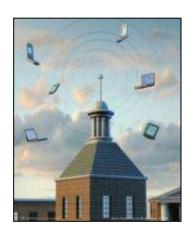




# Open and Distance Learning for Higher Education A Case from Korea



Tae Rim Lee

Professor Dept of Information Statistics , Korea National Open University Director of Institute of Distance Education, e-ASEM Coordinator President of KOSHIS, KCS

e-mail: trlee@mail.knou.ac.kr







#### Outline



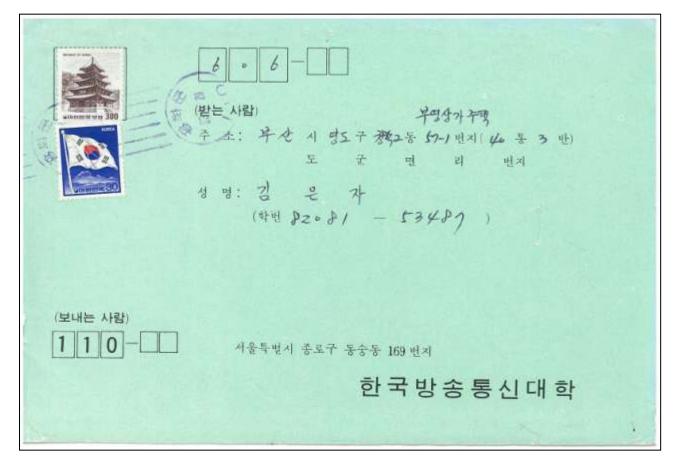
- Motivation
- ICT history and background in Korea
- ICT for KNOU ODL

- Future Agenda
- Remarks





### Correspondence by Post mail



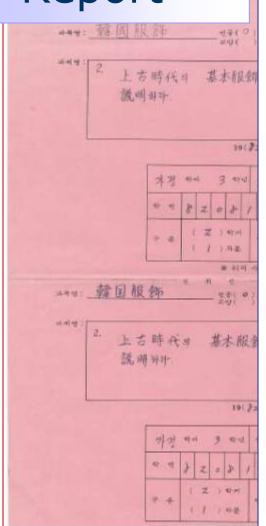


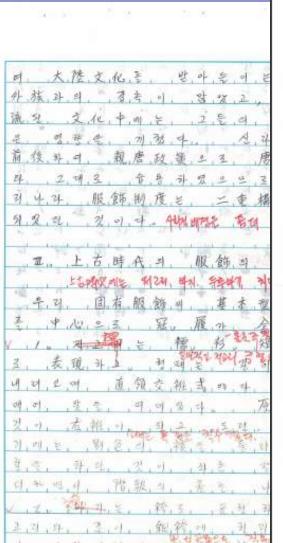


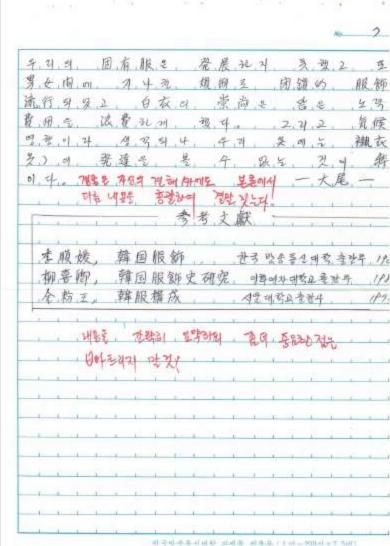
#### Open and Distance Learning for HE: A Case from Korea

Marking on

Post mail Report





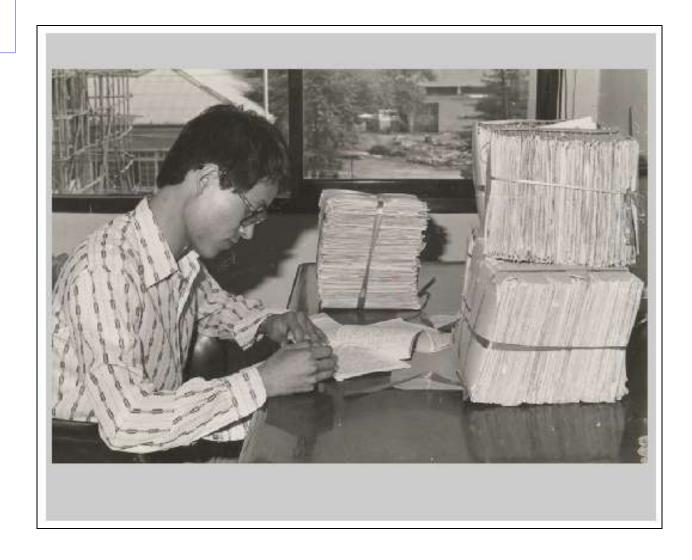






Feedback on

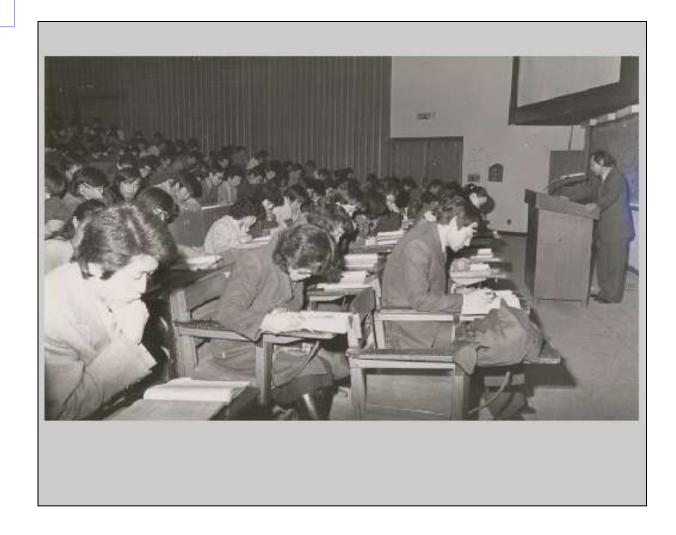
#### Post mail Report







#### Face to Face Class







#### Face to Face Class







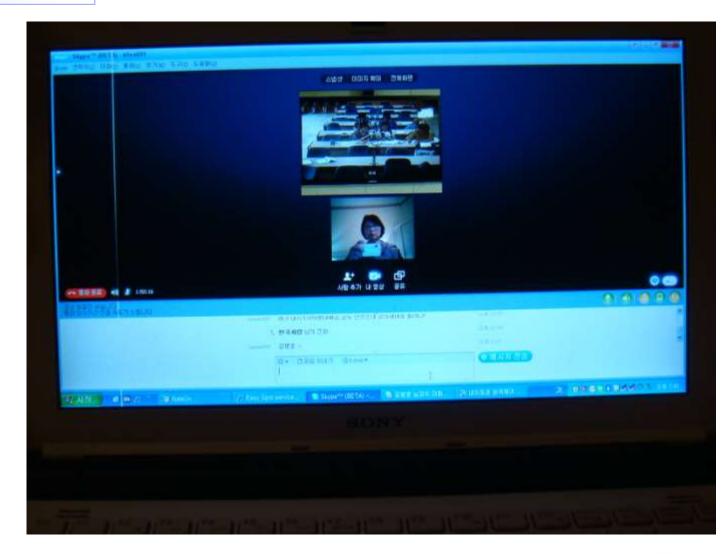
### KNOU Cable TV Opening







From Firenze – to Seoul– 10 city at Korea







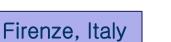
#### Open and Distance Learning for HE: A Case from Korea

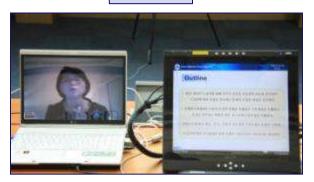
# KNOU Tele conferencing class configuration

#### From Firenze - to Seoul - 8city at Korea

Seoul











10 cities at Korea

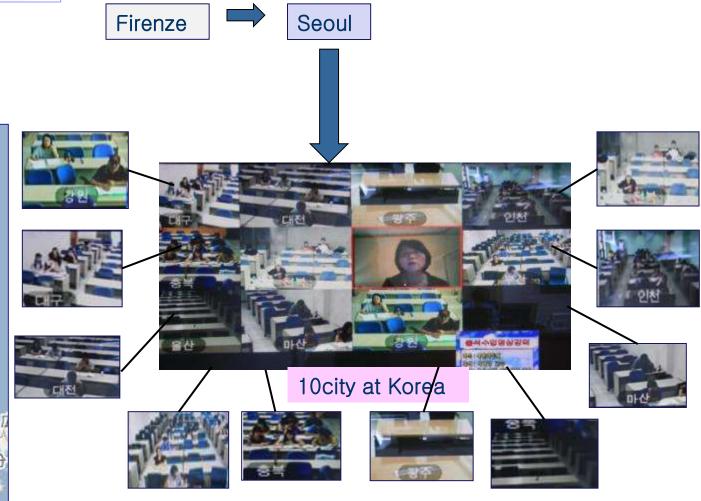




North Korea

> 대한민국 South Korea

#### From Firenze - to Seoul - 10city at Korea





nyang :阳 o



#### From Firenze - to Seoul- 10 city at Korea







#### From Firenze - to Seoul- 10 city at Korea







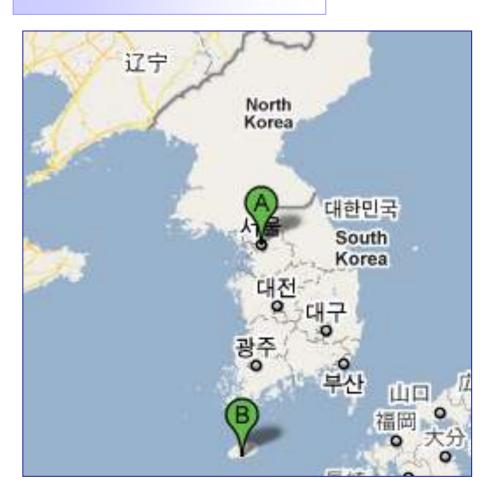
#### From Firenze - to Seoul- 10 city at Korea







