Development and Study on Ideological and Political Online Education Platform of Colleges and Universities based on ".NET"

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Abstract

With the continuous development of IT, traditional education can no longer meet the demands of "double innovations" strategy on talents and the demands of students on their own development, therefore, online platform education emerges. With the development of new media, undergraduates' mental health is impacted to a great extent. Intermingled good and bad and even vulgar content and incorrect values appear on the internet due to the lack of specific laws and regulations for supervision and administration of internet platform in our country, therefore, universities should pay more attention to the mental education of undergraduates. However, the traditional teaching mode can't meet the demands of students on study at this stage, and thanks to the diversification and convenience of information transmission on the online education platform, the combination of ideological and political education work and internet platform is beneficial for online education platform to break through the traditional teaching mode, making the study of students in ideology and politics not be limited to the time and the location, exerting the students' passion in study to the utmost extent, and accordingly exert the educational function of ideology and politics on the undergraduates completely. This Paper shall study on the development of ideological and political online education platform of colleges and universities based on ".NET", aiming at offering some suggestions and strategies for the development of ideological and political education work in colleges and universities.

Keywords: Internet Platform, Ideology and Politics, Online Education, Development of Platform.

1. OVERVIEW OF THE STUDY

1.1 Overview of the background

As the reform on education deepens in our country, the innovation on education and teaching becomes more important, therefore, online education platform has acquired effective development. At the present stage, however, the development of undergraduates' study in ideology and politics still lies in disadvantage situation, therefore, the combination of university ideological and political education and online education platform is the irresistible trend. There're two aspects in the background of study on the development of college ideological and political online education platform, firstly, it's the requirement of the situation under which undergraduates' thoughts are experiencing the impact of new phenomenon and new culture at the present stage; secondly, it's required to innovate the mode for ideological and political education in colleges and universities since it's too old-fashioned. First of all, with the continuous development of social economy and continuous progress of scientific and technological level in our country, the development of internet platform has become the people's favorite form of entertainment, especially the fact is that undergraduates are serving as the major force of the internet group (Liu, 2016). The survey result shows that 95% students would chat or conduct data inquiry and entertainment activities via mobile or computer related mobile terminals every day. At the present stage, our country has not stipulated the legal regulations for specifying and restraining the internet platform, all these incorrect ideology and vulgar content have a serious negative impact on the formation of mental health and values of the undergraduates, therefore, college education is required to enlarge the input in helping undergraduates establish correct outlook on life and values under the impact of these new culture and new forms. The other background is that the development of ideological and political education in colleges and universities at the present stage isn't smooth, and due to the old-fashioned educational concept and education means, undergraduates lose the interest in ideological and political education, and therefore, the efficiency of teaching is not obvious. In traditional ideological and political education, teachers play the dominant role in the classroom, and students serve as the supporting role, which is difficulty in attracting students to be engaged in study with passion for the cramming teaching methods (Gao and Liu, 2017). However, the study on development of online education platform may reliefe this kind of situation to
a big extent, herein, online education refers to offering the students online teaching class via video or audio, which generally features short time and no limitation of the time and the location. Meanwhile, online education platform is established on the basis of big data, and students may search and find many lectures by famous lecturers on the platform, being offered abundant choices and accordingly their passion in study may be ignited. This kind of innovation on traditional teaching means injects new force into the development of reform for educational undertakings, meanwhile, it may also effectively relieve the disadvantage situation of undergraduates' study in ideology and politics, helping ideological and political workers find more modern and scientific teaching mode.

1.2 Literature review

Microsoft's next generation of operation development platform " .NET " is a network operation platform offering services for the establishment of various application methods by the people, and its existence and appearance make the people involving in internet development be able to acquire diversified information from the websites to the utmost extent and through the more convenient and easier approach, realize the mutual assistance and win-win among websites. In addition, " .NET " also breaks through the obstacle between computers, facilities and equipment, website, various platform institutions and industrial circles, i.e. the so-called "isolated digital island", and accordingly exert all potential of the internet, and establish the third internet platform (Gao and Liu, 2017). The company with the suffix " net " as website address belongs to network service company dedicating to offering services for individuals or commercial purpose. At the present stage, " .NET " is the most popular generic domain name format in international community, and is generally used by network service company related to " Internet "; the application of " .NET " is for establishing globalized brand image, therefore, it's the first choice for presenting internationalized brand value. Online education is also called " e-Learning " or " distance education " or " online study ", etc., which is the important trend of modern education development, and in currently-popular concept, it refers to a study behavior for conducting further study through internet platform, similar to network training. This kind of study methods emerged along with the development of internet technology and IT operation is a study method which may realize the rapid spreading of knowledge (Wu, 2016). The " e " in " e-Learning " represents many concepts, such as high-efficient study, exploring-style study, strengthening study. This kind of study methods was originated from America, and however, it rapidly spread to North America and Europe, and then Asia, accordingly the online-study tide emerges throughout the world. During the specific study, students may accept online study and interact with teachers via internet without the limitation of the time or the location. For the people who's kept busy in work and whose locations changed a lot, this kind of study methods is very convenient. The most important is that this kind of study methods is not only a kind of technical means, but also an innovative reform on study and production through technology to spread the knowledge, which is also the real meaning of e-Learning (Lu, 2016).

