



Winner of the 1st UNESCO
Prize for ICT in Education



The KERIS

2006 Annual Report

KERIS, a global partner
in education innovation





Contents

Greetings from the President

Management Achievements

Major Achievements and Events	08
Customer Satisfaction	10
Management Innovation	12
Ethical Management	13

Main Achievements

Research and Evaluation of Education Informatization Policies	14
R&D on Future Education	15
e-Learning Globalization and Support of e-Learning Industry	16
Operation of EDUNET	18
Cyber Home Learning System	20
National Education Information System (NEIS)	22
Digital Library System (DLS)	24
Research Information Service System (RISS)	25
Support for Sharing of Domestic Research Information	26
Support for Sharing of Overseas Research Information	28

About KERIS

Major Research Achievements	30
List of Other Major Research Reports	32
KERIS Organization	33
Brief History of KERIS	
Overseas Institutions that Have Signed MOUs with KERIS	34



KERIS dreams of a world where education is available
anywhere and at anytime through the use of ICT in education.
Based on the belief that your success leads to our success,
we are determined to help you reach your goals.



World Best e-Learning Partner, KERIS

| Major Tasks |

Supporting the formulation of policies on education informatization through the research on education and research informatization

Suggesting a future education model through future education research

Contributing to global e-learning community through e-learning globalization projects

Fostering the education informatization industry by promoting e-learning in Korea and abroad

Improving school education using ICT

Enhancing public education through the operation of EDUNET

Reducing private tutoring expenses through the operation of Cyber Home Learning System

Improving administrative efficiency by utilizing the NEIS system

Realizing customer-oriented school administration through online educational administration

Facilitating the use of school libraries through Digital Library Support System

Supporting researchers by securing and providing research information

Supporting higher education informatization through research on higher education and continuing education



“

Beyond receiving national and
worldwide recognition as a leader in educational
informatization, our goal is to provide
the best educational services to our customers.

”



The year 2006 marked the 10th anniversary of EDUNET, a comprehensive education information service for teachers and students. Since its inception in 1999, KERIS has strived to provide its customers with quality education information anywhere and at anytime.

In 2006, we maintained our efforts in providing customers with the educational service to satisfy their needs. We provided various customer-oriented information services in educational administration through the NEIS, and actively introduced student-oriented customized services to Cyber Home Learning and EDUNET. These efforts were greatly appreciated by teachers, students, parents, researchers and policymakers.

In addition, KERIS contributed to enhancing Korea's status as a global e-learning partner through active academic exchanges and sharing of Korea's e-learning experiences with both developed and developing countries. In particular, KERIS obtained an ISO certification for its international e-learning consulting service and information infrastructure management system, thus establishing itself as an organization with a quality management system of international standard.

Thanks to such efforts, KERIS received the 1st UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education. This Prize is a proof of worldwide recognition of KERIS' achievements.

Our commitment to educational innovation continues in the year 2007, and we will strive to satisfy the needs of our customers, including teachers, students, parents, and education officials.

As a global partner in educational innovation, KERIS will make all efforts to further enhance Korea's status in the global arena. Most importantly, KERIS' priority will always be its customers.

Thank you.

February 2007
President Dae-Joon Hwang



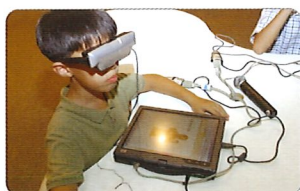
Major Achievements and Events

KERIS Main Achievements ▶▶▶



| January | Delegation from the Mongolian Ministry of Education, Culture and Science Visits KERIS

- Introduction to Korea e-learning status and discussions on future cooperation
- In addition to the Mongolian delegation, a total of 455 delegates from 41 countries visited KERIS in 2006 to receive training and to enhance mutual cooperation.



| February | Presentations of Research Outcomes on Future Education Innovation

- Suggested a blueprint and educational innovation model for future education
- Two presentations held in February and December 2006 with 500 participants



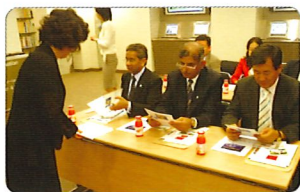
| March | Launch of the Home-Edu Service, a NEIS Service for the Public

- Issuance of education-related certificates through the Internet
- Substantially reduced time and cost of issuing certificates



| April | 9th e-Learning Expo (Edu Expo 2006)

- Promotion of successful cases of e-learning and of the e-Learning industry in Korea
- Held in five cities, drawing a total of 88,648 participants



| May | The Executive Committee of the e-Learning Global Cooperation Center

- Support for developing countries and promotion of international exchanges
- Committee headed by the Vice Minister of the Ministry of Education and Human Resources Development (MOE&HRD), and members composed of 28 heads of relevant e-learning organizations



| June | 2006 e-Campus Conference

- Provided opportunities to discuss university informatization and share information through symposiums and exhibitions
- Attended by 650 participants from 180 colleges and other relevant organizations



KERIS Main Achievements



| July | 2006 e-Learning Policy Forum

- Support of government policymaking through various discussions on e-learning issues
- A total of 11 forums held, including the u-Learning Forum



| August | 'Korea e-Learning (KO@L)' Designated as National Innovation Brand

- The e-learning innovation brand symbolizing the new driving force of education
- Designed to facilitate the implementation of e-learning globalization policy



| September | 2006 International e-Learning Expo

- Sharing of e-learning information through international exhibition and seminar
- Three-day expo drawing the participation of 18 organizations from 9 countries, as well as 80 Korean companies (a total of 17,127 participants)



| October | ISO/IEC 20000 Certification for System Support Infrastructure Management of EDUNET and RISS

- KERIS' major IT service management system wins international standard
- Recognized as a leader in the public sector information system management



| November | 2nd Franco-Korean Joint Seminar on ICT in Education

- Sharing of experiences and discussion on future cooperation
- Participated by around 100 experts from the government, academia, international organizations



| December | KERIS Announced as the Winner of the 1st UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of ICT in Education

- International recognition of Korea's achievements in the use of ICT in education





Customer Satisfaction

I Objective I

To enhance customer satisfaction by readily providing information requested

I Activities I

⌘ Survey on Customers' Needs

- Identifying customers' needs through various channels
 - ※ Operation of on-line customer service and consulting centers for its services including EDUNET, RISS, NEIS, etc.
- Development and application of a process to handle customers needs and suggestions
- Opinion collection through the advisory boards on customers, policies and quality assessment

⌘ Delivery of Value for Customers

- Expanding customized service
 - ※ Revision of EDUNET to expand personalized customer service
- Information meetings for customers
 - Lectures on effective study methods for students
 - Presentations for invites international guests on education informatization
 - Consultation meetings for industry leaders, etc.

⌘ Encouraging Customer Participation

- Providing opportunities for customers to participate in EDUNET
 - Operation of communities (1,107 communities)
 - Providing on-line community rooms (397 rooms)
 - Knowledge exchange (294,929 cases), data exchange (3,571 cases), etc.
- Developing customer participation services
 - Teacher support team : planning and promotion, research, consulting, etc.
 - Edurian : EDUNET monitoring by students and parents

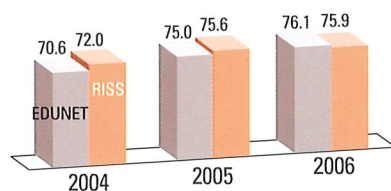
⌘ Expansion of Quality Management System to Increase Customer Satisfaction

- Application of the 'Six-Sigma' to improve service
 - Project to enhance EDUNET service for teachers
 - Reducing customer waiting time by improving management of RISS customer satisfaction center
- Acquisition of international certificate on quality management process
 - ISO/IEC 20000 certification for system support infrastructure management of EDUNET and RISS
 - ISO 9001 certification for international e-learning consulting service



Customer Satisfaction Survey Results for Major Services

Service	2004	2005	2006
EDUNET(score)	70.6	75.0	76.1
RISS (score)	72.0	75.6	75.9



※ Survey results on satisfaction of governmental affiliates (Conducted by the Ministry of Planning and Budget)

Current Use of Major Services

Classification	2005	2006	Year on year increase
EDUNET			
Teachers' EDUNET utilization rate	70.2%	73.6%	▲ 4.8%
Students' performance improvement rate after using EDUNET	26.2%	36.4%	▲ 39.0%
Time spent by teachers in collecting teaching materials and information			
- Before EDUNET use : 90.9 minutes,			
- After EDUNET use : 61.4 minutes (decrease by 32.5%)			
RISS			
Number of those using RISS more than once a week	44.9%	73.0%	▲ 62.6%
Satisfaction rate on information	70.3 (score)	70.3 (score)	▲ 2.6%
Time spent on collecting research information			
- Before using RISS : 91.6 days			
- After using RISS : 53.8 days (decrease by 41.3%)			



Management Innovation

I Objective I

To create customer-oriented outcomes by internalizing and systematizing management innovation such as business process innovation, change management, and quality management

I Activities I

❖ Stabilization of Change-friendly Organizational Culture for Innovation

- Designation and operation of innovation managers (total seven managers), and conducting of a focus group interview
- Shift from quantity-based work to quality-based work
- Shift to customized innovation management through development of a KERIS innovation analysis model
 - ※ Development and analysis of innovation index in each division (16 indices in four areas)

❖ Enhancing Staff Capacity-building and Learning Culture to Promote Creative Thinking and Capability to Practice Innovation

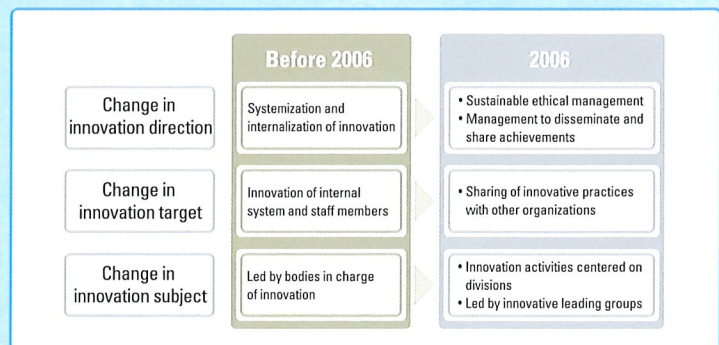
- Development of the HRM system by developing a KERIS core competence model
- Enhancing staff capacity for innovation through continuing education
 - ※ No. of learning organizations in 2006 : 45
- Establishment of idea management system by promoting a voluntary learning culture
- Promoting knowledge management thru knowledge creation and sharing

❖ Creation of Productive Outcomes as an Education and Research Informatization Organization and Innovation Leader

- KERIS ranked 1st among organizations affiliated with the MOE&HRD according to the evaluation on the management innovation activities of government affiliates. (4th stage)
- Development and promotion of KO©L, an innovation brand created by KERIS to lead the global e-learning community

❖ Strategic Alignment of the Organization's Vision-Objective-Strategy-Instrument to Accomplish Vision

- Establishment of the 2006 KERIS Innovation Master Plan to satisfy customers and create value



<Directions for Management Innovation>

Ethical Management



I Objective I

To systemize and promote ethical management to establish the organization as a Korea's representative leader in ethical management

I Activities I

❖ Implementation of Ethical Management Education and Action Program

- ※ Establishment of the Ethical Management and Customer Satisfaction Team (Sept. 2006)
- Ethical management education at monthly staff meetings (two meetings in 2006)
- Implementation of mandatory ethical management education and mentoring programs for new employees (two sessions in 2006)
- Contest of ethical management practices (Nov. 2006) : 16 submissions

❖ Monitoring and Evaluation of Ethical Management

- Survey on ethical awareness of staff members and self evaluation on ethical management
- Development of KERIS Ethical Management Index, etc.

❖ Encouraging Participation of Partner Organizations

- Encouraging partner organizations' participation in ethical management through CEO meetings
- Sharing and enhancing of ethical management awareness through the clean contract system

❖ Social Contribution Activities

Classification		Frequency	Main Elements
Volunteer Activities	Support of hospitals for foreign workers	Once a month	Interpretation service, monthly donation, and participation in special events
	Support of underprivileged senior citizens living alone (by forming sisterhood relations with local communities)	Every Wednesday and Thursday	Delivering lunch to underprivileged senior citizens living alone
	Participation in the social safety net system	Once a month	Participation in the “Supporting one family per person” campaign, support of underprivileged citizens on major national holidays
	Support of flood victims	Non-regular basis	Visiting flood victims in Pyeongchang, Gangwon Province to support restoration activities and contribute relief goods to the victims
	Love ♥ Sharing Volunteer Club	Non-regular basis	Participation in the club’s volunteer activities : visiting orphanages, retirement homes, and facilities for the disabled, etc.
Education Activities	Participation in after-school program	Twice a week	Support of the ‘After-school Program’ at Hyoje Elementary School
	Computer classes for the homeless	Twice a week	Working with Samsung SDS to hold computer classes and donate books for the homeless
Cultural Activities	Donation of children’s books for the underprivileged	Once a month	Donation of books to Yeongdeungpo Social Welfare Center, opening a reading class for children



Research and Evaluation of Education Informatization Policies

2005 Presentation of directions for future education by creating a system to resolve pending issues

▶▶▶ 2006 Presentation of quality policy alternatives to pending issues in education informatization



The 2006 KERIS Symposium (Nov. 24) with the participation of 500 experts from home and abroad



KERIS Homepage : www.keris.or.kr

Objective

To support policy-making by implementing field-oriented basic research and policy assessment

Activities

- Education informatization policy research
- Research on pending issues in education informatization
- Level measurement and policy assessment of education informatization
- Support of establishing national policies on education informatization such as "Measures to Enhance the Quality of e-Learning"

