# Kyoto University OpenCourseWare (http://ocw.kyoto-u.ac.jp/en/index.htm) as associative intellectual media

Naoko Tosa, Michihiko Minoh Academic Center for Computing and Media Studies, Kyoto University {tosa,minoh}@media.kyoto-u.ac.jp

#### Abstract:

In Kyoto University, OCW have proceeded since 2005. In this article, we researched what advantage and difficulties Kyoto University has concerning "corporative knowledge" with users around the world and how Kyoto University has to solve it based on the viewpoint of intellectual contribution to Japanese community and to the world. In consequence, we found that OCW has different characteristic from online education at this time. Becoming to see educational content which couldn't by ivory tower until now, the vertical and intellectual layer has begun to be found in the flooded information in parallel on the web. Those layers make intellectual association with wikipedia from bottom up. The new intellectual association enables to connect not only digital world but also intellectual world to physical world and digital world. The final target of this study is to lead to the concept of "corporative knowledge • cultural forming".

#### Introduction

OpenCourseWare was started by MIT in 2001 as the project to open lecture information such as syllabus and lecture note to public for free on the Internet and provides opportunities to enhance their knowledge by using the information. President of Kyoto University empathized and decided to launch OCW against the Vision of MITOCW contributing to hoard of the intellectual property. Kyoto University started OCW in 2005. In 2006, Kyoto University reached to hold Global Open Course Ware Conference for the first time ever in Japan.

## Global Open Course Ware Conference at Kyoto in 2006

In April 2006, Global Open Course Ware Conference was jointly held in Kyoto University with MIT. Universities around the world which are participating OCW consortium were gathered. Also, 300 Japanese people concerned with OCW were also gathered from throughout Japan

### International Conference on Opencourseware 2006 in Kyoto



Figure 1. A leaflet of Global Open course ware Conference



Figure 2. Panel Discussion of OCW by Europe, Asia, and United States



Figure 3. Panel Discussion of Japanese OCW

Briefing of OCW was provided by MIT and various problems and future prospective discussion concerning OCW were held in the panel discussion of Japanese OCW.

Following things were mentioned in the panel discussion.

Continuing operational expenses: We discussed how to raise funds for the project and if we keep obtaining needed funds from our Universities hereafter because there are no financial groups or the system of private benefaction in Japan. Technical issues: there are various systems on campus, therefore, how we can work with other systems on campus not developing OCW system separately.

Others: we found that many Universities have the problems concerning copyright and changes in the consciousness of teachers. We have to think how to continue OCW in the future i.e. which budget we use, if OCW is education, if we treat OCW as repository like a library, or a part of advertising.

At the conference, we announced that Japanese OCW consortium (JOCW) was founded aiming for enlightenment of JOCW and intended operational know-how of OCW in Japan.

#### What is the reason to start Kyoto University OCW?

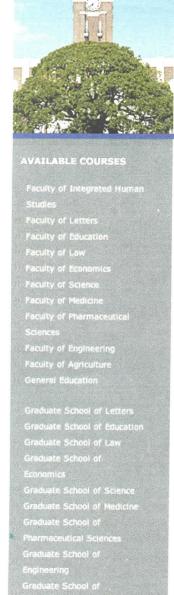
50 courses are currently operating in Kyoto University OCW. OCW enhances visibility and is a social contribution of University and syllabus details. It's usually difficult to understand the contents of lectures. Therefore, it's plain to see presenting lecture note. Advantages of teacher are follows;

- 1) Doesn't need to bring the copies of materials (lecture note) by digitizing.
- 2) Be able to compare, refer and quote from other OCW
- 3) Can be assemble target students adequately by opening the content of the course.
- 4) Be able to obtain feedback from both on campus and off campus.
- 5) Be able to improve course content and feel fulfilled.
- 6) According to factors above, internal communication will be improved.

Excellent high school students begin to have an interest in going Universities by seeing OCW. Moreover, OCW can be information of self learning and a method getting excellent self learners. We are considering assembling excellent foreign students from Asia. We haven't had the opportunity to know what lectures have been presented in the other departments; however, we are able to know that by OCW. Knowing and advertising what research is being conducted on campus each other become big public relations and it makes University publicity and visibility improved. OCW can be one of the opportunities.

KYOTO-U OPENCOURSEWARE

invite you to view all the courses available at this time.



