

A brief analysis of the significance of MOOC in deepening the comprehensive reform of higher education

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Abstract

This paper briefly analyzes the current trend and problems of the comprehensive reform of higher education, introduces the basic concept and development of MOOC technology, and expounds the role and significance of MOOC construction and application to the comprehensive reform of higher education.

Keywords

MOOC; Higher education; Comprehensive reform.

1. Introduction

MOOC, short for Massive Open Online Course, is an Online education model that anyone can sign up for free. It is not until the autumn of 2011 that it was known by the public. In 2012, some universities in the United States have set up the network learning platform (similar to the excellent courses or excellent resources sharing in our country, but MOOC has stronger interactive functions), providing free courses on the Internet. The rise of the three main course providers, Coursera, Udacity and edX, may offer more students systematic learning ^[1]. A MOOC is an open, participatory, decentralized course. It is a new online curriculum development model based on the old curriculum development model. It supports lifelong learning through the Internet. It has teachers, course materials, opening and closing time, as well as online solutions, in-class tests, discussion boards, homework exercises and final exams. But it's not a school, and it's not just an online course. MOOC enable communication and collaboration while developing digital technologies, allowing everyone to participate in a learning process that includes learning meaning, where participants collaborate and communicate around the same topic under the guidance of the course organizer. When you finish your homework, others can learn from your work. MOOC courses are decentralized, and all the blog posts, BBS posts, video interactions, articles, tweets, hashtags all come together to form this online course. MOOC courses have been hailed as "the biggest educational revolution since the invention of printing".

2. The development trend of higher education reform in China

The outline of the national medium - and long-term education reform and development plan (2010-2020), issued in 2010, requires universities to improve their scientific research and strengthen basic research. We will focus on major practical issues, strengthen applied research, promote the sharing of scientific and technological education resources among universities, scientific institutes and enterprises, and enhance innovation in the mode of self-governance in universities. Interdisciplinary and cross-disciplinary education and research teams promote interaction about teaching and research; In terms of core competitiveness, China's higher education policy proposes to build first-class universities and first-class disciplines, improve management mode based on the construction of key disciplines, introduce competition mechanism to implement performance evaluation for dynamic

management, and support the establishment of joint research and development bases with overseas high-level education and research institutions. The landmark of the comprehensive reform of higher education is to speed up the pace of building first-class universities and high-level universities, cultivate a batch of top innovative talents, form world-class disciplines, produce a number of world-leading original achievements, and contribute to the improvement of China's overall national strength. The establishment of the policy is based on objective needs and task-oriented. In terms of its characteristics, it is necessary to focus on the following changes in China's higher education:

2.1 Market-oriented and classified development.

China's higher education institutions are undergoing a major restructuring to deepen the comprehensive reform of higher education to meet the urgent demand of the market for talents, especially innovative talents. These two years nearly 700 local undergraduate colleges and universities will strengthen the special modern vocational education, focusing on training engineers, senior technicians, high-quality workers and so on.

2.2 International orientation and emphasis on quality.

Faced with increasingly fierce international competition and talent competition, more emphasis is placed on the essence of education. It requires comprehensive development and quality improvement, emphasizing the combination of teaching students in accordance with their aptitude, implementing the combination of postgraduate and undergraduate education, emphasizing the unity of knowledge and practice, establishing the people-oriented management concept, and truly setting up all for the development of students.

2.3 First-class orientation and emphasis on characteristics

We should pay attention to the characteristic development, give full play to the advantages of the university itself, emphasize the classified management of the university, and gradually expand the autonomy. We should give full play to the vitality of the university for social innovation and its service ability. We should strive to promote the integration of enterprises, universities and research institutes and the construction of think tanks, and start the integration of government, enterprise, society and academic knowledge. By promoting the participation of social resources and capital in schools, and introducing high-quality educational resources at home and abroad, the government tries to guide high-quality resources into colleges and universities, and gathers strength to build world-class colleges and universities.

2.4 Face the future and expand autonomy

Current Chinese colleges and universities are undertaking university charter construction and normative construction that pays attention to university management, including promote the vitality of secondary colleges. From the perspective of law and system, the autonomy of universities in personnel management, institutional setup and discipline setting should be strengthened and clarified. Meanwhile, colleges and universities should be guided and urged to formulate school charters according to law and conduct independent management according to the charters.

3. The problems existing in the comprehensive reform of higher education

With the continuous deepening of higher education reform in China, higher education teaching has made some gratifying achievements. Generally speaking, changes are obvious. However, as the reform itself is subject to the influence of environment and its own factors, there are still some problems in higher education reform, which are mainly reflected in the following aspects:

3.1 Colleges and universities have no characteristics and the phenomenon of convergence is serious.

At the end of last century to the beginning of the century, a large number of specialized school upgraded to undergraduate schools. Originally, these colleges did not have enough experience in running a school, nor did they have too many characteristics. In addition, a large scale of

undergraduate education was established. Although the state invested construction funds, it did not strengthen the cultivation of the reform and innovation ability of each school, so that a large number of schools could only copy and learn from the model of other colleges and universities. As a result, most schools cultivated more and more "similar products". The mode of talent training in colleges and universities at different levels is converging and becoming higher. Colleges and universities that originally had certain characteristics have lost their original characteristics, but gradually lost their original culture and characteristics in the process of reform.

