The Puzzle of Online Courses

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Abstract. With the development of the Internet, online courses like a hurricane swept across the world, teachers consciously or unconsciously are involved in it. In order to make clear the concept and characteristic of online education, this paper, based on the readers' perspective, reviewed the development of the online courses, and summarized the author's own online course construction and application process. It also put forward the teaching staff's confusion about the online course, which will cause people to think, and finally gave some suggestions for the future development of online courses, and these will provide reference for who will construct or teaching on online courses.

1. Introduction

With the development of computer and internet technologies, many universities around the world have set up online courses. As a new thing of age development, online courses have a new teaching model and have many distinct features with the traditional teaching model. In the new thing of the online course, there have been many changes in roles, functions and behaviors of educators, learners, and managers. But for the new thing, there is a lot of confusion that needs to be clarified to make better use of online courses and really play its part for the first-line teaching practitioners (not educational researchers). This paper discusses the online course from the teacher’s perspective, with a view to discussing and learning.

2. The Thrive and Construction Status of Online Courses

2.1 The Development History of Online Course Platform

In 2001, Massachusetts Institute of Technology opened the ‘open courseware’ program as a symbol, launched the sharing of teaching resources, opened the curtain of the Open Education Resource Movement, it provides learners around the world with free, high quality learning resources, and the concept of open sharing and the practice of education have attracted worldwide attention\cite{1}. Massachusetts Institute of Technology’s approach has been welcomed by many learners and educators, in the subsequent practice, the idea and practice of the opening educational resource have been recognized by an increasing number of educational institutions and are actively involved. In April 2003, China’s Ministry of Education issued the ‘Ministry of Education’s notice on the start of higher education quality and teaching reform project construction work’, officially launched the ‘national excellent course construction project’, opened the prelude to the building and sharing of open education resources of higher education in China\cite{2}. After several years’ development and construction, China has made great achievements in the construction of fine courses, and many universities have built national, provincial and university top-quality courses, which formed a considerable number of curriculum resources\cite{3}. Most of the curriculum resources are available free shared through the network, which played an important role to promote the high quality teaching resources, and has certain social benefits.

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Since 2010, the appearance of MOOC (Massive Open Online Course) has a great influence on Higher Education [4], and it has created a hurricane of online learning in the field of education around the world, MOOC called ‘Mu Class’ in domestic, that is, massive open online courses [5]. The massive open online courses are popular due to their rich content, complete course of teaching process and teaching activities, and free and open access to global learners. Many countries in the world have launched its own MOOC platform, such as Germany ’Iversity’ platform, the British ’FutureLearn’ platform, ‘FUN’ in France, the European jointly launched ‘OpenupED’, Japan’s ‘JMOOC’ and Australia’s ‘Open2Study’ platform, and so on. At the same time, China’s education department has been vigorously building and developing online courses platform, on November 9, 2011, the ‘Chinese university open class’ channel was released through the ‘love course’ platform, and the first batch of 20 courses brought together the essence of fine construction projects. In June 2013, the Ministry of Education launched the first batch of ‘China University Resource Sharing Course’ channel, and officially opened it free to the public via the ‘love course’ platform. China’s Tsinghua university and Shanghai Jiaotong university also introduced the ‘School online’ and ‘good university online’ Chinese MOOC platform in 2013 and 2014 respectively [6]. In the fall of 2013, Huazhong Normal University independently developed a system of ‘cloud integration’ online learning. On May 8, 2014, the ‘love course’ platform partnered with Netease to launch platform of MOOC, which is in line with China’s national conditions and characteristics.

2.2 The Status of Online Courses Construction.
From the top-quality course to the boutique resource sharing class to the online course, the Ministry of Education and the universities are supporting both policy and funding. The construction of online courses in universities and vocational colleges is in full swing, with a sharp increase in the number of online courses. Taking Wuhan University of Technology as an example, the school began to vigorously promote the construction of online courses, and by 2012, there has been 17 national high-quality courses, 73 provincial-level quality courses and 336 high school courses. Since then, we have seen a series of 12 provincial high-quality resource sharing courses, and 30 of the best quality resource sharing courses. In 2016, the school proposed the construction of online open courses, the introduction of relevant policies, and granted construction funds and honors. The academic affairs office did not regularly conduct lectures and training programs for teachers in the form of online open coursework workshops. In the same year, 166 gates were declared, the first batch of 11 courses was approved by construction, and the second was approved through the construction of 23 courses. The number of filings in 2017 soared to 254.

Over the past 15 years, online courses ranging from top-quality courses to boutique resource sharing courses to online open courses, the concept of construction and teaching has changed. Many first-line teachers don’t fully understand and adapt to it and their thought pattern are solidified, so they lack of understanding and preparation for the development online courses and don’t know how to make effective use of it. There are different forms of online courses in development and construction, and the content of course learning is single too.

