Researches on ASP.NET-based Education Website Development for Ideological and Political Management of Colleges and Universities

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Abstract

With the rapid development of the information age, Chinese colleges and universities keep exploring brand-new online education models for their ideological and political education. The key to the development of current education website for ideological and political management of colleges and universities is the networked management efficiency to be provided for the education model of ideological and political management on the basis of integration with .NET technology. The online management of ideological and political education is also essentially a brand-new development way to promote the modernization of education model. As integrated with the network information platform, colleges and universities enrich teaching content and management approaches to ideological and political education, thus creating good learning environment for their students. For this purpose, as a new attempt to promote individual learning and collaborative learning, a networked development model of quite high feasibility for the ideological and political education of colleges and university is provided on the basis of.NET-based network platform in this study, through which the ideological and political education of colleges and universities will be promoted towards the informatization of a new age.

Keywords: ASP.NET technology, Ideological and political management, Education website.

1. RESEARCH BACKGROUND

1.1 Literature review

The education website for ideological and political management of colleges and universities is not only for moral education, but also as a red network for disseminating theoretical results of socialism that have been put into practice actively in China as well as spreading Marxism, Mao Zedong Thought, Deng Xiaoping Theory, the important thought of Three Represents, Scientific Look on Development and problems and methods to be tackled urgently since China enters a new era of socialism (Liu and Luo, 2012). The outlooks on the life philosophy, values and the world of college and university students are the key to Chinese ideological and political education in colleges and universities. The historical mission that must be accomplished for building the education website for ideological and political management of colleges and universities is to develop the political affiliation and ideological thought of college and university students and convey the core values and fundamental policies of Chinese socialism (Chen, 2015). The Internet is also a key platform for developing the ideological and political education. As more and more university students choose to learn from online resources, colleges and universities should design their education website of ideological and political management suitable for ordinary students and consequently meet their learning needs (He and Zhu, 2015).

1.2 Research objective

The current focus of ideological and political education in Chinese colleges and university is on the breakthrough of traditional teaching models to create good learning environment and atmosphere for students (Qi and Chen, 2015). For college and university students, their urgent demand for ideological and political learning materials finally lies in the extended development of .NET technology. In order to grasp the ideological and political learning needs of students, focal points on the ideological and political learning are investigated by means of questionnaires, literature analysis and case study in this research, and the specific functional needs for the education website of ideological and political management are summarized through analysis and comparison. Moreover, a theoretical framework is designed within WEB architecture, in which the system bases on ASP.NET+CSS and the upload data formats include .DOC, .FLV and .AVI, etc (Fang, 2014). The .NET technology support to the setup of online ideological and political education platform is summarized to analyze the substantive
functionality of this system to ideological and political education, so that deficiencies can be concluded as more effective theoretical reference for the education website of ideological and political management.

2. VALUE OF CONSTRUCTING AN EDUCATION WEBSITE FOR IDEOLOGICAL AND POLITICAL MANAGEMENT OF COLLEGES AND UNIVERSITIES

2.1 Functionality of ASP.NET-based education website for ideological and political management of colleges and universities

Throughout the Internet networks that have been improved fully nationwide, the number of college and university students who spend more than 4 hours online by average daily accounts for 35.85% of the total number of students, and other school students spend 2 hours online by average (Li and Zhao, 2014). Some students collect their learning materials on the Internet, but some other students are inevitably addicted to the Internet and consequently delay their study. The ultimate objective of the ideological and political education in colleges and universities is to cultivate a new generation of successors with progressive ideas, pass on the historical mission and hence build a fully modernized socialist country. The lack of ideological and political education in colleges and universities may have students misled by negative information or harmed by unhealthy culture online. In view of this, colleges and universities should take back their control of ideological and political education on the online platform to complete their online education infrastructure and assure the ideological values of their students (Liu and Xia, 2016). Therefore, comprehensively setting up the education website for ideological and political management of colleges and universities is the essential way to assure the ideological values of students as well as to outwash and counter unhealthy culture and ideas, as it is of great importance to lead students towards the construction of Chinese modernization.

2.2 ASP.NET-based theoretical framework

Instead of a single Active Server Page (ASP) version, ASP.NET is rather a network platform service system based on Web development environment, which is optimally designed for providing services required by developers to generate enterprise Web application programs. ASP.NET has a programming syntax highly compatible with ASP, so that it can provide the programming model and the structural framework for brand-new website functions and can be used to generate safer, scalable and quite stable application programs (Wang and Wu, 2016). On the .NET-based education website for ideological and political management of colleges and universities, various ASP.NET functional modules can be added to complete the teaching content, develop the management model and distribute files in various kinds of formats, and website functions and programs can be improved and supplemented at any time. AST.NET is a compiled system model based on .NET environment, which can be used with languages compatible with .NET such as Visual Basic .NET, C# and JScript .NET for program code design and creation. Besides, ASP.NET application programs can satisfy multiple functional demands in the complete .NET framework. Developers can obtain technical support more conveniently, and the involved parts include CLR environment, type safety and cross-language inheritance, etc (Feng and Wang, 2013). AST.NET optimizes the development design pattern and is fully object oriented as featured with platform independency, safety, reliability and major orientation to the Internet. Meanwhile, the powerful scalability and the mutual support among various kinds of development tools allow its design programming language to be more flexible, so that the operational efficiency of the education website for ideological and political management of colleges and universities will be infinitely expanded in terms of simplicity, manageability, scalability, structural extensibility, availability and high performance. An extremely flexible programming mechanism and development environment can be provided for specific functions on the education website for ideological and political management of colleges and universities and for supplementary functions in different runtime environments.

