RESEARCH ON THE COUNTERMEASURES OF UNIVERSITY LIBRARIES IN THE ENVIRONMENT OF MOOC

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ABSTRACT

MOOC's openness, networking, and online resource sharing concepts have promoted the transformation of higher education, brought the characteristics of resource sharing and development of university libraries together, which subverting the traditional education mode as well as promoting the innovation of university library services. This paper briefly introduces the opportunities and challenges that MOOC brings to the development of university libraries, and on this basis, it focuses on the countermeasures that university libraries should adopt to when facing the development of MOOC. For example, strengthening the resource construction of university libraries; participating in copyright services of university libraries; expanding the information service of university libraries; constructing the MOOC platform of university library and exploring the development path of MOOC in university libraries.

Key Words: MOOC; University Library; Countermeasures.

1. INTRODUCTION

MOOC (Massive Open Online Courses) is large-scale open online courses. It is learner-centered, which focuses on sharing, communication and interaction. Its appearance meets the needs of learners for personalized learning, and its development helps to make up for the lack of curriculum resources, which has promoted the reform of curriculum teaching mode, improved teachers' teaching level and saved teaching cost as well [1]. More importantly, MOOC brings new opportunities to the development of university libraries, how can university libraries adapt themselves to this change in educational mode in terms of resources, technology and services, and how to play a unique role of libraries in higher education, is a subject that needs to be considered and studied.

2. OPPORTUNITY AND CHALLENGE BROUGHT BY MOOC TO THE DEVELOPMENT OF UNIVERSITY LIBRARY

2.1 MOOC brings opportunity to the development of university library

MOOCis a collection of the best teaching resources in the world as well as a major change in higher education; However, the university library is the center of university document and digital information resources, which is an auxiliary organization serving for the teaching and scientific

research in universities, it provides information resources for MOOC as well. In essence, university libraries and MOOC have a close and friendly partnership, they have a lot in common.

Firstly, they share the same educational goals that they are all for the purpose of universalizing, serving higher education and disseminating knowledge and information, and they all serve learners [2]. Secondly, university libraries have unique advantages in the development of MOOC. University libraries are rich in electronic and printed resources in various forms, and many libraries have also set up their own databases. At present, some libraries integrate of the collection of paper, electronic resources and external free resources and so on, providing the convenient and the fast one-stop retrieval for the learner by introducing resource discovery system. Learners can quickly access to their own needs of books, periodicals, papers and other foreign language resources through the discovery system, which is not only to meet the needs of learners of a variety of retrieval, but also provide a solid source of information resource assurance for the development of MOOC [3].

It is worth mentioning that the university library has a group of librarians with broad professional knowledge and strong professional ability, all of them are having rich experience in information retrieval, information consulting, database management, software development, and literature classification, cataloguing, indexing, etc. and this provides the support of personnel, technology and information service to solve the difficult problems in MOOC teaching. For example, the first MOOC service was offered by the University of Pennsylvania Library in the beginning, which has a dedicated MOOC course on its website. This column introduces points to note on the copyright as well as fair use of MOOC course in detail, these points to noteinclude copyright details of text materials, image materials as well as audio and video materials. Therefore, the new educational mode reform of MOOC in colleges and universities and the popularization of the knowledge dissemination system have brought the brand-new development opportunity for university library.

2.2 The challenge of MOOC to the development of university library

First of all, facing the global education revolution of MOOC, many scholars at home and abroad are worried about the development prospect of university library: Gremmels [4], a pessimistic representative, argues that college libraries are no longer needed in the face of MOOC because there's no room for the librarian; Domestic Scholars Fu Tianzhen and Zheng Jiangping [5] think that the open online education mode of MOOC brings challenges to the role orientation, user demand, copyright barrier, service mode and reference resource form of university library.

Secondly, internationally renowned universities have joined MOOC platform since 2012. China's top universities, including Tsinghua University, Peking University, Fudan University and Shanghai Jiao Tong University joined MOOC in 2013, and offered their own courses separately, which raised a development boom in China. University Library is the biggest supporting institution of MOOC information resources. In order to better serve the development of MOOC in universities, librarians should be the first to learn a few MOOC courses with an open mind as learners, and it would be best to get a certificate in a MOOC course. Librarians work with a large number of learners by watching videos, participating in discussions and completing assignments toexperience MOOC adequately, and deep understanding of how MOOC teachers design and

organize knowledge points as well as how to apply modern educational technology to teaching. It's also more likely to get a sense of what MOOC learners are really feeling, which lays the groundwork for taking part in or creating a MOOC course. This process requires librarians to have the ability of self-study and innovation, so that higher requirements of the Librarian's quality are put forward.