2. STUDY ON SYSTEM MODEL FOR THE DEVELOPMENT OF IDEOLOGICAL AND POLITICAL ONLINE EDUCATION PLATFORM OF COLLEGES AND UNIVERSITIES BASED ON NET

2.1 Model for static logic transition indicator distribution

Since the study on the development of ideological and political online education platform of university requires to meet the corresponding practicability, and when distribution results fail to meet the requirements, it requires to recompiles the program (Tan, 2016). Therefore, the formula for acquiring program safety indicator distribution modification model is as follows:

\[
F(x_i) = \begin{cases} 
F(Y) = \frac{S(x_i)}{\prod_{i=1}^{n} S(x_i)}, & F(x_i) \leq S(x_i) \\
S(x_i), & F(x_i) > S(x_i) \\
0 & 0 \leq i \leq 3
\end{cases}
\]  

(1)

Wherein, the "F" in formula (3) refers to safety evaluation indicators for the transition of some layer, "x" refers to the value of online education platform, and "Y" refers to the value of failure occurrence probability. "i" refers to the malfunction corresponding to the input position numbered "i", and "n" refers to the total number of malfunctions at input position at this layer. Therefore, \(S(x_i)/\sum_{i=1}^{n} S(x_i)\) is the contribution rate of \(S(x_i)\).

2.2 Model for contingent structural transition indicator distribution
During the study on online education platform, assuming two possibilities of malfunctions possibly existing in ".NET" as \( x_1, x_2 \), and in the model for contingent structural transition indicator distribution, in case of any malfunction due to the wrong input of program, the output position will appear the same malfunction. The formula of the contingent structure is as follows:

\[
P(y) = \sum_{i=1}^{n} P(x_i) [0 \leq i \leq n]
\]

Wherein, contingent structural transition weight function is as follows:

\[
P(y) = \sum_{i=1}^{n} P(x_i) = \sum_{i=1}^{n} \alpha \cdot S(x_i) [0 \leq i \leq n]
\]

\[
\Rightarrow P(y) = \sum_{i=1}^{n} S(x_i)
\]

Among the similar structural transition safety indicators, the model for contingent structure safety factor indicator distribution is as follows:

\[
F(x_i) = \begin{cases} 
S(x_i) \frac{F(x_i) > S(x_i)}{0 \leq i \leq n} \\
F(y) \cdot \frac{S(x_i)}{\sum_{i=1}^{n} S(x_i)} \frac{F(x_i) < S(x_i)}
\end{cases}
\]

Therefore, during the study on system model for the development of ideological and political online education platform of colleges and universities based on "NET", we apply static logic transition indicator distribution model and contingent structural transition indicator distribution model to conduct data calculation (Ni and Qian, 2016).

3. STUDY ON THE DEVELOPMENT OF IDEOLOGICAL AND POLITICAL ONLINE EDUCATION PLATFORM OF COLLEGES AND UNIVERSITIES

3.1 The composition of study subject

The ideological and political online education platform of colleges and universities is a kind of teaching activity that relies on the network platform to transfer teaching contents, during which students can learn through the network, and the learning content is the relevant teaching videos or audio that the teacher has already produced. According to the characteristics of online learning and the requirements of learning plan, online learning courses mainly consist of following parts, i.e. teaching, student files, score evaluation, and learning tools, etc. The teaching part mainly consists of teachers' teaching plan and important knowledge points, etc. Student files refers to personal accounts, and personal information, etc.; score evaluation system mainly consists of score query, and result evaluation, etc.; and learning tools consist of data query library and electronic notebooks (He and Li, 2016).

3.2 Methods of the study

When designing ideological and political online education platform, we must first design the modules with corresponding functions, and three functional modules for learning platform of network courses are required to be designed according to the demands of users at different levels in colleges and universities, namely student terminal, teacher terminal and administrator terminal respectively. The details are as shown as Figure 1. For the student side, the mainly-designed functions consist of platform login interface and personal information of individual student, etc., in addition, important learning module and learning record module are also required to be designed, so as to support the students to personalize the settings. As soon as students log in the learning platform
interface, follow-up records of student learning progress are initiated and finally summary is accordingly made (Sun, 2017). The teacher module design also requires the login interface and personal information interface, etc., and course design module and study learning process module are also required, only through which may realize the design of courses and the effective supervision on student learning situation. For the design of system management module, firstly, it requires login interface and personal information interface and modification for basic data settings, a backup of teaching design of teachers and teaching diaries, and students' learning process and student files as well.