Achievements

- Suggestion of policy directions for education informatization through policy research
 - Study on improving the school system for the ubiquitous era
 - Study on the role of education informatization to establish an edu-safety net
- Improvement of policy research quality by systemizing the research project management process
 - Establishment and enforcement of research project management guidelines (Apr. 2006), operation of six sigma innovation program, etc.
- Publication of 'Issue Report' through research on pending issues in education informatization
 - Concept and application of ICT literacy assessment
 - Understanding social capital and its educational implications
- Strengthening the function of providing basic data for policy making by rating the national education informatization level
 - Research conducted in early 2006 on the level of education informatization in primary and secondary education
 - Optimizing the index of lifelong education and special education informatization
- Strengthening the assessment foundation for education informatization projects by supporting government-level assessment projects
 - Assessment of education informatization projects (support of education informatization promotion plan and government performance assessment)
 - Survey on the use of EDUNET, RISS and educational content



Education informatization policy research scheme

R&D on Future Education

2005 Development of next-generation e-learning model based on national standard

►►► 2006 Development of prototype based on the next generation e-learning model

Objective

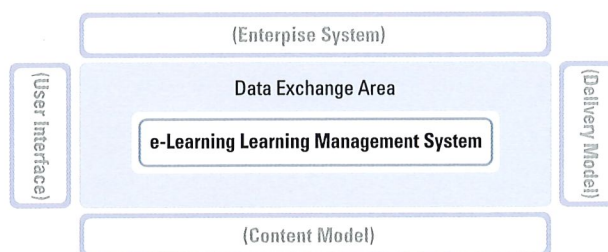
To present a vision for future education by establishing future education blueprint, model and strategy

Activities

- R&D on new media
- R&D on teaching and learning methods and learning environment
- e-Learning based research
- R&D on e-learning standardization
- R&D on e-learning quality assurance

Achievements

- Support for policy making on future education through R&D (45 cases)
 - Customer satisfaction rating on e-learning innovation research (score : 82.1)
 - ※ Result of the satisfaction survey conducted on the relevant personnel from the government, education offices, private companies, and the academia
- Provision of ideas for education informatization policies
 - Research on e-learning service models by learner type (2 projects)
 - Research on u-class model and prototype development (2 projects), etc.
- Presentation of a vision for future education to enhance the efficiency of education informatization policy
 - Research on the development of a personal portable learning device based on ubiquitous technology
 - Research on the augmented reality-based learning model
- Enhancing service quality through R&D on e-learning quality assurance
 - Development of assessment criteria and tool for e-learning quality assurance in primary, secondary and higher education (two types)
 - Development of training materials on primary and secondary e-learning quality assurance (three types)
- Presentations and forums for sharing a vision for future education
 - Presentations on education innovation research (two times, 500 participants)
 - e-Learning and u-learning forums (11 sessions)



e-Learning Standardization Area Map



u-Class Model
(installed at the KERIS building)



2nd Presentation on 2006 KERIS
Research Outcomes on Future Education
Innovation (Dec. 14)

e-Learning Globalization and Support of e-Learning Industry Promotion

2005 Increase of e-learning international cooperation programs and establishment of public-private partnership

▶▶▶ 2006 Expansion of e-learning globalization based on the public-private partnership



Education Informatization Training for Teachers from Erbil, Iraq



KERIS English Website: english.keris.or.kr

Objective

To enhance Korea's international status as a global e-learning partner by promoting international exchanges and Korea's e-learning industry

Activities

- Support of education informatization in developing countries
 - PC support and e-learning training programs
 - PC donation campaign
- Organization of international seminars and e-learning expo
- Development of e-learning international consulting process and acquisition of the ISO 9001 certification
- Implementation of quality assurance project on educational content

Achievements

- Enhancing the national status by supporting education informatization in developing countries
 - Training program for 455 people from 17 countries (30% increase year-on-year)
 - Donation of 4,227 PCs (13% increase year-on-year)
- Expanding international exchanges through joint seminars
 - Joint seminars with Israel, Mongolia, and France
 - ※ Around 1,200 participants from 15 countries
- Training on education informatization provided to 20 teachers from Iraq
 - 10-day intensive training program
- Promotion of e-learning industry through e-learning expos
 - 2006 International e-Learning Expo
 - 17,127 participants (international participants: 336), 1,597 business consultations
 - e-Learning International Seminar (650 participants from 13 countries)
 - 9th e-Learning Expo
 - Participation by 235 companies with 1,694 products
 - Drew 88,648 people from five cities (4% increase year-on-year)
- e-Learning presentation for international visitors to KERIS (468 people from 42 countries)
- Certification of 163 types of quality educational information developed by private companies (143% increase year-on-year)





KERIS wins 1st UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education

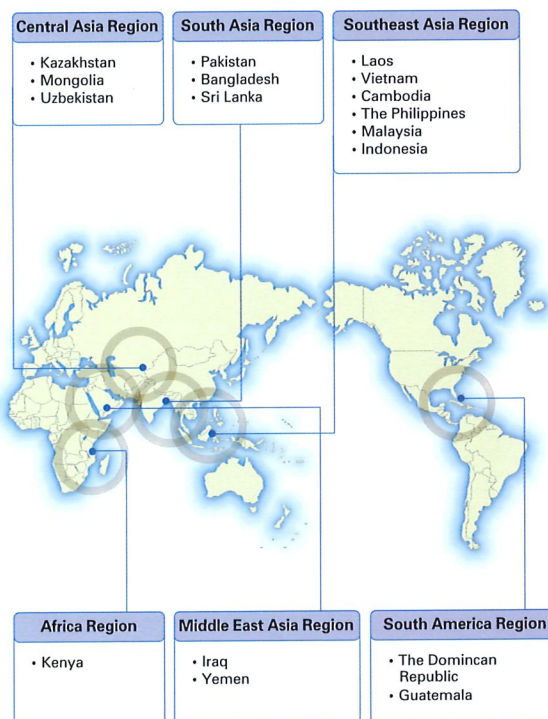
Created in 2005 by UNESCO and funded by the Kingdom of Bahrain, this Prize is to reward projects and best practices using information and communication technologies (ICTs) to enhance learning, teaching and overall educational performance.



In December 2006, KERIS and Korea's Ministry of Education and Human Resources Development were announced co-winners of the 1st UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education (award ceremony held at UNESCO headquarters in Paris, January 2007). By awarding this Prize, UNESCO officially recognized that Korea's e-learning model can be applied around the world.

Support of Education Informatization in Developing Countries

Metropolitan and Provincial Offices of Education	Participating Countries	PC (units)	Training (number of people)
Seoul	Uzbekistan	300	20
Busan	Cambodia	150	21
Daegu	Bangladesh	-	24
Incheon	Pakistan	150	30
Gwangju	Sri Lanka	150	20
Daejeon	Mongolia	1,000	21
Ulsan	Yemen	150	20
Gyeonggi	Kazakhstan	170	18
Gangwon	Kenya	300	40
North Chungcheong Province	Indonesia	300	80
South Chungcheong Province	Laos	220	30
North Jeolla Province	Philippines	150	22
South Jeolla Province	Malaysia	157	20
North Gyeongsang Province	Myanmar /Guatemala	100/170	19
South Gyeongsang Province	Vietnam	150	29
Jeju Island	Dominica	350	20
KERIS	Iraq	260	21
Total	18 countries	4,227	455



Operation of EDUNET

2005 Increase of user convenience by expanding customized information

▶▶▶ 2006 Establishment of a customer-oriented interface and an information provision system by learners' individual level



Appointment Ceremony of EDUNET Monitors (Edurian) (June 9)



EDUNET Homepage : www.edunet.net



Objective

To provide a one-stop education information service to elementary and middle school customers (teachers, students, parents, etc.) in collaboration with the MOE&HRD, Metropolitan & Provincial Offices of Education (MPOEs) and other relevant educational institutions

Activities

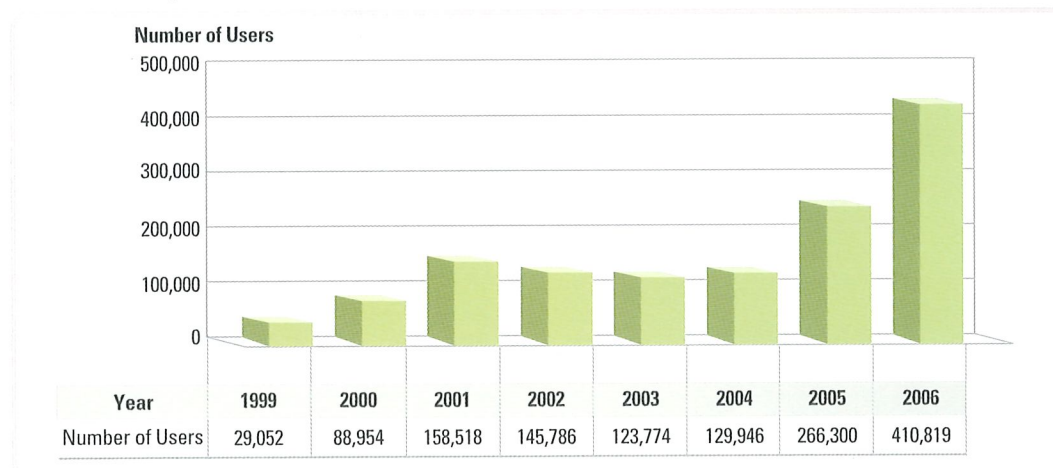
- ⊗⊗ User-friendly education information portal service
- ⊗⊗ Establishment of a foundation for linking the services provided by the MOE&HRD and MPOEs
- ⊗⊗ Provision of class lesson support materials using ICT
- ⊗⊗ Establishment of a system for sharing evaluation questions developed by the MPOEs
- ⊗⊗ Securing quality content in collaboration with the relevant governmental and private organizations

Achievements

- ⊗⊗ Overall increase in usage rate
 - Students' usage rate : 41.9% (3.5% increase year-on-year)
 - Teachers' usage rate : 73.6% (3.4% increase year-on-year)
- ⊗⊗ More efficient information acquisition (in proportion to time spent) by teachers than other education sites
 - EDUNET : 116.7% (other sites: 97.7%)
- ⊗⊗ Decrease of time spent on information collection after EDUNET use (90.9 minutes -> 61.4 minutes, reduction by 32.5%)
- ⊗⊗ Encouraging user participation to enhance customer-oriented service
 - "Q&A session on the copyright of education materials" for protection of intellectual property (410 inquiries)
 - Operation of field support team composed of 172 school teachers
 - Operation of 'Edurian Club', composed of 46 students and 54 parents
- ⊗⊗ 43.5% of teachers replied that students can enhance academic performance by using EDUNET
- ⊗⊗ Establishment of integrated meta DB for the National Education Resource Sharing System (210,000 items in 2006, cumulative total: 530,000 items)



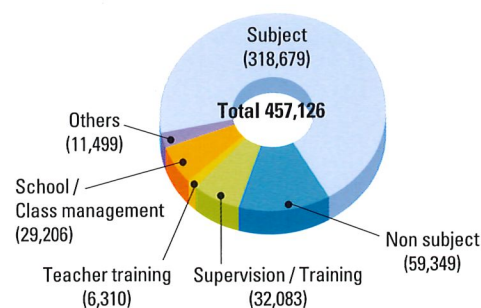
Number of Daily EDUNET Users



- Usage of Major Services
(unit : item / monthly average for Oct.- Dec. 2006)

Classification	Service	Monthly usage rate (number of hits)
Teachers	Multimedia content	341,899
	Evaluation questions	3,038
	Teaching-learning modules	2,652,236
	Knowledge exchange	15,006
Students	Online textbooks for primary and secondary education levels	362,824
	Quiz	103,230
	Learning material archive	43,927
	Theme learning	12,462
Community	Total number of communities	5,041
	Number of community members	239,046

- Status of Integrated Meta DB for National Education Resource Sharing System (Unit: item)



Status of Educational Content (unit : types)

Classification	2005	2006	Increase / Decrease
Multimedia Educational Materials	18	4	▼ 14
Special Education Content	2	0	▼ 2
Educational S/W Contest	296	288	▼ 8
Content Developed by Public/Private Sectors	249	293	▲ 44
Quality Assured Educational Content	67	163	▲ 96
Total	632	748	▲ 116

Cyber Home Learning System

2005 Reduced private tutoring expenses by expanding service nationwide

▶▶▶ 2006 Narrowing down of education gap by expanding service to high schools



Award Ceremony for the Best CHLS Classes (Feb. 13)



National CHLS Center : cyber.edunet.net

Objective

To reduce private tutoring expenses and narrow down the education gap by establishing and operating the nationwide Cyber Home Learning System (CHLS)

Activities

- Expansion of the target groups, subjects and educational opportunities of cyber home learning service
- Conducted basic research on ways to develop cyber home learning
- Establishment of an archive system for the sharing of cyber home learning content
- Monitoring of cyber home learning
- Designated as 'National e-Learning Quality Assurance Center' and conducted content quality certification
- Implementation of the project to enhance cyber teachers' capabilities
- Organization and operation of the field support team to systemize the work of cyber teachers

