

# Chapter 13

## The Current Status of Open Education Practices in Japan



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### 13.1 The Spread of OERs and MOOCs in Asia

Open educational resources (OERs) and massive open online courses (MOOCs) are being developed and utilized in higher education institutions across the globe. Activities related to OERs in tertiary institutions (22.4%) are higher than those in primary or secondary institutions (UNESCO 2012a, b). As of July 2019, a total of 1071 organizations in 248 countries participate in the development and dissemination of OERs (OER World Map 2019). As of 2018, over 900 universities offered MOOCs, 101 million individuals enrolled, and over 11,000 courses were created (Class Central 2019). A survey of faculty members of higher education institutions in the United States found that one-third were aware of OERs, wished to take advantage of them, and recognized them as equal in quality to traditional educational resources (Allen and Seaman 2014). Many higher education institutions utilize OERs daily as learning materials in the form of open textbooks or supplemental materials. Moreover, the movement of open educational practice—called “Open Pedagogy”—is evolving (EDUCAUSE 2018). Introducing learner-centered design to use OERs for not only substituting publishers’ textbooks but also “interacting”

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with open-licensed textbooks in the learning process by editing or revising them has become widespread among educational practitioners (DeRosa and Robison 2017). The OER movement has expanded on a global scale, led by international organizations like UNESCO, which has organized the World OER Congress twice and promotes the creation and introduction of OERs in K-12 and post-secondary education based on its declaration (UNESCO 2012a) and recommendation (UNESCO 2018).

Several Asian countries have made national efforts to disseminate MOOCs in the region. Thailand and Korea have established national platforms (TMOOC and KMOOC). Chinese universities have established a MOOC platform to collaborate with IT companies (XuetangX and CNMOOC). The Taiwan government provides funding support for universities to develop and offer MOOCs on the national platform (Taiwan MOOC). Similar to the practices in the United States and Europe, international collaboration is emerging in Asia too. The Japanese, Korean, and Thai MOOC platforms include a memorandum for cooperation (JMOOC 2017). A survey of geographic data shows that the mean rate of certificate attainment in Asian countries is relatively higher than in other regions (Nesterko et al. 2013).

In Japan, the primary means for institutions to participate in OERs are through OpenCourseWare (OCW) initiatives. In 2004, OCW activity was introduced and recommended by MIT. In response, several universities have started the preparation of lectures published in compliance with the OCW. On May 13, 2005, Osaka University, Kyoto University, Keio University, Tokyo Institute of Technology, and the University of Tokyo formally announced the start of OCW activities in Japan. The predecessor of this consortium “Japan OpenCourseWare Liaison Committee” was also launched simultaneously. In December 2005, Kyushu University and Nagoya University participated in the Liaison Committee at Hokkaido University. The Open University of Japan (formerly National Institute of Media Education) also participated in the Liaison Committee as a co-member. On April 20, 2006, the Japan OpenCourseWare Consortium (JOCW) was established. It was founded to promote the activities of open courseware and support exchange of information among members. Also, the JOCW joined the Open Education Consortium, an international consortium to promote open education globally. As of May 2019, 14 universities and seven companies and non-profit organizations are participating in JOCW. Sixteen universities and colleges in Japan opened OCW websites and published learning materials on them in 2017 (JOCW 2017). Although several universities currently promote the creation and use of OERs to improve education on campus (Center for OpenEd HU 2017), overall, OER creation and use are still not widely established in Japan.

On the other hand, there is active use and development of MOOCs in the country. Six universities participate in edX or Coursera and have provided open access to their courses. In 2014, the JMOOC—an organization that promotes and disseminates the integration of MOOCs—was established. JMOOC is a council based on business–academia collaboration, which aims to spread the MOOC through industry–academia cooperation. As of May 2019, 36 universities and 46 companies and nonprofit organizations were participating in JMOOC. Some universities use MOOC for pre-university improvement education (Docomo Gacco and Osaka

Sangyo University 2016). Lifelong learning is widely considered to be an essential opportunity for broadening the horizons of every generation, and MOOCs are seen as stimuli for the promotion of lifelong learning through online education.

## 13.2 Characteristics of the University System and Lifelong Learning in Japan

Compared to other regions, Japan's open education activities are not overwhelming. One of the reasons for this is the lack of support from governments and foundations. The Japanese government has no OER policy or funding for open education activities. Foundational support for higher education institutions is limited, except for university-owned foundations, which focus on support for their host universities. Most open education activities in Japan are self-funded. Thus, it makes it difficult for higher education institutions to robustly and sustainably accelerate the open education movement. For the past decade, however, national and local government funding has decreased owing to their financial difficulties, which makes it difficult for institutions to invest in budgets for open education. Another reason is that, compared to those in other regions, Japanese institutions have not had to be as sensitive to students' financial difficulties, particularly with regard to learning materials. Textbook costs, for example, are relatively moderate compared to those in the United States. These circumstances contribute to the low levels of awareness and introduction of OERs in Japan.

