

A Study on Characteristics of K-MOOC platform

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Abstract. With the change of an education paradigm in the 21st century, ICT-based technology innovations represented by Smart require a change of higher education platform in the future. Recently, MOOCs, a new open education platform, have spread across the world only after two years of launch. This study investigated and analyzed functions of a variety of MOOC platforms at home and abroad. Based on the results, it extracted features that K-MOOC platform should have.

Keywords: Massive Open Online Source, K-MOOC, Platform

1 Introduction

With the change of an education paradigm in the 21st century, ICT-based technology innovations represented by Smart require a change of higher education platform in the future. In particular, overseas countries have recently shown an increasing interest in Massive Open Online Source (hereafter referred to as MOOC), a new open education platform from the world's best universities including Stanford, MIT, Harvard and others. Only after two years of its launch, the MOOC service that allows anyone in the world to take courses of famous universities online for free has shown an increasing number of students due to a rapid increase in the number of participating universities and courses offered worldwide.

In this regard, one of the first things to consider in a growing atmosphere of participation in MOOC services by many universities/institutions in Korea is how to configure MOOC platform suitable for educational environment of Korea.

Accordingly, this study investigated research trends of MOOC standards at home and abroad, and analyzed functions of MOOC platform according to standard items. Based on the results, it extracted features that K-MOOC platform should have.

2 Related Study

2.1. Functions by MOOC platform

MOOC providers use a variety of learning platforms to provide MOOC services: by analyzing functions of each service, we can draw the functions indispensable for teaching-learning processes.

Coursera's initial screen shows the number of participants, number of courses open, number of partners, latest courses and provides course search function[1]. The screen focuses on providing information on recent courses. Similar compositions are used by other MOOC providers such as edX and Udacity[2][3].

Coursera provides video playback, tests and feedback for each stage, performance and instruction of on-line assignments, online discussions, online simulation and other services, to assist with designing, planning and operating online courses. edX helps instructors to design and plan courses through its own course creation tool. And it allows users to create contents without professional-grade content creation studios. It also provides a basic course authoring tool, which enables instructors to create course contents by combining videos that they recorded with lecture slides.

An introductory screen provides learners with basic information when they choose courses, such as course syllabus, schedule, as well as information on instructors and staffs. MOOC learners proceed with self-directed learning with online-based video courses, lesson materials and internet resources, and performs learning activities such as viewing learning materials, quizzes, assignments, tests and discussions, following the schedule designed by the instructor.

Students are evaluated based on quizzes, assignments and tests graded using the Machine-grading System, and essays graded using the Peer Assessment system.

Community service refers to operating online/offline community spaces for different learning subjects, quizzes/assignments and other interests. These spaces are used for learning and communication through community activities, as a means of mutual coaching between learners to overcome limitations of mass learning. Learning outcome of each learner is certified using digital badges, certificates and credit transfer, etc. Some offline universities operating MOOC also operates MOOC2Degree system, which allows learners to acquire actual degrees through MOOC.

2.2. Analysis on the functions of MOOC platform

MOOC platform can be defined as 'integrated application software developed for the purpose of providing direct or indirect support for internet service-based teaching-learning processes where a large number of learners mutually participate.'

Specifically, it can be defined as 'application software with integrated functions which provides direct or indirect support for the overall flow ranging from course recommendation and attraction of participation, course opening and operation, instructional design and contents creation, teaching/learning and community, evaluation and learning outcome management, while managing the overall learning flow.

Therefore, in order to analyze functions of MOOC platforms, the systems need to support these functions. This Study, however, will focus on directly related functions, except for functions for academic affairs management and system management. The following table compares learning-teaching functions of Coursera and edX, the two most widely used MOOC platform, based on the findings from investigation of websites of the two providers[1][2].

Table 1. Analysis on the functions of MOOC platform

Items \ MOOC	Coursera	edX
Course recommendation & attraction of participation	○	○
Course opening & operation	○	△
Instructional design & contents creation	○	△
Teaching/learning & community	○	△
Evaluation & learning outcome management	△	○

* ○ : all, △ : part

3 Characteristics of K-MOOC platform

Recently, a research on the K-MOOC has been actively carried out. In this study, features that K-MOOC platform should have were extracted by referring to MOOC platforms operated by domestic universities and conceptual models[4] for the construction of K-MOOC based on the features of typical overseas MOOC platforms.

The features of K-MOOC platform include Korean subtitles, contents curation service and learner-personalized curriculum design, promotion of participation in learning through course recommendation and learning analytics, smart device support service, notes and bookmarks, flipped learning, social leaning, surveillance of plagiarism and prevention of cheating, educational big data processing, and teaching material(digital textbook)[5].

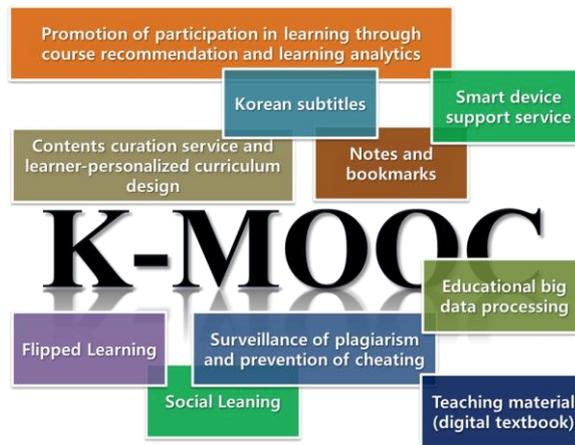


Fig. 1. Characteristics of K-MOOC platform

4 Conclusion

In recent years, MOOCs have recently spread across the world only after two years of launch since the world's best universities including Stanford, MIT, Harvard and others started to provide MOOCs. This study investigated and analyzed a variety of MOOC platforms at home and abroad to extract features that K-MOOC platform should have based on the functions of typical MOOC platforms in overseas countries.

References

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