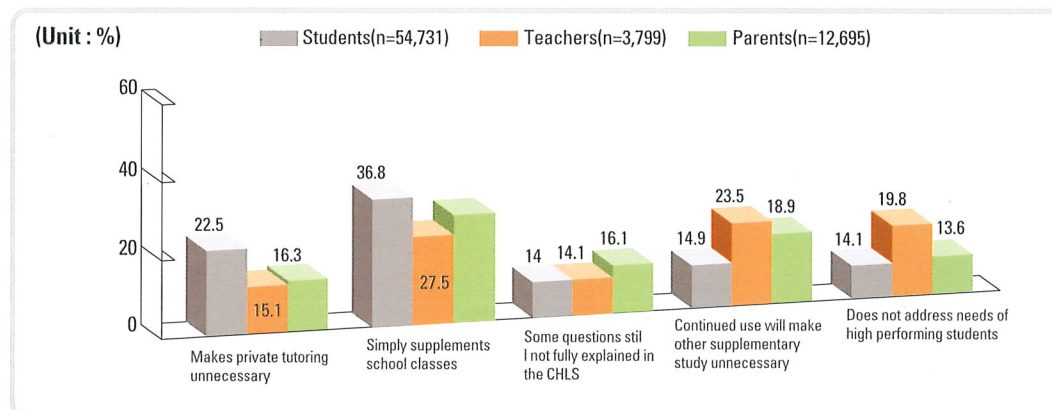
Achievements

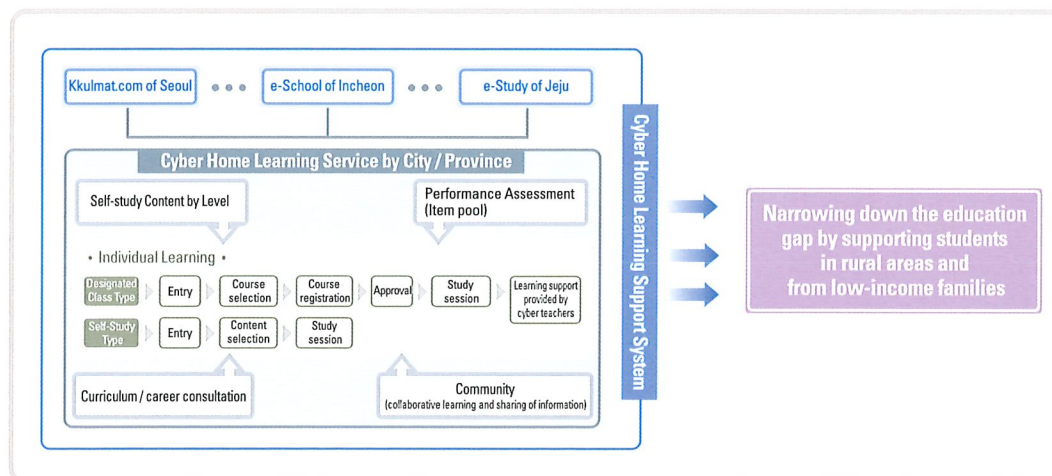
- Service expanded to senior high school students (only provided up to middle school students till 2005)
- Daily visitors to the CHLS site: 107,787 per day (99% increase year-on-year)
- Survey results of students' satisfaction on cyber home learning : 65.98 points (8.88% increase year-on-year)
- An estimated amount of 750 billion won (US\$ 789 million) saved on private tutoring expense in 2006 (87% increase year-on-year)
- Securing of cyber home learning content
 - Joint content development by the central organization and the MPOEs (75 items)
 - Secured content through cooperation with relevant organizations (69 items)
- Learning consultations by cyber teachers of MPOEs (760,000 cases)(Monthly average 63,333 cases)
- Increase in the number of cyber teachers (6,147 teachers, 94.9% increase year-on-year)
- Cyber home learning parent tutor system (2,692 parents participated in 2006)
 - Management of attendance and progress
 - Encouragement of learning, cyber teacher support, etc.



Classification	Total No. of Student Members	Students in Designated Class Type		Students in Self-Study Type	Daily Average Users
		No. of Classes	No. of Students		
2004	769,840	1,978	42,100	727,740	54,142
2005	1,608,997	3,999	178,705	1,430,292	107,787

Classification	2005	2006
Amount of Reduced Private Tutoring Expenses	400 billion won (US\$ 421 million)	750 billion won (US\$ 789 million)





National Education Information System (NEIS)

2005 Conducted nationwide pilot service for the general public

2006 Expanded service to more schools and a wider population



Launch to the New
NEIS School Affairs System(Mar.14)



National Education Information System
(NEIS) (www.neis.go.kr)

Objective

To enhance convenience for the public and reduce teachers' administrative work load

Activities

- Establishment and operation of new NEIS school affairs system and stabilized application to schools
- Expanded Home-Edu civil service and launch of the service for parents
- Improvement of NEIS S/W quality
- Development and operation of on-line service for university admission documents
- Establishment and operation of integrated digital education finance management system
- Quality and Security Management of the NEIS center

Achievements

- Expanded implementation and stabilization of new school affairs system
 - Reduced 165 types of hand-written documents (used by 11,039 schools)
- Enhanced convenience for the public by providing on-line certification service and sharing of administrative information
 - 70% increase in no. of certificates issued on-line, 80 billion won (US\$ 84 million) saved annually in certificate issuance
- Cost and time saved through on-line provision of university admission documents
 - Simplification of process (4 stages -> 2 stages), cost saved (113.5 billion won, US\$ 119 million), time saved (17 days)
- Smooth implementation of digital education finance management system, as part of the national financial innovation plan
 - BPR/ISP (2005) -> Program development (2006) -> Pilot service (2007)
- Expansion of on-line certificate issuance and sharing of administrative information
 - Selected as the best innovation practice by the MOE&HRD and KERIS

2005

- Civil certificates viewed on and printed from PCs (5 types)
 - Total no. of certificates issued : 469,893
- Seven types of administrative information shared by three ministries
 - Total no. of certificates issued : 469,893

2006

- Launched and expanded service (5 types -> 10 types)
 - No. of certificates issued: 790,415 cases (70% increase year-on-year)
- Increase in sharing of administrative information: 7 types -> 13 types (five ministries)
 - Expanded service areas (four areas including civil and general service)

Reduction in Workload and Time by Improving Major Work Processes

Category	Main Innovation Elements and Outcomes
On-line Recruitment	Off-line application in person -> Automated on-line application
Issuance of Teachers Certificates	Simplified issuance procedure (4 steps -> 3 steps) and reduced issuance time by 37%
Information Sharing between Audit and Inspection Bodies	Manual processing -> Integrated NEIS on-line processing: time saved by 50%
Year-end Adjustment	Automated income tax deduction, time saving of more than 40%

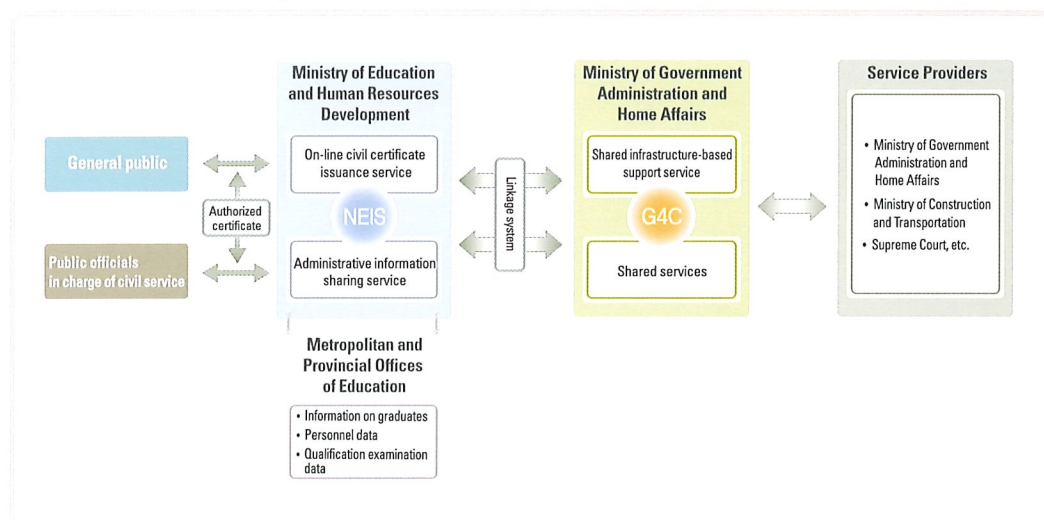
Online Provision of University Admission Documents by All Participating Schools

Classification	No. of Schools	No. of Graduates	No. of Enrolled Students	Total No. of Students
Regular Application	2,069	498,627	574,229	1,072,856
1 st Early Application	2,132	574,161	576,897	1,151,058
2 nd Early Application	2,135	574,990	579,892	1,154,882

- Cost-saving effect by students, parents, and universities

Students and parents 105.8billion won (US\$ 111 million)	+	Universities 7.7billion won (US\$ 8 million)	=	Expense saved 113.5billion won (US\$ 119 million)
---	---	---	---	--

Home-Edu Civil Service System



Digital Library System (DLS)

2005 Increase of user satisfaction through stabilization of central DLS

▶▶▶ 2006 Improved service stability by establishing the DLS v2.0 at MPOEs



2006 School Library Conference (June 2-3)



KERIS DLS(lib.keris.or.kr)

Objective

To encourage the utilization of school libraries by supporting the operation of a comprehensive digital library covering books, non-book materials, and on-line information

Activities

- ⊗ Stable operation and management of metropolitan and provincial DLS systems
 - Continued maintenance and functional improvement of DLS Softwares
 - Establishment of the DLS Version 2.0 at the MPOEs
- ⊗ Established central DLS catalogue and provided teaching and learning information linkage service
- ⊗ Research on the ways to promote the use of school libraries

Achievements

- ⊗ Acquisition of GS certification by the Telecommunications Technology Association on the DLS v2.0
- ⊗ Increase of customer satisfaction through the management support of the DLS operated by the MPOEs
 - Phone consultations through the call center (11,700 cases), customer satisfaction score reached 4.4 points (250 customers, full score: 5 points)
 - Maintenance of DLS Software (158 cases)
 - Contest on best DLS application cases (54 best practices secured)
 - Visiting service to schools (62 schools)
 - Education for DLS users (2,289 users)
- ⊗ Central bibliography catalogue (15,000 inventories in 2006) and information on subject-related books (2,000 items in 2006)
- ⊗ Basic research for promoting the use of school libraries (8projects)

• Status of Registered DLS Schools
(Unit: schools / cumulative total)

• Status of Registered DLS Users
(Unit: person / cumulative total)

Year	No. of Schools	Classification	No. of Students	Percentage
2001	30	Elementary School Students	4,353,783	52.1
2002	266	Middle School Students	2,246,639	26.9
2003	3,201	High School Students	1,736,173	20.7
2004	5,505	Other Institutions	25,409	0.3
2005	7,111			
2006	8,764	Total	8,362,004	100.0

※ 83% of all schools registered

Research Information Service System (RISS)

2005 Established as the hub of academic research in Korea

▶▶▶ 2006 Knowledge globalization by enhancing the sharing of information at home and abroad

Objective

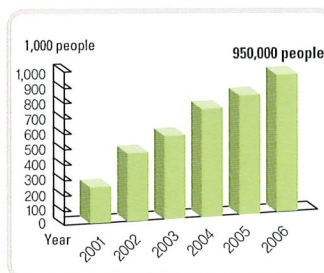
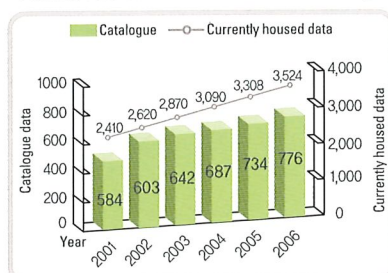
To establish RISS as the central international research information distribution system by promoting the international information sharing network

Activities

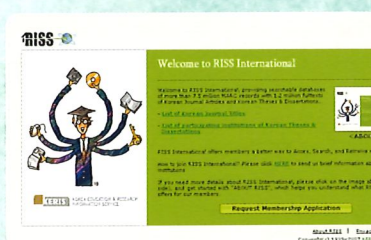
- Established system for sharing research information at home and abroad
- Operated and expanded system for sharing information in universities and libraries
- Established system for acquiring full texts of overseas research information unavailable in Korea
- Supported researchers in purchasing dissertations from overseas

Achievements

- Operation of RISS International to provide global research information
 - Seven countries (U.S., Germany, France, etc.) to participate in RISS International pilot service
 - A fee-based service to be provided from July 2007
- Sharing of research information among relevant domestic organizations, specialized and special libraries
 - Sharing of the National Library of Korea's catalogue data
 - Expanded specialized libraries covered by the RISS service (147 libraries/ cumulative total)
- Support in purchasing overseas academic papers unavailable in Korea
 - Support provided to around 6,200 Korean university professors and students, ten times in 2006, 50% of the total expense covered
- Metadata standardization and consistency assurance of research information resources
 - Provision of catalogue service, development and distribution of bibliography data, input guidelines, and catalogue management system
- Annual data collected for the union catalogue • RISS Subscribers by Year



Research Information Service System (RISS) (www.riss4u.net)



RISS International (intl.riss4u.net)

Support for Sharing of Domestic Research Information

2005 Expansion of the distribution network for domestic research information through digitalization

▶▶ 2006 Establishment of a digital distribution system to reduce time and cost for obtaining research information



2006 University Library Personnel Seminar (Nov. 22)



dCollection(www.dcollection.net)

Objective

To save time and cost for acquiring quality research information by promoting the digitalization of domestic research information and operating the digital distribution system

Activities

- ❖ Promotion of the sharing of domestic research information through digital system operation
- ❖ Distribution and promotion of the digital knowledge distribution system dCollection
- ❖ Identifying the ways to increase the research data registration rate thru six sigma application
- ❖ Expansion of the Union Catalogue to improve efficiency and reduce operation costs
- ❖ Operation of the Inter-Library Loan (ILL) service to expand the sharing of research information

Achievements

- ❖ 37.3 percent increase year-on-year in the use of full-text service for dissertations and journal articles
- ❖ Cost-saving effect for university libraries and service users through the full-text service
 - University libraries in digitalizing and distributing research information: 1.9 billion won (US\$ 2 million)
 - Service users in research information collection: 30.6 billion won (US\$ 3.2 million)
- ❖ Time saved in research information distribution through the six sigma introduction
 - Service time at universities: 18 days (8 days reduced from 26 in 2005, excluding the days needed to provide RISS service)
- ❖ Improvement in work efficiency through joint utilization of research information
 - 18 percent improved year-on-year
- ❖ Improved saving effect in cost and human power for university libraries through the ILL system
 - Saving effect: 2.6 billion won(US\$ 2.7 million) in budget and 65 people in workforce (110 million won (US\$ 116,000) 3 persons saved year-on-year)