3. FUNCTIONS OF ASP.NET-BASED EDUCATION WEBSITE FOR IDEOLOGICAL AND POLITICAL MANAGEMENT OF COLLEGES AND UNIVERSITIES

The ASP.NET-based improvement of functions on the education website for ideological and political management of colleges and universities consists in the effective utilization of online education resources. Considering the investigation results from this research, including the learning needs of students and the recommendations given by ideology and politics teachers, 5 most basic functions of the website platform are proposed, including: functional module of video management, functional module of online teaching, functional module of exchanges platform and record module of learning progress, as shown in Table 1.
Table 1 Five Most Basic Functions of Website Platform

<table>
<thead>
<tr>
<th>Demand</th>
<th>Video</th>
<th>Teaching</th>
<th>Communication</th>
<th>Progress</th>
<th>Hot spot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>The latest information</td>
<td>Access to resources</td>
<td>Ask questions</td>
<td>Learning record</td>
<td>Hot spot</td>
</tr>
<tr>
<td>Teachers</td>
<td>Concept</td>
<td>Innovative concept</td>
<td>Answer</td>
<td>Visit</td>
<td>Targeted</td>
</tr>
<tr>
<td>School</td>
<td>Improve the function of</td>
<td>Expand the scope</td>
<td>Strengthen communication</td>
<td>Verify the results</td>
<td>Law of thinking</td>
</tr>
</tbody>
</table>

3.1 Functional module of video management

In the functional module of video management, ASP.NET is mainly used for conventional network platform functions, such as posting, updating and deleting the information about ideological and political education videos (Liu and Xu, 2013). Chinese latest political thoughts, news materials and learning resources need to be timely updated on the education website for ideological and political management of colleges and universities. Therefore, these functions must be the complete basic functions in the video management module.

3.2 Functional module of online teaching

The functional module of online teaching is the extension of ideological and political courses mainly for MOOC online education, which is not only the in-depth education for college and university students, but also as the guidance and support to social students. It is of quite far-reaching significance for realizing the public good value of the education website for ideological and political management of colleges and universities. In this functional module, students can obtain more learning resources, teachers can convey brand-new ideological and political opinions to them, and colleges and universities can expand the actual teaching content, so as to break through the time and spatial limitations to the traditional teaching.

3.3 Functional module of exchanges platform

The functional module of exchanges platform is mainly to strengthen the contact between students and teachers. For students, the necessary foundation for being led by the ideological and political education is to first obtain positive ideological guidance. This functional module is designed to provide necessary solutions to students when they have any problems at the first time. Besides, the mutual discussion among students is obviously advantageous on the exchanges platform, through which students can communicate with each other for common progress. BBS and the chat room for solving general problems are also used for enhancing the teaching efficiency in the ideological and political education.

3.4 Record module of learning progress

The learning progress record is to urge students to know their learning progress, and it is also a basic technical function for teachers to know the recent situations of their students. In this functional module, teachers manage the data files of their students, so that they can track down their learning records and comprehensively evaluate their learning statuses. Besides, in this record, they can timely find out whether their students have ideological deviations or misunderstandings and thus improve the timeliness of ideological and political education management.

3.5 Retrieval module of hot news list

The retrieval module of hot news list is the technical summary from the investigation on the hot news focused by students, which helps ideology and politics teachers to understand the orientation of students’ common ideological values. Meanwhile, the thinking dimensions and hot news under discussion of the students are summarized, which can also conclude an objective law of ideological transformation for students. Then, a leading direction is provided for the ideological and political education and the theoretical reference is provided for cultural transmission design, so as to design the content and patterns of ideological and political education that can effectively provide guidance to students.
4. SYSTEM STRUCTURE DESIGN OF ASP.NET-BASED EDUCATION WEBSITE FOR IDEOLOGICAL AND POLITICAL MANAGEMENT OF COLLEGES AND UNIVERSITIES

The support of ASP.NET technology provides the technical foundation for completing multiple functions of the education website for ideological and political management of colleges and universities, and functions of this system are mainly designed into 2 parts – foreground and background: firstly, various kinds of ideological and political education information needs to be presented at the foreground (Ni, 2016); secondly, the related information to be release is mainly uploaded and managed at the background. Above all, the system already designed and developed is placed in the server as required, then learning materials needed for ideological and political education are uploaded through background management, and later the information is presented once transmitted. Then, the Chinese website address needs to be typed on the browser to access to the main website functions, and the detail information that can be browsed and downloaded at any time is displayed in the foreground system. At last, the entire distribution of all learning materials will be realized and presented to the terminal through the resources setting and space matching between the foreground and the background. In this whole process, the foreground has the layout design based on div+css and the components programming and completion based on .NET. While during the database operation in C# language, the connection between the foreground and the background is gradually established, and the database design is completed based on ACCESS. The system structure is shown in Figure 1.

