# e-Portfolio Way: a Paradigm Shift in Education from K-12 through Graduate School and beyond …

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**Abstract:** The theme of this workshop fits in the category for Pedagogy and Education. This half-a-day workshop is intended for the dissemination of the use of e-Portfolio in any segment of academic life targeting at all levels of educators. This workshop starts with an introduction of e-Portfolio to give the audience with the bird's eye view of what e-Portfolio is, and then walks the audience through cases of the e-Portfolio in action in various aspects and levels of education, i.e., the elementary school, the junior high school, the senior high school, the university (student learning and career development), the graduate school, as well as the adult education. Throughout the workshop the audience will experience various uses of e-Portfolio at work at different levels of education reported by the first-hand e-Portfolio educators. The position of this paper is to give the audience/reader the background information as well as the theoretical perspective of making use of e-Portfolio to initiate a paradigm shift in education. The rest of the papers in this workshop represent excellent showcases of the successful implementation of e-Portfolio at the various level of education, the summaries of which are included in this paper.

**Keywords:** e-Portfolio, Paradigm Shift, K-12, Learning Portfolio, Life-Long Learning

## Introduction: The Concept of e-Portfolio

The approach that is employed in this workshop assumes the entire educational realm as its research domain. As shown in Figure I, by setting the ultimate mission of the school to meet the needs in the society where the school is based, all stakeholders can work together to educate the future members of the society. Therefore, building an e-Learning system that manages the learning contents in a course, the syllabus, the learning tools, and evaluation measures, is not our goal here. Rather we need a more holistic system that incorporates not only the LMS but also the curriculum mapping, assessment system covering the entire school years.

## 1. e-Portfolio Way

### 1.1 e-Portfolio: Definition

The design of e-Portfolio for a school begins by setting up the mission for the school. In order to set the timely mission, the school must find out the needs or demands of the society, which constantly change. Based on such needs of the society, the school decides how to make the young generation ready for the society through education. In order to set the mission of the school, the school must have clear educational goals to produce new members of the society based on the profound idea of producing ideal people for the nation. Thus, the school must provide students with interactivity in learning to promote human growth in the constructive way. As the students learn, the records of growth of individual students as well as the assessment and the evaluation of learning are archived in e-Portfolio in order for all stakeholders to share. The information of how the students are doing as well as how the school is doing in education is clearly given as the feedback to the society.
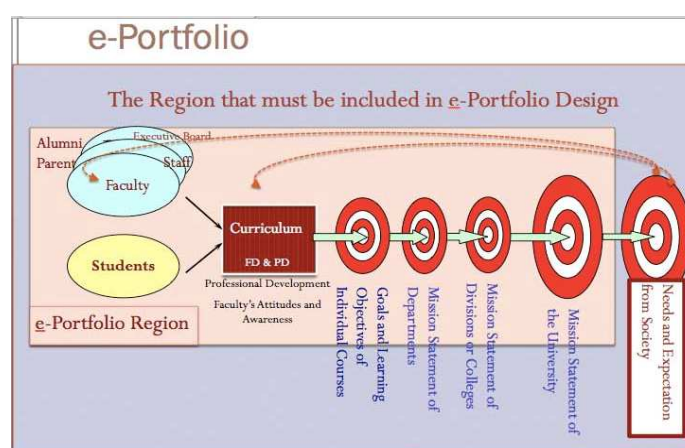


**Figure 1. The region of e-Portfolio: Based on its mission, the school must develop the curriculum to meet the needs of the society involving all stakeholders. The ultimate mission of the school is to give birth to future members of the society to elevate the quality of the society.**

In the process of realizing the vision reflected in the mission statement, the assessment or evaluation system for e-Portfolio must clearly evaluate the learning activities and the records of the human growth in academia from multiple dimensions, and must guide them to the next level of growth. Thus, the e-Portfolio must bear the responsibility of sharing the students' records of growth with their guardians and other stakeholders. The life-long records of the processes of growth for all students as well as the records of evaluation are analyzed even at a higher level to offer predicted "life-to-be" for the currently enrolled students, in other words, older students will serve as role models for the younger generation students. This type of e-Portfolio will show the students how the life will be with a similar life design in 10 years later, 20 years later, 30 years later, or even 40 years later, making reference to their predecessors' footprints in life.

