

Current Situation, Problems and Countermeasures of MOOC in Chinese Universities

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Abstract. In the past six years, MOOC brings new opportunities to the teaching reform of colleges and universities in China. However, many problems of MOOC in the universities of China need to be further explored, such as curriculum construction, platform operation, the enthusiasm of teacher and student, the participation of university. This paper introduces the current situation of MOOC in Chinese universities and makes a detailed analysis of its main problems. In the last part of this paper, the corresponding solutions are proposed to promote the better development of MOOC in colleges and universities in China.

Keywords: MOOC; Chinese universities; Current situation; Countermeasures.

1. Introduction

After the introduction of MOOC in China in 2013, it has been paid attention by many scholars in China gradually and many of them began to conduct researches on it. Some key universities in China have joined the construction of MOOC and also build their own localized platform. As a new educational mode and form, MOOC gives college students a lot of freedom and rights to learn. Students can choose the courses they want to learn. Nevertheless, there would be some problems in developing MOOCs. The college students who sign up for the MOOCs are also accompanied by the result of the high dropout rate. Generally speaking, the development of MOOC is still in the exploratory stage in China.

The various problems in practice interfere with and hinder the application and development of MOOC in Chinese universities. It is necessary to examine the gains and losses of MOOC development in the past six years, and the current situation of MOOC in the universities of China. What are the problems in development? What are the reasons for these problems? How to solve these problems? This paper will sort out the current situation and main problems of MOOC in the universities of China, and put forward corresponding countermeasures and suggestions according to the analysis of the problems.

2. Current Situation of MOOC in Chinese Universities

2.1 Current Situation of MOOC in China

At present, the number of MOOC courses and registered users is growing rapidly. According to the data of Class Central, an internationally renowned third-party online education institution, the figure for online registered users in XuetangX exceeds 14 million. Hao Hu, the reporter of Xinhua News Agency, learned from the China MOOC Conference held in Beijing in April 2019 that there are 12,500 MOOC courses in China, and the number of learning has exceeded 200 million person-time. The application and number of MOOC courses rank first in the world.

2.2 Present Situation of Chinese Universities Participating in MOOC Construction

The development of MOOC in Chinese universities can be roughly divided into two stages: rapid development and standardized management (see Table 1). During the period between 2013 and 2014, it is the rapid development stage of MOOC. Many key universities have upgraded and develop the national excellent resources sharing courses to make contributions to MOOC platforms. Since 2015, MOOC construction has entered the stage of standardized management. In order to regulate the management of MOOC, competent education authorities have strengthened the guidance and standardization of online education in 2015 [1].

Additionally, Wang & Tian (2019) analyzed the data from six most influential MOOC platforms in China, and found that among the 3,359 courses, universities in China participated in the construction of 3,045 courses, accounting for 90.6% of the total courses, while social research institutions and universities outside mainland China accounted for 5.2% and 4.2% respectively. The key universities of China are the main body of MOOC construction, of which 16 universities with more than 50 courses were Tsinghua University (238), Peking University (147), Harbin Institute of Technology (94), Shenzhen University (80), University of Electronic Science and Technology of China (74), etc. [2] The reasons are as follows. Firstly, these famous universities have better resources of teachers and funds to invest in and develop MOOCs. Secondly, because of the famous brand effect of key universities, it may be more likely to attract more college students to sign up for study.

Table 1. Development of MOOC in Chinese Universities

Time	Event	Stage
05/2013	Tsinghua University and Peking University cooperated with EdX.	Rapid Development
07/2013	1. Fudan University and Shanghai Jiaotong University cooperated with Coursera. 2. Launched 'MOOC College Community'.	
08/2013	Launched 'Ewant'.	
09/2013	1. The first batch of MOOCs of Peking University was officially released on EdX. 2. Peking University cooperated with Coursera.	
10/2013	1. Launched 'XuetangX'. 2. Two Chinese courses of Tsinghua University were officially released on EdX. 3. Coursera is officially stationed in China and cooperates with Netease to launch 'Coursera Zone', a Chinese learning community.	
12/2013	'The MOOC Research Institute' and 'the MOOC Promotion Office' were established by Shanghai Jiaotong University.	
04/2014	1. Launched 'CNMOOC'. 2. 'The Online Education Research Center' in Tsinghua University was set up by the Ministry of Education. 3. The first course of Fudan University is released on Coursera.	
05/2014	1. Launched 'Chinese University MOOC'. 2. Set up 'UOOC Alliance'.	
02/2015	Launched 'Chinese MOOC'.	
04/2015	'Opinions on Strengthening the Application and Management of Online Open Courses in Colleges and Universities' was promulgated by the Ministry of Education.	
12/2017	The Ministry of Education has identified the first batch of 490 national top-quality online open Courses.	

