

# Bridging Formal/Informal Learning

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## Abstract

Recently many OER activities have been getting popular, and users who access those content for informal learning are increasing. Most popular OER must be OCW, which has been proposed and promoted by MIT since 2001. In Japan OCW has been penetrating gradually since 2005. However in terms of formal learning utilization ICT technology has not been so popular yet in Japanese higher education field. In this paper two case studies, one is formal e-Learning using OCW, and the other is portal site of open contents from universities are described

## Keywords

OCW, informal learning, formal learning, e-Learning, LMS, SaaS

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# 1. Introduction

Recently informal learning is getting popular not only for business-persons but also for housewives and students. And various content archives which are good for informal learning is preparing lately. Typical one is OCW, which was originated in MIT and has been spreading out globally.<sup>12</sup> On the other hand in terms of formal learning, e-Learning system has been used widely in private sectors but it has not penetrated so deeply in higher education field in Japan. There are some obstacles for e-Learning system adoption in each university. In most universities it is difficult to hire or train a full-time engineer or technologist for e-Learning system operation and management and a content creator who designs and creates e-learning content from scratch.

In this paper we mention two case studies to promote bridging formal and informal learning. First we describe a trial to use OCW contents in a formal course and made evaluation.<sup>34</sup> Secondly we introduce a new trial for encouraging informal learning using formal learning contents.

## 2. History and background

Keio University launched its OCW site on May 2005 with other five universities as the first OCW activity in Japan. At the beginning syllabi and lecture notes were published mainly and then in 2007 we have started lecture videos distribution and since 2008 we have shifted to focusing on more lecture video distribution. And as a result of movie distribution more than forty thousand users have accessed our OCW site monthly. Now totally 45 courses, which consists of 28 Japanese courses and 17 English courses, are published from Keio OCW web site and lecture videos are published in 18 courses of 45.

On the other hand in Faculty of Economics they have carried out e-Learning practice in some lectures as supplemental materials for formal courses since 2007 and it have been approved as a formal online course without classroom lecture from 2008. In this course the lecture notes of those courses have been published in OCW for public use from the beginning but we had not distributed lecture videos at first. However on the occasion of expansion of OCW material to lecture movies, we decided contents sharing between e-Learning and OCW. As the context, the discipline of this course is “history of economics” and so basic contents is unchangeable in this type of field, so that lecture contents recorded in previous year can be reused as contents for the course in next year.

And a full-time technologist had assigned for e-Learning system operation so far, but we changed the basic policy from the inhouse operation to an use of LMS provided by an external

vender as SaaS because it will still take more time to enhance e-Learning to the whole campus level and cost reduction was required for e-Learning.

### 3. Potential for informal learning

JOCW have carried out opinion poll regarding Open education in higher education in Japan. The survey was conducted as a form of Internet research, which was taken for twelve hundred examinees on the Internet to distribute questionnaire consist of thirty-seven questions. The summary of the survey result is as below.

- (1) More than 90% gave positive evaluation on opening up of lectures in universities.
- (2) Awareness of OCW is gradually increasing.
- (3) Persons who would like to use OCW contents for their own learning are more than 80%.
- (4) Two-third of respondents answered that as many universities as possible regardless of national, public or private should launch OCW.
- (5) Ranking of discipline for OCW is Economics (30%), Letters (27-28%), Business administration (23-27%), Information science (22-25%), respectively.

### 4. Case Study1: Formal e-Learning using OCW content

#### System configuration

In this practice all lecture videos of the courses are stored in the OCW server located in the campus and provided as OCW contents for all end-users as well as the other OCW contents. Students who registered this course accessed to the LMS instead of OCW server and LMS presented the course materials as if it stored in the LMS. When the registered students request LMS to learn this course, LMS accesses to the OCW server and presents the materials re-directly. System configuration is shown at Fig.1 .

In case of OCW users, no learning management has been provided because OCW is a free publication and no registration is required to learn. But in case of the registered students it is essentially required to make access to LMS with user IDs and passwords. For them all learning logs were recorded and learning process for each student was managed in LMS and confirmation tests were prepared at the end of each lecture. And if the score of the test does not reached the passing mark, all such students are not allowed to access to the next lecture.

## **Result of the practice and Evaluation**

### **(1) Practice on learning**

We carried out the learning practice for “Economic history in Japan” which was provided as a formal course at Faculty of Economics in spring semester 2009. In this practice 249 students registered and 232 of them really started e-Learning program. We set prerequisite for intermediate exams, which is, by 1st exam student had to complete from 1st to 7th lectures, by 2nd exam to 14th lecture, by 3rd exam to 20th lecture respectively. Dropping out rate by each intermediate exam is shown in Fig.2.