In what follows, various e-Portfolio systems in action are reported with examples. First, the Kansai University e-Portfolio (for K-12, undergraduate, and graduate programs) is viewed. And then, the first-hand experiences of the prominent predecessors who have been working with e-Portfolio at various levels of education are summarized.

## 1.2 e-Portfolio at Kansai University

Kansai University (established in 1886) consists of thirteen colleges and the graduate school with the student population of over 300,000. Kansai University includes five campuses, three senior high schools, three junior high schools, one elementary school, and one kindergarten. The ultimate goal of the Kansai University e-Portfolio is to archive all students' information including the learning results, the evaluation records, and the meta data scattered on various servers on campus into one integrated e-Portfolio database server. The KU e-Portfolio System archives and manages students' learning activities and their records through the Plan-Do-Check-Action cycle (henceforth, the P-D-C-A cycle). Each student first enters his/her learning goal for enrolled courses and lays out the learning plan. Based on them, the instructor gives advise as well as feedback for improvement. This process continues until both agree with the intended level of achievement. Throughout the course, the student enters logs for learning activities and accomplishments, to which the instructor returns feedback and advice for encouragement. At the end of the semester, the student self-assesses his/her progress, compared with the goal that was set at the beginning of the semester. The results of the self-assessment are again turned in for comments for improvement. In this way, the students' levels of motivation for improvement are monitored and maintained throughout the semester with the constant care and attention by the instructor. In here all information is kept in the e-Portfolio system as the record for intellectual growth.

### 1.2.1 Kansai University K-12 Division

K-12 e-Portfolio System is also designed reflecting the mission and its vision for the entire Kansai University. Its purpose is to foster learning for K-12 level students with the support of all stakeholders including students' parents as well as all teachers in the school. With the use of e-Portfolio, Kansai University now can offer consistent education from K-12 to the graduate school. Kansai University is the first university to implement such e-Portfolio in Japan.

## 1.3 British Council: CCEA-Connecting Classroom East Asia

CCEA is a year-long program to promote interactive communication among 7-12 high school students in Japan, Taiwan, and the Great Briton. CCEA chose the e-Portfolio system by Asahi NET to meet their needs. The implementation and the operation of the e-Portfolio is reported by Mr. Takashi Takekawa, President of Asahi NET, U.S.A.

## 1.4 Career Development e-Portfolio at Ritsumeikan University

The effectiveness of the e-Portfolio system for improving the quality of career advising at the university level is reported, looking at the case of the Department of Electrical & Electronic Engineering at Ristumeikan University in Kyoto, Japan.

The e-Portfolio system was mainly used to archive the information for the students' academic experiences and to have them reflect on their academic work as well as extra-curricular activities. The e-Portfolio also traced students' motivation and intellectual curiosity level. In this way, faculty advising was enriched through the promotion of student independence, self-reflection, and proactive participation in classes as well as extra curricular activities, which collectively improved attitudes toward career planning.

## 1.5  Immersion Experience Program

### 1.5.1  Harvard Business School: Immersion Experience Program

An e-Portfolio was introduced in 2011 to a new program for sophomore students, which combined the fieldwork and the group work. This type of e-Portfolio was unique in that each individual student as well as the records from the group activities were archived and evaluated.

### 1.5.2  e-Portfolio for Collaborative Learning in Study Abroad: Case of VIA Asia/US Exchange Programs

VIA Asia/US Exchange Programs (formerly Volunteers in Asia) is a private non-profit organization dedicated to increasing understanding between the United States and Asian countries through various services and education. VIA Asia/US was founded in 1963 on the campus of Stanford University in California. VIA offers an array of international study programs that take place in Asia as well as in the U.S. In an effort to outreach students who are engaged in contemporary society, VIA strives to offer study abroad programs that match the needs and interests of the students. The Exchange for Social Entrepreneurs and Leaders ("XSEL") program was innovative and responded to students' growing interest in social entrepreneurship and development of leadership skills, which enabled them to become leaders capable of enacting positive change in the world. VIA decided to implement a collaborative e-Portfolio system for the programs.

