Open Online Learning Environment utilizing OER content

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Abstract

In Japan, many major universities are members of the OpenCourseWare Consortium Japan (JOCW) and provide about 3,000 courses in total. Those are very worthy courses for Japanese self-learners, and globally more than 25,000 courses have been distributed mostly in English from various institutions of OCW Consortium members, however those courses seem not to be appropriate for main Japanese self-learners because of lack of language skill. If OER contents, like OCW could be distributed in combination with language support partial or full translation, those contents might be very helpful for Japanese learners. We have established a Non-profit organization named Asuka Academy to promote the distribution of various OER contents with translation into Japanese. At first we have launched the pilot project that intends to distribute MIT OCW courses through LMS in combination with learning support function not only translation but also learner’s community for exchanging opinions among learners mainly from Japan. In Japan, it is said that natural science tends to be avoided by students because of lack of fascinating educational materials in Japanese. Very nice natural science courses like MIT OCW courses might solve this problem and lead to the increase of the number of students who like science and technology fields. In this paper we describe our project aim and plan.

Keywords

OER, MIT OCW, Translation, Open Online Learning Environment

Background

The first open education related activity has been launched as OCW by major universities in Japan in 2005. Nine years after launching, the number of universities has increased from six to twenty-two and affiliate members who provide financial support have increased from zero to fifteen. Courses published from all universities in Japan started with about two hundred courses in 2005 and now it is more than three thousand courses. However increasing rate of both number of universities and courses are relatively slow compared with other Asian countries/regions like Korea, Taiwan and China. And some emerging East Southern Asian countries have started OER projects including OCW. Those tendencies are essentially favorable from global perspective but unfortunately such a global tendency could not give a positive influence to Japanese universities and government.
**Issue: Language barriers**

Since there is a great divergence between technical terms and everyday conversation, even for business people who graduated from major universities, it is difficult to learn original OER content which are distributed in various universities in developed countries like US, UK and other western countries without any language assistance. As a matter of fact, this issue indicates that one of the major challenges that learners face is language barriers. In terms of learning, the most important thing is learners should focus on only understanding contents in order to minimize stress other than learning. In other words, there is a real need for creating a native language environment.

According to statistics provided by JMOOC (http://www.jmooc.jp/), there are 34.9% of people who would rather not study OER because of their language skill (Fig.1). This is the principal reason for substantial barrier to use OER. On the other hand, a lot of people want to study MOOC if dubbed videos or subtitles in Japanese are provided (Fig.2).

Some result of poll are shown below;

Fig.1 Example of poll-1 from JMOOC

![Poll 1](http://www.jmooc.jp/)  
*Fig.1 Example of poll-1 from JMOOC*

Fig.2 Example of poll-2 from JMOOC

![Poll 2](http://www.jmooc.jp/)  
*Fig.2 Example of poll-2 from JMOOC*
Since there are many people who have motivations for learning, it must be helpful to learn many useful OER contents in English if language support services are offered in combination with a learning environment.

**Establishing NPO**

In order to solve the issue above, we have decided to establish a Non-profit organization named Asuka Academy which will provide a learning environment for OER contents in combination with language support services. By the instrumentality of fully cooperating with Universities and premier companies, Asuka Academy is extremely well organized. For instance, professors (Meiji University, Sophia University, Musashino Gakuin University and The Open University of Japan) and ex-officers of company (Google, IBM and so forth) are members of the executive board. Moreover, Asuka Academy has a plan to collaborate closely with academic associations and communities.

To offer high-quality OER around the world free of charge to Japanese learners, Asuka Academy has the following characteristics.

- Social translation; volunteers take a role of translating OER contents into Japanese
- A team composed of experts ensure a quality of translation
- Using proven LMS provided by Net Learning, Inc.

**Distributing MIT OCW courses**

We have selected some MIT OCW courses as our target which are not only of a high profile in OCW but also high quality. According to a summary report provided by MIT OCW (http://ocw.mit.edu/), 88% of learners are satisfied with depth of courses and also 92% of learners are satisfied with quality of courses. Because it is said that natural science tends to be avoided by students in Japan because of lack of fascinating educational materials in Japanese, first of all, we have started up the “Physics I: Classical Mechanics” and “A Gentle Introduction to Programming Using Python”. In this context, “Physics I: Classical Mechanics” is as a foundation for natural science and also has a high level of excellence in education. Furthermore, this course is in popularity continuously and has a long history. On the other hand, Python is advanced program language and increasingly in demand. However, because of the lack of course materials in Japan, this program language does not seem popular in Japan. We believe these courses might solve these problems and lead to the increase of students who like science and technology fields. Also we have a plan to distribute 10 courses a year.

**Open Online Learning Environment**

In point of LMS, Net Learning, Inc. has provided e-Learning cloud service as their business commercially, while they provide same cloud service for leaners of Asuka Academy for free.
Net Learning, Inc. was established in Japan in January 1998, and now provides 3,385 courseware on a wide variety of educational subjects for almost any kind of business field and total number of users is 24 million in February 2014. More than 4,089 companies and schools have incorporated Net Learning’s services into their employee, customer, teacher and student educational programs. This proven and trusted LMS called Multiverse ® has been customized for Asuka Academy. This open online learning environment has the following characteristics.

- Implemented Japanese User Interface
- Using an iframe to embed OER courses
- Providing additional information in Japanese such as methods of learning and curriculum
- Learner’s community in Japanese which encourage an online relationship between learners
- Original test created by experts to enhance learning effectiveness
- Providing original course completion certificate by Asuka Academy

System configuration shows in Fig.3

Future Plans

After our service is well underway, we will implement the following plans.
• Getting official approval from Ministry of Education
• Being used in the way of “flipped classroom materials” at University or technical college
• Providing world-class contents for not only Japan but also Asian countries

Conclusion

It is very stressful for Japanese learners to face language barriers when they learn OER contents in English. Although there are a lot of world class OER contents, it is said that many Japanese learners cannot learn them effectively. In order to solve this issue, we have established NPO named Asuka Academy. Asuka Academy has created open online learning environment utilizing OER content and it must be good help for Japanese learners. Because Asuka Academy distribute high-quality OER such as MIT OCW courses translated into Japanese language. Since volunteers take a role of translating OER contents and a team composed of experts review their translation, the quality of translation maintain high confidence. Furthermore, not only Japanese community but also additional effectual information in Japanese such as a method of learning are provided by through Multiverse®, a proven LMS. We believe these actions will lead to an increase in the number of students who like science and technology fields. As a consequence, we believe that Asuka Academy will provide active support for human resources development and contribute to society in various fields.

References
