Development of MOOCs in a Japanese open university

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Abstract
Japanese leading universities and corporates have launched Japan Massive Open Online Course (jMOOC, http://www.jmooc.jp/en/) Consortium in November 2013. As a founding member, the Open University of Japan (OUJ) developed MOOCs in order to release them as the initial courses. One of the courses is for the starter (A1) level of Japanese language education, which is based on a CEFR (Common European Framework of Reference for Languages)-oriented curriculum standard developed by the Japan Foundation (JF). The learner interface is two kinds of multimedia e-textbook formats (i.e. iBook version and epub version) and a learning management system (LMS) is operated in the backend in order to record the data in each learning process. The functions of registration and learner community are constructed by utilizing a SNS service, Facebook. One of the concepts of OUJ-MOOC is “joint and scalable”. In this presentation, the characteristics of the courseware and the issues discussed at the development will be introduced.

Keywords
MOOC, e-textbook, LMS, learning metrics and analytics, open education, lifelong learning, OER, OCW, CEFR, Japanese language education

Backgrounds
The Open University of Japan (OUJ) is supported by the Bureau of Lifelong Learning Policies under the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) as the national center for lifelong learning in Japan (cf. Yamada & Yoshida, 2010). From the time of its establishment in 1983, OUJ has broadcasted educational programs free of charge over terrestrial/satellite TV and radio stations. As a unique open university in Japan, the OUJ has contributed to Open Educational Resources (OER) movements. OUJ launched “OUJ OpenCourseWare (OUJ-OCW)” in 2010 and opened some of the broadcasting courses via Internet streaming (22 courses and 65 lessons available as of December 2013). In addition to the Japan OpenCourseWare Consortium (JOCW), OUJ launched Japan Massive Open Online Course Consortium (jMOOC) in November 2013 with other Japanese leading universities and corporates.

OUJ MOOCs at the initial phase
OUJ plans to launch two initial MOOCs from April 2014 (Table 1). “NIHONGO STARTER (A1)” is a course for non-native speakers of Japanese who are preparing to study in Japan. International students can learn basic Japanese at the course, which takes up various topics and scenes that students may encounter when they stay in Japan. The leading part is an international student at a science and technological university. However, because the content is basic, it also applies to those studying in other areas or to general users. “Computer System” (Prof. Yoichi Okabe) was developed using the course materials of his official TV broadcasting course of OUJ.
<table>
<thead>
<tr>
<th>Courses</th>
<th>Authors / Lecturers</th>
<th>Characteristics</th>
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<td>NIHONGO STARTER (A1 level of Japanese language)</td>
<td>OUJ-JF NIHONGO STARTER Project Team (Principal Investigator: Tsuneo Yamada, OUJ)</td>
<td>Short Course (10 lessons) English version 2 Lessons/week Pilot subject</td>
</tr>
<tr>
<td>Computer System</td>
<td>Yoichi Okabe (OUJ)</td>
<td>Regular Course (15 lessons) Japanese version Based on OUJ broadcasting subject</td>
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**NIHONGO STARTER (A1 level)**
The online course is for the starter (A1) level of Japanese language learning, which is based on JF Standard for Japanese-Language Education (http://jfstandard.jp/pdf/jfs2010_all_en.pdf). The Standard was developed by the Japan Foundation (JF) and has common definitions for six levels of language proficiency with CEFR (Common European Framework of Reference for Languages). The MOOC is a short course of 10 lessons and corresponds to the first part of Level A1 of the JF Standard for Japanese Language Education (Table 2). The course texts were authored by Ms. Aki Shinohara, Ms. Sachi Habuki and Ms. Fumie Yanashima at the Japan Foundation.

**System Architecture**
The architecture of the OUJ MOOC platform is shown in Figure 1. Considering the diversity of users’ IT environments, we adopted two e-book formats (specifically, pub and iBook) with a traditional LMS (Learning Management System, specifically, Moodle). We chose “CHiLO Book” system (Hori, Ono, Kobayashi & Yamaji, 2013), which was developed by a Japanese NPO, CCC-TIES, as OUJ MOOC platform because the system met with our requirements. Each learner visits the online store to access the e-textbook and studies independently using either epub viewer on Windows PCs, Android™ smartphones and tablets, or iBook reader on Mac PCs, iPhones and iPads. The results of various quizzes and checklists are stored automatically in the database of LMS. In addition, Facebook™ was used for user identification and learner community maintenance. Using “Group” function, while the provider can identify each user, the learners can ask questions, exchange ideas and share the knowledge among the community.
Table 2. The MOOC content and goals (cf. the Japan Foundation, 2013)