### 1.5.2  Kobe Shinwa Women's University: Field Study Program

An e-Portfolio system has been in operation for the field study program to have students aware of the regional economic structure and the society. In other words, this field study is an outreach program to provide the students with opportunities to learn about the local cultural values and heritage. It has been adopted the Problem Based Learning approach combined with an e-Portfolio system to monitor the learning progress of the students as well as to assess and evaluate the basic human competencies by the originally developed assessment measure.

## 1.6  Graduate School Level

As the example cases for the e-Portfolio at the graduate school level, two cases are reported. One is from the Global Health Leadership Program in the Graduate School of Tokyo University, the other, the Immersion Experience Program at Harvard Business School.

### 1.6.1  Global Health Leadership Program in the Graduate School of Tokyo University

The e-Portfolio was implemented to foster the next generation leaders in the medical area through the program combining courses in the curriculum with the internship.

## 1.7  e-Portfolio for Life-Long Learning

### 1.7.1 Adult Education at Kanazawa Inst. of Tech.

The Portfolio Intelligence System <http://www.kanazawa-it.ac.jp/tokyo/ portfolio> has been employed for the adult students for the graduate school in order to have the students design their own curriculum based on their experience in learning, record their learning progress as well as reflections. This e-Portfolio system is intended for the higher quality of academic accomplishments for the adult learners.

## 2.   Summary

This workshop is for the enthusiastic educators who have been interested in adapting the concept of e-Portfolio in their teaching environment at the institutional level. Instead of just sharing the fundamental concepts of what the e-Portfolio is or can do, this workshop was designed to share the first-hand experiences of the predecessors in various levels of the e-Portfolio already in action.

It is hoped that the audience can take back our e-Portfolio experience to their home institutions to trigger a paradigm shift in education from the perspective of the e-Portfolio.

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## References

[1]   Beagle, D. (2002). Extending the Information Commons: From instructional testbed to Internet2. *The Journal of Academic Librarianship*, 28(5).
[2]   Butterfield, S. (1995). *Educational Objectives and National Assessment*. Open University Press.
[3]   Kuhn, T. S. (2008). *The Structure of Scientific Revolutions*. The University of Chicago Press.
[4]   Maeroff, G. I. (2003). *A Classroom of One, How Online Learning Is Changing Our Schools and Colleges*. Palgrave Macmillan, New York.
[5]   Tileston, D. W. (2004). *Teaching Strategies for Active Learning, Five Essentials for Your Teaching Plan*. Corwin Press, Thousand Oaks, California.
[6]   Tileston, D. W. (2004). *What Every Teacher Should Know About Student Assessment*, Corwin Press, Thousand Oaks, California.
[7]   NICER. (2001). *LOM List*. https://www.nicer.go.jp/nicer/lom_download.html (retrieved on July 15, 2011).
[8]   Bruner. J. S. (1965). *The process of education* (Harvard University Press, Cambridge.
[9]   Dewey, J. (2004). *Democracy and Education: An Introduction to the Philosophy of Education,* Dover Publications, Inc., New York.
[10]  Kolb, D. A. (1984). *Experimental Learning*, *experience as the source of learning and development.* Prentice-Hall, New Jersey.
[11]  Nakazawa, et. al. (2008). 'Process Oriented Education System based on Portfolio Intelligence Can Offer Finely-textured Education in Graduation Course', *Japanese Society for Engineering Education*, Vol. 1, No.W-05, (2008), 32- 35.
[12]  Marquardt, J. (2004). *Optimizing the Power of Action Learning: Solving Problems and Building Leaders in Real Time*, Davies-Black Pub.
[13]  Nakamura, J. and Ohsawa, Y. (2009). 'A shift of mind - Introducing a concept creation model', *Information Sciences,* Vol.179, No. 11. 1639-1646.
[14]  Seldin, P. and Miller, J.E. (2008). *Academic Portfolio.* Jossey-Bass, San Francisco.
[15]  Yamamoto, T. and Nakazawa, M. (2010). 'Academic Assessment Strategies for e-Portfolio', *Proceedings of PNC 2010, the City University of Hong Kong.* 72-75.