

A Proposal for Educational Reform in Higher Education: an innovative use of e-Portfolio - Showcase at Kansai University -

Tosh YAMAMOTO^{a*}, Nian-Shing CHENG^b & Minoru NAKAZAWA^c

^a*Professor, The Center for Teaching and Learning, Kansai University, Japan*

^b*Professor, Dept. of Information Management, National Sun Yat-sen University, Taiwan*

^c*Professor, Dept. of Information Engineering, Kanazawa Inst. of Tech., Japan*

*ctltoosh@kansai-u.ac.jp

Abstract: The purpose of this paper is two-fold: (i) to share the basic concept of what e-Portfolio is from the viewpoints of various stakeholders in education, namely, students as well as their guardians, professors, and the school boards. Here the dissemination of e-Portfolio in education is the key. While introducing various aspects of innovative uses of e-Portfolio, a showcase is given in order for the reader to visualize what e-Portfolio can do in education. (ii) to discuss the potential of e-Portfolio as the drive to cause a paradigm shift in the entire education ranging from K-12 through the graduate school.

Keywords: e-Portfolio, KU e-Portfolio, MUSE Campus, stakeholder.

Introduction

The main goal of this paper is to disseminate among educators the power of e-Portfolio in order to cause a paradigm shift in the entire educational system ranging from K-12 through graduate school. This paper is just a small step forward toward such a goal. It consists of the description of e-Portfolio project at Kansai University and an innovative use of e-Portfolio showcase that demonstrates the potential power of e-Portfolio in education. It is hoped that this paper will shed some light toward the future education.

Due to the advancement of ICT, it cannot be denied that the wave of e-Learning has brought us to the situation where individual courses must be well-structured and organized with learning objectives as well as the clear evaluation measures described in the syllabi. Indeed, the levels of ICT literacy for students as well as faculty have been improved compared with those of the earlier days. The students now have better command of the computer and better understanding of the purpose and the functions of the e-Learning system and its contents: course objectives, course contents navigation, and the evaluation procedures of the courses. However, it seems that we have been so much focusing on the quality control of individual courses. As a result, individual courses are autonomous of themselves and the students as well as the faculty are lost in the woods of the education system by looking at courses independently rather than looking at the entire curriculum. Now that the quality of courses is of good quality, we need to unite these courses together to map the curriculum with a bigger picture with the entire school curriculum as its center.

1. e-Portfolio Way: Overview

The educational approach that is employed in this paper takes the entire educational region as its domain as shown in Fig. 1 below. By setting the ultimate mission of the school as producing new societal members to fit the needs of the society where the school is based, all stakeholders involving the school will work together to educate the future members.

In this view, the Learning Management System in e-Learning, such as WebCT and Blackboard, is no longer a course-based management system to manage the course contents, the syllabus, course objectives, daily learning activities, and evaluation measures. It is rather a part of a curriculum mapping or management system, which steers the future direction of the education of the entire school.

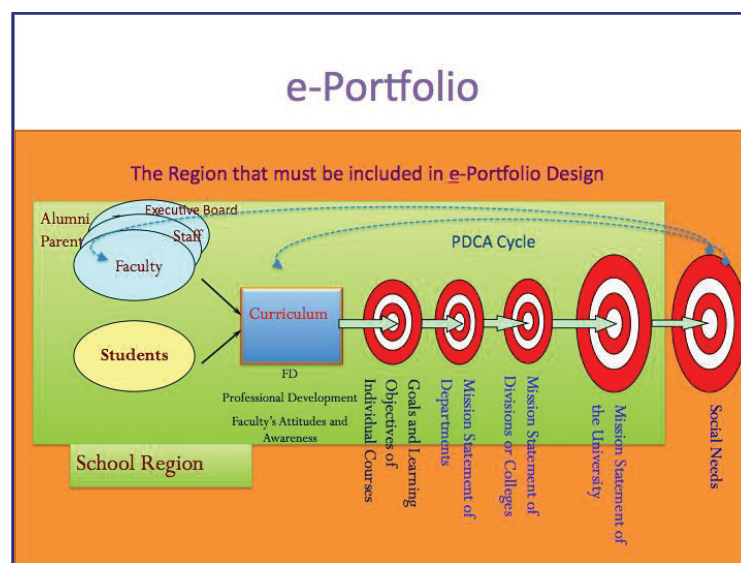


Fig. 1. The region of e-Portfolio: University must develop the curriculum to meet the needs of the society, where all stakeholders are involved. Thus, the ultimate goal of the university is to give birth to the future members of the society through education in order to make the society a better place to live.

The design of the education with e-Portfolio as its center begins by setting up the mission for the school. The needs of the society must be observed and analyzed so that the school can decide 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 democratic nation. Thus, the school must provide students with interactivity in learning to promote human growth in a constructive way. As the students learn, the records of growth of individual students as well as the evaluation of learning are archived in e-Portfolio in order for all stakeholders to share and support the academic growth of the students.