In terms of lifelong learning, a survey shows that strong demand exists in Japan. A survey of the Cabinet Office reveals that 58.4% of the respondents have experienced lifelong learning while 82.3% said that they would like to use lifelong learning opportunities for hobbies and work (Cabinet Office 2018). Nevertheless, compared to other countries, Japan has considerably fewer admissions to university than 25 years ago because of the decline in the young population. Additionally, the difficulty of securing time, lack of educational programs that cater to mature students, and tuition fees are barriers to lifelong learning (MEXT 2016). In Japan, opportunities for lifelong learning through online education such as MOOCs are adequate; indeed, Japanese universities sense the potential of MOOCs as a means of expanding opportunities for lifelong learning.

## 13.3 Survey of the Awareness, Offering, and Adoption of OERs and MOOCs in Japan

Concerning the current status of open education practices in Japan, the Ministry of Education conducted a national survey of the use of OERs and MOOCs in higher education institutions in 2013 (Kyoto University 2014). This survey aimed to

ascertain the use of OERs and MOOCs at an institutional level. The university system in Japan consists of four-year institutions, two-year institutions, and technical colleges. Two- and four-year institutions are funded by the national government, private institutions, or local governments. The national or local governments fund most technical colleges. These higher institutions were the subjects of the survey. This research revealed that the degree of recognition and assignment of future value was relatively high in national universities and technical colleges, but relatively low in public universities and two-year institutions. In 2013, only one university offered MOOCs, and only 15 organizations were planning or considering offering them within the next 3 years. With regard to the use of MOOCs, approximately 80% of four-year institutions and technical colleges and 90% of two-year institutions answered “not offering” or “unknown.” The main reasons that institutions provided MOOCs were to increase the number of educational choices, expand options for providing diverse education, improve the learning environment for students, contribute to society, and distribute educational and public information for high school students. Based on this survey, the Academic eXchange for Information Environment and Strategy (AXIES) conducted a similar survey (AXIES 2015). In this chapter, the findings of the latest survey will be revealed to demonstrate the current status of open education practices in Japan.

### 13.4 Awareness of OERs

The responses concerning the degree of awareness of OERs are shown in Fig. 13.1. By type of institution, the positive responses of “very aware” and “aware” were 56.8% for four-year institutions, 39% for two-year institutions, and 55.3% for technical colleges. The highest level of negative responses (“not aware”) was for two-year institutions (13%). Regarding the source of funding, the positive responses of “very aware,” “aware,” and “somewhat aware” were 86.8% for public institutions supported by the national government, 41.3% for public institutions supported by local governments, and 53.8% for private institutions.

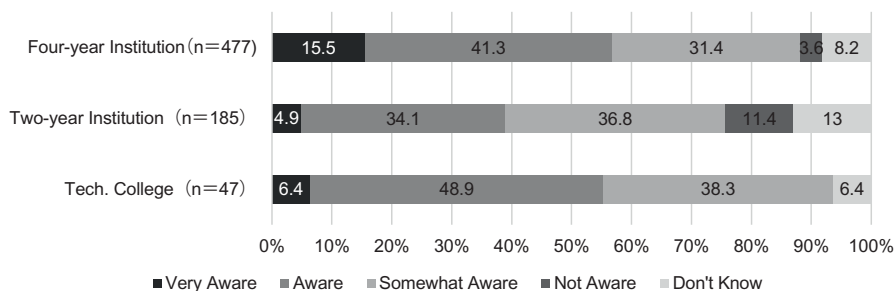


Fig. 13.1 Awareness of OERs in higher education institutions

### 13.5 Offering and Adopting OERs

Responses by institutions concerning offering and adopting OER and MOOCs are shown in Fig. 13.2. The rates of OER offerings and adoption were low for all organizations. Four-year institutions registered the highest rate of offering OERs (13.8%), followed by technical colleges (8.5%) and two-year institutions (2.2%). Four-year institutions registered the highest rate of adopting OERs (5.9%). Regarding planned offerings and adoptions in the future, Technical colleges were most likely to plan to adopt OERs in the future (46.8%). By source of funding, national public universities led in adopting OERs (26.2%) as well as planning to adopt OERs in the future (45.9%). These figures are similar to those by the previous survey.

### 13.6 Offering and Adopting MOOCs

Regarding institutions currently offering MOOCs, four-year institutions accounted for 5.2%, and two-year institutions 0.5%. Regarding planned offerings, 14.7% of four-year institutions, 6% of two-year institutions, and 17.1% of technical colleges were planning to offer MOOCs in the future. These figures represent a small decrease since the previous survey.