According to Fig.2 by the 1st exam nine students had dropped out and by the 2nd exam more seven students had dropped out, then by the 3rd exam 2 and no more had dropped out.

### **(2) Evaluation by the questionnaires**

We sent out questionnaires consist of 23 questions to all registered students after a term exam. We received 179 effective answers from 232 of all students. Some results of the questionnaires are as follows.

Q1. How many days did you take to complete all lectures?

Answers to Q1: 30% and more of the students took 36 days and more, 23% took 8-14 days, and also 23% took 15-21 days. (See Fig.3)

Q2. How did you take your web lecture usually?

Answers to Q2: 65% of the students used their free time and 17% used pre-scheduled time. (See Fig.4)

## **5. Case Study2: iUniv, portal site of open contents from universities and mobile**

Mobile device and social media are keys for next generation of education. We introduce our social learning service featured OER.

Digital contents change its form and volume as mobile device and social media spreads widely. Internet became a huge learning platform itself. By accessing digital contents or get connected with other people, internet users can get knowledge about various subjects. Social learning, a new learning style on social media, is expected to be the next big wave on internet, and OER would be a big part of it. In this session, we introduce our social learning service, "iUniv", as well as case study of some universities including Keio Univ, where formal academic contents are used in informal learning situations. Also, we explain the concept "Free Flow Education (FFE)". FFE is a new style of sharing knowledge. Any learner can access educational contents or share his/her knowledge,

therefore creates learning in multiple flow. Mobility is key in FFE . Our mobile application, "iUniv" that works on iPhone, iPad and Android will be featured.

## 6. Conclusions

First, We implemented e-Learning program using LMS as SaaS and lecture videos of OCW contents. By introducing this configuration we realized high quality and flexible e-Learning with reasonable cost. Such a configuration must be practical for universities being early stage of adopting e-Learning. Particularly for small and middle size universities it is difficult to assign a fulltime engineer for operation and maintenance and the formal-informal combining approach could be expecting as a practical and better solution in near future. In addition using LMS as SaaS provided by the experienced provider could be expected to get a flexible and a quick feedback and improvements of the system. In this practice very high final completion rate, 92% was achieved. We distributed the questionnaires to all registered students and it was clarified that e-Learning could provide deeper learning environment than the classroom lecture and students made a good use of that environment. In the future we will improve the demerits pointed out in this practice and provide more desirable e-Learning environment.

Secondly, we introduced iUniv which is portal site for informal learning using formal learning courses. Users can access to contents with various terminals like iPone, iPad and smartphone. iUniv has been begun to use in some universities just before and it will be required to make evaluation from various point of view.

# Figures

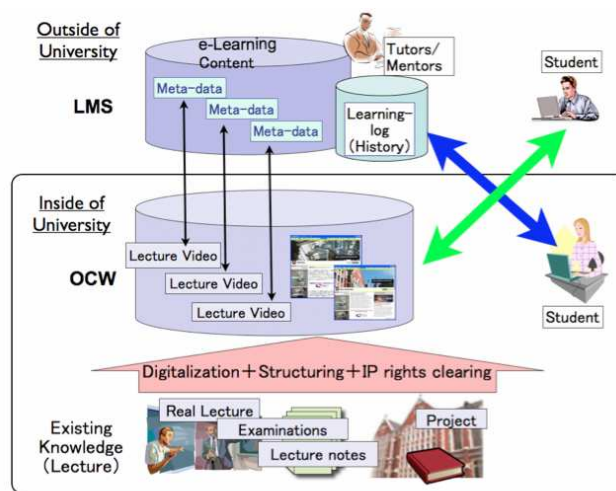


Fig.1 System configuration

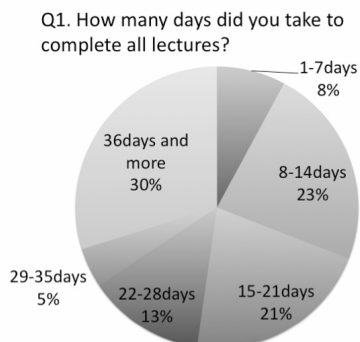


Fig.3 Result of the questionnaires1

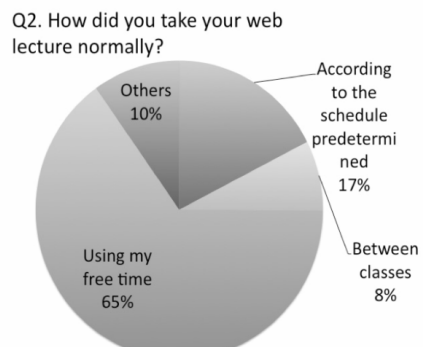


Fig.4 Result of the questionnaires2

# Notes

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