Monthly Average Use of Dissertations/Journal Articles (Unit : cases)

Classification	2003	2004	2005	2006
Dissertations	90.820	183.037	311.035	440.038
Journal Articles	89.971	165.004	224.636	295.277
Total	180.791	348.041	535.671	735.375

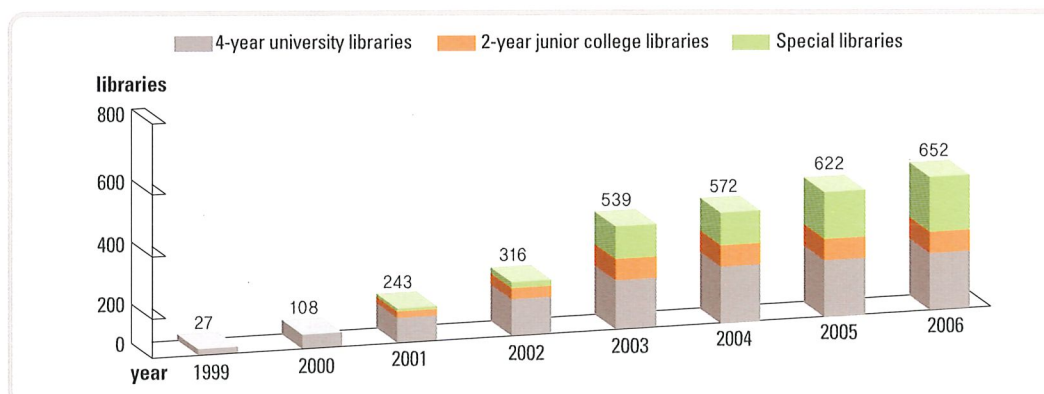
Time and Cost Saving Effect for Users in Obtaining Research Information

Classification	2003	2004	2005	2006
Time Saving Effect	10.85 million days	20.88 million days	25.71 million days	35.30 million days
Cost Saving Effect	7.6 billion won (US\$ 8 million)	14.4 billion won (US\$15 million)	22.3 billion won (US\$23.5 million)	30.6 billion won (US\$ 32 million)

Improvement in Work Efficiency and Cost-saving Effect through Union Catalogue Service

Classification	2005	2006	Increase Rate
Time Saving Rate on Work Process	31.7%	40.2%	▲ 27%
Cost Saving Rate on Data Management	22.7%	29.9%	▲ 31%
Work Efficiency Improvement Rate	33.3%	39.2%	▲ 18%

Increase in Domestic Institutional Members for ILL Service: 652 libraries (5% increase year-on-year)



※ Expanded opportunities for special libraries participating in the ILL system (Increase by 10% year-on-year)

Support for Sharing of Overseas Research Information

2005 Expansion of overseas research information in specialized fields

▶▶▶ 2006 Enhanced efficiency in information use through acquisition of research information and diversification of distribution channels

Objective

To systemize the supply of overseas research information and diversify distribution channels, maximizing convenience of usage

Activities

- Securing and co-purchasing national license for overseas research information
- Securing original contents of overseas research information for permanent possession
- Securing contents for the overseas reference information service
- Promotion of the utilization of overseas digital information service
- Analysis of the effectiveness of national licensing for overseas research information
 - Analysis of the budge and time saving effects at national, institutional and individual levels
 - Analysis of the significance and value of the national licensing project for overseas research information

Achievements

- Purchase of 14 kinds of DB thru national license for sharing overseas digital information
- Direct access to overseas eBooks for RISS members and 102 organizations
- Formation of 93 consortia, where 158 organizations participate in purchasing online overseas research information
- Introduction of overseas doctoral dissertations: 81,301 papers (20 percent increase year-on-year)
 - Time and cost saving effects in collecting overseas research information for the public
 - Cost saving effect : 44,118,490 won a year (US\$ 46,440)
 - Time saving effect : 234,920 days a year
- Provision of access channel and time saving effect in obtaining overseas research information through the ILL system
 - Monthly average number of applications for overseas library loans: 557 (33% increase year-on-year)
 - Time saved: 74,000 days a year (75% rise year-on-year)
- Introduction of overseas e-books: 34,650 books in total (28% increase year-on-year)
- Increase in the use of overseas research information by academics and reduction in budgetary constraints
 - 730 applications for the service in 2006
 - Cost saving effect: 6.2 million won (US\$ 6,500)
- Provision of webzines by research area
 - Webzines sent to personnel of 400 university libraries and 350,000 RISS members



Digital Dissertations on Demand Service (ddod.riss4u.net)



KERIS Academic Library Consortium on Electronic Resources (ace.riss4u.net)



☐☐ Status of Content Building for Overseas Research Information (Unit : cases)

Classification	2001	2002	2003	2004	2005	2005
Overseas Dissertations	17,000	35,700	46,700	57,054	67,779	81,301
Overseas e-books	2,800	9,200	16,100	26,100	30,100	34,650
Overseas References	-	6,400	10,000	17,006	24,219	31,450

☐☐ Cost Saved in Obtaining Overseas Research Information through National licensing (Unit : US\$)

Classification	Total	DDOD	OCLC FS	netLibrary	Others
Cost Saving Effect	104,888,321	44,118,490	28,668,775	17,752,500	14,348,556

※ DDOD (Digital Dissertations on Demand): provision of information on overseas dissertations ; OCLC FS (OCLC First Search) : provision of information in humanities and social sciences ; net Library : full-text service for overseas e-books

☐☐ Status of Utilization of Overseas Research Information Service (Unit : cases)

Classification	2001	2002	2003	2004	2005	2006
Search service	627,791	1,027,822	2,219,516	2,597,051	3,672,471	5,269,263
Full-text service	13,074	74,551	258,509	392,620	755,767	734,466

☐☐ Status of Co-purchasing of Overseas Research Information by Year

Classification	2001	2002	2003	2004	2005	2006
Number of consortiums	54	36	68	76	81	93
Number of organizations	114	132	142	147	143	158



Research Achievements of KERIS

Major Research Reports ▶▶▶

| Policy Research |

- Title** A Study on Roadmap of u-Learning in Korea
- Research Team** Sung-Ho Kwon, Beom-Seog Ko, Jong-Won Seo, June Lee, Kyung-Hee Kang
- Main Contents**
- Research on the ways to link ubiquitous computing technology to education in preparation for a ubiquitous society
 - Presentation of a proposed vision for u-learning Korea, mid- to long-term development plan, and specific projects
 - Forecast of socio-cultural changes according to the development of ubiquitous computing technology and proposition of future educational innovation and policy directions based on the fundamentals of education
- For inquiries** Jong-Won Seo (822) 2118-1460, jseo@keris.or.kr
-
- Title** The Effect of Information and Communication Technology (ICT) in Korean Education on the Transformation of Teaching and Learning Culture
- Research Team** Hyeon-Jin Kim, Jin-Ho Lim
- Main Contents**
- Development of conceptual framework for teaching and learning culture related to ICT in education, focusing on the changes in the lifestyles and values of teachers and students
 - Identification of the characteristics of the transformation of teaching and learning culture in elementary schools related to ICT in education through focus group interviews and surveys with teachers and students
 - Policy proposals to promote desirable changes in teaching and learning culture through education informatization
- For inquiries** Hyeon-Jin Kim (822) 2118-1265, jinnie@keris.or.kr

| Future Education Research & Development |

- Title** A Study on Development of Ubiquitous Learning Devices
- Research Team** Young-Jun Lee, Heon-Chang Yu, Bo-Kyung Kye, Jae-Hyeok Choi
- Main Contents**
- Development of next-generation personal portable learning devices that overcome the shortcoming of existing devices and are specialized for educational purpose with improved learning effectiveness, portability and economical efficiency
 - Definition of essential functions and specifications for ubiquitous learning devices through analyses of the use of learning devices at home and abroad, of users' (students, teachers and parents) demands, and development of teaching & learning scenarios
 - Presentation of the prospect of ubiquitous learning devices according to the development of stages of u-learning technology
- For inquiries** Bo-Kyung Kye (822) 2118-1352, kye@keris.or.kr

| e-Learning Standardization |

- Title** Research on Enhancing the Education Resource management with Ontology
- Research Team** Jae-Hyuk Cha, Yong-Sang Cho, Hyun-Jong Choe, Yong-Seok Choi, Nam-Mee Moon
- Main Contents**
- Analysis of the development tendency and main issues related to semantic web based on ontology technology
 - Development of the methodologies to build a KEM ontology model for semantic web-based search and educational information service and a curriculum-based, sample domain ontology model for linking with the metadata-based ontology
 - Development of the search system prototype using the KEM ontology and domain ontology, and analysis of the effectiveness of ontology-based search service
- For inquiries** Yong-Sang Cho (822) 2118-1447, zzosang@keris.or.kr



| Educational Administration Informatization |

- Title** Study on System Enhancement and Educational Utilization Plan for NEIS(National Education Information System)
- Research Team** Jang-Ik Lee, Myung-Ho Shin, Min-Soo Kim
- Main Contents**
- Analysis of the current status of NEIS, including analyses of best practices and school affairs service in order to examine educational activities at schools
 - Development of Educational Utilization Model for NEIS enhancement and the model validity test through survey with teachers
 - Presentation of mid- and long-term NEIS enhancement plan including personalized learner support service, student / parent counseling and guidance system, and integrated school administrative system
- For inquiries** Myung-Ho Shin (822) 2118-1287, skyshin@keris.or.kr

| Field & Project Support Research |

- Title** A Study on Linking Model of Cyber Home Learning with After-school Program
- Research Team** June Lee, Jeong-Im Choi, Jae-Shin Song, Jong-Un Park
- Main Contents**
- Identifying the areas of support for after-school programs through the Cyber Home Learning service
 - Development of a model to link cyber home learning and after-school programs
 - Proposals for legal and institutional improvement for linking the cyber home learning service and after-school programs
- For inquiries** Jong-Un Park (822) 2118-1344, jupark@keris.or.kr

| Research Information & Higher Education |

- Title** Development of Evaluation Standards for Institutional Evaluation of Cyber University in Korea
- Research Team** Wha-Kuk Lee, Min-Won Seo, Sang-Ho Song, Seri Kim, Byeong-Jin Kim
- Main Contents**
- Development of evaluation strategy and management model based on the analysis of the management status of the cyber universities in Korea
 - Development of evaluation standards in 16 areas in 6 main categories through analysis of evaluation indicators of domestic and overseas general and cyber universities, development of draft evaluation standards and validation of the standards by experts
 - Suggestion of possible future directions of evaluation system for cyber universities in Korea
- For inquiries** Byeong-Jin Kim (822) 2118-1388, kbjin@keris.or.kr



List of Other Major Research Reports

Policy Research

- Directions and Suggestions for Restructuring the Education System in Ubiquitous Era
- A Study on the Current Status of and Ways for Improvement of Financial Investment in Education Informatization
- A Study on the Formulation of the Role of Education Informatization to Build an Edu-safety Net
- A Study on the Ways to Promote e-Learning Globalization
- A Study on Formulating a Strategy to Build an e-Learning Cluster of Universities in the Asia-Pacific Region
- Development of Analysis Indicators of e-Learning Effectiveness to Enhance e-Learning
- A Study on the Development of Digital Literacy Indicators to Promote 21st-century Knowledge and Information Capacity
- A Study on Optimizing Informatization Indicators for Lifelong Education Institutions

Future Education Research & Development

- A Study on e-Learning Service Model by Learner Type in the e-Learning Environment
- A Study on the Development of an Augmented Reality-based Next-generation Learning Model
- A Study on the Development of a Next-generation Learning Model Based on Ubiquitous Technology
- A Study on the Ways to Build Future Classrooms for the Ubiquitous Environment
- A Study on the Establishment of RFDI and USN in Primary and Secondary Schools
- An Analysis of the Effectiveness of the Creative Thinker Program
- An Analysis of the Effectiveness of u-Learning

e-Learning Standardization

- A Study on the Effectiveness of Digital Textbooks
- A Study on the Standardization of the Interoperability of Evaluation Questions
- A Study on the Standardization of Collaborative Learning Management Linked with SCORM-based Content
- A Study on the Standardization of Capacity Information Support Linked with SCORM-based Content
- A Study on Major International e-Learning Standardization Trends and Standards
- A Study on the Development of e-Learning Content Standards in Higher Education