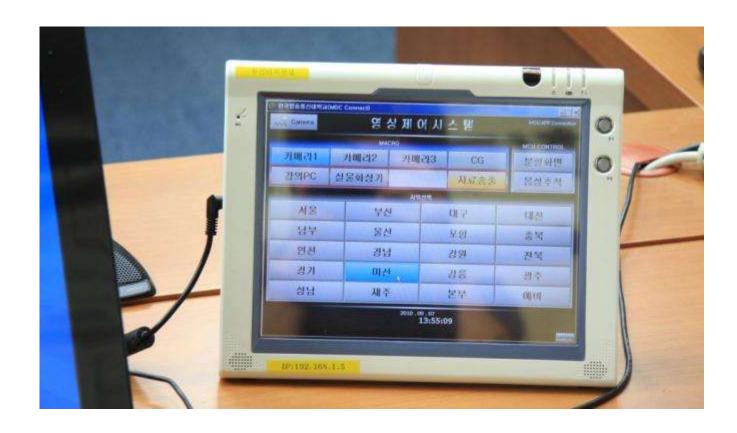
#### From Firenze – to Seoul– 10 city at Korea











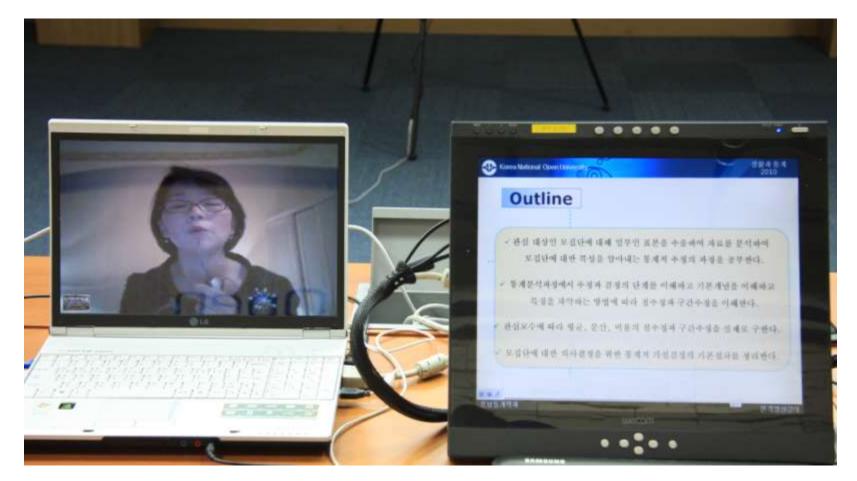




Open and Distance Learning for HE:
A Case from Korea



#### Two laptop at Seoul main campus











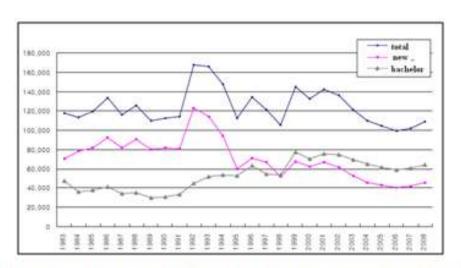




### **Characteristics of Students**

<Table 1> Distribution of bachelor students' admission to KNOU

Year₽	2005₽	2006₽	2007₽	2008∂	2009₽
Number bachelor admission	20,835 (19.9%)	16,699 (6.8%)	16,238 (15.9%)	15,671 (14.3%)	9016 (8.3%)
Total	104,724	99,061	102,268	109,311	108,367



<Fig.1> Trend in students' enrollments in KNOU according to their education level-





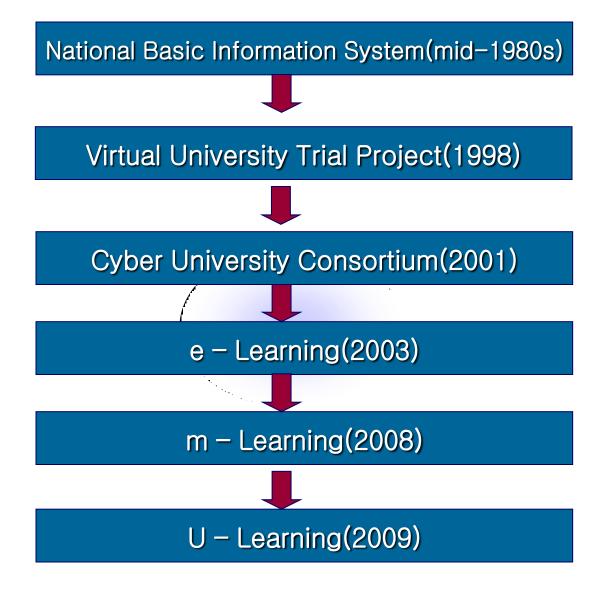
#### **Motivation**

- Variety of Educational Demand
- Change of Paradigm in Distance
   Education
- Easy Access to W.W.W.
- Enlargement of Educational Space
- Explore Various Tools in a
   Teaching Learning System
- Standardization of e-Learning m-Learning





#### ICT Background in Korea







#### internet Environment in Korea

- ☐ High-speed Internet services
- World's highest Broadband diffusion rate
   (World Economic Forum, Feb. 2003)
- Broadband coverage is over 98% of small and medium cities and rural areas
- Number of Broadband Users: 11.6M

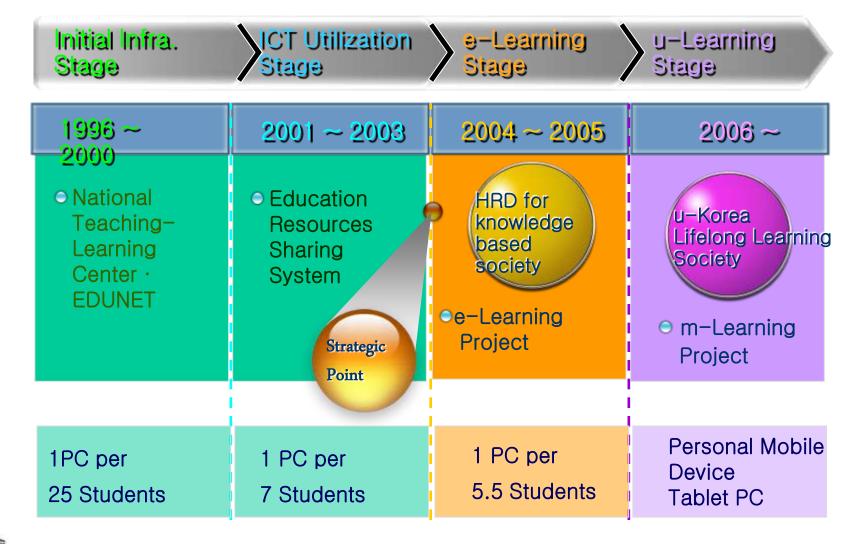
(MOIC, Sept. 2003)

- ☐ Population using Internet
- Number of Internet Users:28.6M (KRNIC, June
   2003) about 64% of the national population over
   six years of age are using the Internet
- 90% of Koreans in their 20s have Internet access





### Progress of Adapting ICT in Education in Korea







#### e-Learning History at KNOU



- Starting e-Learning operating program

- Starting Korea Virtual Campus(KVC)

1999

 ICCU Membership & getting started operating program(2 courses development)

- Chairman Univ. of ICCU operating committee

2000

- Start of ICCU program

- Expansion of development of webbased contents

2001

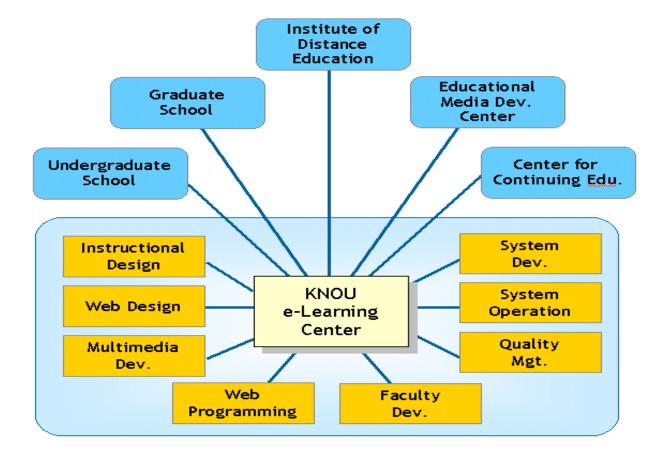
- Establishment of e\_Learning center
- Start of Graduate School
- Program(4 Departments)





### Establishment of Cooperative Organization

 e-Learning Center KNOU builds a cooperative system with the 5 institutions related to e-Learning at KNOU.







