Planning Research on Chinese Culture English Virtual Community

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Abstract

To solve the problem existing in Chinese culture English websites, which is focusing on "introduction" while ignoring "communication", based on the concept and core applications of virtual community, a planning research on Chinese culture English virtual community is described in this paper, which includes general requirement analysis, general structure planning and application platform planning. The aim is to provide a more comprehensive internet platform for foreigners to learn Chinese culture.

Key words: Chinese culture; Virtual community; Website planning; Information systems

INTRODUCTION

Chinese culture has a long and profound history. It is the treasure of not only Chinese, but also people all over the world. In recent years, following the rapid rise of Chinese economy and international status, more and more foreigners are eager to learn Chinese culture. Therefore, Chinese culture English websites[1] have appeared. China Culture Information Net aims at introducing Chinese culture through online articles. China Culture and Cultural-china provide not only articles but also news. In addition, Cultural-china provides links to buy books about Chinese culture at the same time. However, all the websites are focusing on one-way "introduction" while ignoring "communication" among users and cannot satisfy foreigners' further demand of learning Chinese culture via internet.

"Virtual community forms on internet and is composed of people with common interests and needs" (Ding, 2004, pp. 43-46). Through virtual community, people can not only acquire information but also communicate with each other. Core applications of virtual community include chatting room, mailing list, BBS, blog, wiki and ecommerce etc. (Chai, 2007; Ding, 2004). Therefore, it is feasible to solve the problem existing in Chinese culture English websites by introducing the concept and core applications of virtual community to develop the Chinese culture English virtual community and provide a more comprehensive internet platform for foreigners to learn Chinese culture.

This paper is organized as follows: section 2 gives an overview of website planning. Section 3 provides the general requirement analysis of the Chinese culture English virtual community. Section 4 describes the general structure planning of the virtual community. Section 5 introduces the application platform planning of the virtual community. Finally, section 6 concludes the paper and points out further work.

1. WEBSITE PLANNING

As a kind of information system based on B/S schema, the primary goal and tasks of website planning is similar to information system planning. The primary goal of an information system (website) planning is to propose a

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[1] For example, China Culture Information Net, retrieved on 11 Aug 2012 from http://english.ccnt.com.cn/; China Culture, retrieved on 11 Aug 2012 fromhttp://www.chinaculture.org/index.html; Cultural-china, retrieved on 11 Aug 2012 from http://www.cultural-china.com/

long-term development plan for the information system (website) based on user requirements and to determine the development direction of the information system (website) throughout its life cycle. The primary tasks of an information system (website) planning include three stages: general requirement analysis, general structure planning and application platform planning (Gan, Yan, & Du, 2003, pp. 57-241).

Bases on the goal of an information system (website), its substantial and holistic user, function and data requirements are elicited during the general requirement analysis to provide a foundation for the general structure of the information system (website).

Based on the user, function and data requirements, the information system (website) is then divided into subsystems during the general structure planning and both the functions and their data links of those subsystems are determined.

Based on the results of the general structure planning, the general physical (technical) plan of the information system (website) is devised during the application platform planning, which furthermore includes network architecture planning and software platform selection. During the network architecture planning, the distribution of both the hardware and software resources and the data resources of the information system (website) is illustrated. During the software platform selection, both the system software and the application software to be employed by the information system (website) are determined (Gan, Yan, & Du, 2003, pp. 57-241).

2. THE GENERAL REQUIREMENT ANALYSIS

According to the task of the general requirement analysis, to provide a more comprehensive internet platform for foreigners to learn Chinese culture, the general requirements of the Chinese culture English virtual community are concluded by analyzing users, functions and data of existing comprehensive virtual communities[2] and listed below:

News acquirement and release: Through the virtual community, users (including foreigners and Chinese using English) can timely access to and disseminate Chinese culture news.

Topics discussion: Through the virtual community, users can exchange views and ideas about Chinese culture they are interested in.

Wisdom exhibition: Through the virtual community, users can create private spaces, within where their individual views and ideas can be expressed.

Collaborative creation: Through the virtual community, users can write articles about Chinese culture collaboratively.

Commodities trade: Through the virtual community,

users can do ecommerce and finish sales and purchase of goods concerning Chinese culture.

