Discussion on the Development of Informal Learning in China Based on MOOC Model

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Abstract—**With the fast development of cloud information technology under internet environment, there are more new education patterns born, which has enriched the education resource area. Based on MOOC pattern non-formal learning is therefore created, which has provided the powerful reality basis for developing internet education new ordinary state. This article is based on the discussion of MOOC development status domestic and abroad, with the typical case study of "Chinese University MOOC" platform, to analyze the current problem for domestic non-formal learning based on MOOC pattern. Under the circumstances of related doctrine and behaviorism, it is trying to provide the basis for driving on domestic non-formal learning based on MOOC into deep development.**

Index Terms—**MOOC, informal learning, Chinese Universities**

I. INTRODUCTION

In recent years, numbers of open online courses (MOOC) oriented in population suddenly rise. Although there has not be a long time since the development of the model, the earliest can be traced back to 2008, when Simmens and Stephen Denis set up Connectives and connective Knowledge [1]. Its impact on the establishment of the new normal education in our country is increasing. The new media Consortium (NMC) pointed out that the MOOC is positioned as the latest development trend of technical education and new practice in nearly 5 years, in the release of "2013 horizon report (Higher Education Edition)" [2]. Therefore, in order to make better development during informal learning, learning activities of the organizers need to carry on deep research and discussion to MOOC mode and its application cases, so as to promote the rapid development of national lifelong learning and informal learning model to lay the foundation.

II. A NEW PERSPECTIVE OF INFORMAL LEARNING UNDER THE MOOC MODEL BASED ON THE HOME

Under the development of modern information technology, the MOOC has raised rapidly and be more mature since it spread to China. In the MOOC boom, domestic MOOC platforms have formed prosperous situation through Sino foreign cooperation, universities,

colleges inter area etc [3]. At present, platforms including China University MOOC, MOOC College, Net ease cloud classroom, online school, MOOC China, University Online CnMooc, Mu class network are popular in China. Such as MOOC in China, it is based on domestic university, the mission is to focus on the completion of the Ministry of Education issued a national quality course development tasks, provide high quality colleges and universities curriculum for the majority of learners, learning object is the college student population. Rich curriculum resources and the excellent university settled, established its important status in the informal education. MOOC College combines the real learning assessment and content on courser platform for course selection and the courses of high quality translation into Chinese. Through the transformation of language courses in the domestic learning to overcome the language barrier, easier access to more foreign quality learning materials.

Based on the research and development status home, the author thinks that informal learning of MOOC has a close complementary relationship with the institutions of formal education and distance education. Informal learning emphasizes the relevance; spontaneous, social, collaborative essence is extending the concept of learning. The development and construction of the domestic MOOC is based on the traditional network course, it has achieved complete and appropriate practical learning process, with the use of advanced network technology, further optimization of the Internet technology and educational theory depth fusion. Compared to foreign countries, the domestic MOOC is still in the exploratory stage, but it is a profound educational revolution. In order to establish a MOOC platform with Chinese characteristics, in the process of introduction of technology platform to combined with the domestic education research practice, so as to effectively support the development of the education and teaching activities, and take on more responsibility for education.

III. THE DEVELOPMENT COURSE OF "CHINESE UNIVERSITY MOOC"

MOOC in China is established based on in our country for the past ten years to the macroscopic policy environment and all kinds of network curriculum resources construction project practice of development. In 2003, the Ministry of Education officially launched the

"national excellent course project, the project as when the Ministry of education on the construction work, the starting point is to promote the application of advanced network technology, modern information technology in the teaching, the project to promote the remarkable achievements and successfully cast the first class demonstration course. In 2012and 2013, the Ministry of education has started the "national excellent resources sharing project class". The move promotes the transformation and upgrading of the national excellent course strategy and provides a better teaching experience. China University MOOC platform formally launched in 2014 May 8th, it spare no effort to promote online teaching mode support higher school open online course construction. It has built personalized and diversified informal learning mode for both inside and outside learners.

IV. THE CONSTRUCTION PROCESS OF "MOOC"LEARNING ACTIVITIES IN CHINESE UNIVERSITIES REALIZATION OF PLATFORM BASED FUNCTION

University Cooperation. At present, there has been depth of cooperation between platform and Peking University, Beijing Institute of University of technology, Beijing University of Aeronautics and Astronautics, Fudan University, Harbin Industrial University, Zhejiang University, Wuhan University etc, a total of 52 domestic famous Each school has independent channel, carries on the simple introduction about the school, and in accordance with the school curriculum planning for specific curriculum and in the channel page with the school course list and the list of teachers and learners evaluate their learning characteristics, basic level of knowledge and learning objective demand of curriculum content and the teaching staff.