#### e-Learning History at KNOU



2	00	12	
	UU	_	

- Building of e-Learning hub site 'E-Campus'
- Chairman Univ. of KVC

2004

- Extension of two departments in Graduate School
- e-Learning contents development Funded by Ministry of Education & Human Resources Development (US \$340,000, 13 subjects)

2005

e-Learning contents development
 Funded by Ministry of education & human resources(US \$1,150,000)
 development(34 subjects)

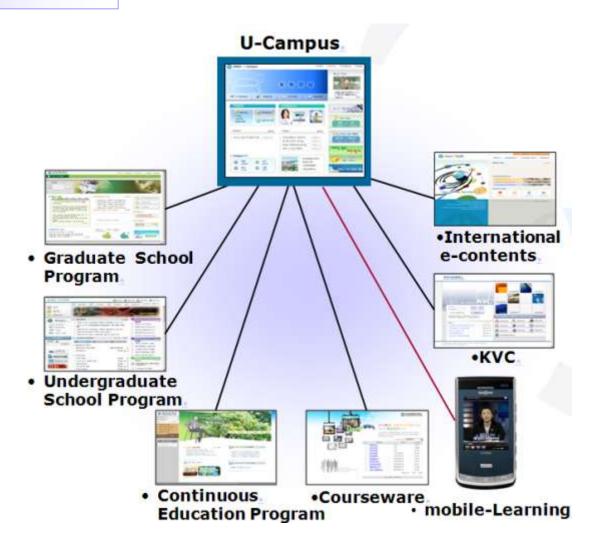
2008

Building of m-Learning hub site 'U-Campus'





### **U-Campus Operation**







#### What is e-Learning?

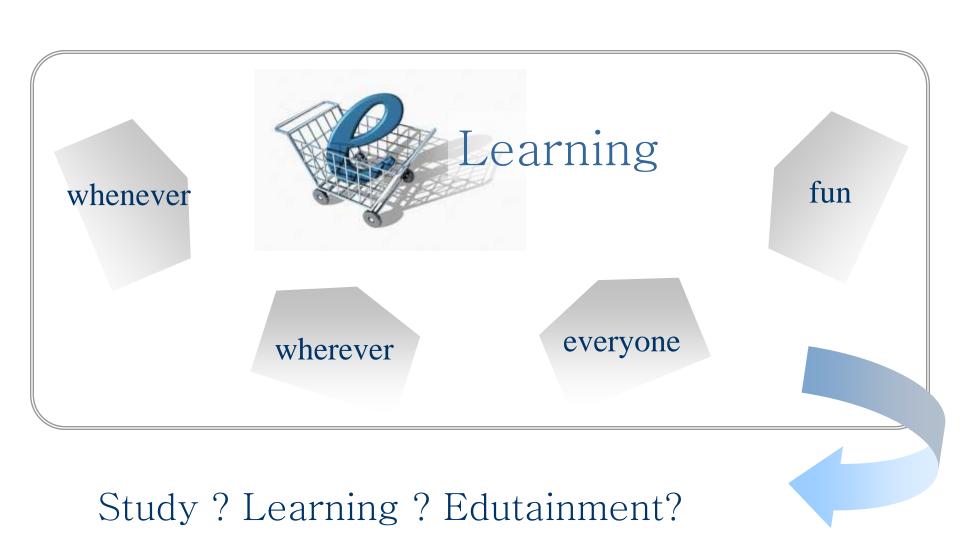
#### e-Learning

- Right Contents
- Right People
- Right time
- Right Place

e-Learning is Just in Time Learning with those components











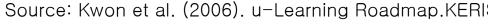
e-Learning: Learner's Capabilities

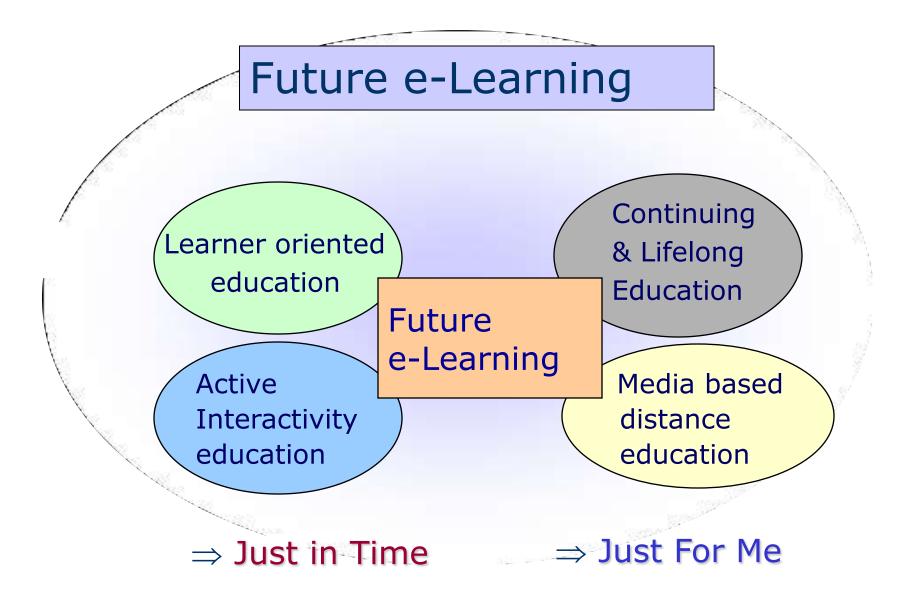
#### Cognitive Capability

Relational Capability Emotional Capability C.R.E.A.T. Adaptability Technology Literacy

Effective Learning Capability

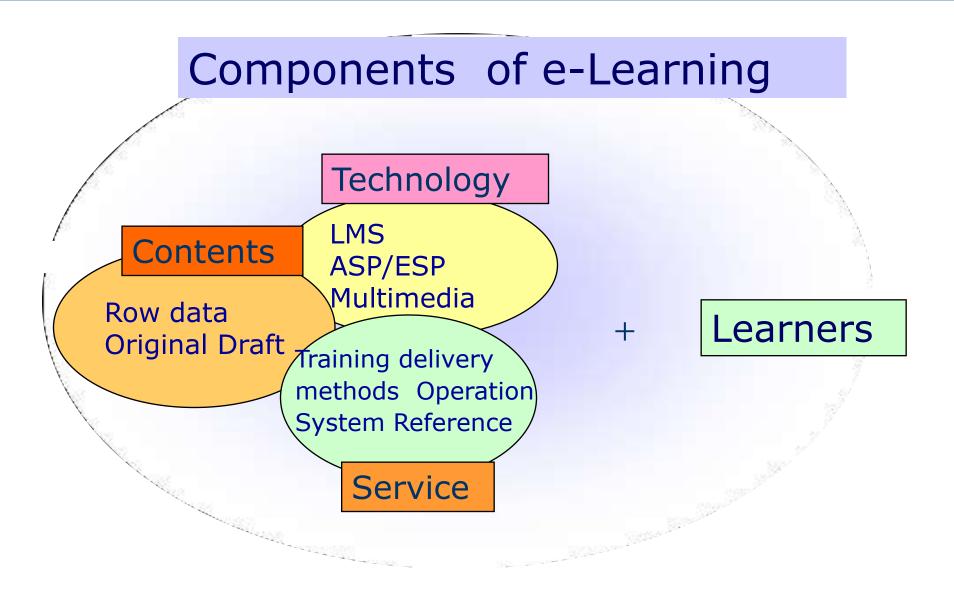
















#### Main Business

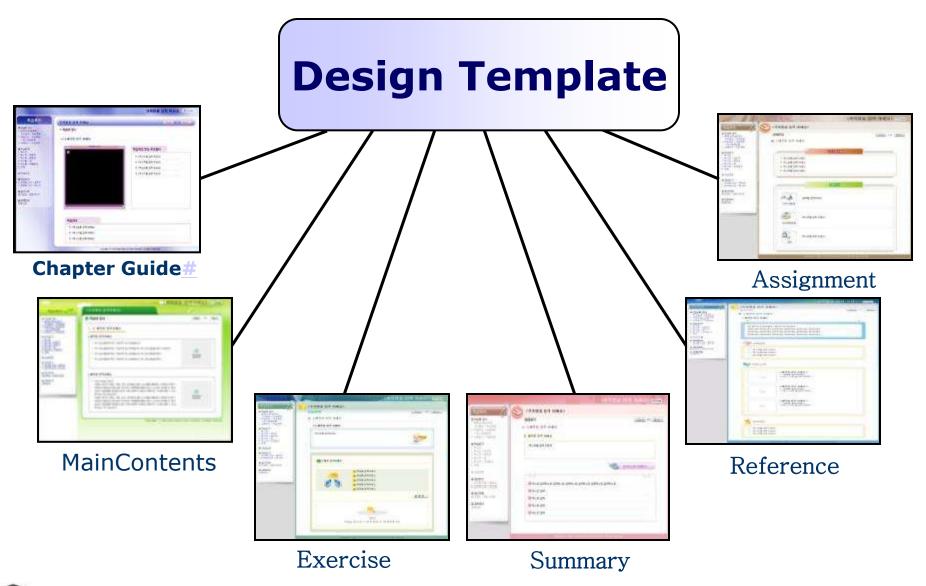
### 1. e-Learning System Dev.



