Full Length Review Article

A STUDY ABOUT OPEN MICRO COURSE RESOURCESPLATFORM DESIGN

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ARTICLE INFO	ABSTRACT
	Micro course is a kind of new learning resources in recent years, and it has the characteristics of focus, practical and fast food. These characteristics meet the current fast pace of life, people just want to in the limited time learn useful knowledge for their needs. This study interprets the meaning of the class, analyzes the micro course resources platform features and functional requirements. And on this basis, the thesis focus on open platform design for micro course resource for three aspects: overall planning, function structure and application process.

INTRODUCTION

Micro course is a kind of new learning resources in recent years, and it has the characteristics of focus, practical and fast food. These characteristics meet the current fast pace of life, people just want to in the limited time learn useful knowledge for their needs. Now although producedsome micro lessons, but not limited to a public platform, caused some questions. Curriculums resources are not be effectively used, at the same time also cause redundant construction. An open platform helps to micro course resources together, sharing, mixing and diversion.

Overview on micro course resources platform

Micro course

Micro lesson is to interpret a certain knowledge point as the goal, in a short online video for forms, and online teaching video for the purpose of learning or teaching application 1. Micro course imposes a micro teaching video as the core, and contains the micro teaching matching with the courseware, practice, reflection, micro reviews, such as supporting and extensibility resources, thus forming an open resources

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dynamically generated and the application of interactive teaching environment. On the one hand, the course has bright characteristics such as fast food, pragmatism, focusing. With its short clear teaching goal, content, focus and solve the problem of a small program, and very suitable for the network platform of sharing and communication. On the other hand, micro study is indispensable to the future as a new learning mode, regardless of whether they are employed to study or school education (Shieh, 2009). Employedpersons need this kind of fast food, the practical application of learning resources to continuously improve their professional quality. School education need the clips, thematic learning resources to assist teaching and learning, and promote the reform of traditional teaching.

The main characteristic of micro course resources platform

Assemble

In traditional course, learning content is prepared ahead of time by the teacher. But in the open learning, most of the content is dynamic collection. Open platform provides a collection points for distributed throughout the Internet mass content, and these content are pushed to users of course via the web or communications course (Newsletter), and other forms of polymerization. The content is endless, learners probably

can't read all of the content, and they should choose according to their interests to learn.

Blend

Learners in the learning process will mix the contents of the courses and course content, mix learners own resources and curriculum resources. Typical forms by writing blogs, recording social bookmarking, sharing new resources, participation in the BBS discussion, and using Twitter in brief opinions, etc.

Convert

According to the learner's own goal convert polymerized curriculum resources and blended the resources. Course aim is not to let learners repeat existing content, but encourage them innovation. Learners can build the new content based on curriculum knowledge according to their own understanding and ideas.

Share

Learners should be actively with other learners of the course and course of all people to share their ideas and contents of the creation, hybrid, or switch to, cause more response and comments. The content shared can be a new resources, new ideas and new insights. And this valuable part of the content will also be course coordinator aggregated into communication (Li Qing and Wang Tao, 2012).

Open micro class resource platform design

The overall plan for the resource platform

Resource platform includes three layers: processing data, business logic, resources show by adopting the modular and hierarchical design concept. As shown in figure 1

Data layer is used to store all kinds of system data and resources. Based on security and extend the flexibility to consider, it separatessystem data, data resources and resource directory data. Not onlyguarantees the security of the system data, but different database system is chosen as the deployment time is flexible and convenient repository storage. The application layer realizes resources and management of the business application processing logic. On the one hand, it accesses data layer to process the data of the lower, and feedbacks the result to the upper layer. On the other hand, it joins the presentation layer up, receives and processesservice requests from the presentation layer, and returnsthe results. The application layer for the application of logic includes: the administrator management, user management, resources management and retrieval service, etc.