2.3 Operating Mode of MOOC Platform in China

There are three main modes of MOOC operating in China, one is to obtain support from the government, the other is enterprise investment and commercial operation, and the third is to raise funds and build platforms by universities themselves [3]. For example, ICourse is the resource sharing platform for higher education courses supported by the Ministry of Education and the Ministry of Finance of China. Tencent Classroom and 51CTO College are the platforms of enterprise operation. Beiwai Class is the platform invested by Beijing Foreign Studies University.

3. Main Problems in MOOC in Chinese Universities

3.1 The Proportion of Students Participating in MOOC

The propaganda of MOOC is not enough in Chinese universities. After the period of rapid development between 2013 and 2014, many students do not know MOOC. Even as Guangdong Province is currently the province with the most developed economy and the best educational resources in China, many college students have not been exposed to MOOC. Huang et al. (2015) conducted a survey in the Guangzhou Higher Education Mega Center and the results showed that 69.74% of them had not heard of MOOC at all, 19.36% had heard of MOOC but had not used it, and only 10.90% had learned MOOCs. Among them, merely 1.22% were familiar with MOOCs [4]. In China, MOOC may not be the most popular way for college students to learn online. Cai et al. (2017) found in a survey of about 2,000 college students that 40% of them studied through Baidu Wenku and only 14% used MOOCs to study [5]. Nowadays, many students still do not know MOOC. According to the survey of Jia et al. (2019), college students mainly know about MOOC from school curriculum arrangement and recommendation of teachers and friends. Specifically, 41% of college students do not know MOOC at all, and only 7.47% of college students often learning MOOCs. There is an urgent need to explore a large number of potential users in the universities [6]. Therefore, the construction of MOOC in the universities of China is still in its infancy.

3.2 Perception on MOOC in Chinese Universities

Many teachers still think that MOOC is only a supplementary tool, and it requires a certain amount of human resources and time to develop. Due to the difficulty of shooting and the inconsistency between the curriculum design and traditional teaching, the challenge to the lecturer is greater, so that the enthusiasm of the teachers themselves for MOOC is not very high. Most teachers said that the school had asked to participate in the training of MOOC, but did not take the initiative to further understand about it. Only a few teachers have recommended MOOCs to students [4]. Besides, in China, except for a few famous universities with rich resources, ordinary universities are unable to fully support the construction of MOOC. The reason is that most of the universities in China are public, so that the main source of funds is government support. Within the limited funds, the government could only support key universities (e.g., Tsinghua University) in the construction of MOOC, and cannot meet the needs of other ordinary universities. Consequently, this may also be the reason why college students do not know or have not been exposed to MOOC.

3.3 Students' Learning Effect

Although MOOCs support online communication methods such as teacher-student interaction and student evaluation in varying degrees, online communication through keyboard and screen cannot replace the face-to-face communication between students and teachers in traditional teaching. According to the survey done by Zhang & Song in 2016, 69.71% of the students still prefer the traditional teaching mode [7]. Currently, MOOCs in Chinese universities have some defects, such as low completion rate, rapid decline of students' attention, and ambiguous assessment system. Students have been accustomed to the traditional teaching mode for a long time. It is difficult to persist in learning without face-to-face interaction and supervision of teachers. In addition, there are some attractive things (e.g., Game, Video) on the Internet. Students may be distracted by something on the Internet. Accordingly, MOOC cannot play the role of the supervision of the learner's learning effects and learning conditions like the traditional teaching mode, which is also one of the reasons why students are not easy to stick to learning. Moreover, students' learning motivation also affects the completion rate of the MOOC course. Despite the rapid development of MOOC, most university students are still not adapted to the teaching method of MOOC at present. Huang & Hew (2017) argued that the completion rate of MOOC learners under 30 was lower than that of students aged 30 to 55 or over. This may be due to the fact that young people are not so determined in their study, but they sign up for the courses due to their interests at first. On the contrary, people aged above 30 would have a clear goal, such as enhancing their professional skills [8].