Object Open. The user orientation of MOOC is a group of college students, mainly college students or social students acceptable of the university level knowledge, no matter what kind of, due to the positioning of the course content, learner are students of this group. MOOC breaking the geographical constraints of the learning and learners around the world can node for the students, there is no longer distance constraints, learning in the course of lectures or spare time can use network environment and service platform and students to discuss and accept different points of view and thinking mode.

Resource Support. So far, the Chinese University MOOC platform has been included in the computer, management, basic science, engineering technology and other 772 courses. Among them, Beijing University set an example, it has set up special courses to "teach you how to make a MOOC", "flipped classroom teaching method", "teachers how to do research" aimed at make guidance and help for other university on the platform of course designers. It reflects the flexibility and versatility of MOOC platform. Beijing Institute of Technology focused, has opened 13 courses on calculus, University Physics, microelectronics circuit. Many university courses are set for used as students before class learning

and review after class as well. This mode also break out barriers among different colleges: students of Henan University can also learn courses in Wuhan University.

Complete Process. Complete teaching link. Study organizers set the commencement time and day of class, the curriculum goal, learners according to their own time arrangement and need, curriculum selection, learning materials can be organizers pre recorded video, can also be a text material or designated reference links, learning process, including classroom discussion, problem resolving, the experimental operation, test operation. Organizers set the commencement time, class time and the curriculum goal. Learners choose courses according to their own time arrangement and needs. Learning materials can be video precorded by organizers; it can also be a text material or designated reference links.

Interactive Assessment. Learners on the platform can discuss with each other in the learning process, they can also correct homework each other. Learners' role may switch to teachers. It is also a verification to the knowledge of they learn when they correct others' homework. Students can also for teachers of the course content, process settings, such as evaluation, the feedback is conducive to further improve of the quality of courses.

Authentication Certificate. Each course teachers are equipped with excellent and qualified grade assessment scores, after the end of the course, the achievement of standards can apply for access to certification, certification recognition is a recognition and recognition of the efforts of the learners. In the end, learners combine the theoretical knowledge with the real life and work, which is also an in-depth understanding of the theoretical knowledge and the revision of the feedback.

V. INFORMAL LEARNING ENLIGHTENMENT FROM THE DEVELOPMENT OF MOOC PATTERN IN CHINA UNIVERSITY ENTRY AND COURSE QUANTITY

The number of colleges and universities involved in MOOC is still small. Currently, the number of elite institutions that involved in MOOC is 52. However, according to the latest statistics from the Ministry of education, as of May 21, 2015, the number of Chinese colleges and universities is 2845. Every college and university should have which specialize in professional field, high quality curriculum resources and outstanding teachers, facing large-scale learning and limited teaching resources, resource integration platform should not be limited in "985", "211" colleges and universities. In the practical significance, more high school needs to be attracted. At the same time, the students from new universities which involved in MOOC are also potential users, the platform can be promoted by their own development.

Curriculum resource is not enough. There are 12 types of MOOC courses in Chinese universities, together a total of 772 courses. The average of each school is only 14.8 courses. Some colleges and universities have temporarily completed the entry, has not yet fully added courses. In the course already online, there are about 60% is higher mathematics, College English, and other very basic

courses, curriculum between universities to repeat, did not achieve a reasonable division of educational resources.

In order to cope with a large number of students who have different learning abilities, Ron Blais who comes from Duke university said, he had to scrutiny lecture notes carefully when he shoot videos of lectures and online courses, and the online courses should be more rigorous than the face-to-face version in campus [4]. Platform not only needs to be a pure course content, but also requires the curriculum should be a higher level of production, the content of innovative, mature rigorous quality courses.

VI. FROM THE PERSPECTIVE OF LEARNERS' COGNITIVE AND AFFECTIVE ATTITUDE

Platform user activity is low. Any kind of learning mode, both formal and informal learning, must face and deal with the cognitive level, emotional attitude, and so on. MOOC platform to carry out informal learning involves the user groups, including the course organizers, learners, platform maintenance personnel, etc. Platform maintenance personnel and course organizers develop, design excellent courses or learning activities, how to improve the enthusiasm of the learners, still needs to be in-depth study.