In realizing the vision reflected in the mission statement, the evaluation system for e-Portfolio must clearly assess the learning activities and the records of the human growth in academia from multiple dimensions. For example, at the lower level, the records are archived of learning processes in the activities described in the list of learning objectives for the courses laid out in the curriculum. In addition, the results of the evaluations are archived.

And at a higher level, the records of the growth in a school year, the psychological and societal growth, and evaluation records are archived.

Furthermore, even at a higher level, e-Portfolio archives all records of students from the admission to the graduation, or even the students' entire life. In other words, all the students' life-long records are archived in the e-Portfolio. 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. 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.

2. Kansai University e-Portfolio System

Kansai University was established in 1886 and has a history of over 120 years. It consists of 13 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 in various servers on campus into one integrated e-Portfolio database server. See Fig. 2.

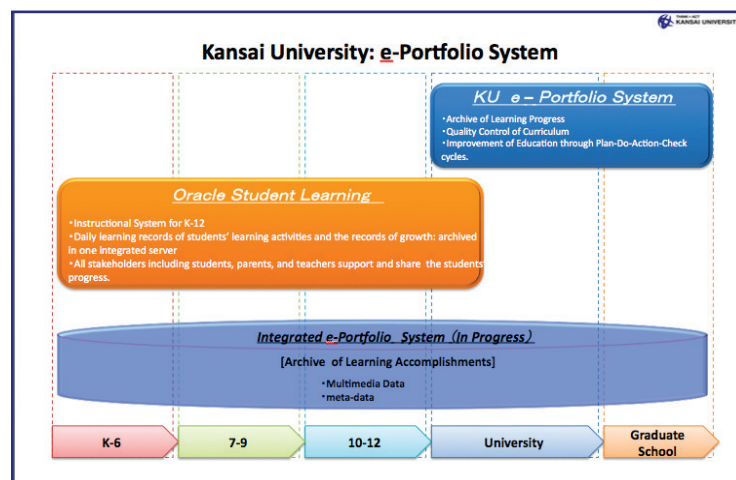


Fig. 2. The current situation of Kansai University e-Portfolio System.

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). See Fig. 3. Each student first enters his/her learning goals for enrolled courses and lays out the learning plan. Based on them, the instructor gives advice as well as feedback for improvement. For the illustration of the P-D-C-A cycle in the KU e-Portfolio, see Fig. 4, Fig. 5, and Fig. 6.

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 student's level of motivation for improvement is 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.

