
E-Learning in Rural Community through E-Community Centers

Prof. Myong Hee Kim

Dr. Man Gon Park

Colombo Plan Staff College for Technician Education

The views expressed in this paper are the views of the authors and do not necessarily reflect the views or policies of the Asian Development Bank Institute (ADBI), the Asian Development Bank (ADB), or its Board of Directors, or the governments they represent. ADBI does not guarantee the accuracy of the data included in this paper and **accepts no responsibility for any consequences of their use**. Terminology used may not necessarily be consistent with ADB official terms.

Contents

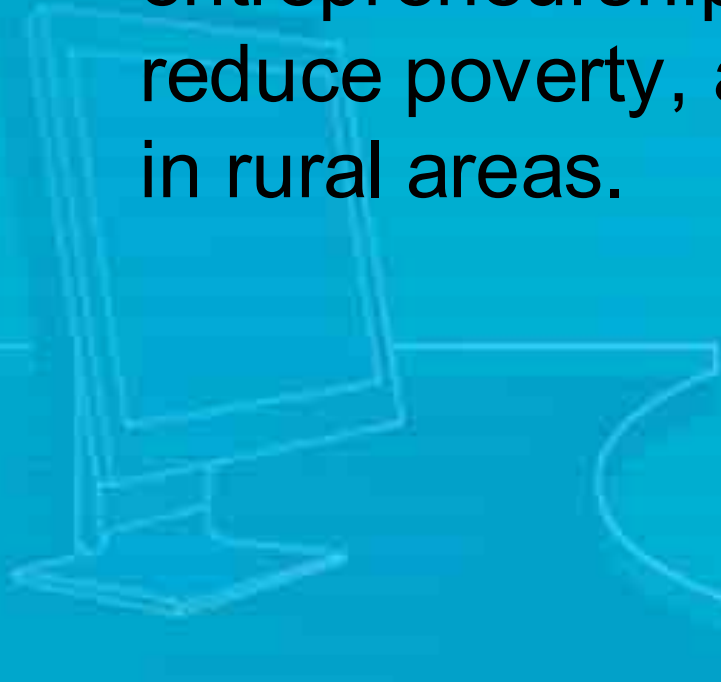
- 1. Introduction**
- 2. Information Systems for Rural e-Community Centers**
- 3. Design of e-Teaching and Learning Systems for Rural e-Community Centers**
- 4. Implementation of e-Teaching and Learning Systems for Rural e-Community Centers**
- 5. Maintenance of e-Teaching and Learning Systems for Rural e-Community Centers**
- 6. Conclusion**

Introduction

- ◆ Imbalance of ICT between the rich and the poor, causing inequalities between have and have not, results in increased power flow towards the elite.
- ◆ The sustainable development, management and extension of e-community centers for rural communities in Asia and the Pacific region would contribute to increasing the participation of the rural poor to e-community centers through various information service systems.

Introduction

- ◆ e-community center will produce knowledgeable and skillful rural youth and women, encourage small and medium entrepreneurship, generate incomes, reduce poverty, and improve quality of life in rural areas.