3. COUNTERMEASURES OF UNIVERSITY LIBRARY WHEN FACING THE DEVELOPMENT OF MOOC IN UNIVERSITIES

The introduction of MOOC concept brings opportunity and challenge to university library. Faced with the new situation, university libraries should adopt strategies actively to adapt to new technology and new environment. And it is also a problem that every librarian should reflect deeply, deal with and solve.

3.1 Strengthening the resource construction of university library

Firstly, in order to meet the diverse needs of learners in MOOC teaching, university libraries should strive for the government's policy or financial support to strengthen the construction of library resources. MOOC have not been in the China for long that it is still in the stage of development. Therefore, government department should come outrelated specifications to guide the development of MOOC macroscopically and to prevent the occurrence of "three hot" situation. At the same time, the development and research of MOOC courses need financial support, so increasing government funds is an important guarantee for the sustainable development of MOOC. The government has demonstrated the importance of MOOC at the national level by taking the lead in engaging and promoting them and it helped MOOC learning to gain social acceptance as quickly as possible, so that it could provide the internal force for the MOOC development strategy in China [6].

Secondly, under the MOOC environment, building up characteristic library resources according to the discipline characteristics of colleges and universities is the primary task of the university library. For example, the Peking University Library has made outstanding achievements in the construction of characteristic information resources, and its core journal of Beijing historical geography is a typical achievement in this field. The popularization of MOOC courses has led university libraries to show new breakthroughs in the course catalogue, it needs to create a resource directory for MOOC courses. After sorting through all the MOOC resources available in libraries, it carried out the integration of bibliographic resources according to the characteristics of the subject of the university to form a set of MOOC resources with characteristics of the university [7]. Capital Normal University's subject navigation and Tianjin University's nanotechnology database are examples of how university libraries can build their distinctive resources.

Finally, in order to strengthen the construction of human resources in university libraries, we should actively use the method of "training from the outside to the inside", that is to say, we should not only introduce high-level talents from the outside environment, but also make great efforts to cultivate the internal talents of the library, thus adapting to the demand of MOOC for the resources and technology of university library. University libraries can offer librarians the

opportunity to participate in MOOC training or seminars to help librarians develop a comprehensive and in-depth understanding of MOOC. Libraries can also send librarians to participate in MOOC trainings which are organized by the National Network of Training Centers for college teachers, and universities carry out MOOC lectures or training for their own teachers, and so on to improve the overall MOOC literacy of Librarians.

3.2 Participation in copyright services in university libraries

In traditional classroom teaching, the copyright of the original content is not belonging to the teacher. Teachers can reasonably use copyrighted works without payment or permission, and there are fewer restrictions on copyright. However, in the MOOC environment, copyright issues become more complex that it involves the interest relationship among teachers, learners, universities, external entities and MOOC providers. Drawing on the advanced experience of foreign copyright service and combining with the actual situation of MOOC as well as the library development in China, university libraries which are participating in MOOC copyright service can do the following work:

Firstly, according to the MOOC courses which are offered by the university, the university library should set up a copyright consulting office and set up special post of copyright management in library. The main duties of a copyright librarian are (1) Developing a copyright guide. (2) Define fair use of the learners. (3) Licensing and negotiation of copyright. (4) copyright settlement. (5) Recommending alternative resources that are not copyrighted.

Secondly, strengthen the training of librarians' copyright awareness and sensitivity. To organize and carry out training in copyright protection as well as intellectual copyright, and to invite experts from the copyright and law circles to give lectures.

In addition, the library should take the initiative to communicate and coordinate with the local legislature, timely express the demand of whether to formulate a copyright policy system suitable for the MOOC environment and create a relaxed policy environment that minimizes the probability of conflict between MOOC resource utilization and copyright, A relaxed policy environment conducive to the development of MOOC [2].

3.3 Expand the information service of University Library

First of all, provide MOOC teaching support services. Rich information resources and diversified information services are important guarantees for university library to participate in MOOC. The library can cooperate with relevant information technology departments of the school to support teachers to make courses and help learners to complete autonomous learning. Teachers shoot and produce MOOC videos through the network equipment, teaching equipment and other information infrastructure in library. At the same time, in order to improve the teaching effect of MOOC to meet the needs of learners at different levels, according to the content of MOOC course, library can provide learners with MOOC teaching supporting information push, resource navigation and customized services, modern information technologies, such as multimedia production and digital processing are used to assist teachers in making MOOC courses, and provide them with a variety of teaching reference materials as well as embedded learning

resources for course production team. For example, audio and video materials, references and full text links of e-books which are related to the course.