## Welcome to KYOTO-U's OpenCourseWare:

Welcome to KYOTO-U OpenCourseWare a free, open publication of KYOTO-U Course Materials. We

#### The Three Principles of Kyoto University

Advance the scholarship of mankind and contribute to the light of the earth. Scholarship is the antithesis of physical force. Each of the modern sciences is tied to scholarship.

The aim of Kyoto University's OpenCourseWare is to contribute to the accumulation of international intellectual resources from the perspective of a "creative global and local knowledge cluster" for all mankind, to increase the visibility of Kyoto University and discover talented faculty and students throughout the world, and to promote international advancement of Internet-based

Cultivating words both foreign and familiar, education is to be enjoyed together. Language is the key to the integration of knowledge. Education based on superior language does not stop at mere knowledge transfer.

OCW@KU aims to share information in consideration of the fact that sixty percent of visitors to MIT's OCW project come from Asia. We will make active use of Japanese in building OpenCourseWare, to recruit talented students from all over Asia as well as to promote the Kyoto University education, with Kyoto's culture and traditions, to the world at large Furthermore, with OCW as a new educational medium, we hope to improve communication, and promote international exchange with other Asian countries.

Brilliance is not prideful; a university of both intelligence and fellowship. Among many measures of scholarship and morality, Those of our university fall broadly within these three.

OCWGKU transcends the physical boundaries of the university campus—by "informationizing"—the professors, creating opportunities to meet with able students and faculty. Also, the new feedback faculty will receive through the opening of course materials will become a motivational force for global expansion.

Japanese | English

#### Message from President



Open Course Ware at Kyoto University is a project to make the educational materials used in Kyoto University's lectures available publicly on the internet Our goal is to share Kyoto University's lecture content with a wide range of people, including our own students, faculty and start, students and researchers at other university and start, students and researchers at other university and adults seeking further education. Through this project we hope to contribute not only to society as a whole, but also to the accumulation of intellectual capital within the world wide Web Fields take advantage of this world of knowledge, and encourage your triends and colleagues to visit Open Course Ware at Kyoto University.

Kazuo OIKE, President of KYOTO University

Figure 4. Top page of Kyoto University OpenCourseWare

#### OCW is not education.

OCW is a media presenting educational information in University. We are considering promoting OCW by developing a partnership with publisher as advertising media. I mean, OCW is a public relations media. Students come to University by seeing OCW website, it can be said that it's the same as trading via the Internet. Research and education are conducted in University; therefore, activities relating to education are put on the OCW website. Activities relating to research are stored in the researcher bibliography. Archive of OCW activities is also needed and we have an idea of making repository and dividing archives to old course of OCW and current course of OCW. Digitizing course materials, utilizing it in the class room, distributing it by web, supporting to structure the contents, distant lecture in overseas Universities, archives of lecture and public opening of examination are presented in Kyoto University. In consideration of those efforts above, OCW project and OCW support system have to make structure that every teacher can put their lecture on the website personally and then OCW project bring its educational materials to the public (outside) and cooperate with the outside. We, Kyoto University OCW, believe that people keep learning whole life long and when the learning becomes creative, it turns to entertainment.

Taking advantage of the University that brought out Nobel Prize winners such as Dr. Hideki Yukawa who received the 1949 Nobel Prize in Physics for predicting (1935) the existence of the meson. And Dr. Shinichiro Tomonaga, In 1965, he was awarded the Nobel Prize in Physics alongside Julian Schwinger and Richard P. Feynman) for the study of QED, specifically for the discovery of the renormalization theory.

We are aiming at good-quality portal site on the internet which users can study for themselves.



Figure 5. Nobel Prize in Physics winners from Kyoto University: Dr. Hideki Yukawa and Dr. Sin-itiro Tomonaga

Based on the concept, Kyoto University OCW forms associative intellectual portal site that has the view from contents producers and self-learners. First of all, on-campus teachers, OCW contents producers, are able to post their lecture title, outline, schedule, PDF lecture note, examination, report, assignment, and reference as support tool of their lecture. The edit of contents on the web like a Wiki and edit function which is independent environment are available. By going through the stage from building a website to preview, validation and disclosure, we can build contents and disclose contents in one site at once. More over, setting various user authorities, enough work-sharing is easily realized. It is able to distribute lecture videos, reference image and extension class of well-known professors by Podcasting and learn those enjoyably and with one's lifestyle. It has the advantage of ubiquitous contents which can learn anytime and anywhere by downloading those learning materials to an ipod. The enhanced use is expected from now. Kyoto University OCW is aiming for such a media structure.