Presentation layer displaysresources and related information, and provides the service and management interface. Mainly include resource portal, resource platform management portal, and resource application client.For the end user application portal provide resources display, directories, search, download, etc.
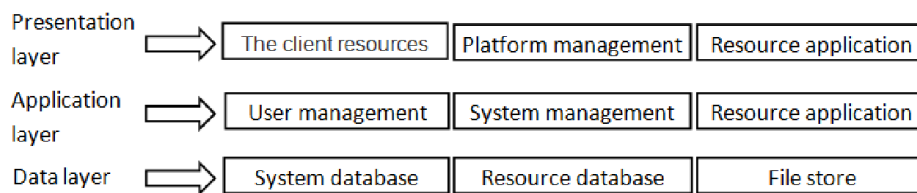

Fig. 1. The overall plan for the resource platform
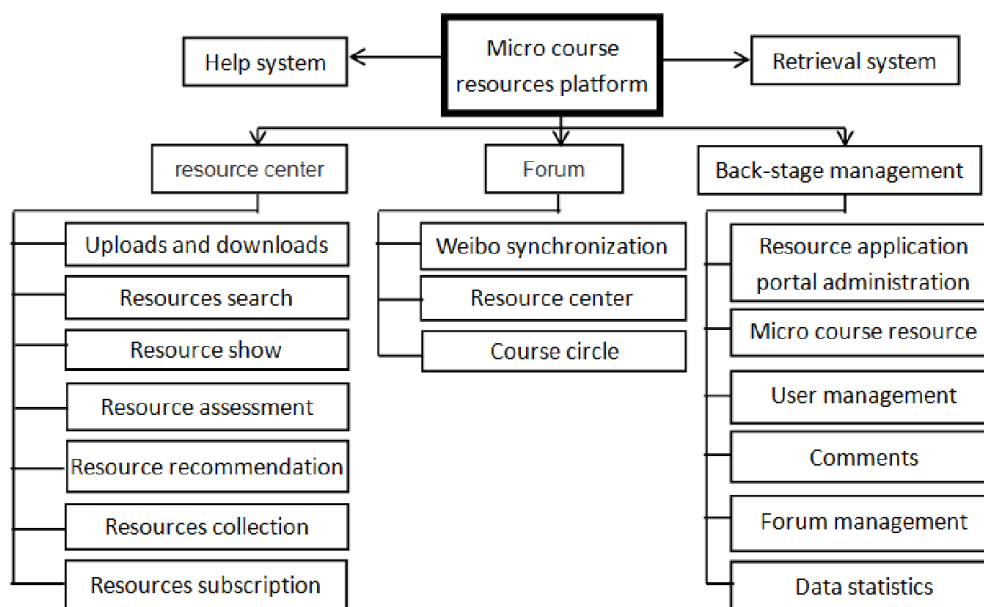

Fig. 2. The function structure diagram of the system

Resource management platform portal provides a convenient to platform and resource management. Application client provides resources to browse, download, retrieval and other services through desktop client to (Zhang hui, 2012).

Resources platform function structure design

Resource platform main function modules include: help system, resource center, BBS, retrieval system, background management five modules. Specific function structure are shown below Fig.2. Help system mainly includes system instructions, resource upload specification, message boards and forums instructions for use, etc. while providing the system message boards, supporting anonymous message, answering the difficult problems of the users. Help system helps users to operate and apply the system efficiently. Resource center is the core of the micro class resources platform construction. Resource center provide service for undergraduate students and employed. Resource classification includes practical skills courses (practical software, foreign language learning, the title skills, financial management, and other 10 major categories) and discipline curriculum (philosophy, economics, law, education, law and other 13 classes). That helps users quickly find the related curriculum resources. At the same time, BBS modulesare dividedby the same way, and echo resource center. The operation information of the registered user is synchronous released.For example, after uploading resources in resource center, BBS releases automatically a hyperlink to the users about uploading the posts of resourcesin corresponding section. For all users resource center support resources query, browse, download.

For registered users it supports upload, subscriptions, the collection resources, recommendations and evaluation function.At the same time, it realizes push function for registered users to push personalized resourcesby setting the registered user information. Forum offers the students communicating system, forum board classification sync with the theme of teaching, when the task Center released a new task, new posts are directly built in the corresponding section of the forum for students' targeted exchanges and discussions. Meanwhile, the forum can be achieved to bind with QQ accounts, personal speech information can be synchronized broadcast on Tencent Weibo. Course providers can apply to the administrator for newly building the curriculum discussion board according to the teaching demands, in order that Course providers have the right to review, delete the discussion contents of the inner pages (Zhou Yan *et al*., 2014). Background management module manages all resources uploaded, BBS, website registered users. System can also realize statistics about actions on the course, including the browse the number of download, online learning time, Posting frequency, frequency, etc., and put the high attention of course display on home page.