VII. FROM THE PLATFORM OPERATION AND MANAGEMENT LEVEL

Currently, the platform is free of charge, the user and course organizers are free to register and use the program, the operating costs of platform have become the problem cannot be ignored. MOOC revolution is to realize the free of education resources and democratic education learning form, this goal needs to achieve a steady stream of cost of capital investment, and may not entirely by government agencies or local colleges and universities to pay, only by means of a sustainable business model, and to support and maintain its sustainable development. At present, our country's MOOC platform operation management mode temporarily in the exploration stage, still need effective countermeasures to solve the management status.

At present, although the domestic MOOC platform for informal learning process have many problems, speaking from the long-term significance, we should see the potential for future development and contribution to the value of this learning model, MOOC conforms to the law of educational development, and also meets the needs of the development of informal learning. In the process of MOOC becoming more and more perfect, all parties need to benefit by mutual discussion of domestic education objectively and comprehensively thinking about how to deal with.

Establish a Sound Curriculum Management Mechanism. To pay attention to the management of curriculum resources is very important for the establishment of an informal learning model based on MOOC platform to maintain a long-term effective development path. From the curriculum to the level, the relevant departments should develop clear curriculum standards in a macro perspective. Criteria should be introduced into the curriculum assessment agencies, teaching process design, content, quality requirements, interactive mode, and other major indicators. To do a good job about the supervision of the access link for the platform, ensure the quality of courses; improve the learning interest of the students. Courses were divided according to the categories and themes, each dimension can be subdivided, so that learners save time and cost when they are selecting a course. From the course technical aspects, it is not blindly pursue production technology advanced, that will increase the cost, but to the curriculum design, teaching design, integration of curriculum resources and so on, through technical guidance, in accordance with the platform linear learning process, achieve the teaching link between elements of effective integration. However, the curriculum design, teaching design, curriculum resources should be integrated, through technical guidance, in accordance with the platform of linear learning process, to achieve the effective integration of various elements of teaching links.

Combine with Classroom Learning and Formal Learning. MOOC platform will become a breakthrough in China's existing system of curing the bottleneck of the educational system, and sublimation of the existing process of teaching mode. For example, students can use the MOOC platform to choose teachers in the school or any other school teachers' professional online courses to complete the preview before class, can apply to enter the next stage of learning through the MOOC platform to complete the assessment basis after understand preview before class, or the stage all of course. Learners complete the learning content before class. In the actual classroom students mainly complete the FAQ, field discussion, divergent thinking, and creative design and so on, in a certain extent solved the problem of combination of classroom education and practice in China. Therefore, it can be combined with the flexibility, sharing and openness of MOOC to solve the control requirements of different levels and stages of learners for knowledge learning progress.

Change the Mode of the MOOC Platform Operation. At present, many domestic MOOC platforms are facing the problem of capital cost pressures. It is insufficient in reserve forces for the promotion of informal learning, deepening the reform. In order to give full play to the principles of MOOC flexible characteristics, MOOC platform operators can try the combination of free and paid in the future [5]. For a joint government and enterprises or professional organizations participate in the platform operation. Governments need to increase investment in various levels of policy and set up special funds to support the construction of universities to carry out MOOC. The government's main position must be clarified in the MOOC funding [6]. It is reported that the government of the United States and edX have been cooperative to build B ostonX, aimed at providing free online university courses for students. At the same time,

we should try our best to promote the cooperation between enterprises and universities. Enterprises are advanced in technology management model, and the effective integration of the ability will increase the MOOC curriculum development and technical R &D depth. The implementation of this initiative can fully protect the continuous promotion of informal learning. In the future, MOOC platform will break the traditional teaching process, the existence of a large number of problems, mature steadily become a strong support for the development of education in China. This is of significance to enhance the individual learning and the realization of lifelong learning goals, to achieve a fair, just and open learning model.

MOOC brings not only the collision of the new technology of education, but also the reform of the teaching mode in our country. Now the function of the platform has been continuously improved, the resources are becoming increasingly rich and gradually recognized by the parties. In order to achieve the popularization of new mode of learning goals in a wider range. It is necessary to combine the MOOC platform with the modern educational technology to change the traditional classroom, realize the sharing of educational resources in the true sense. At this time, we should spare no effort to explore and practice the MOOC informal learning model which is in line with China's reality.

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