### 13.7 Purpose of Offering OERs and MOOCs

Responses by institutions concerning the purposes of offering and adopting these programs are shown in Fig. 13.3. Regarding the purpose of offering OERs, “Improve learning environment for students,” “Wider selection of educational opportunities,”

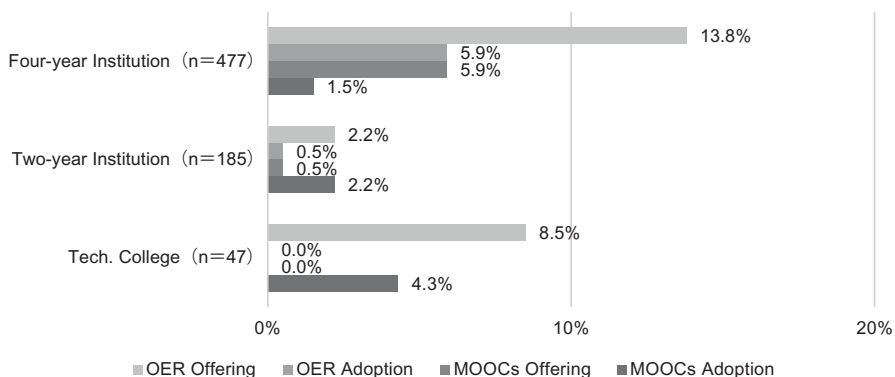
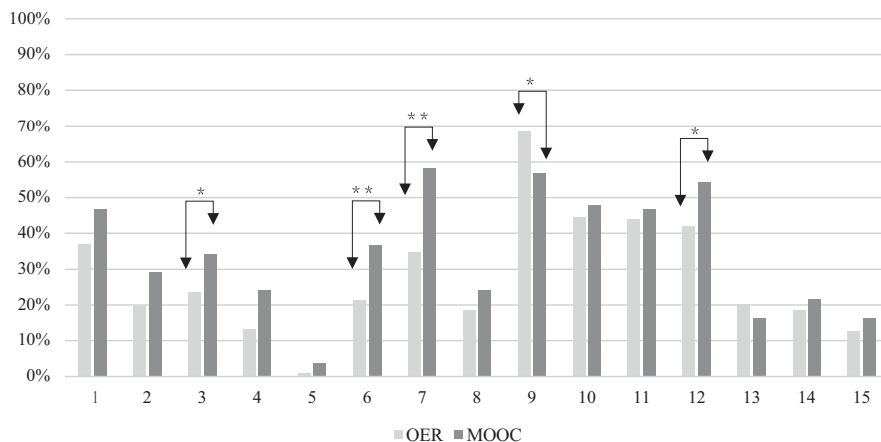


Fig. 13.2 Offering and adoption of OERs and MOOCs



**Fig. 13.3** Purposes of offering OERs and MOOCs. \*:  $p < 0.05$  \*\*:  $p < 0.01$ . (1) Recruitment of high school students, (2) Recruitment of foreign students, (3) Recruitment of domestic students, (4) Recruitment of domestic graduate students, (5) Support for job change, (6) Support for professional development, (7) Support for lifelong learning, (8) Service for alumni, (9) Improve learning environment for students, (10) Wider selections of educational opportunities, (11) Promote educational information, (12) Social contribution as a higher education institution, (13) Collection of learning data for educational improvement, (14) Faculty development, (15) Collaboration among universities

“Promote educational information,” “Social contribution as a higher education institution,” and “Recruitment of high school students” recorded the highest responses. By type of institution, “Improve learning environment for students” received the highest response for all three types of institutions. Regarding the reasons for offering MOOCs, favorite responses included “Social contribution as a higher education institution,” “Recruitment of high school students,” and “Support for lifelong learning.”

Figure 13.3 shows a comparison of the reasons for offering OERs and MOOCs. A statistical analysis of these reasons revealed a significant difference between “Improve learning environment for students” ( $\chi^2 = 3.336$ ,  $p < 0.05$ ), “Recruitment of domestic graduate students” ( $\chi^2 = 4.517$ ,  $p < 0.05$ ), “Support for professional development” ( $\chi^2 = 6.586$ ,  $p < 0.01$ ), “Support for lifelong learning” ( $\chi^2 = 12.338$ ,  $p < 0.05$ ), and “Social contribution as a higher education institution” ( $\chi^2 = 3.267$ ,  $p < 0.05$ ). OERs are considered useful in the provision of educational materials that are differentiated based on the level of each student and that complement the content of the course. On the other hand, MOOCs are considered to provide for the recruitment of students, professional development, and lifelong learning.

## 13.8 Conclusion: Future Perspective for Open Education Practices in Japan

The use of open education practices in Japan has still not become widespread. Although the number of higher education institutions to develop and use OERs or MOOCs is increasing, only a minority currently use them.

On the other hand, in Japan, a nonprofit organization called Asuka Academy translates English-language OERs into Japanese and makes it available for free (Asuka Academy 2019). High school students participate in this OER translation as part of their English learning (ICT eNews 2015). A governmental project to utilize MOOCs for human resource development in rural areas is ongoing (Cabinet Office 2019). Open education practices not only enable improved learning outcomes but also offer the opportunity to support professional development. Open education is expected to serve as infrastructure that supports online learning in the region.<sup>1</sup>

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<sup>1</sup>The results of the survey on the awareness, offering, and adoption of OERs and MOOCs are based on the report by AXIES in 2017 ([https://axies.jp/ja/ict/2017\\_survey\\_result](https://axies.jp/ja/ict/2017_survey_result)).

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