•Learning Platform

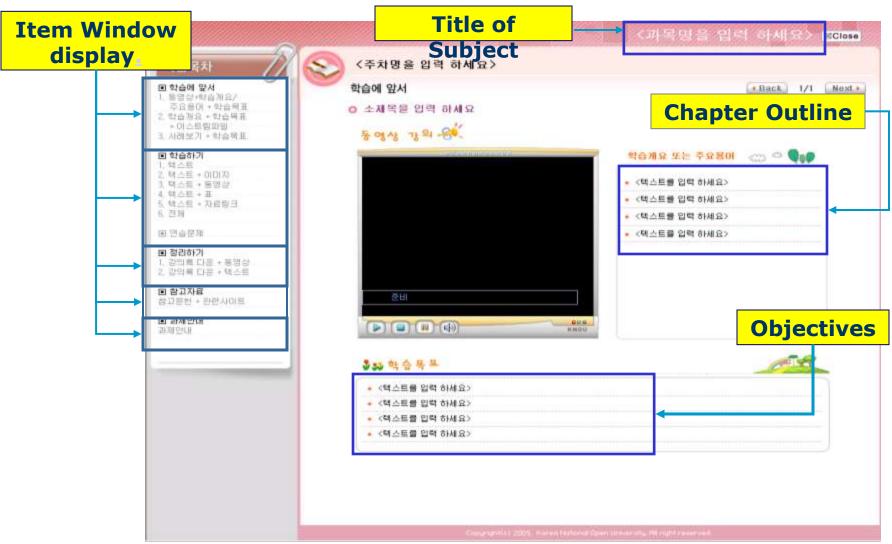








### Template Demo.

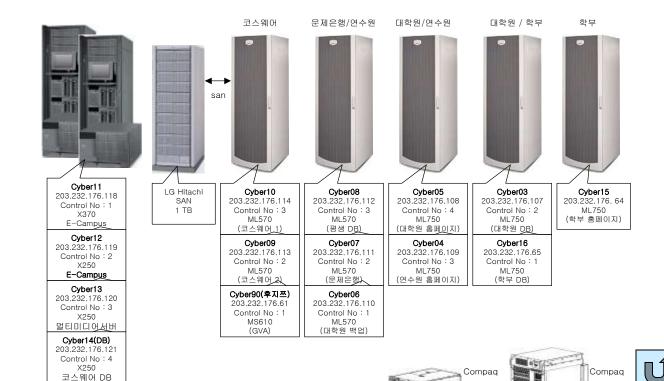






### LMS/LCMS

- KNOU operates more than 20 servers except
   LOD system located in Internet Data Center.
- Physical Organization of e-Learning at KNOU







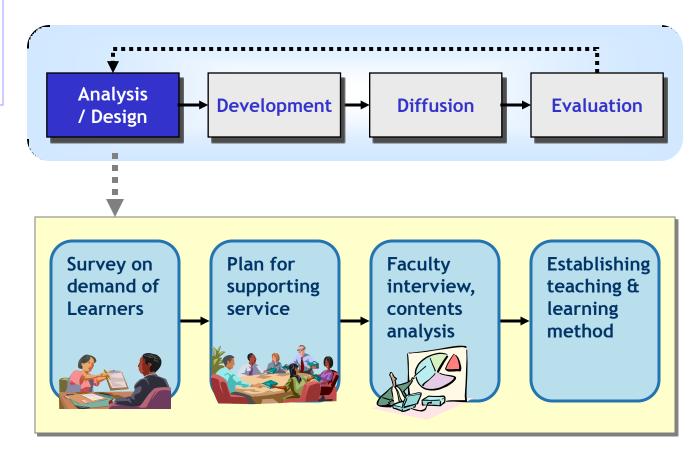
ML750

LMS/LCMS

- ◆ KNOU has many LMS/CMS management systems for various kinds of coursewares in the Graduate School, undergraduate, and Center for Continuing Education.
  - Logical components of e-Learning
     System at KNOU

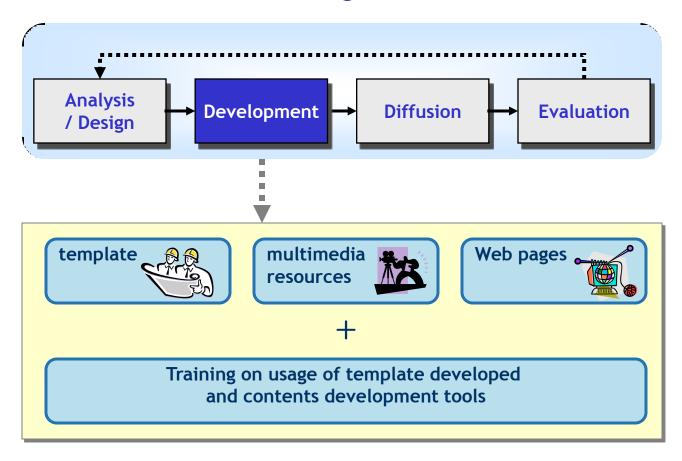
Divisions	Main Systems
Graduate School	School Affairs Management System
	Learning Management System (LMS)
	Contents Management System (CMS)
	Community System
	Evaluation System
Undergraduate	Learning Management System (LMS)
	Contents Management System (CMS)
	Evaluation System
Center for Continuing	School Affairs Management System
Education	
Courseware	Contents Management System (CMS)
KVC	School Affairs Management System
General	Media Streaming System
	Mailing System





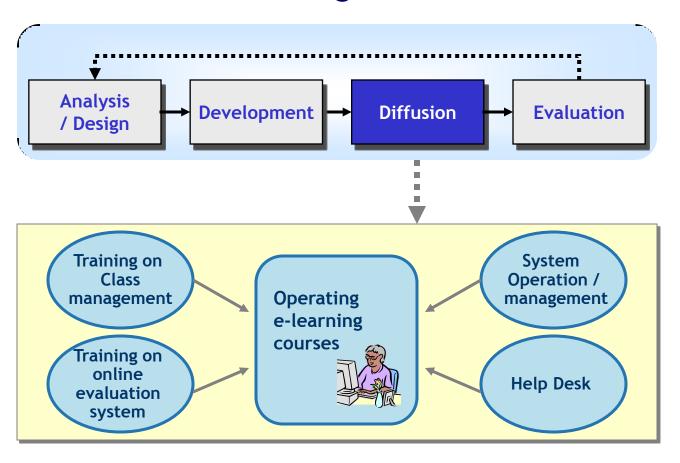






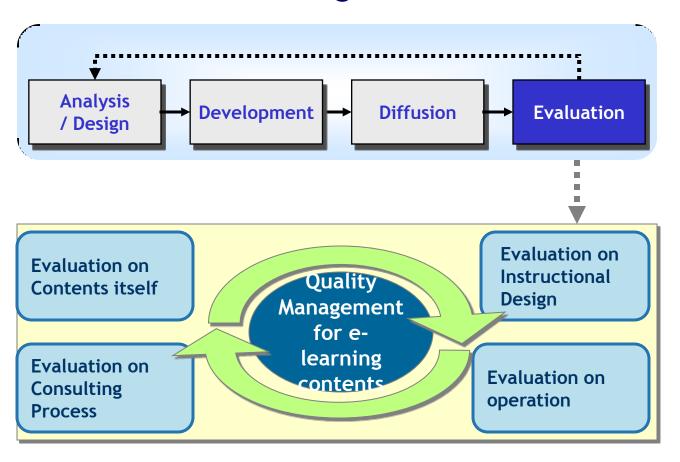












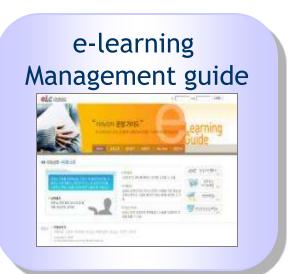




### Faculty Development







Contents Dev.
Template & Guidebook



On-line Newsletter







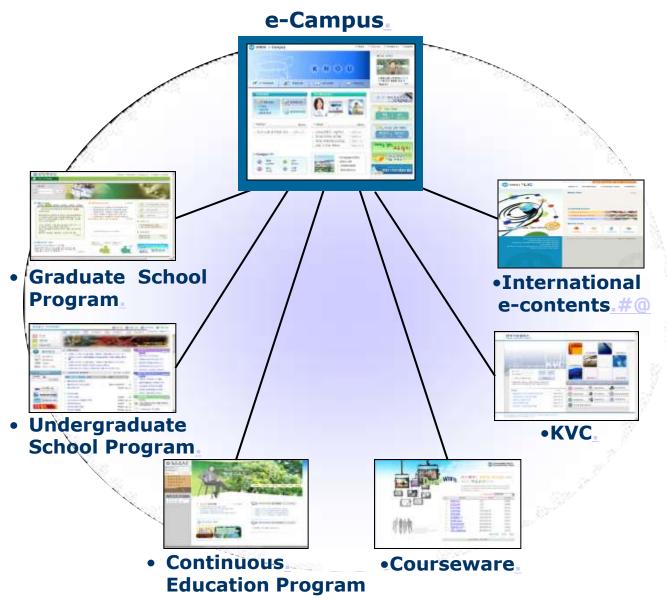
### KNOU e-Campus







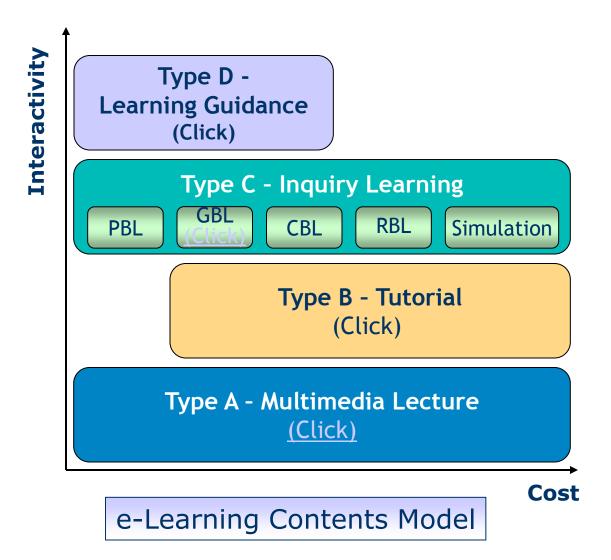
### e-Campus Operation







### e-Learning Contents Model







### International Contents

(3) International Contents for Exchange Project Funded by Ministry of Education & Human Resources Dev.