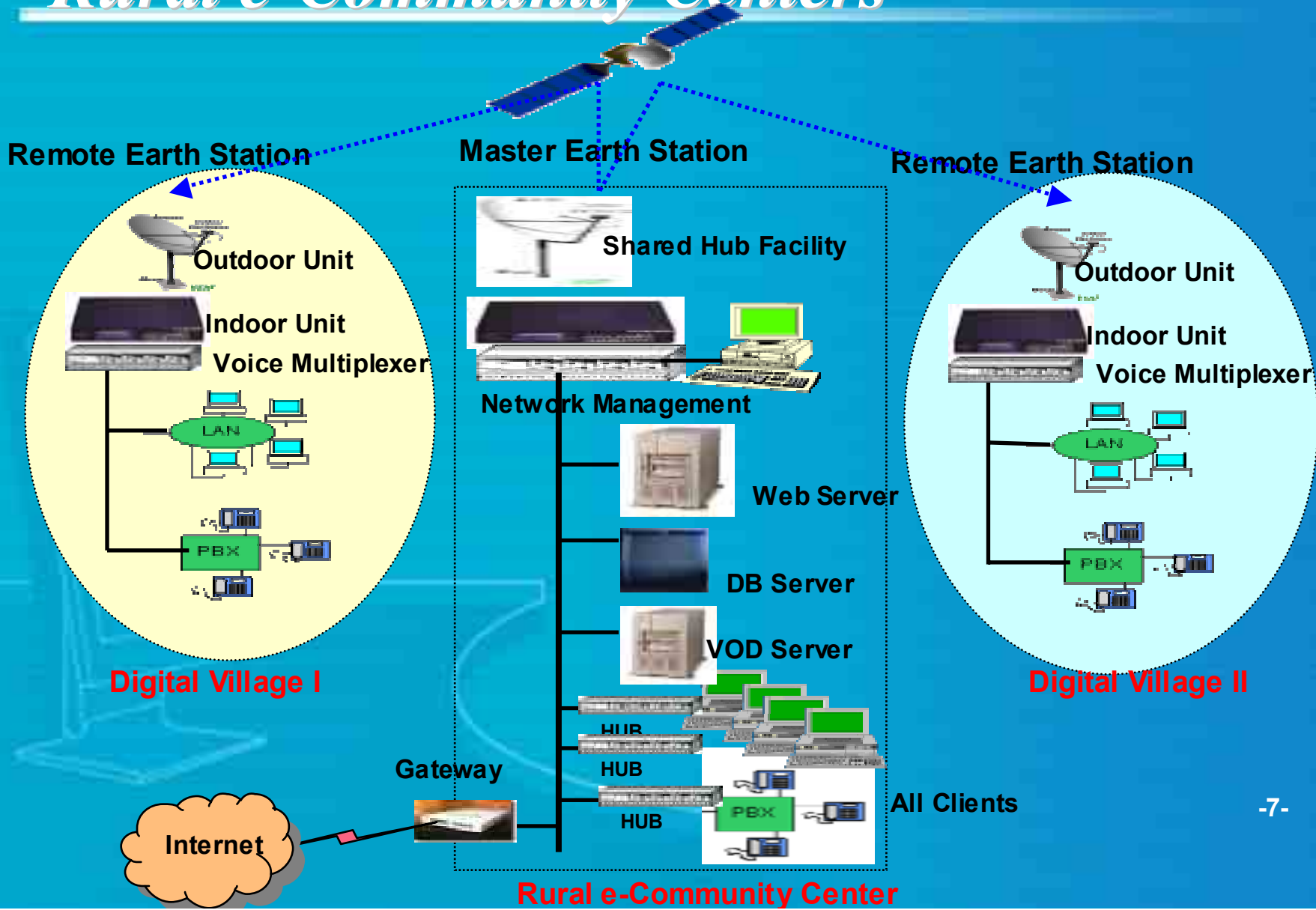
Information Systems for Rural e-Community Centers

- ◆ Rural e-community centers will provide some fundamental information services for rural residents as follows:
 - Education and training services,
 - Weather, disaster, and environmental information services,
 - Medical and health care information services,
 - Agricultural and post harvest information services,
 - GIS and government administration information services,
 - Transportation and communication information services, and
 - Market and community information services.

Information Systems for Rural e-Community Centers

- ◆ Rural e-community centers will be equipped with computer network systems for building information service systems for rural residents.
- ◆ VSAT (Very Small Aperture Terminal) is low cost business terminals with small antenna (generally less than 2 meters in diameter).