3. THE GENERAL STRUCTURE PLANNING

According to the task of the general structure planning, based on the user, function and data requirements concluded above, the general structure of the Chinese culture English virtual community is proposed and illustrated in Figure 1.
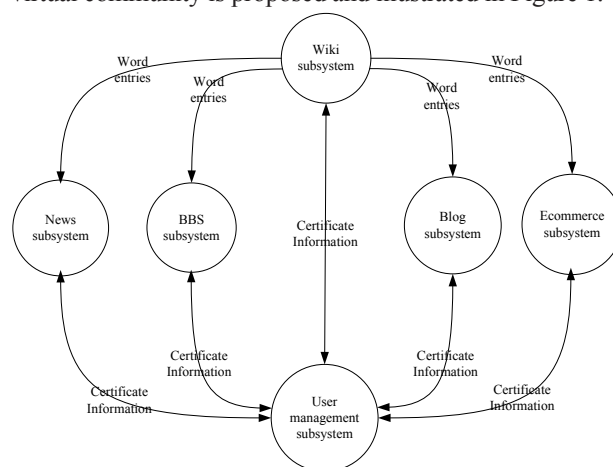
Figure 1
The General Structure of the Chinese Culture English Virtual Community

It can be seen from the figure that the virtual community is accordingly divided into five subsystems based on the five general requirements, which are the news subsystem, the BBS subsystem, the blog subsystem, the wiki subsystem and the ecommerce subsystem. Among them, word entries of the wiki subsystem can be regarded as titles of Chinese culture articles. When using other subsystems, users can be directed to articles of the wiki subsystem by clicking hyperlinks attached to word entries to get detailed information.

In addition, to realize once registration and login, the user management subsystem is peculiarly designed. After registering in any subsystem, a user's certificate information is centrally stored in the user management subsystem. Later, once logging in any subsystem, the user can access to all other subsystems.

4. THE APPLICATION PLATFORM PLANNING

According to the task of the application platform planning, the network architecture planning and the software platform selection for the Chinese culture English virtual community are respectively conducted.

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2 TianYa, retrieved on 12 Aug 2012 from http://www.tianya.cn/; Science Net, retrieved on 12 Aug 2012 from http://www.sciencenet.cn/; Hlgnet retrieved on 12 Aug 2012 from http://www.hlgnet.com/

4.1 The Network Architecture Planning

According to the network architecture and the running mechanism of the website B/S schema, the network architecture of the Chinese culture English virtual community is proposed and illustrated in Figure 2.
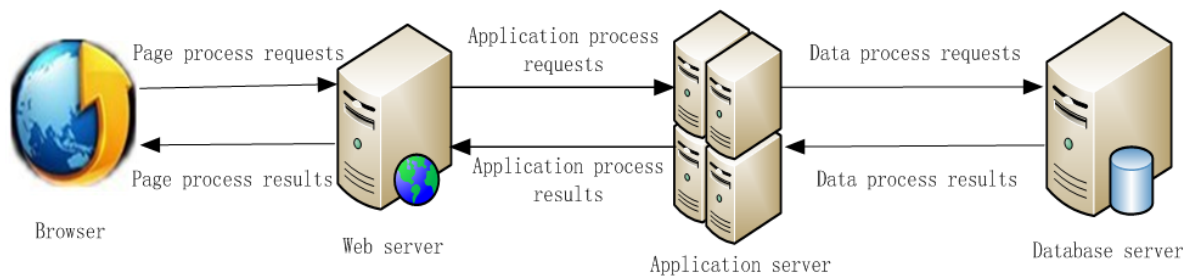
Figure 2
The Network Architecture of the Chinese Culture English Virtual Community

It can be seen from the figure that page process requests are sent to web server by browser and transformed into application process requests by the web server and sent to application server. After that, those requests are transformed into data process requests and sent to database server by the application server. After processed, those requests are transformed into data process results and sent to the application server by the database server and then transformed into application process results and sent to the web server by the application server. At last, those results are transformed into page process results and sent to the browser by the web server.

4.2 The Software Platform Selection

The software platform selection includes the system software selection and the application software selection.

4.2.1 The System Software Selection

Based on the network architecture of the Chinese culture English virtual community, the system software to be employed is determined, which includes the network operating system, the web server, the application server and the database management system.