![System Structure Design](image)

**Figure 1.** System Structure Design of Education Website for Ideological and Political Management of Colleges and Universities

In this system, users’ behavior is conducted with Web server, and the system management is efficiently accessed through ACCESS database. The specific process is as follows: A college or university student opens URLs on the network terminal and submits the mission codes on this page to download resources. Right now, the background administrator uniformly sorts out and prepares the data information, and then adds or updates the information, videos and users in real time. After the related information is modified, the database content is obtained and stored for further retrieval and utilization at any time.

5. SYSTEM PROGRAMMING TEMPLATE FOR ASP.NET-BASED EDUCATION WEBSITE

5.1 Information addition and update

To add and update the information based on ASP.NET, one needs to upload learning materials in different formats as supplementary content for ideological and political education. Specific application formats include .DCO, .FLV, and .AVI, etc. Then, differentiated setting of different parameters need to be completed through ffmpeg and mencoder information format conversion programs (Xu and Zhang, 2011). In the conversion process of training videos, the new reading operation can be conducted with gridview and completed through timely modification and deletion. For data uploading, the component upload is required, and the inner connection between the database and gridview is established during modification to support the new reading with gridview and complete the information for safekeeping. This operational process is completed with following codes:
5.2 Guidance of file addition at background

After the related learning data or information is added at the background, the video material needs to be attached with a subject index. The content to be retrieved also needs to be set and modified in this material in accordance with the subject key words. After the filling is done with TESTBOX, the filled content needs to be submitted to the database for system analysis, and constraints on all the upload information are realized with if(this.text1.length≤1){else{}}. At last, the information will be updated or transmitted in real-time with the ADD button pressed.

5.3 Data index editing

The video data stored in the database needs to be designed with corresponding video paths for quick query and downloading. Locating the video through index is necessary to improve the website utilization efficiency. Meanwhile, the video adjustment functions also need to be designed, including volume, size, definition and player selection (Wang and Zou, 2013). The video is transmitted with upfile component, for which split() function can be used. Data reading is also completed for video cutting when the data is stored in the database, and the specific video content can be display at the foreground when read. The path design is as follows:

```java
String name = fileName.Substring(0,fileName.lastIndexOf(‘.’));
String imgName = saveName+jpg://Imagefile name;
String playName = saveName+flv://Video file name;
String addr = PublicMethod.payFile+playName;
String picaddr = PublicMethod.imgFile+imgName;
```

5.4 Classified management of data

When uploaded, all the information needs to be classified by the video file membership as attribute value, and videos of different file types can be classified with dropdownlist (Cui and Xu, 2010). In this process, item classification details to be added in dropdownlist can also be defined with specific assignment values and can be classified by video type, so that all system data will be classified. Codes are as follows:

```html
<asp:DropDownList ID="?" runat="server" height="42P" width=158Px/>
<asp:ListItemSelected="ue! Value = ;" TheFocus< /asp:ListItem>
<asp:ListItem Value = ;2? > Education theory </asp:ListItem>
</asp:DropDownList>
```
5.5 Data retrieval setting

Through data retrieval, the inner relations among all website data can be classified and determined, so that the data type can be classified and looked up by key word searching. In order quickly retrieve key words, the information needs to be looked up through textbox input, and then the specific position of a related file will be determined in line with the special definition of the key word. Next, the search content of student users or teacher administrator will be found out.

5.6 Functional setting of forum management

In order to prevent part of the related learning resources or data submitted at the website foreground from missing, the login system can be entered to prepare and store the message content in the background management process (Ye and Shao, 2013). Besides, this can also prevent the dissemination of unhealthy information. These codes can be used for the Internet content discussion and mutual exchanges on the website, thought interaction and infiltration and finally the progress and sublimation of common consciousness and mind. In the process of forum management, expected functions are achieved through background queries, which also involves the use and collection of key words. For the control of unhealthy information, codes can be written in SQL statements and realized in different language environments. Query codes are as follows:

String sq1 = "select id, content,beyond,adder,time from liuyan where content =?" + content+";

6. CONCLUSION

A complete education website for ideological and political management of colleges and universities must have standard functional modules of video management, online teaching, exchange platform and learning progress record to interface the content of ideological and political teaching with the learning needs and improve realistic effects of multiple information functions. All the programming content designed in this research is completed in the ASP.NET-based environment. For the practical design, system commissioning is required in line with the feedbacks from students, teachers, colleges and universities. Only when the learning needs of students, application needs of teachers and construction requirements of school culture are met can the ASP.NET-based education website for ideological and political management be completed with appropriate technical indexes and designed with perfect system management procedures and modes.

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