4. Analysis of the Causes of the Problems

4.1 Internal Power of MOOC Development and Application

Most universities in China are funded by the government, but due to the lack of educational resources and limited government funding, they lack sustained reform motivation, urgent internal needs and sensitivity to new technologies and methods. The data analysis of Wang & Tian shows that only 282 colleges and universities in China participate in the construction of the course, accounting for only about one tenth or close to one tenth of the total number of colleges and universities in China [2]. This suggests that there are not many universities offering MOOCs, and the degree of participation in the construction of MOOC is insufficient. Some universities still adhere to traditional education and fail to establish the concept of open education. At the same time, some universities have strong ‘free-rider’ mentality because of the lack of high-quality educational resources and teaching experience [2], so that the motivation of developing MOOC for most universities is insufficient.

4.2 Comparisons between MOOC and Traditional Teaching Mode in China

Under the pressure of exam-oriented education in China's education system, students have long been accustomed to ‘school arrangement’ and ‘parent arrangement’, and are unable to form the abilities of independent learning, innovative learning and research learning. Under such teaching mode, teachers play a leading role and students' abilities of self-learning and self-control are poor. But MOOC originates in the United States, and its core is student-centered. MOOC subverts the traditional teacher-centered learning model to a certain extent, making learners the core of the learning process [9]. Once MOOCs are integrated into the existing education system, the existing education and teaching mode will be adjusted or changed inevitably.

4.3 MOOC's Inherent Internal Contradiction

As a form of online education based on the integration of new technologies, MOOC in colleges and universities has its inherent contradictions. For example, some courses require learners to have the necessary professional background and knowledge and to have a certain understanding and thinking in their study. Even if this course is open and anyone can enroll in the course, students who do not have the foundation of the prerequisite courses may quit halfway. This would determine that its audience is a group that meets certain requirements. Otherwise, it would be unfavorable for students to use MOOC platforms in some courses.

5. Countermeasures and Suggestions

In order to apply MOOCs into Chinese higher education, it is necessary to mobilize the enthusiasm of teachers and universities who are the main participants of MOOC construction from the aspects of the environment, system, policy and supporting measures, and to create conditions where students can benefit from MOOCs. Considering the actual situation of MOOC in China's universities and colleges, the following three aspects are discussed from the national, university and individual levels.

5.1 Enhancing the Publicity of MOOC

In the field of operation and promotion of MOOC, enterprises often have more experience than universities to promote their own products such as Tencent Classroom. Tencent has the largest scale of users in China. According to Tencent's report for the first quarter of 2018, the users of WeChat have reached 1.04 billion, and its main users are Chinese. Its huge number of users, combined with Official Accounts, mini-programs, and other functions of WeChat, could provide strong help for the publicity and construction of MOOC in China. Therefore, in the process of building the MOOC platforms, universities could cooperate with enterprises to maximize the promotion of MOOC construction. In addition, the courses developed by the university can join the platform of business operations (e.g., Tencent Classroom and Cloud Classroom of Netease) to improve their popularity.

5.2 Increasing Government Support

Due to the large number of domestic universities and the limited government funding, the government could only consider the support of key universities first. For ordinary universities, the government's support would be less at present. However, the government can issue policies to provide certain support for the construction of MOOC in universities across the country. Facing the wave of MOOC development, the competent education authorities should have a further understanding of the phenomenon of MOOC and its basic laws. At the initial stage, there would be some management confusion and anomie in the course of its development. Consequently, it is necessary for the government to provide the necessary systems and rules. In 2015, the publication of the 'Opinions on Strengthening the Construction, Application and Management of Online Open Courses in Colleges and Universities' will effectively stimulate the enthusiasm and inspire the autonomy of learners and thus accelerate the development of MOOC.

