	47 / 100	47%	1
6	benzy	วนิดา สุทธิวงษ์สิงห์	95 / 100	95%	1
7	blueorca999	สวัสดิพงษ์ วิสาจะ	77 / 100	77%	1
8	boorwanitboonun	บุญฤทธิ์ บุญอุ่น	72 / 100	72%	1
9	boworn	นวร อินทร์ผิว	37 / 100	37%	1
10	cg	ชัยณรงค์ คำแก้ว	87 / 100	87%	1
11	chirithana	จิตนา จันทระรอด	87 / 100	87%	1
12	denchai	เด่นชัย ราชทรัพย์	92 / 100	92%	1
13	espanol	ชัยรัตน์ มีขลุ	80 / 100	80%	1

TCU-LMS Features - Teachers

- The TCU offers teachers a chance to experiment with creating courses for distance learning.
- The TCU-LMS has features that enable teachers to create contents and tests for their courses.
- It supports lessons produced by a variety of programs such as Flash, Microsoft Producer, Camtasia, etc.

TCU-LMS Features - Teachers



Main My Course My Test Study Permission My Document My Profile Support Logout

My Courses

Search for Courses

Curriculum: University/Organization:

Field of Study: Faculty/Division:

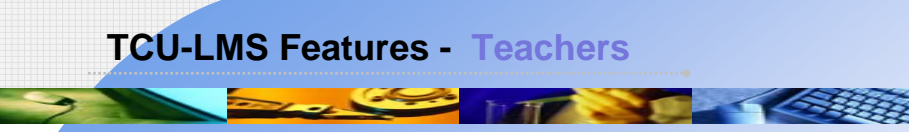
Sub-field of Study: Department/Subdivision:

Course ID/Course Name/Keyword:

Page : 1/1 Record : 16/6

Select All	Menu
<input type="checkbox"/>	
<input type="checkbox"/>	<p>1. com09 : การพัฒนาระบบการเรียนโดยใช้ Microsoft Access (ยังไม่เปิดให้ลงทะเบียน) : In-house use only :: Create Date (dd/mm/yyyy) 17/06/2006</p> <p>Voting Result</p> <p>Content Outline Web Board Chat Room Collaborative Group</p> <p>Announcements Attendance Report Semester Grading Import/Export Contents</p>
<input type="checkbox"/>	<p>2. phat604 : General Public Health (ยังไม่เปิดให้ลงทะเบียน) : In developing process :: Create Date (dd/mm/yyyy) 17/06/2006</p> <p>Voting Result</p> <p>Content Outline Web Board Chat Room Collaborative Group</p>

TCU-LMS Features - Teachers



Main My Course My Test Study Permission My Document My Profile Support Logout

Content Outline

[Guide for creating course](#)

com09 : การพัฒนาระบบการเรียนโดยใช้ Microsoft Access (ยังไม่เปิดให้ลงทะเบียน) : In-house use only
Main Path : http://www.thaicyperu.go.th/OfficialTCU/upload/teacher/

Topic ID	Topic Name	URL
01	แผ่น Microsoft Access	magnet/making_magnets_lesson1
01-1	Table	
01-2	Test	
02	Quiz-1	
03	Query	
04	Form	
05	Report	

TOOLBOX

TCU-LMS Features - Teachers

TOOLBOX

Insert Topic	Delete Topic
Save Topics	Select Files
File Admin	File Upload
Edit HTML Page	

Topic Icons :

Change topic position

Instruction

1. You need to fill Topic ID in the first column of each Topic Row. Topic ID in each row must not be the same.
2. You should arrange each Topic Row in hierarchical order. You can change level of topics by click left-right arrow.
3. In URL column of each Topic Row, you can fill the content by using file name in the format of .htm, .jpg, .gif or URL address either <http://www.tcu.com/upload/users/sample.htm> or [sample.htm](http://www.tcu.com/sample.htm).
4. The Content Path specified in the URL column should be relevant to its location, tracing up to Main Path.
5. After creating topics, click Save Topics to save the change. Do not click Refresh because all change will be gone.
6. You can choose icon image for each Topic Row by first selecting topic and then selecting icon image from Topic Icons.
7. You can move Toolbox by click at the brown area of "Toolbox" heading or at the gray outer line of the Toolbox box and drag to the destined position.
8. You should select the first icon image (Folder image) for the topic containing sub-topics.
9. If you want to use the files that you have already uploaded, double click at the space in URL column or click at Select Files button in the Toolbox.