At present, Windows, Linux and Unix are the most popular network operating systems. As an open source operating system, Linux is not only free to use but also has great hardware compatibility and stable and fast performance[3]. Therefore, Linux is selected as the network operating system.

Currently, Apache is not only the most widely used web server under Linux, but also the first rank web server around the world. As an open source software, it is free to use and has simple, fast, safe, reliable, stable performance and other notable features[4]. Therefore, Apache is selected as the web server.

PHP is a server-side HTML embedded scripting language. Not only it is able to achieve all the functionalities of CGI program, but also it has faster execution speed and greater efficiency than the CGI. At the same time, it also supports most of the popular network operating systems and database management systems, including Linux (Li & Chen, 2009, pp. 43-43). Therefore, PHP is selected as the dynamic webpage developing language and the PHP engine is selected as the application server.

Nowadays, Oracle, SQL Server, MySQL and Access are the most widely used database management systems for websites. As an open source software, MySQL has many notable features such as low cost, high speed, small size, high performance and good reliability etc., which make it widely used in small and medium-sized websites (Open Source Software Research Team). Therefore, MySQL is selected as the database management system.

4.2.2 The Application Software Selection

Based on the general structure of the Chinese culture English virtual community, the application software to be employed is determined, which includes the news subsystem software, the BBS subsystem software, the blog subsystem software, the wiki subsystem software and the ecommerce subsystem software.

At present, Joomla, Drupal and Plone are the most popular open source content management systems. Joomla is based on PHP and MySQL and is more suitable to be as portals of enterprises and institutions. In addition, Joomla has low cost, comprehensive function, powerful extensibility, large user base and other notable features (Wang & Zhong, 2011). Therefore, Joomla is selected as the news subsystem software.

Currently, Phpbb, Kunena and Phpwind are the most popular open source BBS systems. Though functions of Phpwind are complete, it is developed by Chinese

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[3] Baike.baidu. Linux. Retrieved on 12 Aug 2012 from http://baike.baidu.com/view/1634.htm
[4] Baike.baidu. Apache. Retrieved on 12 Aug 2012 from http://baike.baidu.com/view/28283.htm

company with an imperfect English GUI. Compared with Phpbb, Kunena provides only basic functions and charges for most templates. Though it is a little complicated to configure Phpbb, it has powerful function and many free templates to use (Li & Liu, 2009). Therefore, Phpbb is selected as the BBS subsystem software.

Nowadays, WordPress, b2evolution and MovableType are the most popular open source blog systems. Compared with the other two systems, WordPress is much better in all the user friendliness, function extensibility and system reliability (Zhu, 2007). Therefore, WordPress is selected as the blog subsystem software.

For the moment, Mediawiki, Tikiwiki and Dokuwiki are the most popular open source wiki systems. Among them, Mediawiki has the most users in the world and has higher stability, lower operating environment requirements, stronger supporting team and larger storage capacity etc. (Li & Li, 2007; Media Wiki[5]). Therefore, Mediawiki is selected as the wiki subsystem software.

Today, Magento and Zencart are the most popular open source ecommerce systems. Compared with Zencart, Magento is more professional, secure, reliable and able to realize multi-store centralized management. What's more, some key functions can choose to be self-developed[6]. Therefore, Magento is selected as the ecommerce subsystem software.

CONCLUSIONS

To solve the problem existing in Chinese culture English websites, which is focusing on "introduction" while ignoring "communication", based on the concept and core applications of virtual community, a planning research on Chinese culture English virtual community is described in this paper, which includes general requirement analysis, general structure planning and application platform planning. The aim is to provide a more comprehensive internet platform for foreigners to learn Chinese culture.

Currently, though a prototype of the virtual community based on the planning research has been deployed on internet[7], there are still many aspects to be improved further, such as the realization of the user management subsystem and the payment function of the ecommerce subsystem, which are the problems to be solved in the near future.

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[5] Media Wiki. Retrieved on 12 Aug 2012 from http://www.douban.com/group/MediaWiki/
[6] Magento, retrieved on 12 Aug 2012 from http://www.magentochina.org/; Zencart, retrieved on 12 Aug 2012 from http://zencart.cn/
[7] Chinese Culture English Virtual Community. Retrieved on 12 Aug 2012 from http://www.chineseculture.biz