![Figure 1. Structure Diagram of System Function Module](image)

### 3.3 Study process

The study on the development of ideological and political online education platform of colleges and universities is mainly analyzed and expanded from four aspects including platform design, platform development, application evaluation and system maintenance. The first is the design process. During the platform design, we should follow the design principles of online learning courses, and during the study on the plan, we should design the course for online education platform through the mixed mode of target-based teaching design and environment-based teaching design. The second is the development process, through the effective development of network platform, the blueprint for development and design of ideological and political education in colleges and universities is transformed into the teaching design concept of actual network application, through which realize the successful development and utilization of the system (Chen, 2015). During the development phase, the main factors considered include the management of high quality online courses, free-of-charge SaaS learning platform, online learning management training, suggestions for project proposals implementation and client reference program in the system. The third is about the design of the study on development of application evaluation, and the evaluation on online education platform applied is the method for testing the quality of course learned by the students, including Paul's periodic evaluation and summary evaluation; with regard to the periodic evaluation, during the entire process of online learning, it is required to be designed according to the objective subject students' demands on study, and through the evaluation, help realize the completion and improvement of online learning platform. The summary evaluation refers to the inspection results acquired according to the students' study situation after the completion of the development and study of the entire online learning courses, meanwhile analyzing and studying the existing issues during the actual operation, and finally modify the online education platform. The fourth is the system maintenance of education platform the same as required by all network software design. During the design of system maintenance, the online learning courses are required to be integrated and offer free access to learners on the Internet, and with the progress of learners' study, the development and design research and the links will be accordingly completed, at the same time, entering the system maintenance. For the maintenance work, after the online learning course is over, the related application function should be upgraded, resulting in a better maintenance and extension for the function of the course; however, deletion or modification is also required to be made for some wrong information or function in the system, so as to improve the accuracy and practicability of college ideological and political online education platform, offer the learners with better learning experience (Zhu et al., 2016).

![Figure 2. Developing Program Path Diagram](image)
3.4 Study result

The study shows that, in order to better adapt to the development of the mobile Internet era, colleges and universities need create their own online learning platform for campus network, so as to establish campus network cultural base for students’ study. In order to ensure the accuracy of the study result before the confirmation, a investigation interview is made against the teachers, students of some university and some social elites, and all these three representatives interviewed expressed that the study and development of ideological and political online education platform is benefit to the study of ideology and politics by undergraduates and they also listed the most prominent advantages of ideological and political online education platform they thought, see details from Table 1. Therefore, firstly, colleges and universities should enlarge the efforts of study on ideological and political online learning platform while the government should increase the fund input, offering fund guarantee for education platform; secondly, the colleges and universities should try to realize the organic unification of scientificity and applicability during the study and development of ideological and political education platform; the design on development of resources is required to apply modern IT means and big data on the internet to upload the ideological and political education resources onto the internet(Meng and Feng, 2013). With regard to the design of education platform application procedures, firstly, the students need a login interface, and set the materials and inquiry the study progress on students' personal homepage. The teachers also need the login interface, and the material setting interface as well, in addition, it also requires the functions of course design and students' study process inquiry, etc. in teachers' personal center. Administrator program designs two objective subjects, i.e. the teacher and the student, and store the students' information and their study progress, and the records for recording teaching design by teachers, which are the final stored data. It will be on trial after the completion of the design of ideological and political education platform, and be modified and adjusted timely as soon as some wrong in any circle. The last is the regular maintenance on online education platform, and after a certain period for reference, the platform needs the inspection and maintenance, so as to avoid any issue resulting in the loss of students' study progress or teachers' teaching materials (Shi, 2015).

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Teacher</th>
<th>Student</th>
<th>Social opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Relieve stress</td>
<td></td>
<td>Plentiful resources</td>
<td>Easy to use</td>
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4. CONCLUSION

As the reform on education deepens in our country, traditional education can no longer meet the students' demands on their own development, therefore, the people developed an online teaching platform (Zhao et al., 2016). With the development of new media, undergraduates' mental health is impacted greatly. Due to the lack of specific laws and regulations for supervision and administration of internet platform in our country, there're intermingled good and bad and even vulgar content and incorrect values spread by some netizen for increasing the attention on the internet, therefore, universities should carry out in-depth and broad ideological and political education for undergraduates. Many convenient software programs are generated with IT development, e.g. online education platform. Online learning refers to a kind of online teaching for students through video or audio, and this kind of teaching methods not only requires short time and is not limited to the time and the location, but also may ignite the students' learning passion for its novelty. Meanwhile, online education platform is established on the basis of big data time, and after the combination of big data and network education, students may search and find many courses by famous scholars in ideological and political education from ideological and political online education platform, and even their interested courses (Qian, 2015). This kind of teaching means with more abundant choices may help the students' study more convenience, and ignite the students' passion in study. Ideological and political online education platform is the innovative development of traditional teaching means, the appearance of which input new blood to the reform and development of education undertakings, meanwhile, it may also effectively relieve the poor situation of undergraduates' study in ideology and politics, offer the ideological and political workers with modern and scientific teaching mode.

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