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TCU-LMS Features - Teachers

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone
www.ThaiCyberU.go.th

Main My Course My Test Study Permission My Document My Profile Support Logout

My Tests

Search for Tests

Search from: Page:

Search type:

Sort by:

Page : 1/1 Record : 1:15/15

Select All	Menu
<input type="checkbox"/>	<p>1. 001 :: Midterm <- Click on Test ID or Test Name to create or edit the structure of the Test. Create Date 07/03/2005</p> <p>Trial Test Test Reports Test Analysis Select Previous Tests Import/Export Tests</p> <p>Create Test Edit Content</p>

TCU-LMS Features - Teachers

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone
www.ThaiCyberU.go.th

Main My Course My Test Study Permission My Document My Profile Support Logout

Study Permission

Search from: Page:

Search type:

Sort by:

Please select first ->

Page : 1/2 Record : 1:50/76

Select All	Menu
<input type="checkbox"/>	<p>1. soph2518 :: สอภ๒๕๑๘ :: E-mail soph2518@hotmail.com :: Registered Date 23/11/2006</p> <p>Course : com09 : มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี Microsoft Access(สำนักงานให้คะแนนในรายวิชา)</p> <p>Applied Number 1</p>
<input type="checkbox"/>	<p>2. jirasak :: จรัสศักดิ์ :: E-mail jirasakjett@yehon.com :: Registered Date 17/11/2006</p> <p>Course : com09 : มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี Microsoft Access(สำนักงานให้คะแนนในรายวิชา)</p>

TCU-LMS Features - Administrators

TCU มหาวิทยาลัยไซเบอร์ไทย Thailand Cyber University Official Zone
www.ThaiCyberU.go.th

Main Data Categories Users Attendance Report My Document My Profile Support Logout

Data Categories

Curriculums	Add/Delete/Edit
Universities	Add/Delete/Edit
Faculties	Add/Delete/Edit
Departments	Add/Delete/Edit
Field of Study classified by International Standard Classification of Education (ISCED)	Add/Delete/Edit

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TCU-LMS Features - Administrators




Teacher Permissions

Search from:
 Search: Page:
 Search type:
 Sort by:

<< Not found New User data >>

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TCU-LMS Features - Administrators




Teacher Profiles

Search from:
 Search: Page:
 Search type:
 Sort by:

Page : 1/2 Record : 150/51

1. anderson	Benedict Anderson	Applied Date 08/07/2005	Status Permit	
2. adminds	CU-3343701 CU-3343701	Applied Date 15/06/2006	Status Permit	
3. admindu	CU-3343702 CU-3343702	Applied Date 15/06/2006	Status Permit	
4. adminm	CU-3343703 CU-3343703	Applied Date 15/06/2006	Status Permit	

TCU-LMS Features - Administrators



Student Profiles

Search from:
 Search: Page:
 Search type:
 Sort by:

Page : 1/265 Record : 150/13223

1. kreengchai	Applied Date 23/10/2006	Status Permit	
2. thirapat3	Applied Date 15/06/2006	Status Permit	
3. perman	Applied Date 15/06/2006	Status Permit	
4. patternagron	Applied Date 15/06/2006	Status Permit	

TCU-LMS Features



My Documents

Search for: page 1

Your Current Path : admin/

<input type="checkbox"/>	No.	File Name	bytes	Date	
<input type="checkbox"/>	1.	basicComputer.doc	44,544	19/05/2005 09:21:08	Rename
<input type="checkbox"/>	2.	budwall.jpg	129,973	29/08/2005 08:23:56	Rename
<input type="checkbox"/>	3.	e11.jpg	3,680	09/08/2005 13:40:10	Rename

7

Open Courseware project

- One of the main objectives of the TCU are to create shareable courseware.
- At present the TCU succeeds in providing more than 300 open courseware courses, mostly in Thai language.
- There are more than 1,000 people accessing the courses per day.

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Pilot project for sharing educational resources

- cooperation with universities for offering online teaching and learning.
- supporting staffs that manage and operate the system and other administrative procedures.

