Ideological and Political Work Information Platform in Colleges and Universities Established Based on Terminal APP

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Abstract. With the development of mobile Internet technology, the Internet has entered the study and life of college students. Enhance its practical effectiveness has become a new subject faced by ideological and political staff in colleges and universities. Starting from the analysis of the status quo of ideological and political work in colleges and universities, with the mobile terminal APP as a research object, we discussed how to use the APP platform established in this paper to carry out network ideological and political education work in colleges and universities.

Keywords: Ideological and Political Education, Mobile APP, Personal Space

1. Introduction
With the rapid development of mobile Internet technology and the increasingly powerful and rapid popularization of mass storage and intelligent terminal equipment offered by cloud computing, the demand for mobile learning is increasing in the education field anytime, anywhere [1]. The emerging network culture has dramatically influenced the value orientation, thinking mode, behavioral mode, political views, and moral concepts of contemporary college students. Meanwhile, talent training models of colleges have been greatly affected and shocked [2-4]. How to change the ideological and political work approaches in the network environment, improve the effectiveness of ideological and political work, improve the quality of talent training, how to occupy the network ideological position of colleges and universities, introduce new concepts based on traditional work approaches, and enhance communication and communication with students [5-6]. How to guide college students to establish correct values and outlook on life, has become a new subject faced by ideological and political staff in colleges and universities.

2. Status quo analysis of network ideological and political work in colleges and universities
It has three stages: startup, growth, and development. However, there is still some gap from the central government's "significance and full use of information network technology to improve the timeliness, coverage, and influence. The primary performance is in the following areas:

Internet focuses only on form but not on content, with a small number of teachers and students participating and narrow coverage. All universities have established ideological and political education websites, with beautiful website interfaces and sound website modules. However, according to the survey results, there are few website visits, and many students are even unaware that such websites
exist. The content of the website is stale, it is not closely integrated with reality, and the update is not timely. The teacher-student interactions cannot be timely implemented, and the website coverage is narrow.

Secondly, it is impossible to identify the interaction groups in the network and cannot perform real-name authentication. Many college students cannot establish real-name authentication through groups such as QQ groups, forums, blogs, and micro-groups. There may be some students in these groups that deviate from mainstream values and behavior standards. They have a tremendous negative impact on the ideology of other students in colleges and universities. They have developed rapidly and will form a relatively sound organization in a short time. They will use a combination of online and offline activities to carry out various activities. The negative impact is inestimable.

Due to the inability to identify and standardize online identities, schools cannot effectively guide members of these online groups. Irrational speech and thoughts on the Internet have caused emotional fluctuations in the group members and even triggered group student events.

3. Construction of ideological and political education space based on mobile app

According to the hardware characteristics of intelligent mobile terminals and the functional requirements of mobile learning. The ideological and political learning resources are stored in high-performance servers to provide resource distribution services, manage users, various dynamic data such as learning resources and learning progress, resource management interfaces for administrators and teachers, and resource access and interaction interfaces for students. Compared with other web development tools, open-source PHP has sound security, portability, scalability, fast execution speed, high efficiency, low development cost. It can leverage various databases and support SOAP, SMTP, IMAP, POP3, DNS and other communication protocols. The application of Apache + PHP + MySQL open source free framework structure has strong advantages, and it can run across platforms.

![Development framework]

**Figure 1.** Development framework

3.1. Construction of teacher space for two courses

Teachers of two courses (Marxist theory and moral education) in colleges and universities are those who teach Marxist theory courses and moral courses. The two courses are at the central positions and major carriers.

At present, most two-lesson teachers carry out teaching mainly in the form. In the teaching of “Two courses” in colleges and universities, there has been a long-term focus on knowledge transfer and neglecting effective students. The use of preaching in the classroom will be dull The theoretical knowledge is taught to the students. In this case, the students pay little attention to the “Two courses”
and are not interested. They think that the two courses are optional and the mechanical reception of the courses makes the two courses no longer a kind of teaching fun. If the APP platform can be fully and reasonably used in the two courses teaching, it will be able to get more results with less effort, thereby mobilizing the enthusiasm of students in the two courses.

Teachers of the two courses introduced the basic information of the teacher through the “Personal Profile” column, so that students and other teachers can fully understand themselves. For the two-course teachers, the original classroom teaching work can be extended to the extracurricular time of students after the introduction of APP space teaching. There is no time and space limitation for the two-course teaching. Teachers of two courses can create columns for the teaching of two courses in the APP personal space and display materials such as courseware, lesson plans, cases, videos, and other materials in a combination of text, pictures, graphics, animation, audio, video, and other media in the personal space, thereby implementing the two-course space teaching. Students and teachers can communicate through messages, private messages, spatial dynamics, etc. In addition, various communication groups can be set up to conduct public discussions on a topic, to achieve the purpose of teacher-student interaction and standard progress. It is a useful supplement to the traditional teaching of the two courses.

The following evaluations are established for the ideological APP classroom teaching:

A multi-index evaluation system consisting of \( n \) evaluated objects \( u_1, u_2, \ldots, u_n \). \( m \) indicators \( x_1, x_2, \ldots, x_m \), \( x_j = x_j(i) \) \((i=1, 2, \ldots, n; j=1, 2, \ldots, m)\) is the observation data evaluation data matrix (decision matrix) of the evaluated object \( u_i \) and the index \( x_j \) can be expressed as shown in formula (1):

\[
A = [x_{ij}]_{n \times m} = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1m} \\ x_{21} & x_{22} & \cdots & x_{2m} \\ \vdots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \cdots & x_{nm} \end{bmatrix}
\]

(1)

The data in \( m, n \geq 3 \) and \( A \) are normalized data after preprocessing.