Educational Administration Informatization

- A Study of the Mid to Long Term NEIS Development

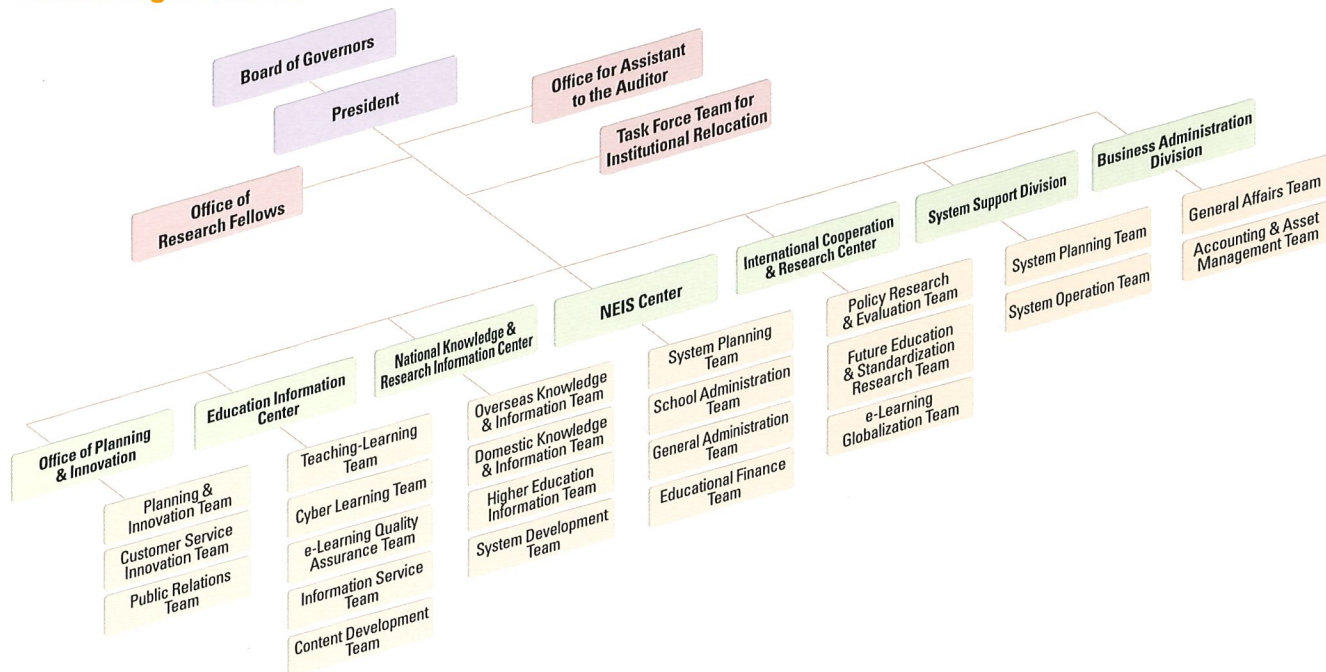
Field & Project Support Research

- An Evaluation of the Pilot Project on School Teaching-Learning Support Centers
- Development and Application of Performance Evaluation Model for National Teaching-Learning Center
- A Study on the Results of EDUNET Restructuring in 2006
- A Survey on the Current Utilization of Vocational Education Materials and Analysis of Its Effectiveness
- A Study on Integration and Linking Strategies for National and Metropolitan-Provincial Teaching-Learning Centers
- A Study on Improving the Usability of National Teaching-Learning Center-EDUNET Service for Teachers
- A Study on the Second-phase Development of Cyber Home Learning
- A Study on the Analysis Methodology of the Effectiveness of Cyber Home Learning
- Establishment of Informatization Strategy for Cyber Home Learning Diagnosis-prescription System
- A Qualitative Study on the Best Practices of Cyber Home Learning
- Research on Linked System for DLS Expansion
- A Study on the Effectiveness of Revitalization of School Libraries Based on Reading Ability
- A Study on Standard Model for School Libraries in Rural Villages
- An Exploratory Study on the Strategy for Enhancing School Library Services of the 2nd Phase
- An Analysis on the Status and Impact of School Libraries
- A Study to Develop School Library-assisted Teaching and Learning Materials
- Focusing on the Korean Language and Social Studies at Secondary Schools
- An Evaluation Study on the School Library Revitalization Project
- Research on the Status of the DLS Use and Users' Satisfaction Analysis
- A Study on the Ways of Joint Utilization of Internet Video Materials Developed by Metropolitan and Provincial Offices of Education

Research Information & Higher Education

- Leveraging Academic Department Classification to Enhance Subject-based Service
- A Survey on the Actual Utilization of dCollection System for Establishing National Knowledge and information Distribution System
- A Study on the Directions of University Administration Information Standardization
- A Study on the Achievements of Cyber Universities
- A Study on the Current Status of e-Learning in Higher Education
- A Study on Strengthening University e-Learning Support Center and Establishing Development Strategy

KERIS Organization



Brief History of KERIS

- April 1999** KERIS was founded by consolidating KMEC and KRIC
- ※ KMEC : Korea Multimedia Education Center founded on May 21, 1997
 - ※ KRIC : Korea Research Information Center founded on Dec. 26, 1996
 - ※ Korea's first web-based educational information service "EDUNET" was launched: Sep. 11, 1996
 - ※ The Research Information Service System (RISS) was launched to enhance the nation's research competitiveness: May 1, 1998
- Mar. 2001** Designation as the National Education and Research Information Center by the Ministry of Information and Communication
- Apr. 2002** Designation as the National Operation Center for the "National Education Information System (NEIS)"
- May 2002** Launch of the "National Education Resource Sharing System"
- Nov. 2002** Launch of the "National Digital Library Support System"
- Dec. 2004** Acquisition of a Korean Standards certificate for primary and secondary educational metadata (KS X 7001)
- July 2005** Acquisition of ISO 9001 certification for quality management system
- Dec. 2005** Launch of Home-Edu, the online civil service for educational administration
- Mar. 2006** Launch of the new NEIS School Affairs System
- Dec. 2006** Acquisition of ISO 9001 certification for its e-learning international consulting service
- KERIS announced as the winner of the first UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education





Overseas Institutions that Have Signed MOUs with KERIS

- Sun Microsystems
 - National Institute of Informatics (Japan)
 - Microsoft
 - National Centre for Distance Learning (France)
 - Ministry of University, Research, and the Information Society of the Catalan Autonomous Government (Spain)
 - National Institute of Multimedia Education (Japan)
 - Srinakharinwirot University (Thailand)
 - Asia-Pacific Centre of Education for International Understanding
 - China Academic Library & Information System (China)
 - education.au (Australia)
 - Stanford Center for Innovations in Learning, Stanford University (United States)
 - Academic Advanced Distributed Learning Co-Lab (United States)
 - U.S. Satellite Laboratory (United States)
 - University of Paris 10 (France)
 - Moscow State University of Economics, Statistics and Informatics (Russia)
- ※ In chronological order of signing

Create Future Education & Value for All



2007 Vol.4 No.1 Spring





Cover Story

Cover design of the Spring (2007) issue of KERIS@ shows violets, the perennial wildflowers that bloom in the spring, enhanced by computer graphics. Enjoy the seasonal beauty of Korea harmonized with IT.

Spring - Violets

Family Name : Violet

Bynames : In Korea, violets are also known as Ring Flower, Chick Flower, or Barbarian Flower.

Season : April - May

In spring, the small and *pretty blossoms* of violets can be seen all around:
in cracks *in rocks, in grass, and on mountain slopes.*

Violets attract passers-by with their *lovely violet, white, and yellow colors* and their *charming fragrance.*

There are 40 kinds of violets in Korea. Seoul Violets (*Viola seoulensis*) and Namsan Violets (*Viola dissecta* var. *chaerophylloides*) are *native species of Korea.*



CONTENTS

04 Preface

KERIS Will Share e-Learning Experiences with Global Community, Prioritizing Customer Satisfaction

Dae-Joon Hwang President of KERIS

Special Feature

06 ❶ Commemorating the First UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education

Chang-Hoon Lee Senior Researcher, Public Relations Team, KERIS

08 ❷ e-Learning Status in Finland and eDegree Programme in Lapland

Dr. Seija Jaminki Senior Lecturer, Unit of Business and Culture, Kemi-Tornio University of Applied Sciences, Finland

11 ❸ Kuwait University, Civil Law, and the Internet: Genesis of a Dedicated Civil Law-Teaching Website

Dr. Mashael A. Alhajeri Head of IT Unit, Kuwait University School of Law, Kuwait

14 e-Learning Column

Korean Educational Innovation through e-Learning

Natalia Dmitrievskaia Director, Institute of Professional Development, Moscow State University of Economics, Statistics and Informatics, Russia

17 Field Report

300 Days with the Students of 'I Love Math Class' Club

Tae-Hoon Kim Teacher, Pusan Nakmin Elementary School, Korea

21 KERIS News



KERIS Will Share e-Learning Experiences with Global Community, Prioritizing Customer Satisfaction



Dae-Joon Hwang President of KERIS (djhwang@keris.or.kr)

Dear Readers,

Since its establishment in April 1999, KERIS has sought to become a world-leading e-Learning institution, laying a foundation for the nurturing of talents who will lead the information age. In particular, KERIS is putting management innovation into practice to actively respond to the rapid changes of global society.

In 2006, KERIS strived to establish itself as an institution providing customer satisfaction and management innovation and a global leader in e-Learning.

We provided more customer-oriented services in educational administration with the expansion of the National Education Information System (NEIS) services in March 2006, and actively introduced student-centered, individually-customized services to the Cyber Home Learning System (CHLS) and EDUNET. These efforts were well received by teachers, students, parents, researchers, and policy makers.

2006 was also a year in which KERIS spearheaded the globalization of e-Learning. KERIS contributed to the enhancement of Korea's status as a global e-Learning partner through active academic exchanges and sharing of Korea's accumulated e-Learning experiences with both developed and developing countries, by implementing various initiatives including the International e-Learning Exposition and seminars.

Furthermore, KERIS continually implemented management innovations in order to achieve customer satisfaction. All members of KERIS implemented institution-wide ethical management and Six Sigma programs to enhance staff members' commitment to customer satisfaction, and to embody customer-centered thinking. Also, by acquiring ISO certification in the areas of international e-

Learning consulting and information infrastructure management system, KERIS further enhanced its image as an institution equipped with a world-class quality management system.

In 2006, KERIS also became the first laureate of the UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education. We believe this shows the global recognition our achievements have received.

KERIS will continue to make its best effort to provide customer satisfaction.

KERIS members will continue to put customers first in 2007, and exert every effort to provide e-Learning services that are enjoyable as well as educational. Through these efforts, KERIS aims to place e-Learning at the center of people's everyday lives, starting in schools and eventually extending to the home. To stay at the forefront of e-Learning, KERIS is constantly analyzing the efficacy of its educational materials, and will develop a system to immediately collect and reflect users' demands. In addition, in order to propose policy directions that reflect long-term needs, KERIS will establish a specific and practical model and strategy, including a blueprint for future education.

KERIS will share its leading e-Learning experience with the world.

KERIS will strive to contribute to the strengthening of our national competitiveness, and solidify its status as a global e-Learning institute by sharing its leading e-Learning experience with the world. Winning the UNESCO Prize for the Use of ICT in Education proves Korea's achievement in the field of e-Learning, while encouraging us to play a bigger role on the international stage. In 2007, KERIS will continue to further improve our e-Learning system through international academic exchanges and joint research projects, and will help to address the global "educational divide" by providing on-line and off-line consulting related to e-Learning infrastructure and teaching & learning models.

KERIS aims to become an institution endowed with public support and loyalty.

KERIS members are working to create a more harmonious relationship with users in order to cultivate a new cooperative organizational culture. Thanks to our efforts so far, we believe the management system of KERIS rivals that of many other institutions and companies. Based on this well-established system, KERIS will create a symbiotic organizational culture that combines trust and harmony. Building upon these efforts, KERIS will become an institution that loves its neighbors, shares its achievements, and contributes to the local community.

KERIS will maintain the belief that the road it takes will be followed by others, and will not forget that users are at its core. KERIS aims to provide the best educational services to users, practice its policies to become the pride of its people, and establish itself in name and deed as a "Global Leader in e-Learning Leading the way to Future Education".

We wish you and your family health, happiness and prosperity. Thank you. 

Commemorating the First UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education

Chang-Hoon Lee Senior Researcher, Public Relations Team, KERIS (prompter@keris.or.kr)

The Korean Ministry of Education & Human Resources Development (MOE&HRD) and the Korea Education & Research Information Service (KERIS) received the first UNESCO-King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education at the ceremony held at the UNESCO headquarters in Paris, France on January 12, 2007. The first laureates of the prize were Korea and Finland, with Kuwait receiving an honorable mention.

Created in 2005 thanks to a financial contribution from the Kingdom of Bahrain, this UNESCO Prize is awarded to individuals, institutions, and other entities or non-governmental organizations for excellent models, best practice, and creative use of information and communication technologies (ICTs) to enhance learning, teaching and overall educational performance. The Prize is awarded to two winners every year. The prize money is USD 25,000 per winner. The 5 jury members, selected by Mr. Koichiro Matsuura, Secretary General of UNESCO, are globally-renowned experts in the field of e-Learning. Chairman of the jury was Professor Paul E. Resta, Director of the Learning Technology Center at the University of Texas at Austin.

Along with Kemi-Tornio University of Finland, the MOE&HRD and KERIS became the first laureates of the UNESCO Prize. Both institutions were selected from a pool of 35 applications from 30 countries. This award shows the global recognition of Korea's achievements in educational innovation through e-Learning.

Mr. Dae-Joon Hwang, President of KERIS, and Mr. Jong-Seo

Lee, Deputy Minister of MOE&HRD, who represented Korea at the ceremony, remarked that they believed the award was an acknowledgment by the jury of Korea's achievements in bringing innovation to learning and teaching activities by continuously pursuing comprehensive ICT-utilizing educational policies on a national level, as well as Korea's contributions to bridging the global digital divide by providing computers, training and education to those involved in education in developing countries.

Among Korea's achievements, UNESCO praised the Cyber Home Learning System for Primary and Secondary Students, which is aimed at bridging the digital divide and attaining the goals of Education for All (EFA). UNESCO stated that the project represented an innovative national model for collaborative educational planning by governmental agencies, legislative bodies, educational institutions, parents and communities. The jury concluded that by facilitating students' access to knowledge through ICT both at home and at school, the model can serve as an example to other countries.

Kemi-Tornio Polytechnic of Finland, co-laureate of the Prize, was awarded the Prize for its eDegree Programme in Lapland, which focuses on the needs of unemployed adults in rural, remote and underpopulated areas. The project initially targeted Lapland but rapidly spread throughout the country. The number of people who have succeeded in completing their studies and finding employment is evidence of its effectiveness.


An honorable mention also went to the project Dedicated Civil Law-Teaching Website for Arab Law Students by the School of

Law at Kuwait University. UNESCO stated that the website effectively enhanced the educational achievement of law school students by utilizing the Internet, and also remarkably increased the number of law school students in the Arab World. UNESCO added that Kuwait had set an example by proving that education utilizing ICT can be achieved without a large budget, as demonstrated by its successful operation of the program with a minimal budget after only an 18-month development period.

Receiving the UNESCO Prize meant not only that KERIS was internationally recognized for its efforts and achievements in e-Learning over the past 10 years, but also that KERIS was able to globally promote its achievements in the e-Learning area through its pursuit of e-Learning policies. This award can be seen as a foundation, solidifying Korea's position as a leading country and KERIS as a leading institution in global e-Learning.