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Pilot project for sharing educational resources

e-Learning Professional Development Programme

- A certificate programme which is currently open.
- At present there are 42 people registered for this programme.
- The TCU has offered a budget to the professionals to create the contents and install them in the TCU-LMS.
- The TCU was involved in administration and registering process, as well as, assisted in teaching.

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Pilot project for sharing educational resources

Master of Sciences in Social and Administrative Pharmacy (International Programme)

- A pilot programme.
- Instructors had to communicate promptly with the students and had to be active all the time.
- Both teachers and students were satisfied with the questioning and answering.
- Students were satisfied with online studying more than studying in the actual classroom.

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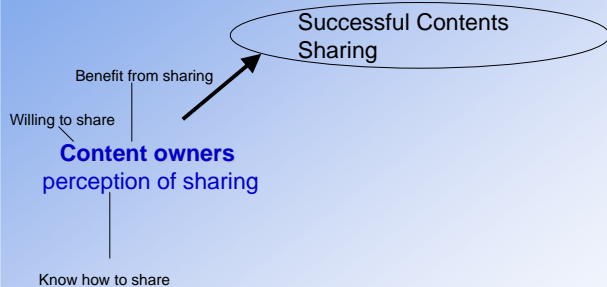
Statistic Information

- More than 400 colleges and universities have received the TCU-LMS for using in their own institutes.
- Training faculties and school teachers more than 3,000 persons in last fiscal year
- 13 top Thai universities have joined the TCU and will provide 16 Bachelor and Master Degree programmes.
- Up to November 2006, we have more than 220,000 persons registered as students and more than 270,000 visitors.

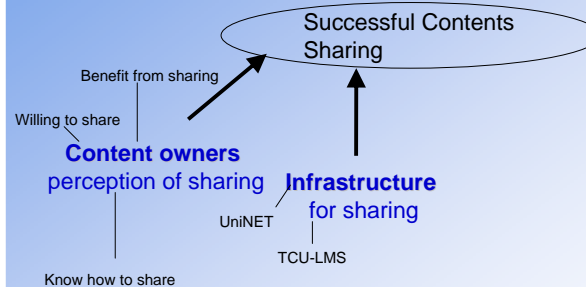
A systematic approach for encourage educational resources sharing

