Quarterly Journal of KERIS, Global Partner in ICT Use in Education

Create Future Education & Value for All

KERIS @

2007 Vol.4 No.1 Spring

KERIS KOREA EDUCATION & RESEARCH INFORMATION SERVICE

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.

KERIS@
2007. Vol.4 No.1 Spring

KERIS@ (ISSN 1739-4430) is published quarterly by Korea Education & Research Information Service (KERIS). The views expressed in this journal are those of the authors. For inquiries, please contact the Public Relations Team at the following address: KERIS, 22-1, Sangnim-dong, Jung-gu, Seoul 100-400, Korea Tel: (82 2) 2118-1470, Fax: (82 2) 2265-6872 E-mail: editor@keris.or.kr, Website: english.keris.or.kr
Publisher: Dae-Joon Hwang **Editor-in-Chief**: Young-Seok Suh, **Editors**: Hai-Yeong Kim, Yangsook Lee, Chang-Hoon Lee, Anne Latham
Editing · Design · Printing: SungWooAdcom Tel: (82 2) 2263-3669

CONTENTS

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. KERIS@

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.

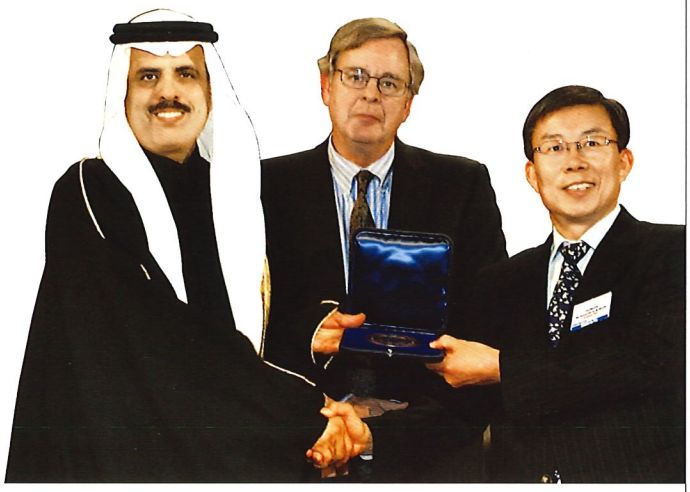
Kemi-Tornio Polytechnic of Finland, co-laureate of the Prize, was awarded the Prize for its eDegree Programme in Lapland, which focuses on the needs of unemployed adults in rural, remote and underpopulated areas. The project initially targeted Lapland but rapidly spread throughout the country. The number 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.

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



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 innnovate 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 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 multidisciplinarity 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 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 adavancement 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 (LearnLinc) 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. KERIS@

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, KoreaAvailable at:

http://www.elearningcolloquy.org/

Kuwait University, Civil Law, and the Internet

- Genesis of a Dedicated Civil Law-Teaching Website -

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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 contracted 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).[1]
- 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 though 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**.

Field Report

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. KERIS@

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	- e-Learning-related software and content - Cyber Home Learning content - On-line educational content - Edutainment content
	Hardware and Equipment	- 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	- After school class-related content, solutions, etc.
School Library Informatization Model and Equipment Hall		- Establishment of school libraries - School library-related software and content - Informatization-related cutting-edge hardware and equipment
Science Lab Informatization Model and Equipment Hall		- Establishment of science labs - Science lab-related software and content - Informatization-related cutting-edge hardware and equipment
Information Security Hall		- 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 advan-cement 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. Abduvakhab 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

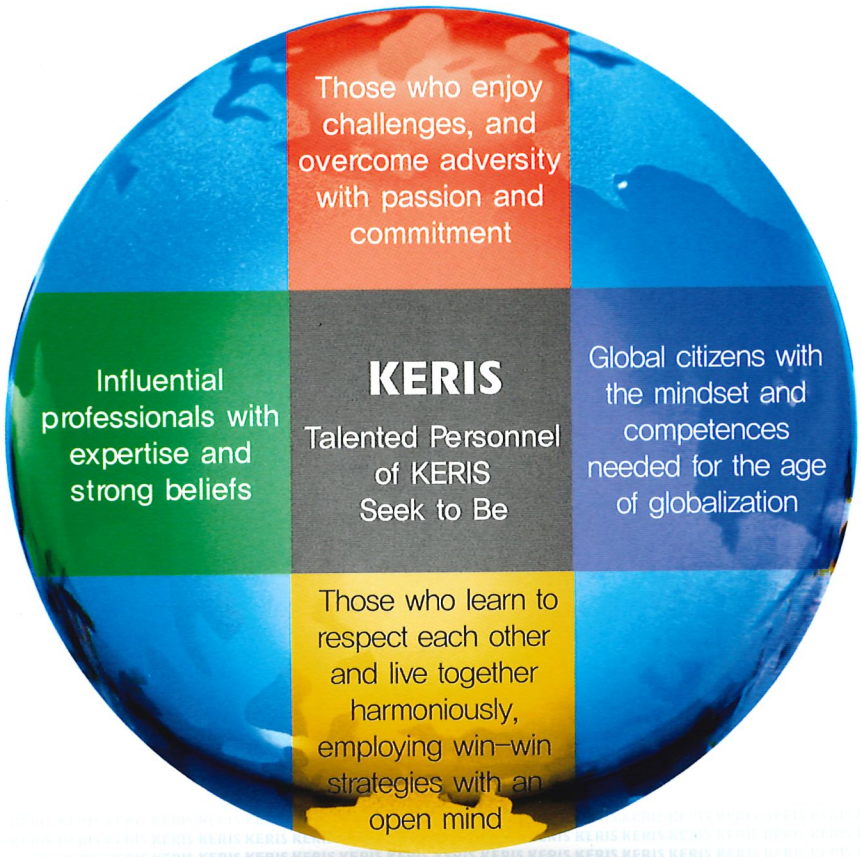
Chilean Senator Fernando Flores, Chairperson of the Senate's Committee on Science, Technology and Innovation, visited KERIS on February 8, 2007, to better understand Korea's experiences in promoting the use of ICT in education. Senator Flores, who is also the Vice Chairman of the Pais Digital Foundation 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. KERIS@



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- A leading innovator in educational and technological advancement through accurate forecasting of future trends
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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.

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