It may need to notice that the current management rules and policies formulated by the government should not be too detailed because any new thing needs to be recognized. Otherwise, sometimes it may hinder the development of new things because of the elaborate rules. For instance, the successful operating mode of foreign MOOC platforms such as Coursera and EdX benefit from a more relaxed institutional environment. However, the basic aspects of the construction of MOOC still need to be regulated by the governments, such as the qualifications of the providers of MOOCs, the effective international cooperation between the Chinese universities and the foreign MOOCs, the effective docking of MOOCs and university credits, etc. [10]

5.3 Exploring MOOC Teaching Mode for Chinese Students

5.3.1 Perfecting Teacher Evaluation System and Enhancing Cooperation among Teachers

For a long time, most colleges and universities in China have used the scientific research results of teachers to measure their achievements, which lead most teachers to attach importance to scientific research rather than teaching concepts and teaching atmosphere. Therefore, it is necessary to further improve the teacher evaluation system and promote the development of MOOC in the universities of China. How to link MOOC with teachers' professional title evaluation, salary, and enhance their attention to MOOC, is an important bottleneck that Chinese universities need to overcome in the process of MOOC construction and application [11]. Meanwhile, the construction of MOOC is not only the application of computer and network technology but also the accumulation of teachers' teaching experience and the long-term study of teaching methods. Teachers should actively face the opportunities and challenges brought by MOOC and practice in an open manner to develop wonderful courses. Additionally, due to the particularity of long-distance teaching, it is still in the initial stage of exploration. Teachers can work together and learn from each other to make the development of MOOC more suitable for Chinese students.

5.3.2 Promoting Cooperation among Universities

Chinese universities can make good use of each other's high-quality curriculum resources, and recognize each other's curriculum credits by using MOOC platforms. In April 2015, the Ministry of Education of China issued 'Opinions on Strengthening the Application and Management of Online Open Course Construction in Colleges and Universities'. It proposed that colleges and universities could utilize MOOCs and other high-quality online education courses to replace some traditional teaching courses, so that students could earn credits through online education courses, exams, etc. Incorporating some MOOC courses into the student's credits will greatly promote the MOOC development and improve the student's completion rate. Nevertheless, this also requires continuous optimization of the curriculum design system of MOOC, the improvement of the credit recognition system, and the improvement of the teaching management system, so as to achieve the goal of boosting students' learning efficiency.

5.3.3 Looking for the Suitable Design Principles of MOOC

Hone & El Said (2016) carried out a preliminary exploratory study and suggested that the completion rate of MOOCs is directly proportional to the interaction between students and teachers [12], which shows that the flipped classroom and MOOC could be combined. Students obtain knowledge through the MOOC platforms first. Then, the teacher solves the problems encountered by the students in the learning process and tests the students' learning effects in the classroom, which plays a supervisory and interactive role in the students' learning. In this process, the teacher begins to transform from an active lecturer to a student's learning guider. This may enable students to persist in learning and finish the course to a certain extent.

Furthermore, when teachers make the teaching design of MOOC, including the design of teaching objectives, teaching methods, teaching steps, teaching difficulties, and time allocation, they could design courses from the perspective of students. Guàrdia et al. (2013) summed up 10 principles designed from a student's point of view, namely 1. Competence-Based Design Approach, 2. Learner Empowerment, 3. Learning Plan and Clear Orientation, 4. Collaborative Learning, 5. Social Networking, 6. Peer Assistance, 7. Quality Criteria for Knowledge Creation and Generation, 8. Interest Groups, 9. Assessment and Peer Feedback, 10. Media-technology-enhanced Learning [13]. Considering problems and designing courses from the students' point of view are likely to make students more interested in learning content and improve their learning motivation and efficiency.

5.3.4 Establishing the Incentive Mechanism

Certificates and badges are a great way to reduce the dropout rate of MOOC. Borrás-Gene et al. (2016) had verified that external recognition is an incentive [14], which help students persist in completing the study of MOOC and obtain the relevant knowledge completely. Take college students for example. Colleges and universities should raise the threshold of MOOCs' certification, and issue MOOC learners with the same valid certificates as other college students, so as to enhance the recognition of enterprises and thus boost the enthusiasm of learners [15].

6. Conclusion

The rapid development of the Internet has changed all aspects of people's lives. MOOC is the product of the Internet plus education. Through information technology, the MOOC platform enables learners all over the world to share high-quality learning resources, which changes the inequity of education to some degree. As new educational information technology, educational concept and teaching mode, MOOC has exerted a tremendous influence on the educational reform of Chinese universities. Nevertheless, although MOOC in China has made rapid development in the past six years, there are still some problems in universities, and students have not made full use of MOOC. As a result, the competent educational departments and universities should pay close attention to the development trend of MOOC, design the standards of China's MOOC and optimize incentives and support measures. As for the teachers and students, it is encouraged to embrace the challenge of MOOC and try to use MOOC platforms, which will create favorable conditions for the application of MOOC in China's higher education.

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