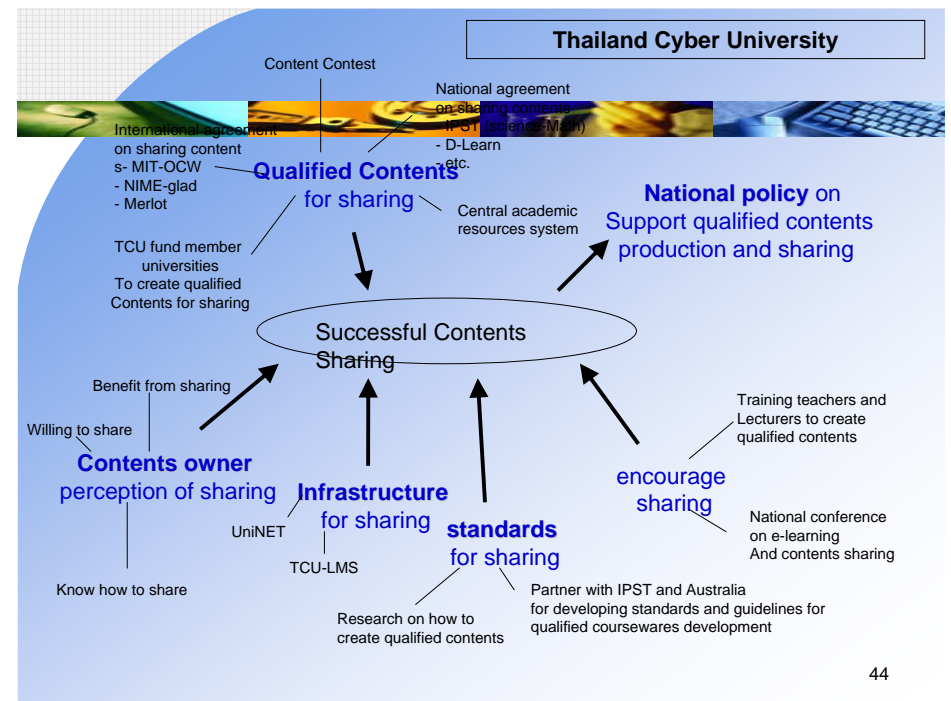
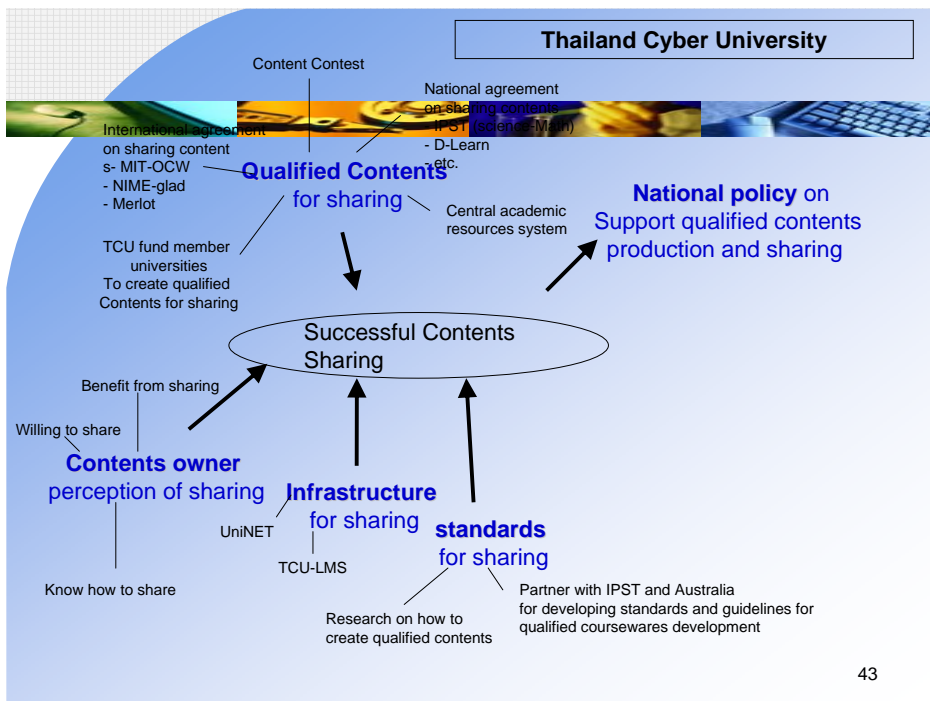
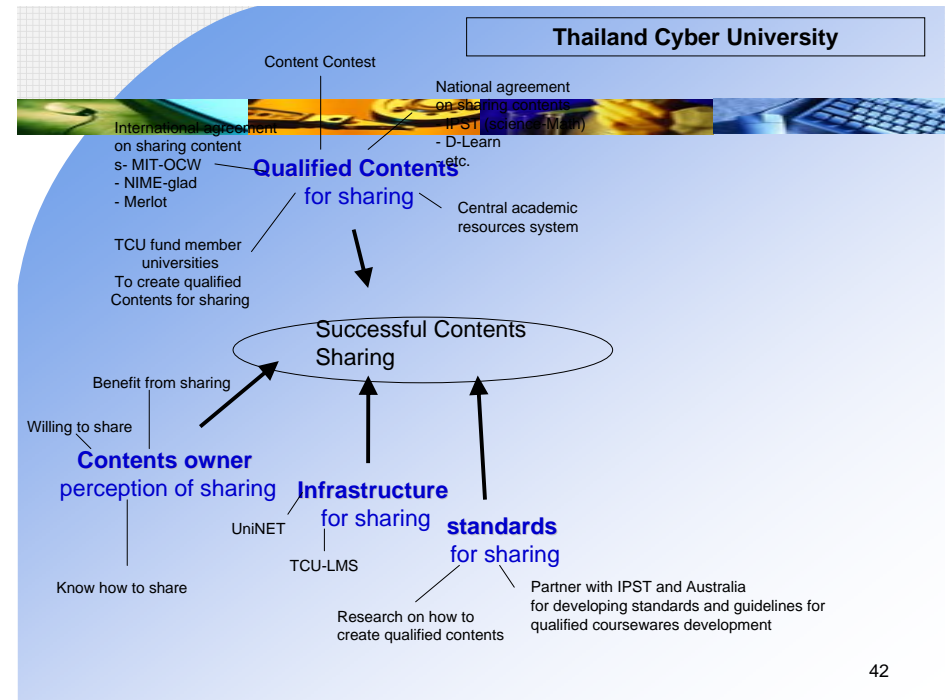
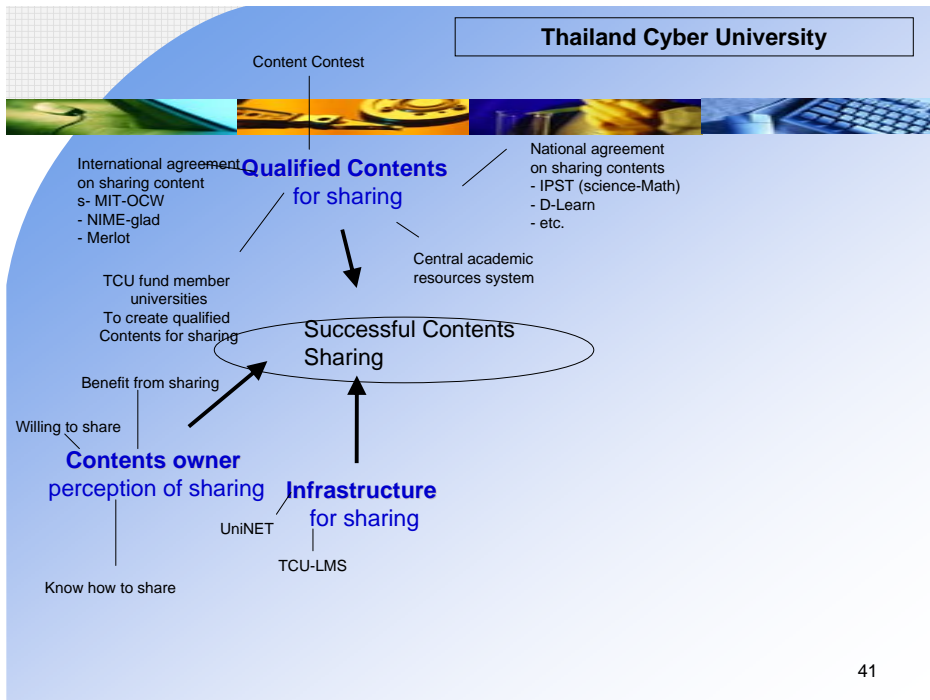
Future plan for encouraging educational resources sharing in higher education