3. The Practice of Online Courses
3.1 The Curriculum Construction Practice
In 2008, the author established a boutique course "principle and the application of remote sensing". After 2013, it was transformed into boutique resource sharing on the basis of excellent course. In 2016, the author built an online open course respond to the requirements of the school. The construction is based on U-MOOCs (Tsinghua Education Online) as the platform, with micro video as the core and the main carrier. As for the knowledge points in each chapter in the cause of The Principles of Remote Sensing (such as key points, difficulties, doubtful points, test sites, etc.) or teaching links (such as experiment, study, subjects, tasks, etc.), we design and develop online courses to support a variety of learning methods. There are four main parts of the online course: course outline, including the basic information of the course, the basic information of the teacher, the
introduction of the course, the syllabus and the teaching calendar, the study guide, the textbook and the reference books; (2) Online learning, including micro lectures video and Courseware for online playback. Micro video corresponds to the key difficulty in each chapter, which is usually 5-10 minutes long, and is supplemented with the information of key difficulty. Courseware offers two forms of online streaming and downloading. (3) Homework exercises and tests, including assignment and correction, research teaching, online quizzes, etc. (4) Online interaction, including course notice, questions, etc.

3.2 The Online Course Application Status

High rate of elective courses and low class rate are common to online courses. According to Patterson, only 7% of the 50,000 students who enrolled at University of California, Berkeley software engineering course have passed the exam[7]. Another focus of debate on MOOCs is the learner's drop-out rate and completion rate. Meyer (Meyer, 2012) reported that in the MOOCs provided by Stanford University, Massachusetts Institute of Technology, and the University of California at Berkeley, The drop-out rate is 80 to 95 percent. In Coursera's other "social network analysis" course, only 2% of the learners received a basic certificate, only 0.17% of the learners received a high-level certificate[8].

According to the author's observation and informal investigation, only a small number of students will often use the online course according to the learning process. Most students use the online course at the teacher's request, or in order to complete the online job, or for the end of the pro forma. Few students are active in planning to go online, supplement their professional knowledge and enrich their own knowledge and skills according to their own interests. The students' online learning peak mainly in the following time periods: the number of people who go online at the beginning of the school year is higher; to complete the work under the drive of the job; before the final exam. According to the interview of some students, found that students' self-control ability is lacking, most students can not complete the course of self-learning.

4. The Puzzles of Online Courses

The rapid development of online courses bring an unprecedented change to education and teaching field, whether the teaching idea or teaching technology, as well as the exchange between teachers and students are changing, which also bring the confusions to the majority of first-line teachers.

4.1 The Puzzles of the Concepts

The emergence of new educational teaching concepts such as top-quality course, boutique resource sharing classes, online open courses, MOOC, flip classes, mixed teaching, micro-class and micro-video is a reflection, exploration and improvement of education, it’s the extension of the Internet technology in the field of education, it’s also the self-adaptive change of education in the Cloud Internet Era. Faced with the bombing new concepts and ideas, many people also feel confused. In the following part, the author will talk about these concepts based on the self-understanding. Top-quality course and boutique resources sharing class focus on "resources", main to provide teaching resources, the purpose is to provide teaching and learning resources for teachers and students through the network. MOOC is a large-scale network open courses, the purpose is to enhance the dissemination of knowledge and publish the Internet open courses, the emphasis is to support the large-scale online learning, and MOOC is more like a platform from this perspective. "Micro class" is a kind of teaching form, the teaching video organize teaching contents according to the knowledge points, the length of the video is generally no more than 10 minutes, the content is short and specific with clear theme and variety forms. "Micro class" is an outcome in the field of education after the popularity of smart phones. The "flipped classroom" and "hybrid teaching" is supposed to belong to the teaching method, which use and combine the network to better solve teaching problems.

4.2 The Puzzles of Construction Technology

In the process of online course’s construction, most teachers will encounter two major technical problems, one is the network technology problems, because lacking of deeply realize of the network
technology, they may fail to show the course content deeply and well-organized. The current situation is just a few people or even teachers lead the individual attempting to explore in the designated or recommend platform. For lacking of guidance and assistance by technical staff on platform, the result in the design style, frame structure etc. is not satisfactory. The other problem is about educational technology, because the course construction is often done by professional teachers rather than professional educational technology stuffs, which badly affecting design and use of the online courses. Because lacking of the participate of professional educational technology stuffs, in the online course construction often relies on teaching’s experience, these teaching strategies put forward may not be suitable for network teaching because of the lacking of professional teaching and design of the system.

4.3 The Puzzles of Students Learning Status

The confusion about the low learning rate among students has been the subject of questionable online courses. Most of the students' online learning is done under the requirements of a teacher, and it is a task-driven and forced behavior. This is far from the purpose of the online course which provides personalized learning for the majority of learners. To be sure, online courses are free of time and can be studied anywhere and anytime. Students with low online learning rate and self-control are related with Independent learning consciousness, and will also be the biggest confusion of teachers.

5. The Advice

Based on the construction and application of online courses, this paper points out the following Suggestions:

(1) Necessary learning and training. When the colleges and universities carry out online courses teaching, teachers should be provided with the necessary training, so that they can really understand the concept of online teaching, understand the new ideas, new technologies and methods of education in the Internet plus era.

(2) Technical professional assistance. Educational technology professionals participate in the whole course of online courses, such as designing online courses, online learning, organizing online teaching, managing online learning process, and providing learning support services with the help of educational technology professionals. For network technical personnel, there are many professional companies to participate in at present, technology is no longer a problem with funding support, the most important is the effective communication between the teaching and the technical staff.

(3) Building a real teaching team. Building an online course is a tedious task with a huge amount of work, it is a challenge to be updated, communicate, answer questions, revise and analyze after the completion. Therefore, an effective team is an important guarantee of the construction and operation of online courses.

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7. References