#### Example Case studies of Course: "Organ transplant"

We introduce how teachers utilize OCW having the value in Course title "Organ transplant" in faculty of Medicine by showing the example. Organ transplant has evolved from experimental medical into general medical treatment since the 1980s along with the development of surgical technique and immunosuppressant. The first successful experience was held in Australia In 1989. Organ transplant started in 1990 in Kyoto University and exceeded 1000 cases in 2004. It has been done twice a week and the largest number of actual performance has been succeeded. We transmit the insight obtained in this course of history in academic conference and academic journal and moreover, we have accepted interns from all over the world. Nowadays, issue of living liver transplantation has been attracted and studied moralistically and socially.

Offering fundamental knowledge of living liver transplantation, extracted data through actual clinical experience and advanced medical transplantation meet the needs of society in this background. Sufficient human resources are needed for Organ transplant as well as modern high medical. Important thing for surgeon to be needed is not only technique but also applied skill of advanced knowledge such as immunology which prevent the rejection and infection disease arising from immune suppressor. Surgical technique has also developed remarkably for 10 years.

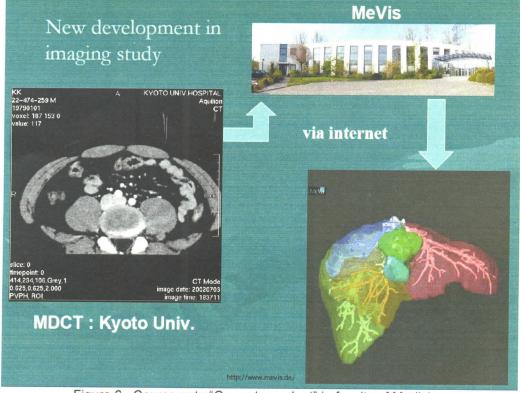


Figure 6. Course note "Organ transplant" in faculty of Medicine

In the course title" Organ transplant", we presented transplanted disorder, advance of surgical technique, postoperative management, donor choice, current state of liver transplant for cirrhosis hepatis C and liver cancer, forefront of blood type incompatibility transplant, organ transplant and ethics. Ultimate level of surgical technique in transplant for adult and children is presented in the video. Furthermore, training project was also disclosed against young physician aiming living liver transplantation. Presenting information to students on campus, faculties, students off campus, researcher of associated institute, high school students applying for Kyoto University, people seeking further study and patients by OCW project is to contribute to the society and accumulation of intellectual assets and also our ultimate pleasure.

#### For the future prospects of Kyoto University OCW

On the view of self-learner, we have been developing "User Note" that users are able to store their interesting knowledge and memory on the web to learn the contents of Kyoto University OCW enjoyably. Users are able to scrap the lectures chosen from OCW, read place, marked place, interesting drawings, picture, interested sound and image information automatically.

On the user map, the users can save the history of the place information where users have already navigated through the OCW site and see the feedback of knowledge context by themselves. In addition to this, it has "MY inspiration" that users search interested items according to their inspiration or image. When users input their interested fields such as "history" or "engineering", all the relevant fields from history to engineering are displayed by the associative retrieval.

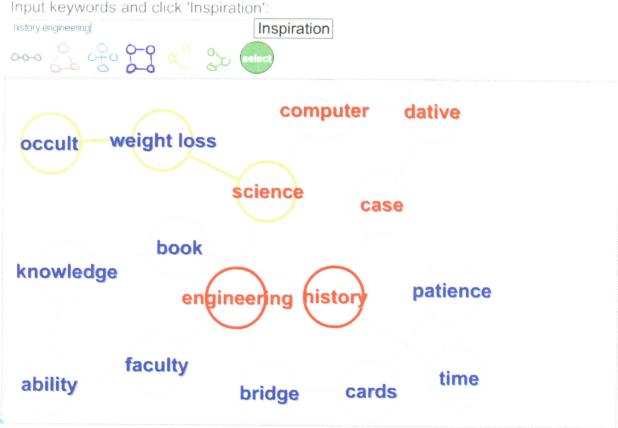


Figure 7. Result of "MY inspiration" search connection "history" and "engineering"

It consists of OCW lectures, relevant items on the web, OCW from other institutions. Choosing an optional relevant item, users are connected to optional lecture note of OCW or optional relevant website on the Internet.

It is the purpose of Kyoto University OCW to Expand own inspiration interestedly and pleasantly and portal site which gives us mental motivation. The final target of this study is to lead to the concept of "corporative knowledge • cultural forming".

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