Thailand Cyber University



Thailand Cyber University





- Be a knowledge and education center, using the latest technologies to provide further education for all, for both formal and informal education.
- Increase the number of people who can access higher education, gaining knowledge at their convenience, irrespective of time or location.
- The courses will meet the educational standards set by an internationally recognized quality guarantee system and also expected to share our resources to the world.

Thank You !

Strategy for sharing educational resources in e-Learning

Introduction

Educational resources are important for teaching and learning process. The good educational resources will support the teacher to convenience teaching and also help learner to understand the content. Thailand has 160 higher educational institutes with the very wide range of educational quality. How to raise the quality of the universities as well as minimize the quality gap among them are the major issues for The Commission on Higher Education.

The Commission on Higher Education (CHE) under the Ministry of education has the major role for supporting, encouraging higher education institutes in Thailand for providing the quality higher education. CHE have initiated many projects for raise the quality of education under the concern of efficiency and effectiveness way. Those initiatives are

1. Inter-University Network (UniNET)

The Commission on Higher Education initiated the inter-connection between universities network and founded a central body for cooperation among the higher educational institutions in the beginning phase. The UniNET was founded in 2002. The UniNet network is an important infrastructure to connect the government universities and enable them to communicate with each other as well as to the world outside. At present there are 176 universities and institutions joining the UniNet.

2. Central Academic Resources System

The Commission has created a central academic resources system and provided academic resources to all government universities. The academic resources include E-book, E-journal, and E-library. Every university in the network can use the educational resources easily and rapidly via UniNET.