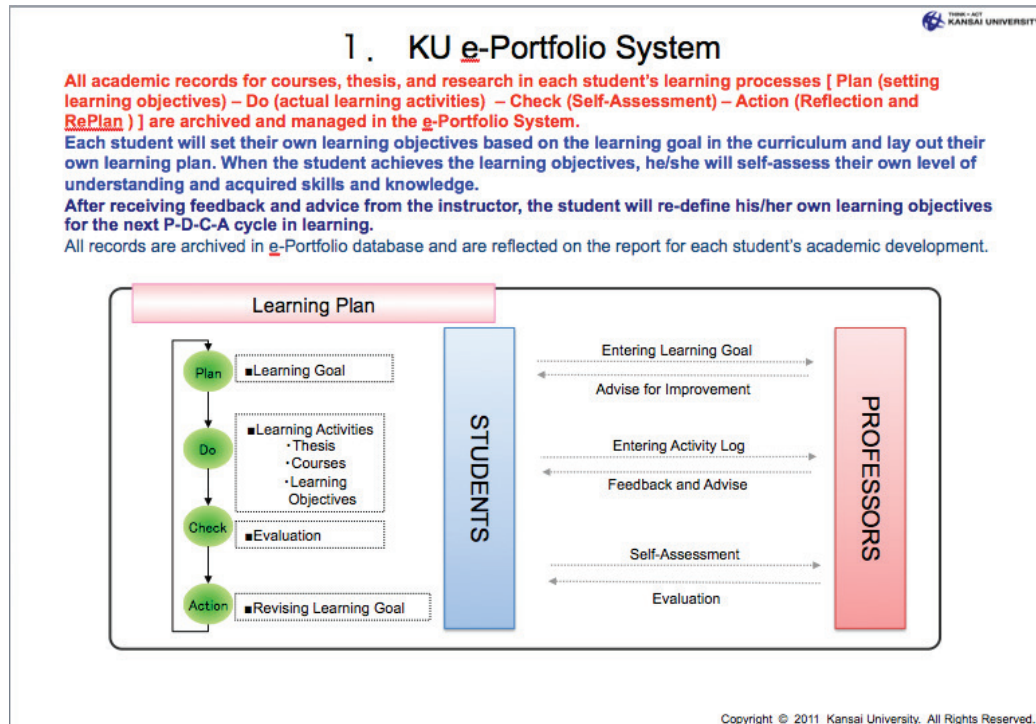


Fig. 3. The Learning Cycle of Kansai University e-Portfolio System

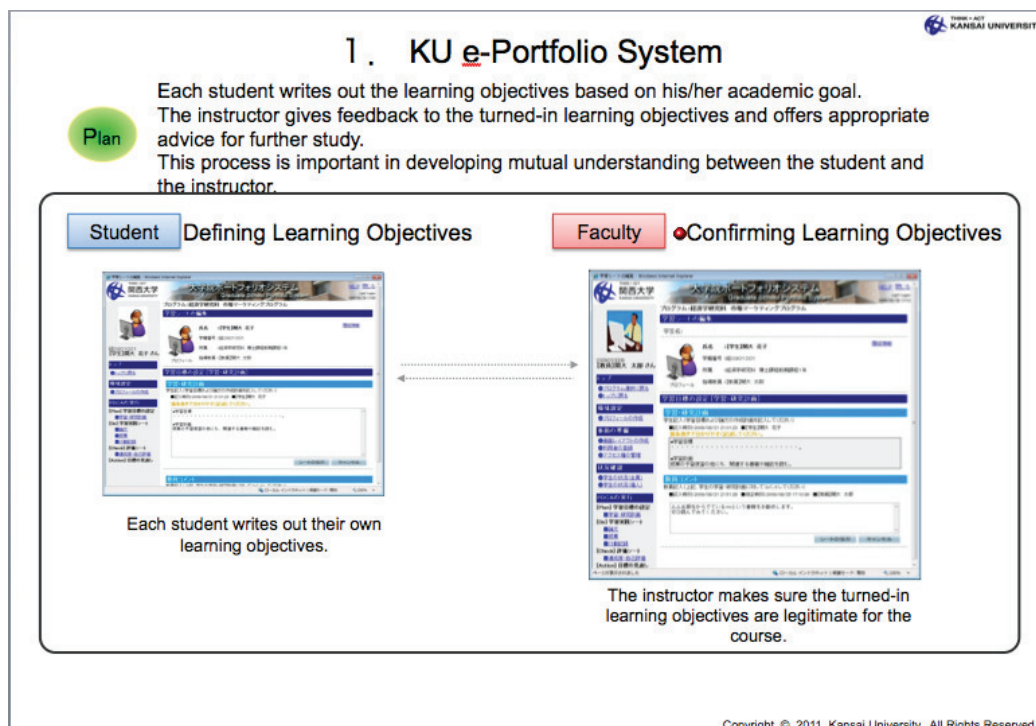


Fig. 4. The Learning Cycle of Kansai University e-Portfolio System: Plan

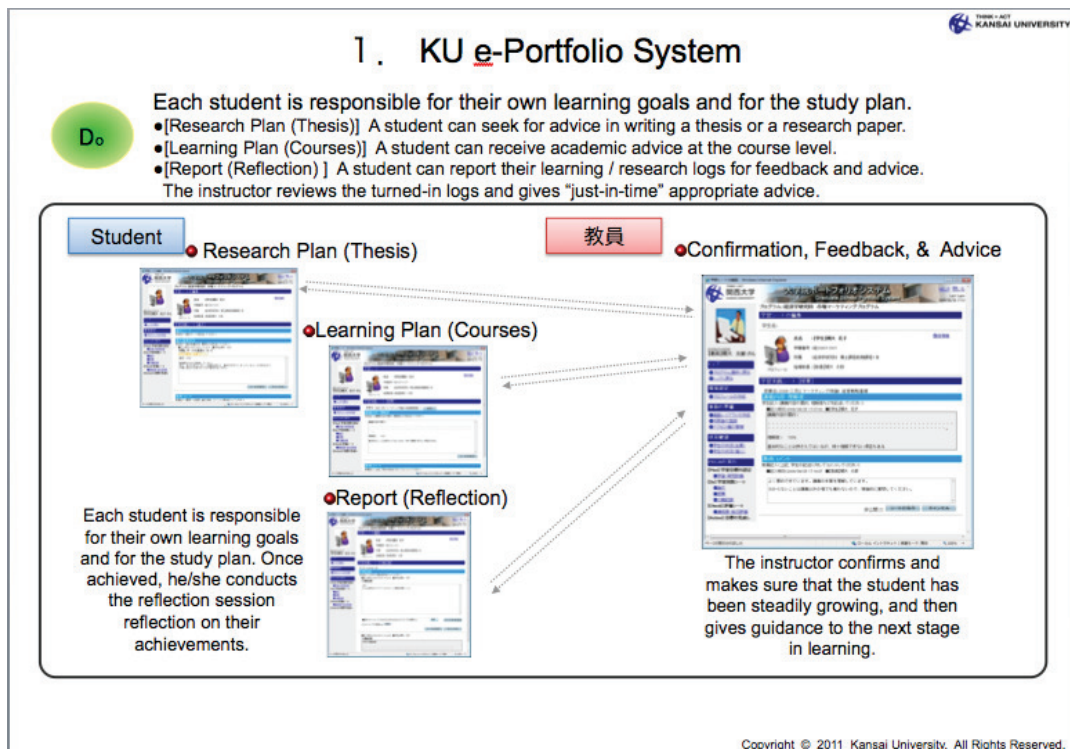


Fig. 5. The Learning Cycle of Kansai University e-Portfolio System: Do

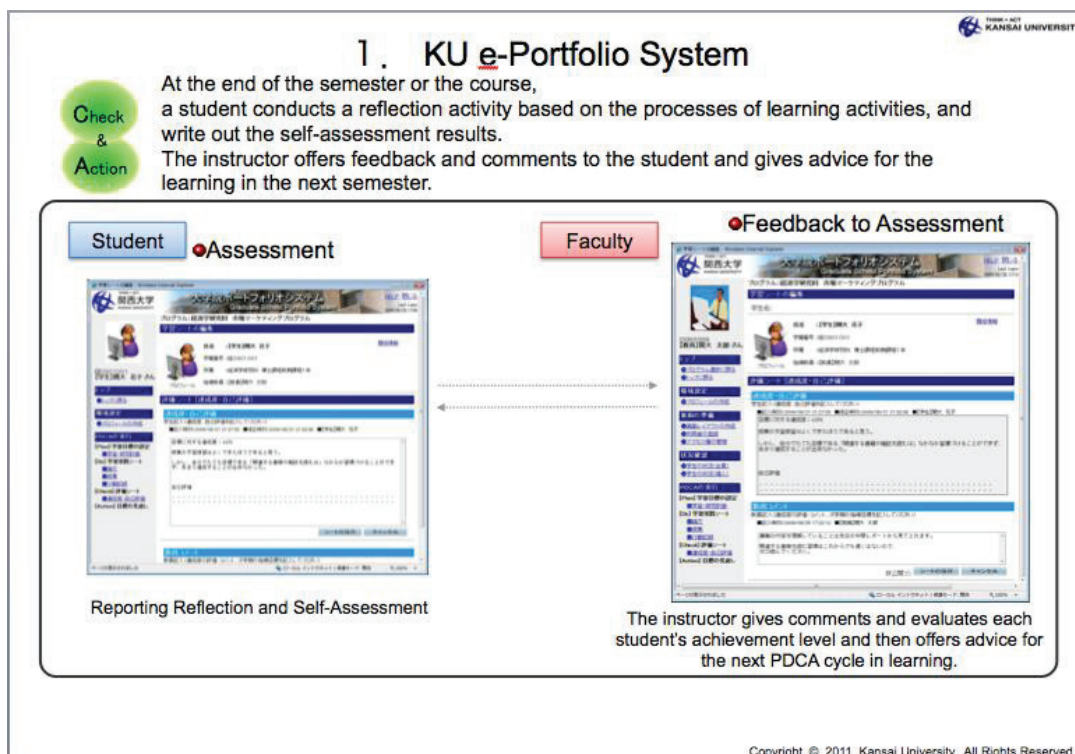


Fig. 6. The Learning Cycle of Kansai University e-Portfolio System: Check & Action

In this way, the 24/7 learning environment with consistent quality level of academic advising is guaranteed to all students. As the results, all the students are not just evaluated by the accumulative grades of the courses, but by the records of the learning processes and reflections that are documented by themselves and their academic advisers.

3. Conclusion

The four years of the university life is the most important period for the life of a student. Although the student enters the university as a child or a teenager after graduating from a high school, he/she will become an adult in four years and will be a member of a society upon graduation. Thus, the mission and its vision of the university play the most important role in education. This educational plan is best realized in a unified way with the use of KU e-Portfolio, as demonstrated above.

This paper dealt with an introduction of e-Portfolio. It was discussed possibility of causing a paradigm shift in education with the use of e-Portfolio. A showcase of the KU e-Portfolio was presented as an innovative use of ICT in education.

It is highly recommended to visit another case of the innovative use of e-Portfolio at Kanazawa Institute of Technology.

Acknowledgements

The authors of this paper are very much indebted to Dr. Ray Huang for providing them with an opportunity to share their experience as well as view of e-Portfolio.

References

- [1] Beagle, D. (2002). Extending the Information Commons: From instructional testbed to Internet2. *The Journal of Academic Librarianship*, Volume 28, Issue 5.
- [2] Butterfield, S. (1995). *Educational Objectives and National Assessment*. Open University Press.
- [3] Thomas, K. 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 (2004)