International courses are on developing

- History of Korea
- Korean Culture & Art
- Introductory Statistics

**Translations for** 

English, Chinese, Japanese

#### Target audiences

- Higher education institution
- Overseas Koreans used Korean as second Language
- Any foreigner needed







English

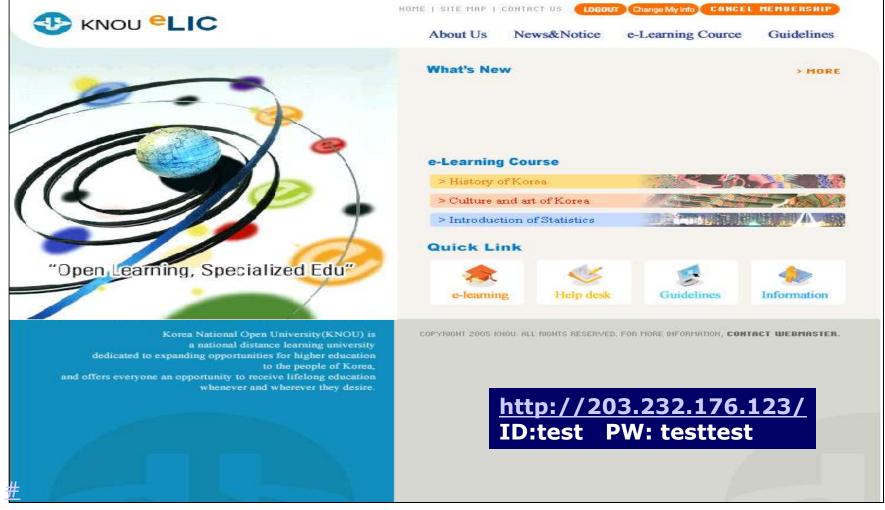






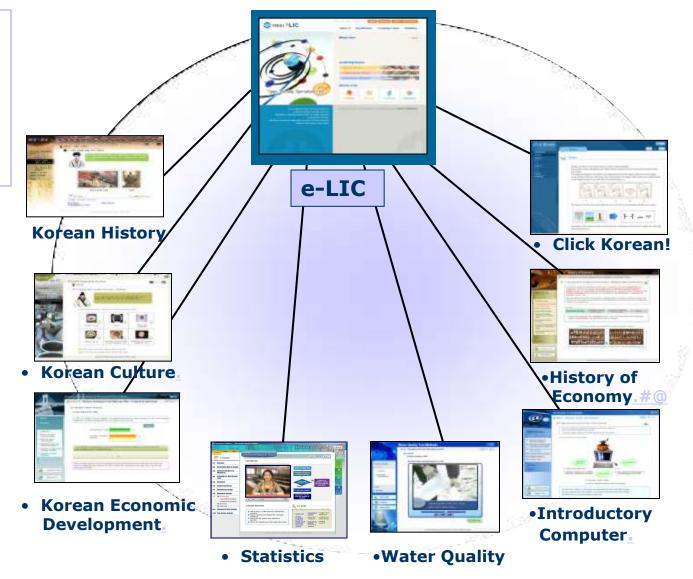


#### **Homepage for International Version**









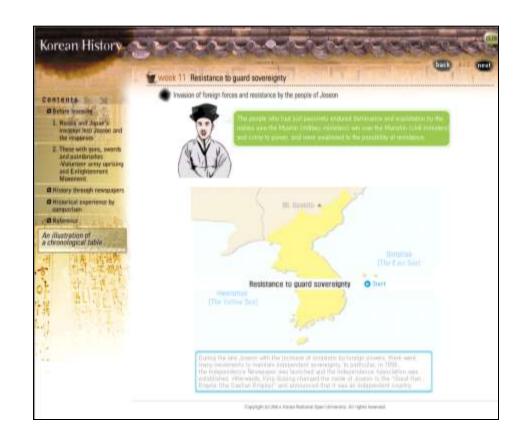




1 Korean History

•Content: This lecture deals with Korea and the Korean people by looking at the characteristics of each period while focusing on important historical events and issues.

•15 Units







2 Korean Culture and Art

- •Content: The lecture is about the characteristics of tradition life-style and Korean art and the relationship between traditional culture impacted on modern society and characteristics of modern Korean.
- •16 Units

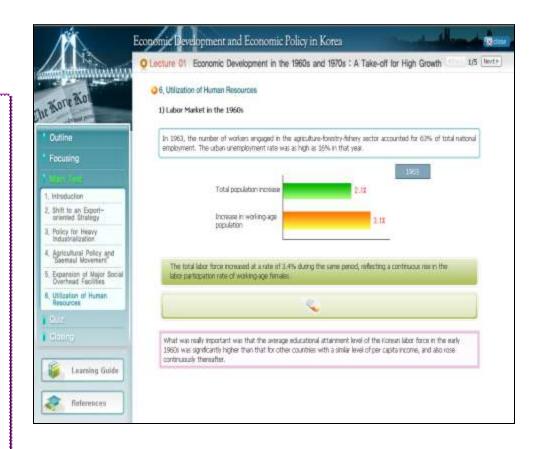






Economic Development and Economic Policy in Korea

- Content: This lecture mainly deals with economic development in modern Korea and various economic policies.
   Also it includes the role of government in economic development and future economic system.
- 20 Units
- Co-development with KDI (Korea Development Institute)

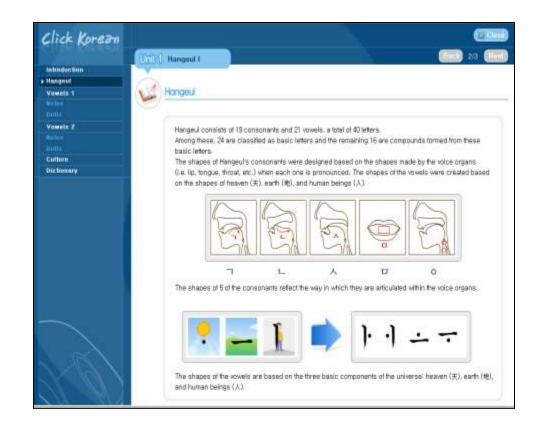






4 Click, Korean!

- Content: This lecture includes a basic knowledge of English to acquire basic Korean communication skills that can be used in everyday life in Korea.
- ■20 Units
- Co-development with the Korean
   Language Education Center(KLEC)
   at the Language Education Institute
   of Seoul National University

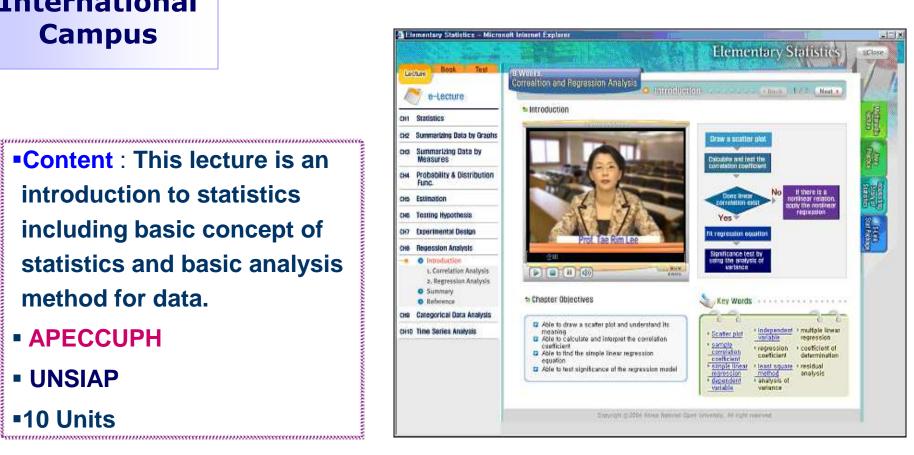






- Content: This lecture is an introduction to statistics including basic concept of statistics and basic analysis method for data.
- APECCUPH
- UNSIAP
- 10 Units









6 Introduction to Computers

- •Content :The lecture includes the overview and development of computers, processor, input/out units, auxiliary storage units, software and programs, files and databases, data communication, Internet and ubiquitous.
- ■15 Units

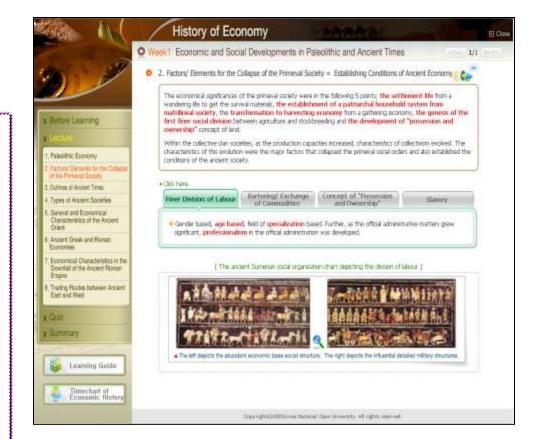




7 History of Economy

•Content: This course is about how today's modern capitalistic economy started, developed and was modified in relation to the periodical economic, social, political and cultural phenomenon since the inception of human existence until now.