3. Thailand Cyber University Project

The Commission has established the Thailand Cyber University to be an organization that operated e-Learning with efficiency and cost-effective approach. The TCU was established in 2005 and has developed the TCU-LMS to be the national LMS which is freeware and open source. Also, the TCU has set up the portal web, www.thaicyper.go.th, to host contents produced by universities. At present there are almost 300 open courseware courses. There are over 15 universities jointly creating Certificate Programme, Bachelor's Degree Programme and Master Degree Programme. There are more than 10 e-Learning programmes available now.

4. The Cooperation from the Universities in the Network

One of the important factors contributing to the success in the beginning phase is the cooperation from the universities that have shared several

innovative ideas, including the idea about the technologies that were necessary for the system. They helped create the contents that are necessary for the development of the country such as the course in software development. Also, they jointly conduct the research to improve the quality standard of e-Learning, including the research in the readiness of Thailand's universities in operating e-Learning, the accreditation guideline for online distance education, the quality assurance system for online distance education, the standard and system for sharing learning resources.

5. Open Source TCU-LMS

The TCU has developed its own LMS. The LMS was initially created by Chulalongkorn University in 2000 and the TCU has developed it to be the sharable LMS which is open source software. The system includes content management system, student management system, and production tools. Also, there are other support and service systems such as web board, chat room, collaborative group system. At present the TCU has developed TCU-LMS in English version that we could provide to the world.

Since TCU-LMS is open source and free for educational usage. I would like to elaborate more on TCU-LMS for benefit of all participants.

TCU-LMS Features

The TCU-LMS is the Learning Management System developed by the TCU. The TCU-LMS supports e-Learning system and offers an opportunity to both students and teachers to access the online learning and teaching effectively anytime and anywhere. The TCU-LMS consists of three modes for students, teachers, and administrators.

The TCU-LMS offers students a new way to learn. Although e-Learning is different from the learning in an actual classroom in many ways, it does cover all the basics of classroom learning. The TCU-LMS provide the students to study online lessons, work with other students, do activities, homework, and tests.

The TCU-LMS has several features for students. The students can choose many open coursewares offering in the TCU-LMS. At present there are about 300 courses available in the TCU-LMS. After registering for a course, the students can study in that course right away. Apart from studying the lesson students can have an interaction with instructors and other classmates via web board and chat room. Also, there is a Collaborative Group system that enables the students to work in a group, imitating the activities in an actual classroom. Students can offer an assessment to the quality of the lesson they have studied and view their attendance and test report. Attendance report shows the portion of time and number of session that students access to each lesson. Test report shows the scores the student getting after taking the test.

The TCU-LMS has several features providing for teachers. The TCU offers teachers a chance to experiment with creating courses for distance learning. The LMS has two zones, official and experimental. The teachers can upload courses that they want to test into the experimental zone. In an official zone teachers can host their courseware online. The TCU-LMS has features that enable teachers to create contents and test of their courses. It supports lessons produced by a variety of programs such as Flash, Microsoft Producer, Camtasia, etc. Teachers can choose whether they want their course to be a supplementary, complementary, or comprehensive replacement course. Teachers can also set the study permission for the course they open and manage the permission of each student studying in each course. The TCU-LMS also has a system to manage fee collection if the course is not free. Teachers can view the assessment result and the attendance and test report of the course they provide.

The TCU-LMS also has an administrator's mode. It enables administrators to manage the system and modify the curriculum, university, and field of study data. The administrators can give the permission to the user applied for the teacher status in an official zone and edit both teacher and student profiles. Administrators can also view the attendance and test report of every course in the system.

The TCU-LMS offers space for students, teachers, and administrators to upload their documents to keep in the server. The size of space depends on the status of the users. Also, the users can edit their profiles and change their password.

It can be seen that the TCU-LMS has a complete function for the teaching and learning online. It enable teachers and student to manage their teaching and learning without a limit of time and place.

6. Open Courseware project

One of the main objectives of the TCU is to create sharable courseware. At present the TCU succeeds in providing more than 300 open courseware courses, mostly in Thai language. There are more than 1,000 people accessing the courses per day.