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<th>Lesson</th>
<th>Lesson Goals</th>
<th>Can-do</th>
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| 1      | Hello *Konnichiwa* | 1) Exchange greetings  
2) Recognise Japanese characters |
| 2      | Would you say that again? *Moo ichido onegaيشimasu* | 3) Use basic classroom expressions  
4) Write your name and country in Japanese |
| 3      | Nice to meet you. *Doozo yoroshiku* | 5) Give a simple self-introduction  
6) Recognise the parts of a business card |
| 4      | There are three people in my family *Kazoku wa san-nin desu* | 7) Talk briefly about your family  
8) Tell someone about your family, using a family photo |
| 5      | What kind of food do you like? *Nani ga suki desu ka* | 9) Talk about your favorite foods  
10) Offer someone a drink  
11) Talk about your breakfast |
| 6      | Where are you going to have lunch today? *Doko de tabemasu ka* | 12) Say what your favorite dish is  
13) Talk with a friend about where to go for lunch  
14) Read a menu  
15) Order food and drinks at a hamburger shop |
| 7      | There are three rooms in my home. *Heya ga mittsu arimasu* | 16) Say what kind of home you live in  
17) Say what you have in your home  
18) Write an e-mail inviting someone to your home |
| 8      | It's a nice room. *Ii heya desu ne* | 19) Ask/Say where to put things in the room  
20) Visit / Welcome a friend  
21) Show someone around your home  
22) Recognise the name and address on signs |
| 9      | What time do you get up? *Nan-ji ni okimasu ka* | 23) Say the time you do something  
24) Talk about your daily routine |
| 10     | When is convenient for you? *Itsu ga ii desu ka* | 25) Talk about your schedule for this week  
26) Talk about when to have a party  
27) Write a birthday card |
Course Managements: The case of NIHONGO STARTER (A1 level)
The MOOC consists of 10 lessons and each lesson has 2-4 Can-do. The Estimated learning time is 45 minutes per lesson. The participants can learn in her/his style. Some will learn independently in their own paces; the others study together in group activities. We consider lifelong learners should be autonomous, manage each own learning process and be co-responsible at least partially for their outcomes. Reflecting both the results of quizzes in each lesson and the performance at various social interactions in Facebook and face-to-face meeting (Meet Up), the learner is asked to evaluate her/his own achievement by marking the “Can-do” check at the each end of the lesson. Using the “Mozilla” Open Badge system, we issue a “small” badge in each lesson and finally give her/him a certificate when has collected 10 small badges.

The issues remained:
Various views on “MOOC”
When jMOOC was launched in Japan on November 2013, MOOC overseas has already passed a peak of inflated expectation (cf. A Gartner Report, “Hype Cycle for Education, 2013”). As of March 2014, some papers have insisted that MOOCs were over. However, we think the essences of the trend, called “MOOC phenomena”, have not lost but expanded to various contexts. In addition to the possibilities of “Big Data and learning analytics”, the innovation has shown in the relationships with existing research themes and business areas, such as blended approach (e.g.
MOOCs should be diverse and adapt in each region, school level, subject and course, academic goals, learners’ characteristics and so on. We need a variety of the MOOC models, which can adapt to diversified academic and user environments. Now, the views on MOOC phenomena are different even among stakeholders and the definition of MOOC has not been fixed. In the near future, we may give the new name to the phenomenon. When we discuss MOOC, we should notice the differences of the premises.

Standards for sustainable and flexible platform
As of March 2014, jMOOC has three official MOOC platforms, that is, “gacco” by NTT Docomo, OUJ platform powered by CCC-TIES CHiLO Book and Net Learning’s platform. They have no clear interoperability each other. However, one of the purposes of jMOOC organization is to provide high-quality MOOCs through the collaborations among member organizations. In addition, all of the platforms still have functions to be developed hereafter, such as tools for learning metrics and analytics. We examine whether we should participate in the international standardization activities on e-Learning and digital publishing and how to utilize the international standards because our platform policy includes the concept of “joint”.

Big Data and MOOC
One of the essential features of MOOCs is to collect and analyze big data and to utilize the results for the customization and optimization of the courses and guidance. However, most of the critical issues still remain in education fields. They are how to describe and store various learning activities, how to extract the knowledge using learning analytics and how to reflect the findings to each personalized learning context. In Japan, data sharing and learning analytics are the most important areas which we should collaborate and concentrate our resources. The legal solution on the use of private data is another issue and some social agreements are indispensable.

References
Acknowledgements
This study was partially supported by Grant-in-Aid for Scientific Research (A) to the author (Grant No. 23240110). The MOOC “NIHONGO STARTER A1” was developed on collaborative works with NPO CCC-TIES Consortium, the Japan Foundation and OUJ. Special thanks to Dr. Yohsuke Morimoto, Mr. Ikuo Tomioka, Mr. Toshimichi Koori (OUJ), Dr. Noriko Yokoyama, Ms. Aki Shinohara, Ms. Sachi Habuki, Ms. Fumie Yanashima (JF), Mr. Seishi Ono and Ms. Masumi Hori (CCC-TIES).

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