■15 Units







**3** Water Quality Test Methods

•Content: This lecture includes basic knowledge necessary for water pollution management by analyzing water quality parameters included in environmental regulations and water /wastewater treatment operations.

■15 Units







### UNSIAP e-Library









### Plan for e-ASEM Network Establishment



ASEM COUCATION HUS



#### ASEM e-Learning Network

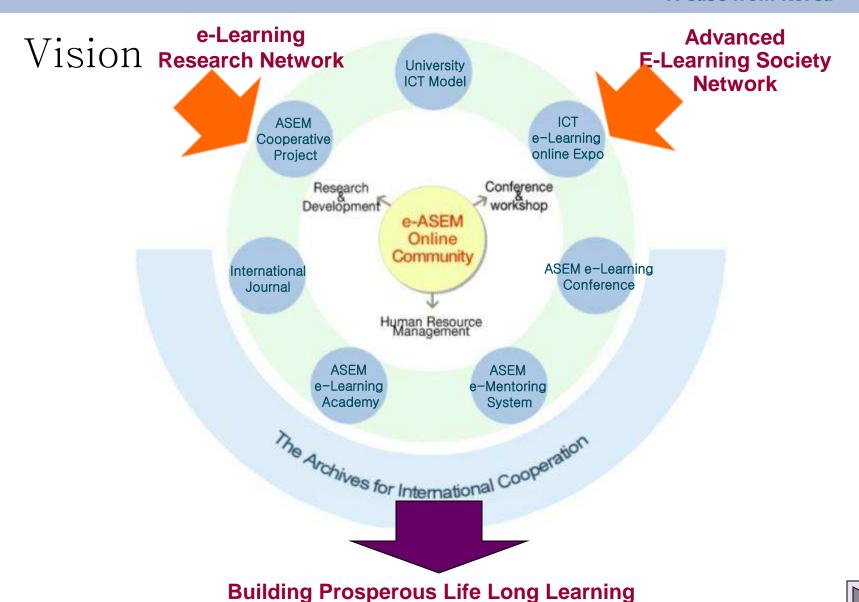
#### **ASEM e-Learning Network Hub site**







#### Open and Distance Learning for HE: A Case from Korea







through e-ASEM community

#### Theme

- 1 Sharing ICT skill- and e-learning-related information and knowledge
  - Publishing an ASEM online journal
  - ASEM e-learning Expo
  - ASEM e-contents
  - ASEM e-learning Conferences

- 2 ICT skill- and e-learning-related research
  - Collaborative research on ICT skill and e-learning
- 3 Development of ICT skills- and e-learning-related human resources
  - ASEM e-learning Academy
  - ASEM e-Mentoring System

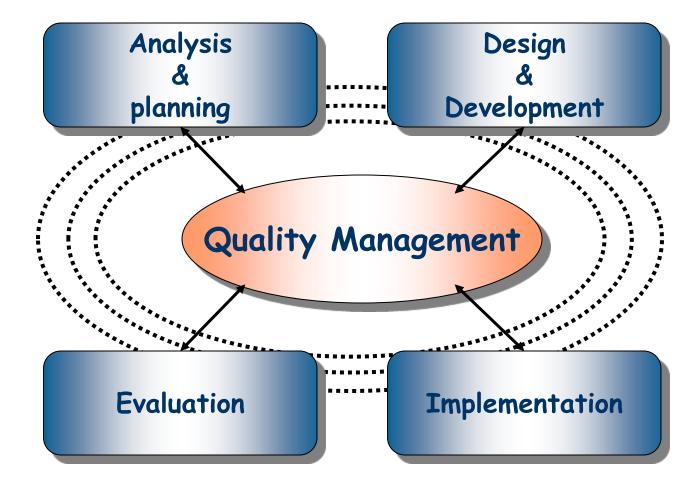




### **Quality Assurance Model**

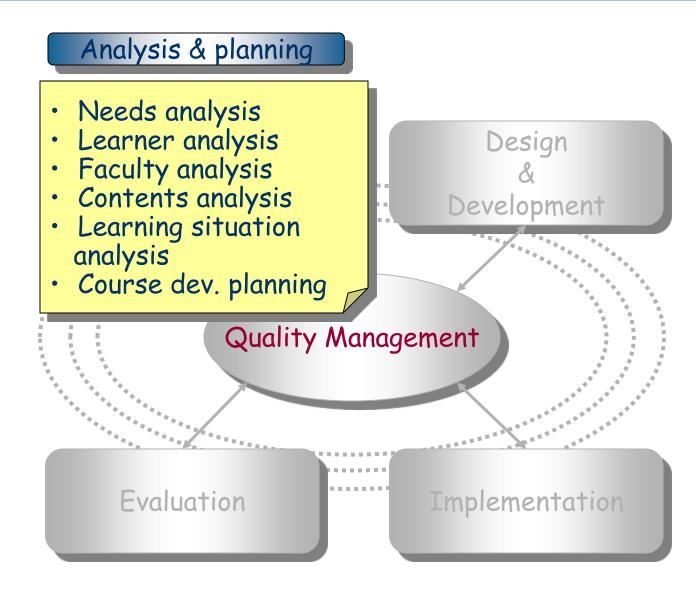


























ASEM PEL PAMINO





### Quality Evaluation criteria

#### **Course Development planning**

 Analysis and planning for course development



- Regarding to characteristics of e-learning
- Validation of course selection





### Quality Evaluation criteria

### **Course development strategies**



- Using multimedia for representation
- Consistency of user interface
- Verification of prototype



## Quality Evaluation criteria

# Analysis & planning Design & Development Implementation Evaluation Quality Management

### Course implementation strategies

- Learner support
- Technical support





# Quality Evaluation criteria

### **Course evaluation strategies**



- Learner's performance
- Course evaluation
- Faculty evaluation
- System evaluation





# Quality Evaluation criteria

### **Quality control strategies**



- Quality management planning
- Quality evaluation
- Institutional support





### Advanced Learning

New Information Comm. Technology

- m-Learning
- u-Learning
- t-Learning, etc.







### m-Learning





Definition of m-Learning

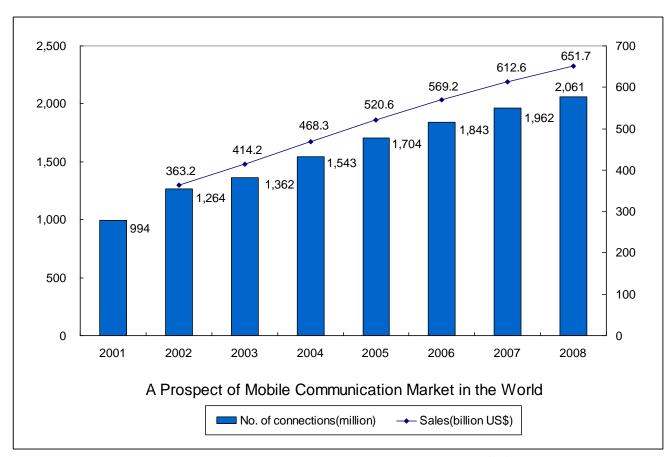
#### m-Learning

- m-learning is e-learning with the freedom to change location while learning [ISO/IEC JTC1/SC36/WG1]
- m-learning is e-learning through mobile computational devices [Anna Trifonova]
- m-learning is learning that takes place
  via such wireless devices as cell
  phones, personal digital assistants
  (PDAs), or laptop computers
  [Glossary of ASTD's Learning Circuits]



#### Mobile Communication Market in the World

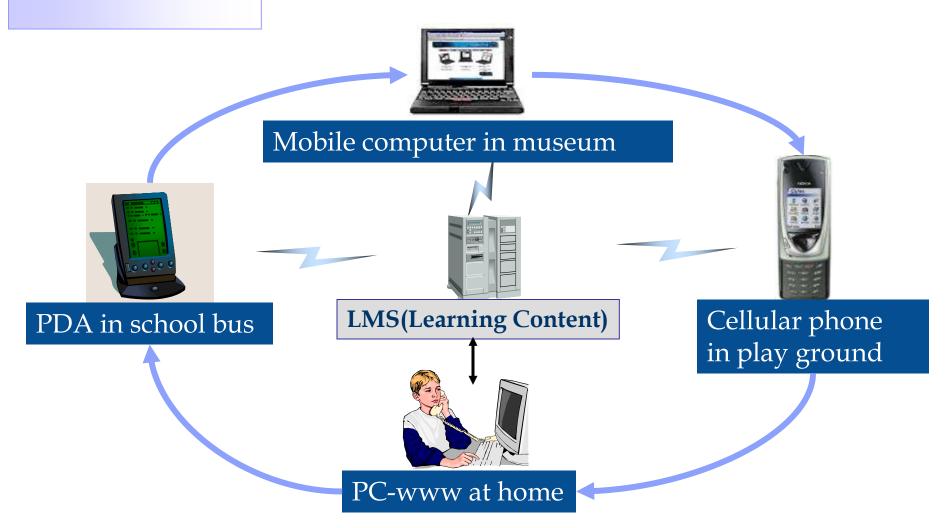
#### m-Learning







### m-Learning **Environment**







### Content Development

- File size
- Suitable for PDA or Mobile
- Flash program
- Well-divided content units