Resources platform running processes

Resources application flow chart (as shown in figure 3)

The user need to affirmidentification when access to the platform. Mainly divided into two status: registered users and non-users.Non-users can register free to be users of the system.
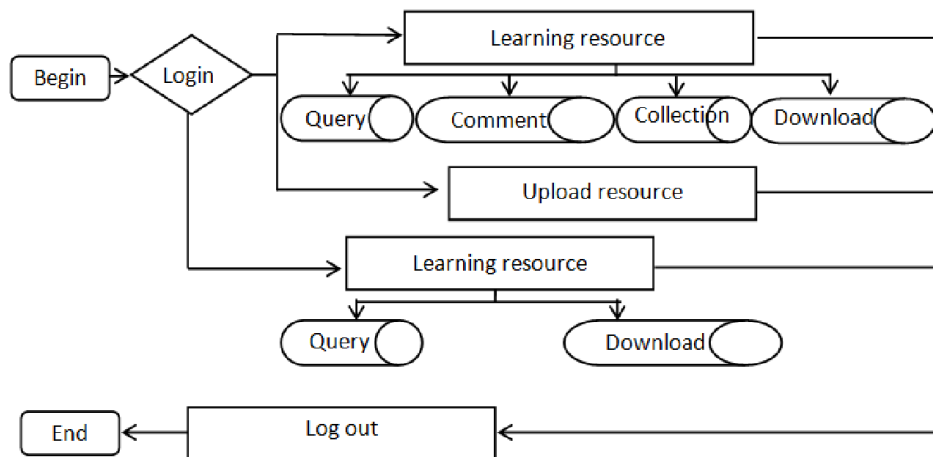

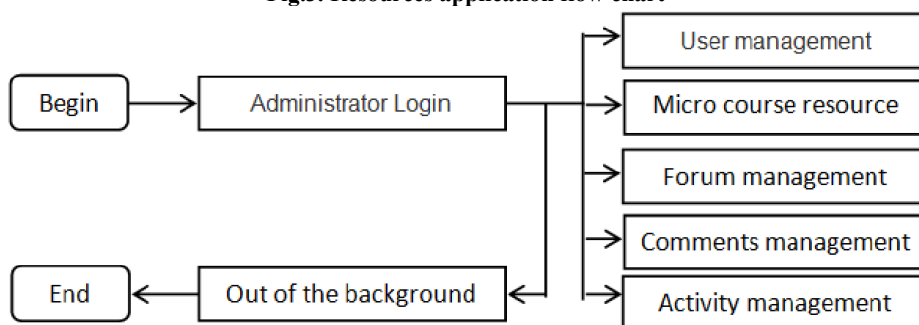**Fig.3. Resources application flow chart**

Fig. 4. Resource management flow chart

If they do not register, only can inquire related courses to learn or download resources related accessories. Registered users can be browsing online learning, and may carry on the review of course, can also be at the center of the course to the user's personal collection.Personal centerrecords history of release, reviews and collection of the micro course resources.At the same time, the platform allows registered users to upload their lessonsfor others to learn.

Resource management flow chart (as shown in figure 4)

Administrator enters into the management module through the backstage. The administrator permissions include:(1) Modify the home page announcements and activity information. (2)Add, delete, modify, and query the user.(3)Upload, delete, modify, and query course.(4) Review and release the user upload the curriculum resources.(5)Track user feedback, and through the email reply.

Conclusion

Micro study is indispensable to the future study as a learning mode. However, the development of the micro studymust rely on micro course resources construction and open.

This research design an open micro course resources platform from three aspects: overall planning, function structure, platform application process, and the designadopts the modular, hierarchical design concept. In this platform, each learner can build their own personal lessons learning environment, and learners can communicate and share their learning resourcesand experience.

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