Example of VSAT Network System for Rural e-Community Centers



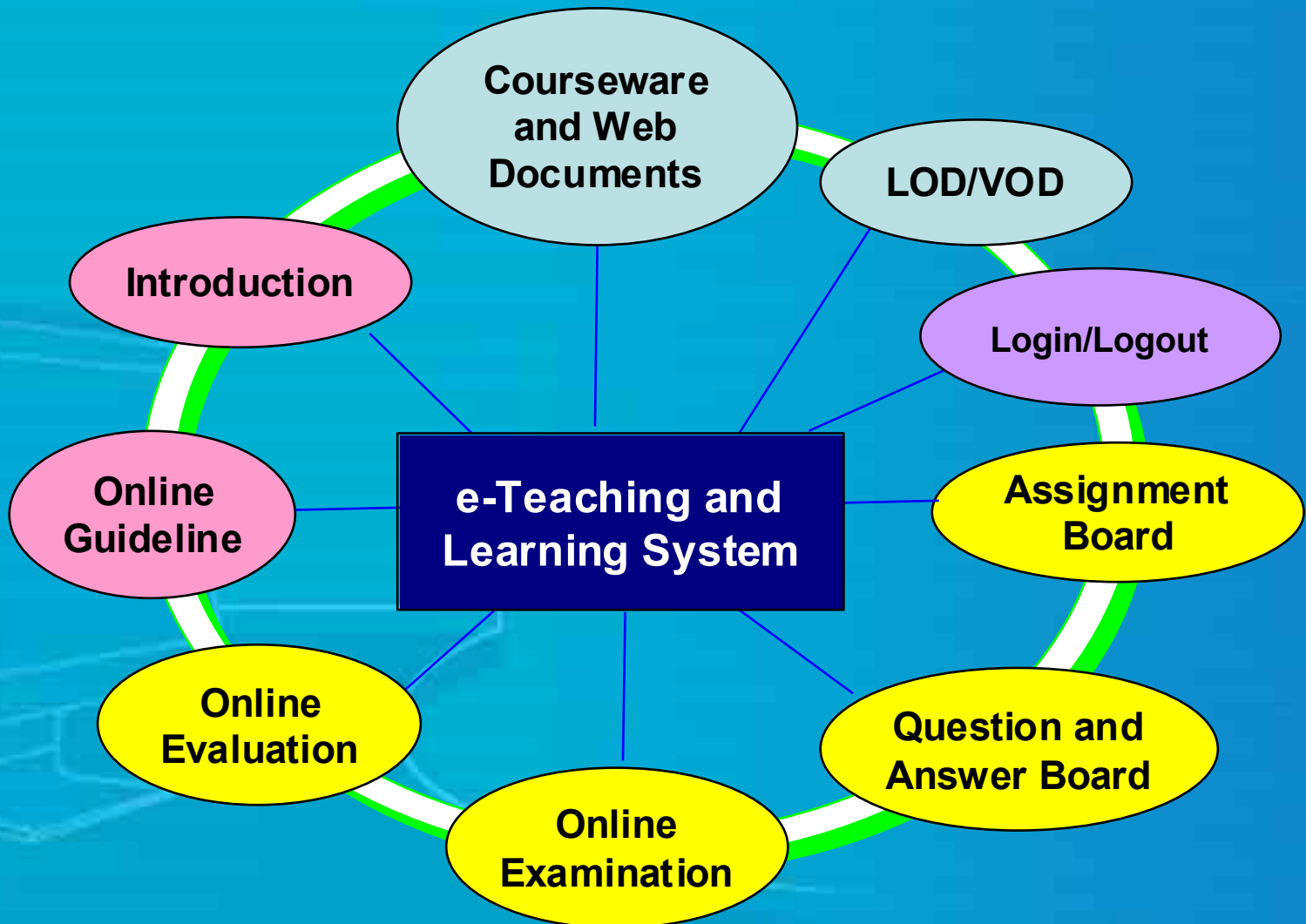
Design of e-Teaching and Learning Systems for Rural e-Community Centers

- ◆ e-teaching and learning system is the most popular web technology, giving the opportunity to learn almost anytime, anywhere, at any age and at one's own pace
- ◆ Basic components of e-teaching and learning system are;
 - (1) Login/Logout for managing members
 - (2) courseware and web documents for instructional materials produced by theme papers,
 - (3) VOD (Video on Demand)/LOD (Lecture on Demand)

Design of e-Teaching and Learning Systems for Rural e-Community Centers

- (4) assignments board,
- (5) online examination to evaluate students or participants,
- (6) question and answer board to share their knowledge and to solve problems,
- (7) introduction for the background of the web-based e-teaching and learning system,
- (8) online guideline to guide the exploration of the e-teaching and learning system, and
- (9) online evaluation for a specific training course

Basic Components of e-Teaching and Learning System



The membership management

- ◆ The membership management system would be a first step to design of e-teaching and learning system.
- ◆ Once members register to this system, the data will be saved in the database system.



Registration form and login/logout buttons

eunjukim
●●●●●●●●
Login **Reset**
Register

Welcome
Ms. Eun
Logout
Edit Profile

Personal Information :

User ID	eunjukim		
Password	●●●●●●●●		
Retype Password	●●●●●●●●		
Title	Select your Title ▾		
First Name/M/Familyname	Eun Ju	/ M	/ KIM
Date of Birth(dd/mm/yy)	13 / 09 / 2004		
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female		
Country	Korea ▾	Select Your Country where you live.	
Nationality	Korean ▾		
Institution/Company	CPSC		
Job Title/Designation	faculty		
City	Pusan	- Zipcode	613-757
Address	Hyundai @ 113-702 Syoung-Dong Syoung-Gu		
Telephone No.	82	- 51	- 775 - 1058
Fax or Cellphone No.	82	- 51	- 775 - 1059
e-mail Address	eunju@pusan.kr		

Submit **Reset**

View of contents with VODs

- ◆ It is one of the main activities that provides proper contents of e-teaching and learning system.
- ◆ VODs recorded a short lecture for every contents of the theme paper help learners understand easily.
- ◆ VODs are consisted of lecture screen to present instructional materials and video screen to show lecturer's face.

e-Board systems: Question & Answer and Submit Assignment

- Interaction between the learner and the teacher/instructor is of great importance in the teaching and learning process.
- The e-board systems overcome the drawback of limited interactions between instructors and learners and among learners

Total : 5, Page : 1/1

<input type="checkbox"/>	No.	Title	Name	File	Date	Hit
<input type="checkbox"/>	5	Please answer to my question	cooljinny		04/08/05	1
<input type="checkbox"/>	4	Jinny Sundari	fsibal2k		04/08/05	1
<input type="checkbox"/>	3	I have a question!!! Plz answer~~~	foreverb		04/08/05	1
<input type="checkbox"/>	2	Please answer...	cooljinny		04/08/05	2
<input type="checkbox"/>	1	Question and Answer board...	bloodline		04/07/30	10