Korea presented the following as its major achievements: development of comprehensive ICT-utilizing education policies at the national level; innovation in learning and teaching via the establishment and implementation of an ICT-utilizing education model and improvement of the quality of public education; contribution to bridging the digital divide and educational development in countries around the world by sharing Korea's ICT-utilizing education model.

In relation to using ICTs in education to enhance the quality of teaching and learning in the knowledge-based information society, the MOE&HRD and KERIS have established three phases of the ICT Use of Education Master Plan (1996-2010). According to the Master Plan, the MOE&HRD and KERIS have worked together in primary and secondary education to 1) develop innovative teaching and learning methods through the use of ICTs, 2) support teaching and learning through online educational information services including EDUNET and the Cyber Home Learning System, 3) establish the National Education Information System (NEIS), 4) standardize educational information metadata and establish a quality assurance system, and 5) build an infrastructure

This issue will take a look at Finland, co-laureate of the UNESCO Prize, as well as Kuwait, the honorable mention recipient. 



for education informatization. Regarding international projects, they have undertaken initiatives to contribute to narrowing down the global digital divide, while promoting international exchanges and cooperation.

Among the initiatives, the Cyber Home Learning System (CHLS) is the world's first educational support service designed to suit each individual's needs and is available throughout the nation. It enables elementary and secondary school students to work independently or engage in self-directed study anywhere, anytime. As of December 2005, students gave it an average satisfaction score of 60.9 points. They said that the system was very helpful in conducting self-directed study and supplementary study. It was also found to improve students' performance if consistently used over time. In addition, the system is thought to have contributed to bridging the gap in educational levels by expanding the realm of teaching and learning into cyberspace and providing high-quality educational services that anyone can use regardless of income or location. In economic terms, the CHLS is also estimated to have helped reduce private educational expenses by around 400 billion won (US\$421 million) annually.

e-Learning Status in Finland and eDegree Programme in Lapland

Dr. Seija Jaminki Senior Lecturer, Unit of Business and Culture, Kemi-Tornio University of Applied Sciences

Finland is globally acknowledged as an information society and an information society development pioneer in a variety of fields. Although the definition of the term Information Society became available as early as 1998, Finland's social transformation into a Knowledge Society that extensively utilises information and communication technologies has been rather quick. In international terms, Finland's strengths include a high level of education, regional and social equality, a good administrative culture, access to national databases, registers and libraries, the public nature of information, and its citizens' strong trust in electronic services. (information programme).

Since 1998, technology has matured as a facilitator of broad societal changes, the realisation of which requires the reform of structures and operating models in conjunction with the implementation of technology. Networking, orchestration and shared leadership form the basis for this ongoing paradigm shift (Markkula, M.). A new strategy, extending to 2015 has been drafted to support the transformation of Finland into an internationally attractive, human-centered and competitive knowledge and service society focusing on the utilisation of the opportunities offered by the information society. The aim of the programme is to boost competitiveness and productivity, to promote social and regional equality and to improve citizens' well-being and quality of life through the effective utilisation of information and communications technologies. Internationalisation, networking, new cooperation models, diversification and scientific multidisciplinary will become increasingly important success factors in the future.

National and international cooperation will be of key importance in the implementation of the programme (Information Society Programme).

Globalization and ICT have changed business processes rapidly. The quality of a Knowledge Society is largely determined by its capacity to generate genuine learning and cooperation and to produce visionary and innovative knowledge. The role of education and the importance of learning and work practices based on collaboration and learner-centred methods is crucial. In adult education, authentic, work-related practices based on co-operation must be addressed (Markkula, M). Knowledge works as an integral part of today's work. Knowledge workers must be able to exchange views on performing their tasks. Therefore, participation in communities becomes a necessity (Lefrere, P, 2004). Skills can best be acquired through education; by participating in the learning community, students learn valuable skills for their work life, thereby improving their prospects for better employment and career advancement.

Changes in work culture facilitate new business structures and methods. The digitisation of information and the many uses of information networks and linked appliances enable advancement towards a new communality and a networked, global working culture. Knowledge management is a fundamental part of every work community. The success of individuals and the work community is based on effective knowledge management and a long-term increase of professional expertise (Markkula, M.).



KEMI-TORNIO UNIVERSITY OF APPLIED SCIENCES

The organisation was established in 1992 as Kemi-Tornio Polytechnic by a merging of various independent institutes of higher education, and became the Kemi-Tornio University of Applied Sciences. It has a staff of 195 people serving around 2400 students divided in three departments:

- Business and Culture
- Social Studies and Health Care
- Technology

Kemi-Tornio University of Applied Sciences has been at the forefront of e-Learning developments in Finland since 1999. It was one of the first schools in Finland to establish an e-Learning Centre to support its integrated e-Learning efforts with pedagogical and technical support for teaching staff as well as selection and administration of virtual learning environments. The university has also been an active participant in diverse regional and national co-operation networks for the development of e-Learning and creation of electronic learning content.

The organisation has for years organized distance education utilizing different media. In 1986 computers were introduced as a new means of delivery: the organisation bought a minibus with 9 PCs to serve the needs of students who did not have any computers of their own. The bus (with a teacher inside) was driven to different locations in Lapland, thus offering learning possibilities to students who otherwise would not have had access to computers.

The need for distance education grew rapidly, because of the rapid changes in working life due to globalisation and the requirements of a Knowledge society. Unemployed students as well as employees in the public and private sector started demanding the right to be able to study more on-line regardless of location or life situation. The modern learning paradigms applied adult education programmes created a higher demand for virtual team work and increased real-time interaction between learners and teachers.

In 2002, a synchronous real-time platform, also called a Virtual Classroom (LearnLine) was introduced to the organisation and was rapidly integrated into the asynchronous virtual learning environment Moodle and all the distance education programmes. The platform replaced all or some of the contact classes and made it possible to train geographically-dispersed groups at the same time. The students could download the programme into their PCs either at home or at work, which meant that they did not have to travel to school to meet with their classmates or teachers; in fact, the school was now coming to the students.

eDEGREE PROGRAMME IN LAPLAND

The Unit of Business and Culture at the Kemi-Tornio University of Applied Sciences developed a bachelor degree programme in Business Administration for adult students in response to the needs of work life in Lapland. The school was the first one to offer a complete bachelor degree programme on-line in Finland. It was also the first programme to combine asynchronous learning activities in the school's VLE with

synchronous learning in an adopted virtual classroom.


Integrating a synchronous VLE in the use of asynchronous VLEs is an effective way to enhance learning and collaboration between students and teachers. The VLEs complement each other. While an asynchronous VLE is based on written delayed interaction, offering tools for reflection and knowledge construction in written form, a synchronous VLE offers a real-time space for interaction, allowing community building and thus increasing student motivation. The real-time dependence may be a disadvantage for the working population, thus implementation has to be based on careful planning. Therefore in the eDegree programme the large part of the course delivery happens via asynchronous VLEs and a smaller part via the synchronous VLE. Research indicates that the type of integration mentioned is a suitable study form for students regardless of age, gender or background.

The first group of 35 eDegree students started in May 2003 and since then there have been seven additional rounds of acceptance of students, with one of the groups consisting entirely of unemployed people. Originally, the programme was intended for employed Lappish distance learners, but the programme soon proved to be of interest to learners from all of Finland and at the moment only about 40 percent of the adult students come from Lapland.

Although the majority of students are employed, the study programme offers an excellent study opportunity for the unemployed as well, because they do not have to spend money on travel expenses. The link to work life makes it easy to integrate vocational and practical competence into theoretical studies. However, at the same time, the students' prior experiences create interesting challenges for the implementation of the programme and the expertise of the teachers.

The feedback and results so far of the eDegree programme have been positive. The use of the online learning platforms has helped the learners to acquire new skills in virtual teamwork and dispersed

practices, which are becoming more and more common because of globalisation, and the acquired competences increase students' prospects for better employment and career advancement. The use of synchronous, real-time conferencing has created a feeling of community among the students and teachers, increasing motivation and decreasing the feeling of isolation, which otherwise can quite easily affect distance learners. As a result, the drop-out levels are almost non-existent and the success rates per course are high.

For the organisation, the implementation of the eDegree Programme has meant a lot of hard work and the need to work together as an organisation. The transformation of the teaching profession and roles of teachers is most visible: the teacher in an online environment works as a facilitator together with colleagues and is by no means a sole proprietor of knowledge. Team-teaching has become a common teaching method in the eDegree Programme and the integration of work-related issues has been one of the success factors of the programme. Despite this laborious development, the teachers find the work rewarding. By working together the teachers have learnt to share their workload, and the use of modern technology has enabled the use of more efficient and collaborative practices. 

Information Society Programme Finland, available at:
http://www.tietoyhteiskuntaohjelma.fi/en_GB/

Markkula, M. 2006. Success through Networking and Knowledge Management in e-Learning. Presentation at Asia-Europe Colloquy on University Co-operation, September 2006 in Seoul, Korea Available at:

<http://www.elearningcolloquy.org/>

Kuwait University, Civil Law, and the Internet

– Genesis of a Dedicated Civil Law–Teaching Website –

Dr. Mashael A. Alhajeri Head of IT Unit, Kuwait University School of Law (KUSL) (mashael@law.kuniv.edu)

I. THE TEAM

The current project is the result of the cooperation of two people from different disciplines, nationalities, and genders. Nonetheless, enthusiasm, mutual understanding and open lines of communication played a key role in the realization of this project.

Mashael A. Alhajeri is a faculty member of the Kuwait University School of Law (KUSL), with a PhD in comparative Private Law from the University of Essex, UK (2004), and the Head of KUSL Information Technology Unit. While out of KUSL's 80 faculty members only four are females, Dr. Alhajeri is the first female faculty to ever join the Private Law Unit since KUSL's inception in 1967.

Amr S. Abo Hamer is a computer engineer with an LLB in Computer and Information Sciences, Ain Shams University in Cairo, Egypt (2002), and is currently the Executive Manager of the KUSL Information Technology Unit. Eng. Abo Hamer is the first staff member with an IT degree to be employed by KUSL.

II. THE PROJECT

Project Background

The Arab world still lags behind in information technology. Particularly in the field of higher education, students generally lack the opportunity to learn anything 'online' - the IT learning culture is remarkably underdeveloped. This conclusion is almost universal to all Arab universities. As far as could be determined, very few Arab law school professors, if any, make their course materials fully available on the internet for students' use.

When Dr. Alhajeri joined KUSL in 2004, she joined efforts in establishing an IT-based degree program with two administrative staff that had received computer training, and the KUSL IT Unit was born. The Unit's functions were broadly defined as to spearhead the process of IT development in KUSL. Despite a shortage of funds, it is now estimated that about 60% of the aforementioned goals have been achieved.

Project Description

The website was solely designed by team member Eng. Abo Hamar and dedicated for the Law courses that Dr. Alhajeri teaches at KUSL. Its simple idea is to spread awareness of the potential the Internet holds as a means of learning, and to encourage peer faculty to put their course materials online for students' easy access. The website's URL is: <http://law.kuniv.edu.kw/mashael>

Project Format / Structure

The website is comprised of two parts:

(A) Dynamic Part:

- News flash / ticker (updated news)
- Live Web Cam (pictures from metropolises around the world)

(B) Static Part:

- Main Page
- Research
- Links

- Grades
- Contact information
- Courses:
 - Obligations & Evidence Course
 - Research Methods Course
 - Methods Of Legal Research

Under each of these courses, materials are respectively presented according to the following taxonomy:

- ☐ Course Description
- ☐ Lecture Notes
- ☐ Slide Shows (Powerpoint Presentations)
- ☐ Pop Quizzes
- ☐ Exams
- ☐ Work Sheets
- ☐ Comparative Charts
- ☐ Transparencies
- ☐ Diagrams
- ☐ Samples of Students' Work

Project Philosophy

- Free access: The website requires no login names or passwords. All users, whether from KUSL or other entities (locally based or from abroad), have free and full access to all course material. Dr. Alhajeri, as writer, waived all her intellectual property rights over the said material.
- Simplicity and ease of use: Many KUSL students feel intimidated by IT in general, and the use of Internet for learning purposes in particular.
- Exposure to foreign languages: Although it was inevitable that all course material be put on the website in Arab - it was thought that exposure to foreign languages was strongly needed. Thus, all lecture handouts put on the website are furnished with a bilingual glossary (Arabic / English).
- Diversified use of learning material: the team decided to add

visual aids to course material whenever possible (transparencies, Powerpoint presentations, links to other websites), with particular emphasis on lecture notes (in which a wealth of graphs, diagrams, charts, cartoons, scans, and newspaper clippings were added).

- Exposure to Comparative law: study and exposure to Comparative legal systems of the world are lacking in KUSL curriculum. Material in the website partly acknowledges this shortcoming through presentation of comparative case law.
- Managing functional IT projects with limited funds: in putting together the web components of this project, Eng. Abo Hamer used basic software and utilities, the kind that was readily available in the market (moreover, the website was launched on the internet using a server of an old make!).

Project Self-Assessment


The site proved to be of particular help to students and faculty of peer Arab universities where civil law is taught. This is because Kuwait is an evident example for a civil Law country, and can be taken as an indicator to other Arab countries of which the legal systems are based on the legal doctrine, both in the Middle East (Syria, Lebanon, Iraq and Yemen) and North Africa (Egypt, Libya, Algeria, Tunisia and Morocco). Feedback received from these universities was most encouraging.

The team estimates that this project's major strengths are the following:

- The website is marked with notable wealth and diversity of learning materials (lecture notes, slide shows, pop quizzes, exams, work sheets, comparative charts, transparencies, diagrams, and samples of students' work).
- Open access was a key to 'popularity'; no login names or passwords are required. This is to be contrasted with E-Learning courses (also known as Distant-Learning courses), which are restricted to students who are actually registered in the course.