### Content Development

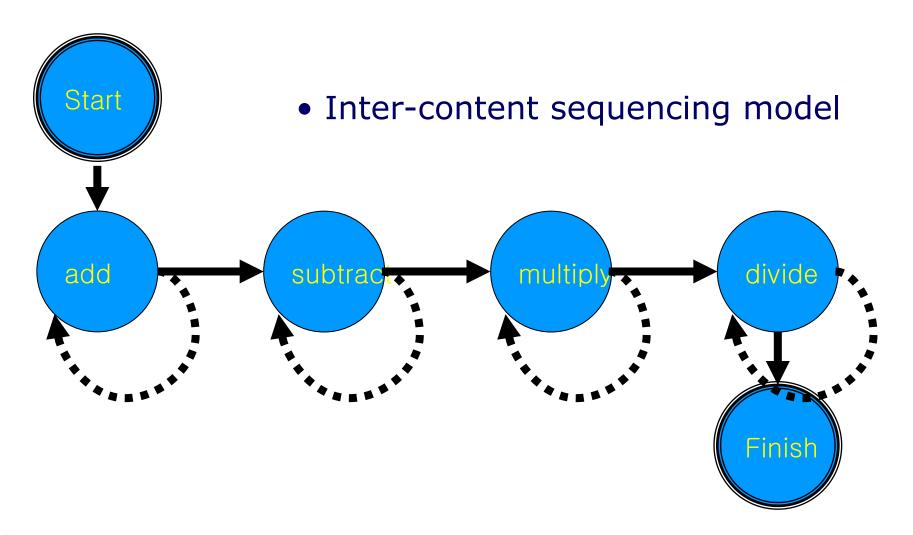








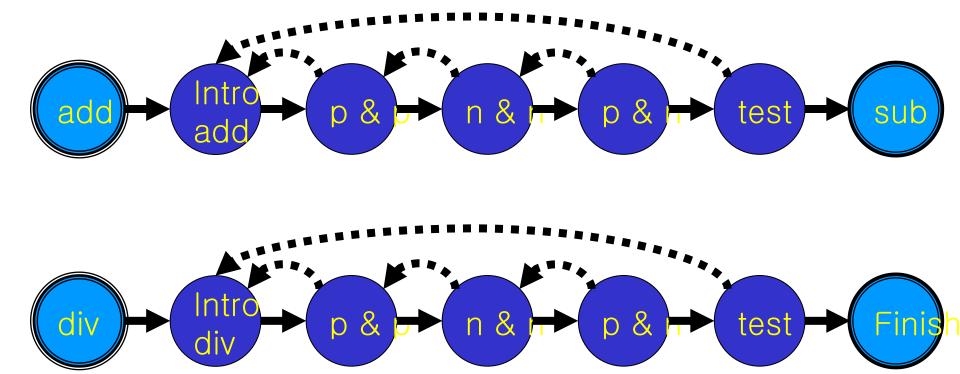






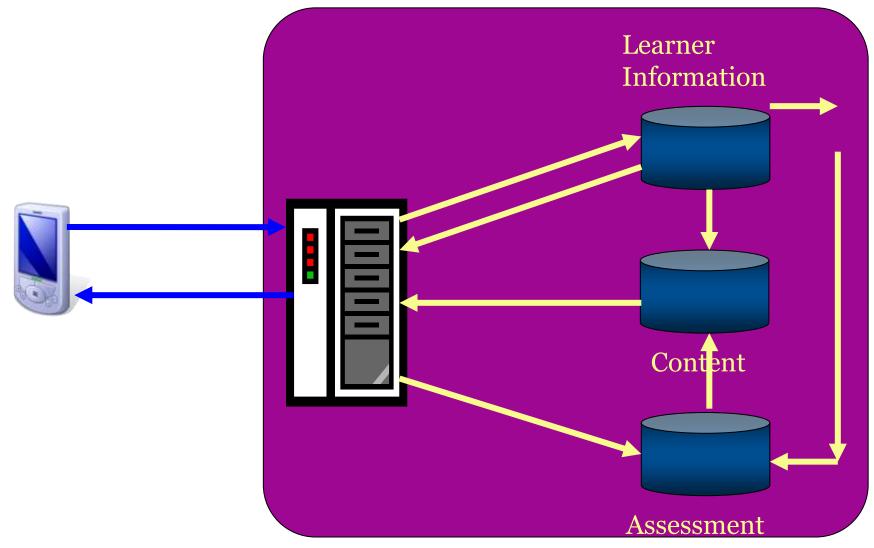


• Intra-content sequencing models



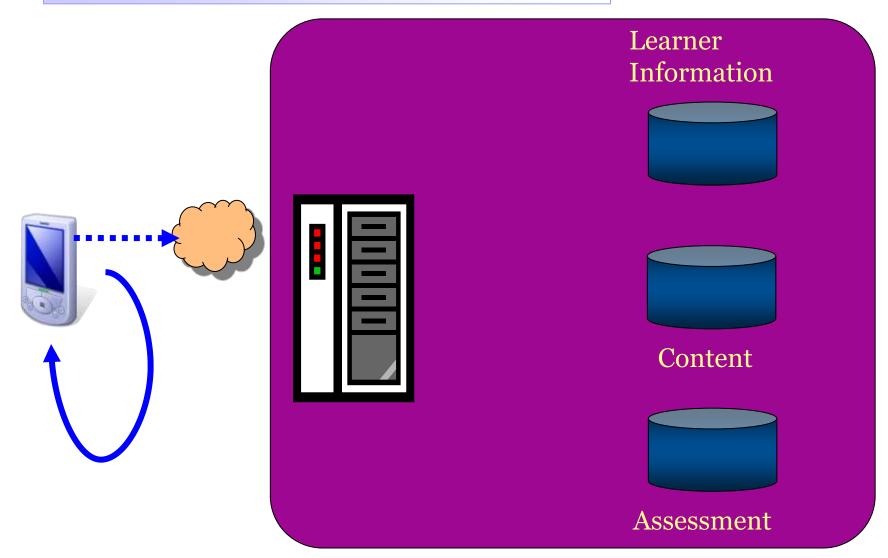
















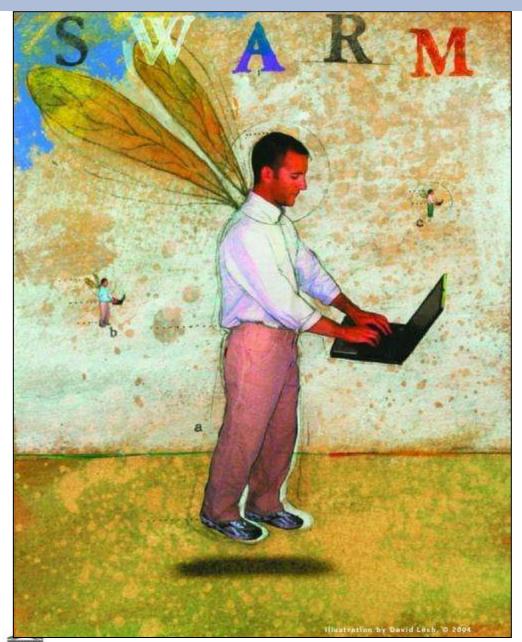
### Demo of m-Learning with PDA



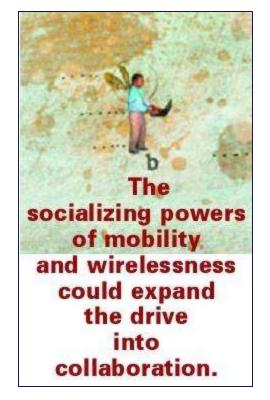






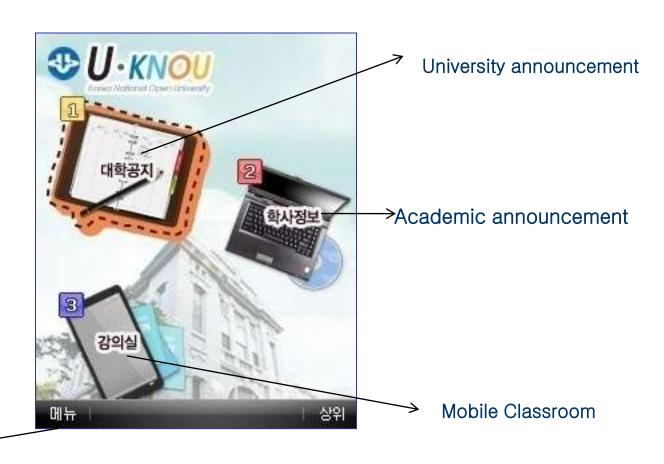


### m-Learning at KNOU



#### **Title Window of m-Learning**

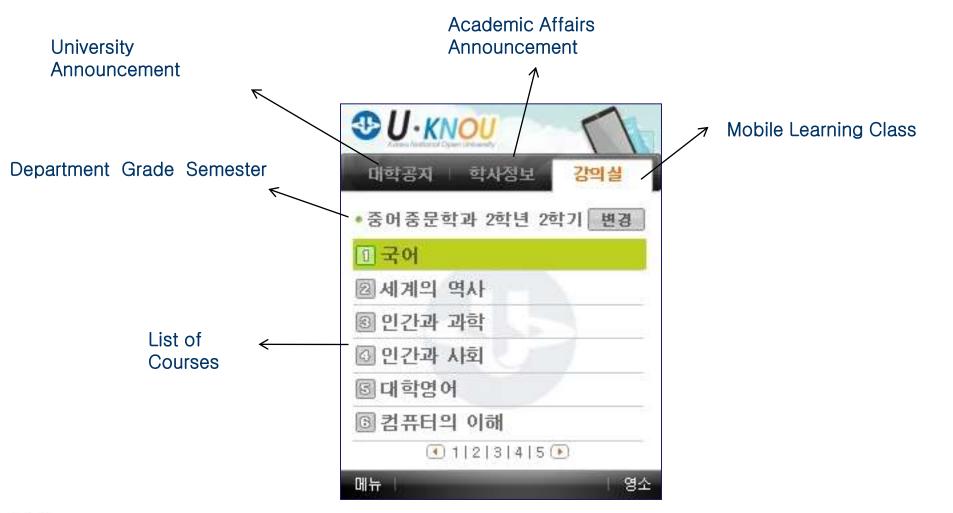
### m-Learning at KNOU







### M-Learning at KNOU







### Layout of Mobile Solution

Solution promote the renovation to the new paradigm of KNOU U-CAMPUS

### **Mobile Campus in Hand!!!**

- Using new information sharing device Mobile
   Phone make renovation to U-Campus
- Academic affairs
- Service for KT 3G SHOW user
- On-Line schooling Provide the supplementary materials → Academic Calendar, On-Line lecture , Academic Information Community
- Mobile Groupware Supply for Administrative
   Faculty Members → Real time service for Faculty
   Members for Managing Academic Affairs
- Mobile Community for Alumnai Network
   Community→ Job searching and exchange information



Student

Faculty member

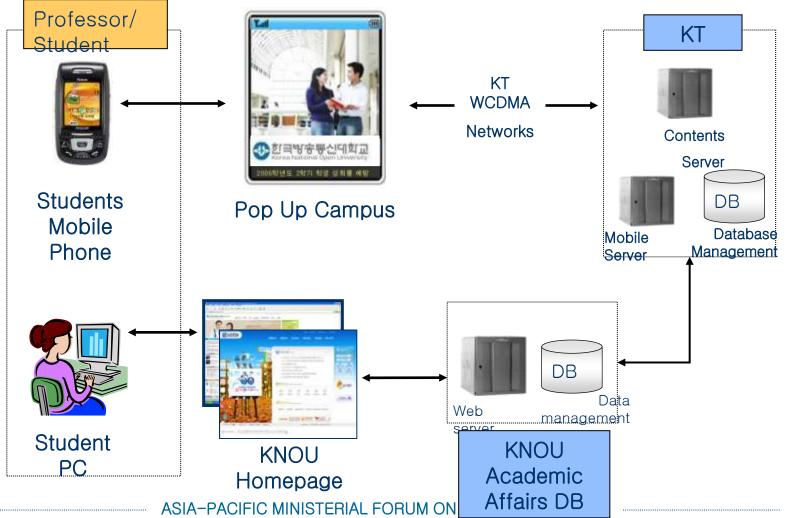
**Alumnai** 





### System Configuration for Mobile Learning

### Provide Composite Solution of On and Off line Direct Connection between the LMS for KNOU U-Campus and KT Mobile Solution







### **Support for the student's Mobile Learning for degree**

ice Learning for HE: from Korea

LMS

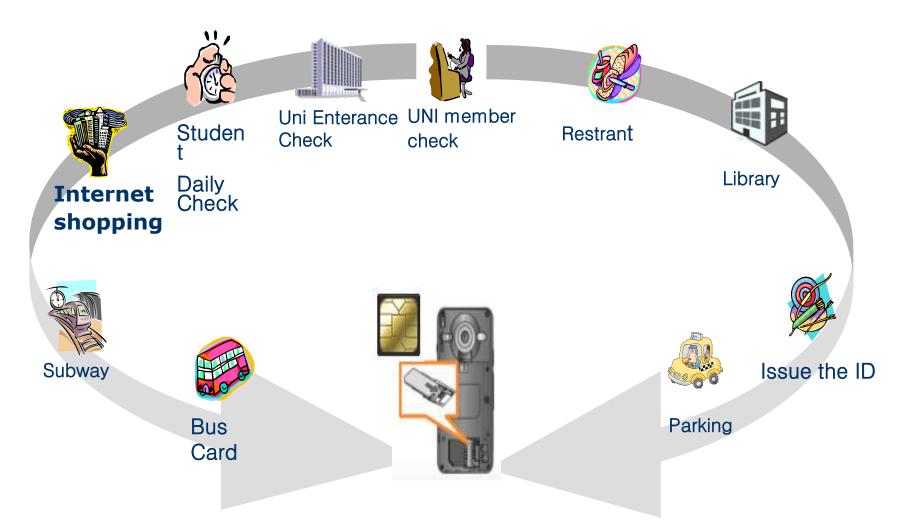
- Provide the useful academic information for compensate the limit of off line campus activity by Mobile phone
- CMS