3.2 The comprehensive quality of college teachers is incompatible with the reform of higher education.

The overexpansion of college enrollment makes the school scale advance by leaps and bounds. The original teaching space can be expanded rapidly with little limitation, but the shortage of teachers cannot be accomplished overnight. In order to meet the requirements of the student-faculty ratios of the competent department of education, colleges and universities aim to strengthen the construction of the teachers, but this kind of construction is more of a quantitative match. Teachers are busy with heavy teaching tasks and have no time to improve themselves. In addition, the school's investment in the follow-up training of teachers also lags far behind the requirements of the higher education reform on the improvement of the comprehensive quality of college teachers. ^[2]

3.3 The cultivation of university talents is detached from market demand.

The original intention of higher education reform is to improve the comprehensive quality and employment rate of college graduates and meet the social demand for higher education talents. In terms of major setting and admissions, colleges and universities tend to be in accordance with the market situation and employment situation of past years to make plans, with little consideration of employment situation and the demand of the country's future, usually ignoring some of the so-called unpopular major and excessively focusing on some seemingly popular major. The lack of predictability between the talent training model and the market demand is almost disjointed. As a result, the "talents" cultivated by Chinese universities always lag behind the social development, resulting in the process of some professional talents and the serious shortage of some professional talents.

3.4 The educational finance investment is uneven and the administrative tendency is serious.

In recent years, more and more financial input has been invested in education, which exceeded 4% of GDP in 2012. However, the distribution of education funds is obviously unfair. The universities of "project 985" and "project 211" with strong scientific research strength have obtained most of the educational funds. They can further increase the investment in scientific research projects and personnel training, so as to promote the scientific research output and obtain more financial support from the state. On the contrary, the general colleges and universities that have received less education funds will lag behind in scientific research, talent training and even the quality of education and teaching due to insufficient funds, thus forming a vicious circle and gradually losing the impetus and momentum for development and reform. At the same time, China's administrative management and teaching management are not separated as those of foreign universities, which also leads to the serious situation in administration of Chinese universities. The administration, which strongly restricts the free development of universities, weakens the main position that university teachers should occupy in universities and the value of the core functions of universities -- scientific research and teaching activities^[3].

4. The role of MOOC construction and application in the comprehensive reform of higher education.

4.1 Construction and application of MOOC at home and abroad

Since 2012, Coursera, Udacity and edX have offered free courses on the Internet in the United States. EDX, founded by Harvard University and the Massachusetts institute of technology in the US, has

attracted about 6,000 mainland Chinese students to its free open courses, and the number is growing, according to incomplete statistics.

In China, some key universities and online institutions with educational and social backgrounds are also launching mooc-like platforms. Tsinghua university in China joined edX and launched the "xuetang online" MOOC platform. Later, Fudan university, Shanghai Jiaotong university, Nanjing university and other "project 985" universities launched MOOC platforms. In addition, websites such as guokou.com and netease cloud classroom also launched "MOOC colleges" and "Chinese university moocs" with their subsidiaries, which have become one of the most popular MOOC platforms in China. At present, China's MOOC construction is in full swing, and some universities have established mooc-related university alliances, which will undoubtedly promote the full sharing of high-quality education resources in China. According to data provided by Coursera, there were 130,000 registered users in China in 2013, ranking the ninth in the world. In 2014, the number of registered users reached 650,000, which is far higher than other countries in the world. One out of every eight new MOOC learners is now from China, said Andrew Ng, Coursera's co-founder and chairman, during a presentation to Guoke's MOOC academy 2014 online education theme BBS. A growing number of Chinese high school students are using MOOC platforms to take advanced college courses, and the trend is spreading like wildfire, according to Ji Shisan, CEO of Guoke and founder of MOOC colleges.

4.2 The role of MOOC played in the comprehensive reform of higher education.

MOOC is the first step on the road to lifelong learning. MOOC promote learners' independence, encourage participants to arrange their own learning, and build real social networks that can sustain relationships after the course. Usually, news that a MOOC is about to open will first circulate on the Internet, and people with expertise and innovative thinking will collaborate to launch open online courses on the subject. Everyone who wants to participate can participate, and this innovative form of education and learning can also accelerate and promote the transformation of teachers' teaching ideas and methods. In the construction of comprehensive reform of higher education, moocs can first play the role of a central medium. Materials and documents can be widely promoted and applied, instead of being limited to local pilot reforms. Secondly, it is a platform for communication and learning, where everyone can participate and express their own views. Through the fierce collision of ideology, a broader consensus can be formed and ideological unity can be achieved, which plays a good role in promoting the smooth progress of the reform^[4].

To sum up, MOOC, as a public network platform, provides the excellent teaching resources in the world. This can partly solve the defects of our existing higher education construction. At present, many universities in China are mainly developing several or even one subject, while other subjects are underdeveloped. Both teaching and research have obvious disadvantages. These weaknesses are exactly what China's higher education needs to make up for as soon as possible in order to go out to the world, improve the quality of teaching, face the increasingly fierce international competition and talent competition, as well as the higher education reform that requires comprehensive development and improvement of comprehensive quality. Therefore, the construction and application of MOOC can play a certain role in promoting the comprehensive reform of higher education and the construction of a big and powerful country of higher education in China.

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