Secondly, create diversified MOOC courses of information literacy. MOOC has opened up a new way for information literacy education in university libraries, libraries should seize the opportunity to integrate MOOC concept with information literacy education, and create MOOC courses of rich content and various forms of information literacy. University libraries can make MOOC courses from traditional literature retrieval courses, freshmen education, database training lectures, etc. This novel, convenient and efficient teaching mode can attract the participation of learners, and learners can learn relevant courses according to their own needs [8]. At present, MOOC courses are already offered which is related to library information literacy include "information retrieval" by Professor Huang Ruhua of Wuhan University, "fundamentals of information management" by Professor Ma Feicheng, " retrieval and utilization of information " by Professor Ge Jingmin of Shandong University of technology, and "information resource sharing" by Professor Cheng Huanwen of Zhongshan University.

Finally, it provides embedded services for MOOC courses. Teachers and teaching assistants can be embedded in the learning process of university libraries, according to different stages of MOOC courses, subject librarians play different roles. Before the class begins, the subject librarian helps teachers search for information needed by the course thus guiding teachers to use the resources in the institutional repository as much as possible; During the course, online information retrieval, information filtering and information push services are provided for learners in order to reduce the information overload phenomenon and improve the level of information collection, evaluation, acquisition and integration of learners in online environment; At the end of the course, the subject librarian should keep the information data generated by the learners, analyze the learning behavior of the learners, give feedback of the learners' learning effect to the teachers, and provide personalized services for the learners. Subject librarians are embedded in MOOC teaching to increase the "discourse right" of Library in MOOC movement. It avoids the embarrassing position of "being marginalized" of the library, and it helps to reshape the image of the library as an information center [9].

3.4 Build MOOC platform of University Library

The main purpose of MOOC platform applied in university library is to display online excellent courses and other video resources, to guide learners to learn, so as to promote the in-depth disclosure of library resources. Therefore, the three core functions of MOOC platform of university library are course release and display, user communication and interaction, and integration and disclosure of collection materials.

According to the positioning of the platform function module, this paper puts forward the MOOC platform structure diagram of university library. As shown in Figure 1.
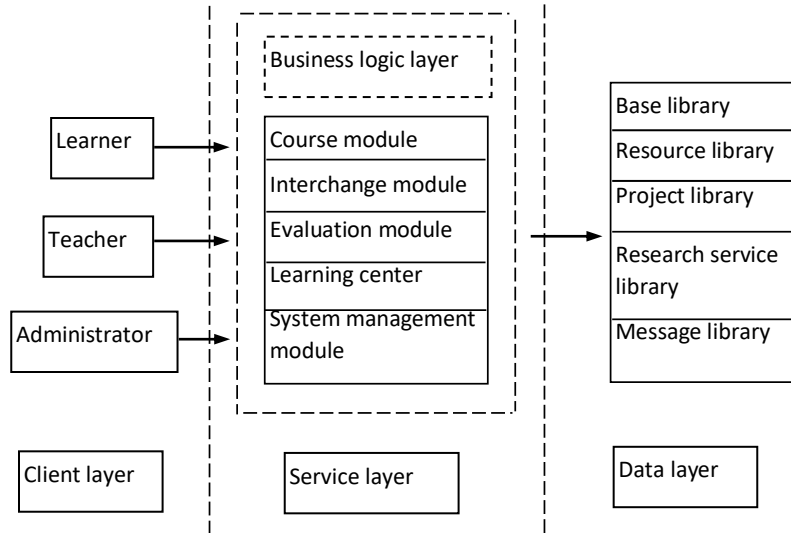
Figure 1. Structure diagram of MOOC platform in university library

The platform adopts MVC design pattern and BS architecture, and is divided into three layers:

Client layer: It is mainly user operation, which display information to users and user input information.

Service layer: It is for business logic layer, it is mainly to realize the management of the course and the learners' browsing, learning, interaction and evaluation of the course. It includes course module, interchange module, evaluation module, learning center and system management module. Course module is the unified management of all course operations, such as the course template construction, production, release, audit and management; The interchange module is used to realize the communication and interaction between teachers and students and learners, such as forum, instant chat, discussion area, personal homepage, announcement, etc.; The evaluation module provides the construction and management functions of evaluation questions; The learning center provides personalized services for learners, so that learners can manage their own learning behaviors in the learning center; And the system management module realizes the statistics and analysis of user data [10].

Data layer: It is for store data and provide data support.

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