- Mobile Lecture: Provide the Web courses and Multimedia lecture by wireless Mobile phone and connect to the on line courses as individual learning speed.
- Provide learning community for the real time sharing of the learning resources for credit

#### Mobile KNOU Mobile Studen Campus Ne My Page Mobile learni<mark>r</mark> Library Study tutor On-Line Class Schedule Mobile Lecture I Library Guide Grades My Email **User Guide Tutor System** TV **Book Search** Course Academic Manage Registration Calendar Student ID Dept. Tutor **Book Request** Radio Classes/Exams Event Internet Tutor AudioTape My Library Student IDDL Announceme **Student Records** nt **Regional Tutor** Internet Lecture **Checkout List** Academic Seasonal Class Students' Board My Mobile Lecture **Affairs** Checkout/Extension/ Reservation Theses **Student Association** Directory Personal Information Student/Alumni Clubs Certificates Study Clubs Class Schedule Class Study Room





### **USIM Based Campus solution**



**Academic ID, transport Card, Cash Card,** 



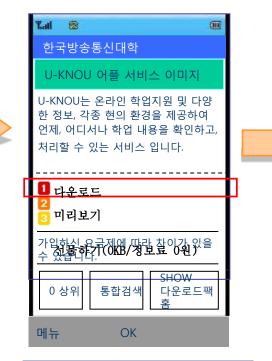




### m-Learning Service







**Menu Orientation** 



**Menu of Download** 

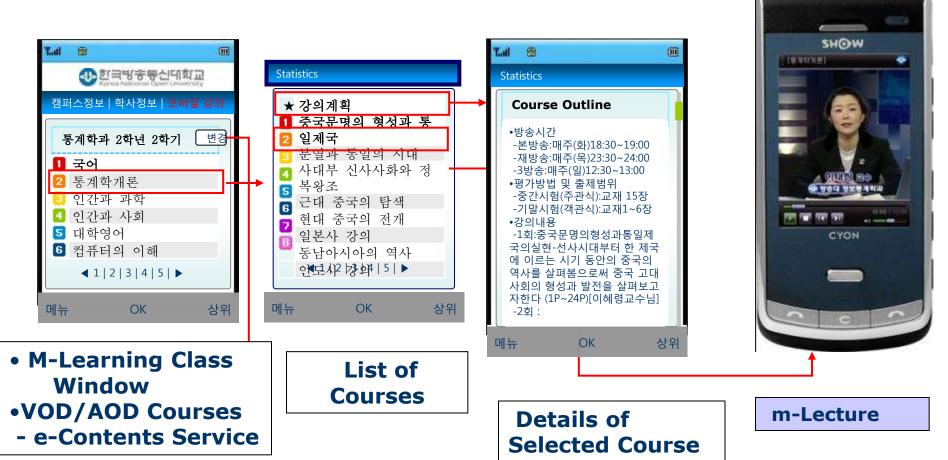


**USER Registration** 





### m-Learning Class Menu









### **Spec for m-Learning**

Input Type: mp4v 240\*192, 176\*144 10.00 Frame/sec

Sample rate: 8000 sample/sec

Sample per bits: 16bit/sample

Play channel: 1 channel

Bitrates: 128 Kbit/sec







#### **Demonstration**









### Future Agenda

- OEROpen Educational Resources
- Integrated Systematic Quality Assurance provider and learner
- Construction of CTL
   strength of center for teaching and learning
- AAOU Smart Sharing Program under the MOU AAOU member could share U-Learning courses



◆ KNOU

### **Q & A**