It can be transformed to equation (2) as follows:

\[
y_i = f(x_{i1}, x_{i2}, \ldots, x_{im}), i \in N
\]

(2)

Where \( f \) represents a positive transformation function; \( y_i \) represents the comprehensive evaluation value of the evaluated object \( u_i \). \( u_1, u_2, \ldots, u_n \) are sorted according to the value of \( y_1, y_2, \ldots, y_n \) in descending order, and the comparison of \( u_1, u_2, \ldots, u_n \) can be completed.

Assuming that there are two evaluation objects \( u_i', u_i'' \), \((i', i'' \in N, i' \neq i'')\), let \( w_j(i', i'') \) be a random variable that follows the distribution at an interval \([\min(w_j, w_{i''}), \max(w_j, w_{i''})]\), and call \( s(u_i' > u_i'') \) the superiority of \( u_i' \) to \( u_i'' \), as shown in formula (3):

\[
s(u_i' > u_i'') = p(f(u_i') > f(u_i'')) + 0.5p(f(u_i') = f(u_i''))
\]

(3)
Where the aggregate function indicates the event probability as shown in formulas (4) and (5) as follows:

\[ f(u'_i) = \sum_{j=1}^{W} \lambda'_j w'_j (i',i^*) \]  \hspace{1cm} (4)

\[ f(u''_i) = \sum_{j=1}^{W} \lambda''_j w''_j (i',i^*) \]  \hspace{1cm} (5)

3.2. Construction of space for party staff in universities

The party affairs staff in colleges and universities bear huge responsibilities of party building and ideological and political education at the grass-roots level. They must always pay attention to grasping the connotation and requirements of party building work on the Internet, be diligent in learning.

On the APP platform, teacher party members and student party members can be required to establish a personal space for party members to learn. Grassroots party organizations can apply to establish an institutional platform in the APP to organize, manage, coordinate and supervise party affairs in their departments effectively, such as conducting related Thematic learning activities, branch democratic life, amateur party schools.

3.3. Construction of Headteacher Counselor Space

The headteacher counselor should provide students with emotional and management support services on the APP platform, guide students from the front, and solve all aspects of problems in students. On the APP platform, the headteacher counselor can apply to establish a corresponding institutional platform.

For example, the counselors set up a “Guide to the Party” column on the platform to introduce relevant party knowledge, standards, and requirements for college student party members, etc. Training and education, counselors can use the platform to issue various notices. Establishing the “Scholarship and Scholarship Selection” column can provide such things as student loans, scholarship selection procedures, and multiple forms to download. The class platform can set up a “class management” column to publish class notifications, activity arrangements, schedules, test schedules, professional class homework, winter, and summer vacation assignments, etc., and complete some class management work on the APP platform to improve work efficiency. The setting of an “Open class affairs” column can publicize the list of students and scholarships, comprehensive evaluation of students, voting results of various types of assessment, and attendance in class. The class platform can also set up a “Resource sharing” column, allowing students to share various learning materials, courseware, class contacts, etc., to facilitate the learning and communication of the whole class. The “Psychological Counseling” column can provide students with psychological health education and counseling on various psychological problems of students. The “Employment Information” column was set up to serve graduates. Meanwhile, the APP group function provides a large stage for students to exchange ideas and interpersonal relationships.

3.4. Construction of student space

On the APP, each student has his own personal space under the real-name system. Students can not only access the personal space of all teachers and students in the university city and find various
learning resources in the space. You can also publish “learning experience”, “life insights”, “personal dynamics” and other content on the platform, and ideological and political staff can keep abreast of each student's thinking and learning dynamics through these contents. At the same time, students can also establish communication groups, which makes communication between students and teachers very convenient. Not only can they communicate in the group, but also can achieve teacher-student communication through comments, comments, etc. The communication has narrowed the distance between teachers and students.

![Diagram of Resource Processing System and Resource Learning Subsystem]

**Figure 2. Student space**

3.5. **Identification system**

Since the establishment of the APP network platform, our school has allotted personal identity space accounts for each teacher and student. In the APP, full-time teachers can find their own class students. The headteacher counselor can also find students in their class at any time. Students can easily find their trusted teachers or headteacher counselors in the APP. Teachers and students can fully communicate. The APP space also provides us with a group-type teacher-student interaction platform. In the APP, it is easy to organize students into learning and interest groups. Full discussions can be conducted in groups, and teachers can keep an eye on these groups and provide guidance.

APP space resources can realize massive storage and free sharing. The APP space has the latest news, reviews, guidelines and policies, and a wealth of current affairs and political resources, providing a completely open and shared learning environment for each student.

The study of political theory with vivid pictures and vivid images fully stimulates the interest of students in learning and provides students with various forms of learning. Higher vocational colleges implement the teaching mode of alternating work with study. There are two places for students to study: schools and companies.

4. **Conclusions**

In this paper, starting from the analysis of the current situation of ideological and political work, the mobile terminal APP is taken as the research object to discuss how to use the APP platform constructed to carry out network ideological and political education work in colleges and universities, which provided a new approach of network ideological and political work in colleges and universities. It is believed that with the continuous involvement of more ideological and political staff and college students, the APP platform will bring infinite vitality to higher education.

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