7. Pilot project for sharing educational resources

The TCU has cooperated with universities for offering online teaching and learning. The TCU, as a system supporter, has supporting staffs that manage and operate the system and other administrative procedure. These are examples for sharing experiences;

7.1 e-Learning Professional Development Programme

This is a certificate programme which is currently opening. At present there are 42 people registered for this programme. The study period of the programme is two months. The TCU has offered a budget to the professionals to create the contents and install them in the TCU-LMS. The TCU has involved in administration and registering process, as well as, assisted in teaching. The instructors which are the professionals in e-Learning have observed learning process, as well as, offered an assessment to the students. The TCU also produced operation manuals for every party involved.

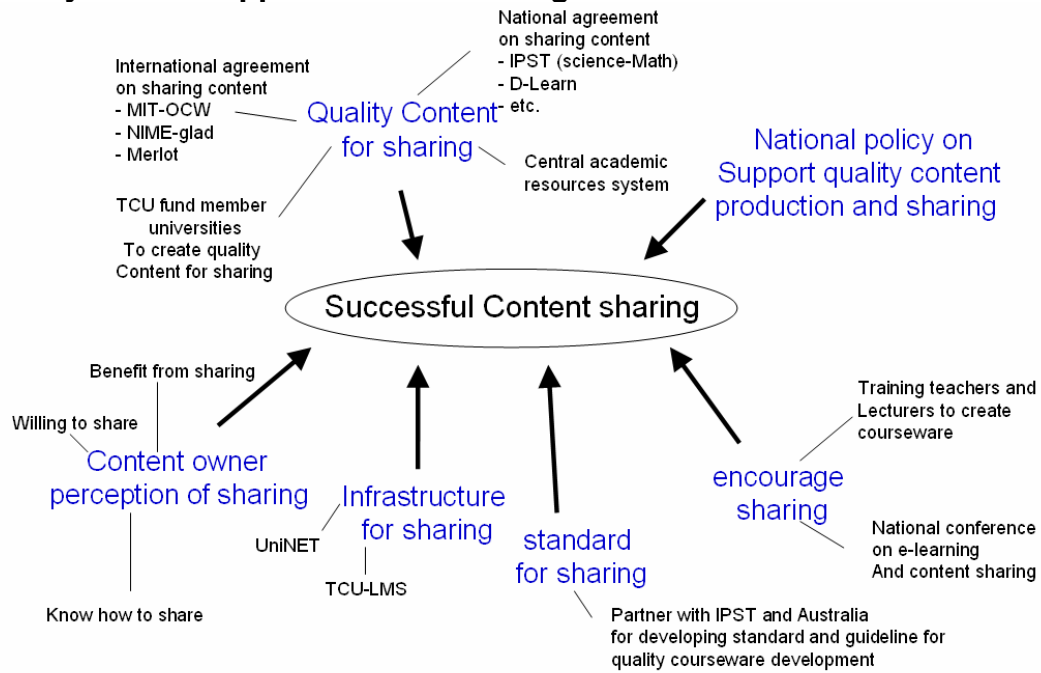
7.2 Master of Sciences in Social and Administrative Pharmacy (International Programme)

This is a pilot programme. It was found that the instructors of this course felt more exhausted than teaching in an actual classroom because they had to communicate instantly with the students and had to be active all the time. However, both teachers and students were satisfied with the questioning and answering. It seemed that the students were satisfied with online studying more than studying in the actual classroom because they had more opportunity to communicate with the instructors and did not feel uncomfortable to ask questions. Also, they can study anytime and anywhere.

9. Statistic Information

- More than 400 colleges and universities have received the TCU-LMS (Thailand Cyber University Learning Management System) for using in their own institutes.
- Training faculties and school teachers more than 3,000 persons in last fiscal year
- 13 top universities have joined the TCU and will provide 16 Bachelor and Master Degree programmes.
- Up to September 2006, we have more than 140,000 persons registered as students and more than 200,000 visitors.

8. A systematic approach for encourage educational resources sharing



Thailand Cyber University

Thailand Cyber University future plan for encourage educational resources sharing in higher education will concern on the critical success factors that will enabling the content sharing among instructors in universities as in the diagram above.

9. Long-term goal of the TCU

The TCU has a long term goal to be a knowledge and education center, using the latest technologies to provide further education for all, for both formal and informal education. Increase the number of people who can access higher education, gaining knowledge at their convenience, irrespective of time or location. The courses will meet the educational standards set by an internationally recognized quality guarantee system and also expected to share our resources to the world.