- The economics of this project demonstrate that, contrary to a widely misconceived idea, the use of information technology does not necessarily have to be a costly venture, and that all universities, even those with budget constraints, as is usually the case of developing countries, could readily embark on a similar venture.
- The team is proud to emphasize that this project was conducted within strict ethical guidelines. Its members insisted on using licensed copies from all software used (this was the team's contribution towards the country's ongoing campaign to fight software piracy, which seems to be a flourishing

business in many Arab states, including Kuwait).¹³

- Exposure to comparative law through course material (e.g. lecture notes, Powerpoint presentations) marked the course material of the website with distinctive 'flavor'.
- Despite a complete lack of publicity, the website proved very popular with course students. This could be judged from the number of people that visited the site during its short life. For during the period from April 2005 to June 2006, a number of 1080 visits were recorded (whereas the total number of students recorded in the actual three courses was less than 100). 



Civil Law-Teaching Website of Kuwait University

Korean Educational Innovation through e-Learning

Natalia Dmitrievskaia Director, Institute of Professional Development, Moscow State University of Economics, Statistics and Informatics (MESI) (Ndmitrievskaia@rector.mesi.ru)

In this era of the information society, the most significant area to develop in order to sharpen a nation's competitive edge is human resources. E-Learning can potentially lay a very important foundation in terms of human resources development, in that it offers the opportunity for everyone to receive a quality education anywhere and at any time. In this context, the role the Korea Education & Research Information Service (KERIS) is playing is all the more significant. Korea's e-Learning has undergone **tremendous and rapid development in terms of volume, development speed, and systematic structure.**

During the "e-Learning International Seminar" held in Seoul on September 27-29, 2006, a number of experts gave presentations on e-Learning methodology, based on a wide range of experiential data and theories of the international community, including Korea. This international seminar served as an opportunity to facilitate communication and cooperation regarding educational innovation through e-Learning, as well as regarding the future direction of e-Learning development. This seminar can be considered a starting point for the efficient exchange of knowledge and experience, in order to facilitate the application of information and communication technology (ICT) to education. More specifically, the following topics were discussed:

1. Prospects and Tasks for Future Educational Development
2. Educational Innovation through e-Learning
3. Strategy and Examples of Teaching-Learning Design through e-Learning in Primary and Secondary Education
4. Improvement of ICT Infrastructure for e-Learning

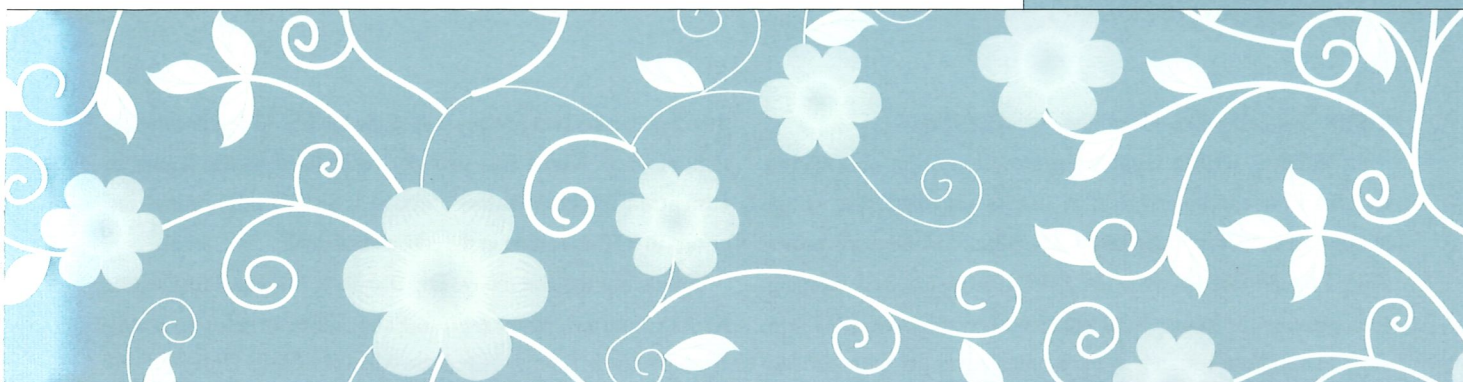
Development

5. Enhancement of Teachers' Capacity in ICT in Education
6. Development and Practices of Online Educational Administration
7. e-Learning Standardization and Quality Assurance
8. e-Learning Master Plans for Future Educational Development

Furthermore, the seminar suggested a direction for the future development of cyber learning, the so-called "**ubiquitous learning**" (u-Learning), which will utilize a variety of state-of-the-art technologies to enable education that is not restrained by time and space. u-Learning makes it possible to provide quality educational content regardless of location through the use of WiBro technology. In addition, u-Learning enables the sharing of a range of community activities with people around the world, like participating in the class of an overseas sister school, for example.

During the international seminar on e-Learning hosted in Seoul, the potential of u-Learning was confirmed once again through an experiment conducted to realize a new type of electronic education based on the principles of e-Learning. Moreover, students demonstrated their problem-solving skills by showing how they could receive lectures outside and get answers through mobile electronic devices to satisfy their curiosity.

Along with the international seminar, the 2006 e-Learning International Expo, also provided a good chance for visitors to experience all of the important infrastructure technology for u-Learning and e-Learning in one place. Among the numerous exhibitions, the class participation monitoring system was a



particular device that enabled teachers to watch students during on-line classes by utilizing the recognition function of a special card. The system and utilization method of ColorZip Media Co. drew a lot of attention as a hybrid of existing educational equipment and ICT. By making use of ColorZip's technology, the contents of existing textbooks can be re-constructed with special marks, and users can use a mouse to flick through web pages. A variety of additional services like video lectures, forums, and tests can also be offered. This type of system is expected to be embraced and become widely used, even in the current climate, where the use of existing textbooks is still preferred.

The development of e-Learning pursues a vision whereby cyber education can help to improve the quality of life, and even make a contribution to the national economy. To this end, the Korean government has enacted laws regarding e-Learning. The legal concept concerning e-Learning is embodied in the following definition concerning the e-Learning industry:

1. A series of creative activities, including research, development, production, modification, supplementation and storage for e-Learning and educational contents.
2. Service activities related to the application of e-Learning, its evaluation and consulting.

Based on these criteria, Korea established the e-Learning Industry Development Committee at the governmental level, and nominated the deputy ministers of the Ministry of Finance and Economy, the Ministry of Education and Human Resources

Development, the Ministry of Government Administration and Home Affairs, the Ministry of Culture and Tourism, the Ministry of Foreign Affairs and Trade, the Ministry of Planning and Budget, and the Ministry of Commerce, Industry, and Energy as commissioners. In this Committee, the Ministry of Education and Human Resources Development is playing a significant role in establishing and pursuing e-Learning policy.

KERIS has assumed the role as the connecting link among the government ministries and educational organizations that cooperate with each other for the e-Learning development. Since its inception in 1999, KERIS has been engaged in the following activities:

1. Implementation of e-Learning initiatives and projects
2. Enhancement of academic and information exchanges among educational organizations
3. Promotion of e-Learning globalization and international cooperation
4. Exploration of the ways to utilize ICT in education, and preparation and support of the legal foundation for cyber education
5. Providing educational information services

KERIS is striving to become a partner for the international community with its vision of ICT utilization in education, while securing its position as a leader that initiates changes through precise projection of the directions of changes. To this end, KERIS is doing its best to disseminate its e-Learning experiences and strategies, so that many countries around the world can benchmark

KERIS as an influential e-Learning research facility.

In addition, KERIS regards the provision of an information service in the educational field in an efficient manner as its top priority. EDUNET, which was launched back in 1996, now boasts about 5.5 million registered users. KERIS has also been developing and operating the Research Information Service System (RISS) in order to stimulate research at the national level. Its purpose is to encourage the exchange of research information among universities and support university libraries with technology and consulting, while providing original texts of published materials. Another major project was the operation and support of the National Education Information System (NEIS).

In a world where cyber education is rapidly spreading, KERIS is currently preparing policies and strategies based on its concept of quality management of education.


In early 2007, KERIS was awarded the UNESCO Prize for ICT in education for its achievements in application of ICT in primary and secondary schools, in particular, for the development and operation of its Cyber Home Learning System (CHLS). During

this distinguished ceremony, held at the UNESCO headquarters in Paris, France, **Korea was proudly recognized as the leader in education informatization** through KERIS' commitment and efforts in ICT utilization in the educational field.

Following the ceremony, Dr. Dae-Joon Hwang, President of KERIS, and Dr. Myung-Sook Pang, Director of e-Learning Globalization Team, visited the Moscow State University of Economics, Statistics and Informatics (MESI), and gave presentations on the theme of "Korea's e-Learning Policy and Status," and also discussed possible forms of cooperation between the two countries. Prof. Vladimir Tikhomirov, Rector of MESI, was present at the meeting, along with other relevant personnel and students, all of whom participated attentively and displayed strong interest in the topic.

President Dae-Joon Hwang gave a presentation on the theme of "Enhancing the Competitiveness of Higher Education through e-Learning." During the presentation, his explanation of how globalization and the informatization revolution will drastically change our way of life and our educational system drew the undivided attention of the audience. In particular, he stressed that 1) changes in the education system have brought about competition and cooperation in the international community, 2) reform is required for understanding purpose, content and systems of user-oriented education, 3) universities will emerge as the center of each region in reformation and knowledge production through globalization and localization. The audience enthusiastically received Dr. Hwang's explanation. During her presentation on "Improving Teachers' Skills in Korea and e-Learning," Dr. Pang presented the knowledge and strategies teachers need in order to run successful and efficient classes through e-Learning.

The Korean e-Learning experts **highly evaluated Russia's level of distance education**, including the MESI programs. Based on such interest, President Hwang of KERIS engaged himself in enthusiastic discussion with his Russian counterparts on the development of new e-Learning technology.

Moreover, KERIS and MESI signed a **memorandum of understanding to enhance mutual exchange and cooperation regarding e-Learning.** 





300 Days with 'I Love Math Class' Students

Tae-Hoon Kim Teacher, Busan Nakmin Elementary School (8294k@hanmail.net)

1. Meeting 'I Love Math Class' Friends

Am I happy while teaching classes? I ask myself this question every day. Feeling happy while teaching students in class is a precious experience for teachers, and I am realizing that this is only possible through persistent efforts.

In March 2006, one of my students approached me and said,

"Mr. Kim, I don't want to study with you just at school. I want to meet and talk with you while studying."

"Is that so? Why do you want to study with me?"

"I am sick of going to cram schools. And I feel like studying would become easier if I could study with you, and it will really help my learning."

It has been already 3 years since I first adopted the Cyber Home Learning System (CHLS). After I moved to Nakmin Elementary School and met new students who were unfamiliar with the concept of the Cyber Home Learning System, I wondered what would be the biggest gift that I could give to my students during the year.

Is there any way to persuade students that studying can be fun and joyful, and that they can study with their friends without going to cram schools? After all, these were either students who lived the same pattern of life during their 5 years at elementary school, students who went to cram schools after school, students who could not afford to go to cram schools even if they wanted to due to financial reasons, or students who were behind in their studies because there was no one in their family who could help them out.

On the first day of the semester, these thoughts ran across my mind as I made eye contact with each and every student.

2. Classes with 'I Love Math Class' Friends

I selected 19 students who had access to the Internet and the CHLS at their homes from the 6th grade students in my class.

On the first day, I showed them the web site of Busan Cyber School, and briefly explained the process of learning. There were students who understood and some who did not, but on the first day of learning, all students participated in the class with joy. I believe it was quite novel for them to learn with a flash animation compared to learning with the blackboard, which they did everyday at school.

However, parents were not quite as pleased. They were not happy about their children studying math in front of the computer with a mouse in their hand. I thought that there might have been protests from the parents, which would negatively affect the learning capacity of the students. So I developed and utilized a system of providing lecture notes and incorrect answer notes. The lecture notes was simply required that students to take down notes with their pencils while they were learning basic content. Requiring them to write down the procedure for arriving at an answer, rather than asking them to simply write down the answer helped them to develop their problem-solving capacity. In addition, I printed out the learning notes in the feedback process, and made it

into an incorrect answer note to be handed out to students. This proved to be greatly effective, as expected. Parents paid more interest and placed more trust in the CHLS, and the incorrect answer note where students had to write down the procedure for arriving at an answer was considerably helpful in the development of their problem-solving abilities.

As time went by, I was able to see that students' participation tapered off. While I was agonizing over how to once again induce students to participate in Cyber Home Learning, I came up with the idea of providing various incentives and increasing interactions that would strengthen students' motivation to study. First of all, I gave cyber money to students with a high log on ratio to decorate their avatar, and I also offered gift certificates to students with superb learning rates, process rates, and log on rates every month. And for students with poor participation rates, I induced them to log on to the CHLS by interacting with them via email or memo. In addition, I engaged in various interactive activities off line with my 'I Love Math Class' students, such as cooking noodles together and playing games at the On-cheon stream near the school.

As most of the learning takes place at home in Cyber Home Learning, I needed to attract parents' attention. So I recorded students' attitudes during presentations, lunch time, classes, and various other occasions at school on video, and uploaded the video to the CHLS to attract the interest of parents, and induce their participation in the CHLS.

As the Cyber Home Learning class was getting stabilized, one of my students posted a message on the bulletin board saying that although he liked the cyber learning class he wanted to meet, converse, and have classes with me on a real-time basis.

So I offered a real-time, video-enabled lecture utilizing the Active Tutor Program provided by the Busan Metropolitan City Office of Education. The results were beyond description. Students felt it was marvelous and fun to listen to teacher's lecture in front of the monitor at night at their house. In addition, parents at home could listen to the lecture with their child, and support their child's study. Furthermore, I carried out consultations with parents who could not afford to take the time to visit their son or daughter's school due to their work schedule. I felt as if Nakmin Elementary School, which has been considered to have a poor educational environment, was leading other schools by at least 20 years.