Delete Among titles Search List Write

Online examination

- ◆ The online examination is necessary to ensure an objective and accurate evaluation of performance of the participants
- ◆ The score of online examination is the result of particular courses and offers self-test to learners to help realize a gain of their knowledge and skills

A multiple choose type online examination

1. Which of the following is not included in the concept of IDEF model?

- IDEF is the family of integrated computer aided manufacturing (ICAM) Definition
- IDEF is a group of modeling methods that can be used to describe operations in an enterprise
- IDEF methods are used to create graphical representations of various systems, analyze the model, create a model of a desired version of the system
- IDEF0 provides representation of data flow in existing and required system

2. Sixteen methods of IDEF, from IDEF0 to IDEF14 (and including IDEF1X), are each designed to capture a particular type of information through modeling processes. Which IDEF model's definition is not correct?

- IDEF0 is Function Modeling
- IDEF1 is Information Modeling
- IDEF3 is Process Description Capture
- IDEF4 is User Interface Modeling

3. What is this? "This may be people, systems, facilities or equipment necessary to accomplish the activity. The direct costs of doing an activity are associated with this for IDEF0 model"

1. Controls



5. Function pr

19:51

Submit Examination

Implementation of e-Teaching and Learning Systems for Rural e-Community Centers

- ◆ The core activities through e-Teaching and Learning System are;
 - Servicing on the board, or a committee of e-teaching and learning system,
 - Contributing to e-teaching and learning system's contents,
 - Developing and hosting an e-teaching and learning system knowledge sharing platform in local languages,
 - Facilitating and/or editing certain categories of the e-teaching and learning system website, and
 - Providing grants to be matched by e-teaching and learning system to local entrepreneurs who meet the economic and social selection criteria as determined by the e-teaching and learning system Board.

An example of main software tools to implement of e-teaching and learning system

Components	Tools	Remarks
Website design	Adobe Photoshop & Adobe Illustrator	Website layout
Web documents: <ul style="list-style-type: none">● Instructional Materials● Online Guideline● Introduction	Namo WebEditor	Editing web document
VOD/LOD	CBI Tool	Recording lecture
	Adobe Premier	Editing Video
Login/Logout	PHP, Mysql and others	Linux system
e-Board systems: <ul style="list-style-type: none">● Assignment● Question and Answer	PHP, Mysql and others	Linux system
Online examination	PHP, Mysql and others	Linux system
Online evaluation	PHP, Mysql and others	Linux system

Maintenance of e-Teaching and Learning Systems for Rural e-Community Centers

- ◆ It is exceedingly important for eligible learners to maintain e-teaching and learning system services and update its contents continuously.
- ◆ Three important issues in maintenance the e-teaching and learning system are;
 - (1) Monitoring e-teaching and learning system
 - (2) Updating regularly
 - (3) Write good brief information of the e-teaching and learning system

Monitoring e-teaching and learning system

- ◆ After the e-teaching and learning system is launched, it is needed to know how well it meets the objectives.
- ◆ It can be tracked how many user e-teaching and learning system gets, which materials those user look at and how many contacted the website afterwards.
- ◆ The results will help determine how the e-teaching and learning system should evolve

Updating regularly

- ◆ Keeping the e-teaching and learning system up to date after it has been launched, it is important as creating the site in the first place.
- ◆ When e-teaching and learning system materials remain static, there is little reason for people to re-use the system and therefore the opportunity to promote e-teaching and learning system is lost.
- ◆ The budget of the on-going maintenance of the e-teaching and learning system should cover routine check-ups and updates to the materials.

Write good brief information of the e-teaching and learning system

- ◆ The information should be clear, concise and contains all the relevant information about the e-teaching and learning system
- ◆ The features and functionality should clearly describe the purpose of the e-teaching and learning system
- ◆ The contact details should be available in case the users encounter some problems, on a daily basis

Conclusion

- ◆ The rural disadvantaged are yet to benefit from the information technology revolution. The information gap is increasing between those who live in rural areas and in urban districts, between the rich and the poor, resulting in increased power flow towards the elite.
- ◆ Therefore, the rural e-Teaching and Learning System through e-community center is needed to support entrepreneurs economically and socially, who pursue innovative businesses and social enterprises in developing countries.

Conclusion

- ◆ Especially, it is aimed at helping young people and women exposed to useful information so that they develop their own skill and abilities and, in the long run, can stand on their feet economically
- ◆ e-Teaching and Learning system will meet these goals through providing connectivity to local communities, supporting local content creation, and utilizing ICT for socially valuable purposes, such as education and training services that create income-generating activities in rural communities.