



# Design and Construction of Comprehensive Platform of Ideological and Political Education in Colleges and Universities from the Perspective of Internet Plus

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**Abstract.** With the further development of information technology, a single offline teaching mode can no longer meet the learning habits and learning needs of college teachers and students. Colleges and universities should keep up with the social situation and innovate the ideological and political teaching mode with the help of digital electronic technology. This paper combines Web technology with computer application technology to build a comprehensive platform for ideological and political education in colleges and universities, so as to solve some problems encountered in current ideological and political education in colleges and universities. The overall development of the platform takes computer as the development hardware, C# as the development language and Windows 10.0 as the standard operating system. In the evaluation part of the platform, with the help of qualitative and quantitative AHP, the evaluation system of ideological and political education is enriched. The establishment of this platform has updated the existing ideological and political education model, and contributed to the realization of the fundamental task of cultivating people with virtue.

**Keywords:** ideological and political education · Learning platform · AHP algorithm · MVC mode · Web technology

## 1 Introduction

Internet technology is not only a scientific and technological product of the development of the times, but also an information asset, which can effectively promote the innovation of ideological and political education mode and practice form in colleges and universities [1]. In order to further adapt to the new requirements of ideological and political education in colleges and universities under the background of internet plus, it is imperative to build a comprehensive platform of ideological and political education in colleges and universities under the vision of internet plus. However, as far as the development of ideological and political teaching in colleges and universities is concerned, there are still some problems. First, the teaching mode of ideological and political education in colleges and universities is single. The lecture-style teaching has been difficult to

meet students' spiritual needs and can't attract students' attention. Second, the teaching resources of ideological and political education in colleges and universities are outdated, and the high-quality resources are unevenly distributed, which reduces the learning efficiency. Aiming at the above problems, this paper constructs a comprehensive platform of ideological and political education in colleges and universities from the perspective of internet plus. This platform makes full use of Internet + technology to set up auxiliary learning modules before, during and after class, and builds a diversified learning environment for all-round cultivation [2].

## 2 Introduction of Key Technologies

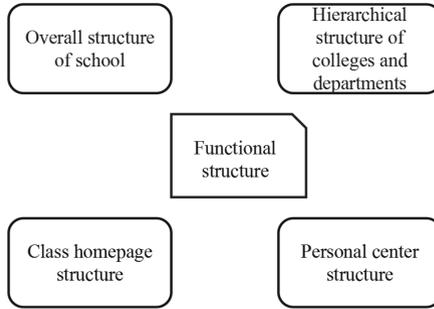
### 2.1 Development Process

According to the technical requirements of the above-mentioned related applications, complete the configuration and deployment of the development environment of the comprehensive platform of ideological and political education in colleges and universities from the perspective of internet plus. In order to improve the scalability and portability of the system, the platform is built by C# and other related technologies [3]. Windows version 10.0 is used as the operating system, IIS version 10.0 is used as the web server, Visual Studio 2019 is used as the bottom development tool, and SQL server 2019 is used as the database server [4].

The detailed construction of the auxiliary teaching system is carried out according to the following steps. First, you need to open Visual Studio 2019 in the menu, create a new project, select ASP.NET web application, then click Next, preset the project properties, and then configure the web form. Then, right-click the project in the solution explorer on the right to add a web form and name it, and then select MVC on the pop-up form. After that, publish the generated website to IIS, select the management website, then select the advanced settings in the page, and finally select the physical path. After the basic configuration is completed, a comprehensive platform of ideological and political education in colleges and universities can be built from the perspective of internet plus. Through the description of the above key technologies, the overall framework of the ideological and political education assistant system is roughly planned, and the feasibility of establishing a comprehensive platform for ideological and political education in colleges and universities from the perspective of internet plus is clarified.

## 3 Functional Implementation

The functional structure of the comprehensive platform for ideological and political education in colleges and universities consists of four parts: the overall structure of the school, the hierarchical structure of departments, the homepage structure of classes and the personal center structure, as shown in Fig. 1. When users use the platform for the first time, they need to complete the user registration and carry out subsequent operations according to the relevant guidance given by the page.



**Fig. 1.** Functional structure of platform (original)

### 3.1 Education Module

In the online teaching module, students can learn independently according to the course videos uploaded by teachers, and adjust the video progress according to their own learning efficiency. The video progress adjustment code is shown in Fig. 2 [5]. Students can mark pages with the help of graffiti function when they encounter something difficult to understand in the learning process, and teachers can browse the problems marked by students in the management mode. After watching, the system will automatically generate question sets, so that teachers can carry out targeted teaching on key issues [6].

Click on the current political information section, students can browse the current popular political content, so that students can know the current political news more quickly and form rational political thinking [7]. Excellent courses are mainly national excellent courses. Click this module, and students need to set their viewing type preferences first. After the setup is completed, the platform will recommend corresponding excellent courses for students. For example, recommend the “Basic Principles of Marxism” of Wuhan University for students who like theoretical research; Recommend “Understanding Marx” by Nanjing University for students who like characters’ lives [8]. The system will also regularly count students’ browsing data and calculate it, so as to get the most popular content. The ranking of resources involves heat calculation, that is, the demand and quality of resources are determined according to the number of page views of students. The calculation formula used here is shown in Formula 1. Among them,  $H_i$  represents the popularity of various resources,  $W_i$  represents the number of course views,  $I_i$  represents the initial quality of video,  $G$  represents the speed of resource

```

const video = document.querySelector("video");
// Slow it to 50% speed
video.playbackRate = 0.5;
// Twice as fast!
video.playbackRate = 2;
// Back to normal
video.playbackRate = 1;
  
```

**Fig. 2.** Video progress adjustment code (original)

**Table 1.** Evaluation numerical matrix

A	B1	B2	B3
B1	1	2	2
B2	1/3	1	2
B3	1/3	1/2	1

transmission, and T represents the time [9].

$$H_i = \sum_t \frac{W_t + I_i}{(t + 1)^G} \quad (1)$$

### 3.2 Evaluation Module

Because the ideological and political course is theoretical and changeable in the implementation process, a single evaluation method can't comprehensively evaluate students' learning process and results. Therefore, the platform adopts multi-dimensional evaluation method, and takes AHP, a combination of qualitative and quantitative analysis, as the calculation standard. Through in-depth analysis of students' characteristics, it is concluded that the evaluation points of comprehensive score are teacher's evaluation, learning attitude, practical results, learning methods, etc. According to the key types, they are divided into two indicators, A and B, as shown in Table 1 [10].

The final calculation formula of students' total score is shown in Formula 2. The final grade Q = the usual grade C + the final grade M + the teacher's grade G, r represents the different grades of the assessment points, and i is the confidence of the process evaluation.

$$Q = \sum_i [(g_r \times 30\%) + (c_i \times 30\%)] + \sum_r (m \times 40\%) \quad (2)$$

## 4 Conclusion

The ideological and political education in colleges and universities has the characteristics of long-term and development. In the process of teaching implementation, it is impossible to completely realize all-round education by relying on individual strength. Therefore, guided by scientific theory and supported by digital technology, this paper constructs a comprehensive platform of ideological and political education in colleges and universities from the perspective of internet plus. With the help of technological advantages, the platform constantly improves the process of ideological and political education in colleges and universities, thus creating an all-round and three-dimensional ideological and political teaching system.

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