In addition to these efforts, I implemented various interactive activities such as making a class song, holding a character contest, praise relay, blog activities, cyber team activities, cyber class assembly using the live system, disclosing secret diaries, and many others. Through such activities, I was able to establish a deeper relationship with my students, which helped their learning by making the class environment more active and familiar. Students, parents, and teachers became one without even noticing.

3. Wrapping up the 'I Love Math Class'

One of my class students came up to me and said, "Mr. Kim, I won't go to cram schools from now on." "Why?" "I think the Cyber Home Learning class, where I can study with you, is helping me more, so I will tell my parents and quit going to cram schools. And school is so much fun now, because I have things to talk about with my friends thanks to the CHLS." This was quite a surprise. It had not even been a year since I had started the Cyber Home Learning class, and so much had been accomplished already. At that moment, I felt a stronger sense of responsibility for the cyber learning class. Since this incident, several other students and their parents have consulted me about quitting cram schools.

It still moves me to recall that student's decision. His decision had a particularly strong effect on me because I was having such a difficult time then. His words stayed in my mind, and motivated me to lead the Cyber Home Learning program with a stronger sense of responsibility.

Many things happened during the first year of implementation of the Cyber Home Learning. My heart was full of joy after I uploaded the learning materials I had worked so hard to make on the CHLS website, as I thought about students solving the tasks while having a good time. But on that day, many unexpected events took place on the CHLS website. "Mr. Kim, I cannot open the zip file." "I cannot download the files." "My computer cannot open Hangeul files." The many unexpected problems startled me.

Because students logged on to the CHLS to study contents at different times of the day, I had to keep my computer on all day to monitor and guide students in their learning in cyber space. I frequently missed my dinner, and delayed taking a shower. Under such circumstances, everything seemed so uncertain. I thought to myself, can I effectively manage the CHLS program like this, and how can teachers and students accommodate this kind of learning method? At one time, I even thought about giving it up. But believing that I needed to complete what I had started, I became determined and continued to lead the class with great effort. Time passed by, and students became used to the class system. I also became a more efficient teacher, which gave me more spare time.


The spare time gave me the enthusiasm I needed to create diverse programs, such as the watching note I prepared to prevent students from just solving the problems without listening to the lecture, the real-time live class offered to study with the students side-by-side and utilize contents in class, the "Conan" character, who was made to raise students' motivation to learn and to encourage active participation in class, psychological test material, training programs for parents to enable active interaction between students and teachers, diverse and fun cyber class activities, and the Three Out system, a teaching methodology in the form of blended-learning provided to maximize educational value. In the end, just an hour a day was enough to manage the class.

The 300 days I spent with the 'I Love Math Class' students..... It was such a short time, but it felt like a couple of years, even decades.



Although I led the Cyber Home Learning program for a short period of time, I am convinced that the system has the potential to play an important role in solving many problems in education. If the CHLS is rationally implemented and stabilized, it will bring about achievements beyond our imagination by enhancing students' problem-solving abilities, raising their capacity for self-directed learning, resolving the educational divide triggered by the income gap among households, reducing private education costs through raising parents' satisfaction with the public education system, and enabling a positive school life.

The Ministry of Education and Human Resources Development and the relevant offices of education need to exert more active efforts and provide support in nurturing outstanding teachers who will take charge of the Cyber Home Learning programs and in providing the necessary infrastructure at homes and schools to enable the operation of the CHLS. If such institutional support is combined with the enthusiasm of teachers, I believe many more excellent teachers will emerge like me to lead Cyber Classes, contributing to the reduction of private education costs and increasing students' satisfaction in learning.

For my part, I will continue to research and run the Cyber Home Learning programs, with a strong sense of responsibility, in order to help students experience the joy of learning through the Cyber Home Learning. 

e-Learning Exhibitions & Conferences

10th e-Learning Exhibition (EDUEXPO 2007)

The 10th e-Learning Exhibition (EDUEXPO 2007), the biggest exhibition of its kind in Korea, will be held from April 11 to May 4 nationwide. The e-Learning Exhibition, which is celebrating its 10th anniversary, is likely to attract many primary and elementary school teachers and officials from related institutions, as there is a richer variety of events and programs this year than ever before. The exhibition, held by the MOE&HRD and co-sponsored by KERIS, the four Metropolitan and Provincial Offices of Education (Busan, Daegu, Jeollanamdo, Chungcheongnamdo), and the Korea Education Frontier Association under the theme of 'Enjoy e-Learning Life!', will offer teachers, students, and parents, free of cost, the opportunity to see, feel, and experience in person the future of education with the coming of the ubiquitous age. Schedule and exhibition content are specified as follows:

※ Schedule and Locations

City	Date	Place	Sponsor
Busan	April 11-13	Busan Exhibition Convention Center	Busan Metropolitan City Office of Education
Daegu	April 18-20	Daegu Exhibition Convention Center	Daegu Metropolitan Office of Education
Gwangju	April 25-27	Kim Dae Jung Convention Center	Jeollanamdo Office of Education
Cheonan	May 2-4	Cheonan Dankook University Auditorium	Chungcheongnamdo Office of Education

※ Exhibition Agenda

Category	Exhibition Content
e-Learning Industry Hall	e-Learning Content <ul style="list-style-type: none"> - e-Learning-related software and content - Cyber Home Learning content - On-line educational content - Edutainment content
	Hardware and Equipment <ul style="list-style-type: none"> - e-Learning-related hardware and solutions - Various hardware and solutions for EBS services for college entrance preparation - Cutting-edge education equipment, teaching tools & instruments - Advanced teaching equipment - Mobile/Network solutions
	After School Classes <ul style="list-style-type: none"> - After school class-related content, solutions, etc.
School Library Informatization Model and Equipment Hall	<ul style="list-style-type: none"> - Establishment of school libraries - School library-related software and content - Informatization-related cutting-edge hardware and equipment
Science Lab Informatization Model and Equipment Hall	<ul style="list-style-type: none"> - Establishment of science labs - Science lab-related software and content - Informatization-related cutting-edge hardware and equipment
Information Security Hall	<ul style="list-style-type: none"> - Information security-related S/W - Security solutions and equipment
Special Education Hall	- Special education content and equipment

Teaching-Learning Center Innovation Conference



On March 29, 2007, KERIS organized the Teaching-Learning Center Innovation Conference in order to review the achievements of the Teaching-Learning Centers to date and explore ways for future development at the KERIS Hall. The Conference was co-sponsored by the MOE&HRD and five education-related institutions, in collaboration with the sixteen Metropolitan and Provincial Offices of Education (MPOEs). During the Conference, sixty-six people were awarded prizes as recognition for their distinguished contributions to the development of the Teaching-Learning Centers. In addition to the presentations of successful innovation cases, the participants also had a consultation meeting on the effective ways for to develop Teaching-Learning Centers and evaluation questions.

KERIS Signs MOUs with e-Learning Partners

MOU with Microsoft Korea

KERIS and Microsoft Korea signed a Memorandum of Understanding, on April 11, 2007, to enhance collaboration for the advancement of future education. According to the MOU, the two partners will work together for the next 5 years for joint research and development of future education and school models, as part of the establishment of an educational infrastructure for human resources needed by a knowledge-based society in the 21st century.



MOU with MESI, Russia

On January 15, 2007, KERIS and the Moscow State University of Economics, Statistics and Informatics (MESI) signed a Memorandum of Understanding to enhance mutual cooperation in the area of ICT in education at the MESI, Moscow, Russia. Within the framework of the MOU, the two partners will promote exchanges of experts, information and publications, as well as cooperation in joint research and development of e-Learning.



International Educators and Experts Visit KERIS

Officials from Colombia and Uzbekistan Ministries of Education Visit KERIS

Mr. Javier Torres, Director of Technology, and Ms. Maritza Rondon Rangel, Chief of the ICT Utilization and Content in Higher Education, Colombian Ministry of Education, and Mr. Akram Nishanov, Director of the CDMEP (Center of Development of Multimedia Education Program), a center sponsored by Uzbekistan Ministry of Education, and Mr. Abduvakhob Abidov, chief of the CDMEP training program, paid a visit to KERIS on March 12, 2007. They shared Korea's e-Learning experience, listened to the international e-Learning consulting project, expressed their interest in educational content and teacher training, and discussed prospective areas of mutual cooperation.

Thai Higher Education Committee Members Visit KERIS

45 members of the learning assistance services division of the Committee of Higher Education of Thailand visited KERIS on March 8, 2007 in order to increase understanding of KERIS as the Korean organization responsible for fostering education informatization. The delegation was composed of members from 25 different universities in Thailand as well as practitioners of learning assistance services at relevant organizations. The members explored the operational system of KERIS and showed great interest in the basic infrastructure for the operation of Education Informatization.

SWITCH Board Members Visit KERIS

On March 5, 2007, Dr. Andreas Dudler, Director of the Swiss Education and Research Network (SWITCH), visited KERIS accompanied by 11 members from the organization and the Swiss Embassies in Korea. At KERIS, they received information on Korea's progress in education informatization and details on core areas of operation such as EDUNET and RISS. Also, visiting members discussed and shared perspectives with the President of KERIS, Dr. Dae-Joon Hwang, on the current situation and the future of education informatization.


Chilean Senator Fernando Flores Visits KERIS

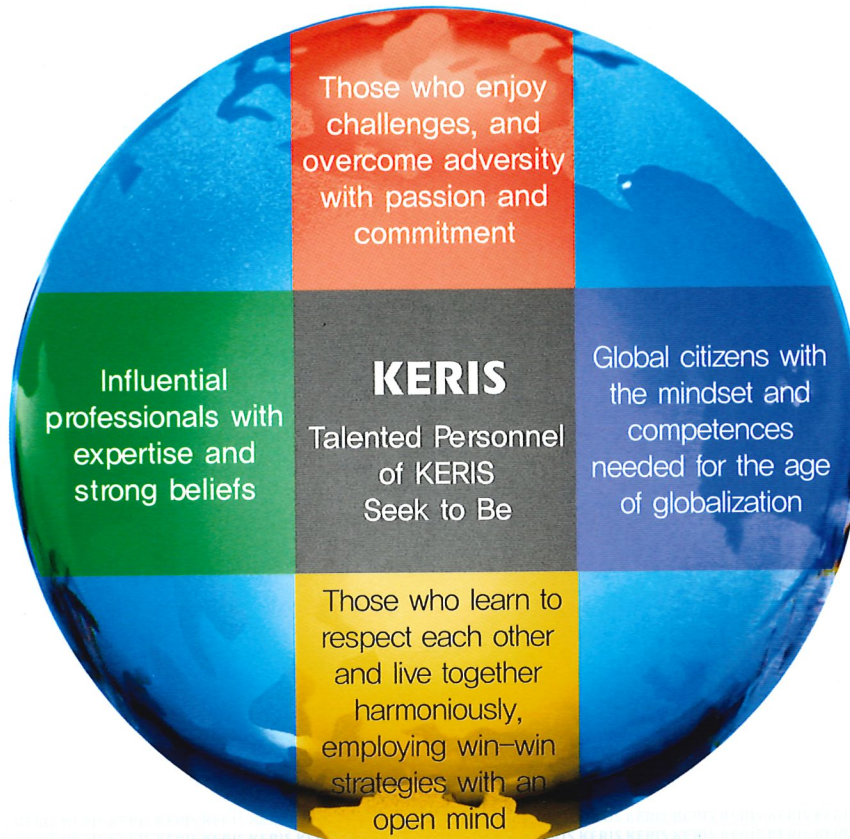
Chilean Senator Fernando Flores, Chairperson of the Senate's Committee on Science, Technology and Innovation, visited KERIS on February 8, 2007, to better understand Korea's experiences in promoting the use of ICT in education. Senator Flores, who is also the Vice Chairman of the Pais Digital Foundation in Chile, was accompanied by his wife Mrs. Gloria Letelier, Mr. Adolfo Carafi, Ambassador of Chile to Korea, and Mr. Jorge Dominguez, Director of the Mercator Foundation. During the visit to KERIS, the Chilean delegation had the opportunity to receive an overview of the progress of ICT in education in Korea and the activities of KERIS, and exchanged views on the current trends in ICT in both Korea and Chile.

Nepalese High-ranking IT Policymakers Visit KERIS

On January 17, 2007, Mr. Saroj Davkota, Vice Chairman of the High-Level Commission of Information Technology (HLCIT), Nepal, and 5 other officials related to IT policies, visited KERIS to enhance their understanding of Korea's development in education informatization. The Nepalese delegation, composed of high-ranking officials from the HLCIT, the Prime Minister's Office, and the Ministry of Environment, Science and Technology, was provided with a presentation on Korea's progress in applying ICT in education and the major initiatives of KERIS, and on the importance of educational informatization as one of the priorities of the e-government project.

Saudi Deputy Minister of Education Visits KERIS

Dr. Abdul Rahman Bin Ibrahim Al Ahmad, Deputy Minister for Buildings, Ministry of Education, Saudi Arabia, visited KERIS on January 8, 2007, with nine other delegates in order to have a better understanding of the current status of Korea's ICT in education policy and of KERIS programs and services. The Saudi delegation, composed of the Ministry officials responsible for educational facilities, curriculum and student activities, expressed great interest in Korea's achievements in ICT in education and discussed with KERIS the ways to promote mutual cooperation. 



Global Leader in ICT Use in Education by Leading the Way to Future Education

- A leading innovator in educational and technological advancement through accurate forecasting of future trends
- A specialized institution that resolves pending educational issues by utilizing advanced technology
- A benchmark organization for globally-recognized institutions dedicated to ICT use in education
- A leading institution with top-quality human resources and excellent performance

e-Learning Global Partner, KERIS



KERIS hopes to become a global partner in ICT use in education
and lead the way in future education
on the basis of quality human resources and excellent performance.