

Research Article

An Empirical Study on the Behavioral Intention of College Students' Online Ideological and Political Learning

Miaomiao Ren ¹, Yan Ma ², Wenxiang Fan,³ Mingyong Li,⁴ and Yuming Feng^{1,5}

¹College of Computer Science and Engineering, Chongqing Three Gorges University, Chongqing 404100, China

²Wisdom Education Research Institute, Chongqing Normal University, Chongqing 401331, China

³School of Education, Hangzhou Normal University, Hangzhou 311121, China

⁴College of Computer and Information Science, Chongqing Normal University, Chongqing 401331, China

⁵School of Three Gorges Artificial Intelligence, Chongqing Three Gorges University, Chongqing 404100, China

Correspondence should be addressed to Yan Ma; 20130939@cqu.edu.cn

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Based on the integration of the technology acceptance model and the information system success model, this study constructs the structural equation model of college students' online ideological and political learning behavioral intention; then, a questionnaire survey is conducted among college students from 7 colleges of Chongqing and Hangzhou. The results show that there are group differences in system perception, technology acceptance perception, and behavioral intention among college students with different genders and grades; different dimensions of information system quality have different effects on behavioral intention; perceived ease of use is an important mediating variable, which has a direct positive impact on the use attitude; perceived usefulness and use attitude have positive direct effects on behavioral intention; and perceived usefulness has a higher predictive effect on behavioral intention. Therefore, we put forward four suggestions. First, in the future practice, we should pay attention to the group differences of college students and constantly improve the practice mechanism of network ideological and political education. Second, we propose to take the quality construction of information system as the goal and constantly consolidate the service system of network platform. Third, we believe that we can improve users' attitude towards the use of the platform by improving their perception of ease of use. Finally, we also suggest that we should focus on improving users' useful perception of the platform, so as to promote their use behavior.

1. Problem Posing and Concept Definition

With the continuous development of the Internet, Internet plus is not a tool, and it is deeply integrated with all walks of life to promote profound changes in production, life, and learning. In the new era, president Xi Jinping has repeatedly stressed the need to use new media and new technologies to make the work active, to promote the traditional advantages of ideological and political work, to integrate highly with information technology, and to enhance the sense of the times and the attraction [1]. Ideological and political education in colleges also conforms to the trend of the times, adapts to the characteristics of life and learning of college students, and constantly changes the learning methods. Therefore, it is positive to analyze the behavioral

intention of college students' network ideological and political learning. It helps to innovate the methods of network ideological and political education and improve the effectiveness of college students' ideological and political education under the background of the new era.

Network ideological and political education is a transformational form with the development of educational media. The education affects the educational objects with certain political views, concepts, and social norms through the network information platform. Finally, this makes individuals form ideological and political concepts that meet the needs of society. It emphasizes the instrumentality of the network, carries the information of ideological and political education, and disseminates the educational content through information technology means and resource allocation, so

as to achieve the purpose of education. Under the background of "Internet+," it emphasizes the ecological integration of the Internet and ideological and political education in colleges. Under the premise of ensuring the overall goal of ideological and political education, it expands the space of traditional ideological and political education, and takes the ubiquitous digital campus resource platform as the main front, paying more attention to the vividness and sense. The purpose is to improve the knowledge acquisition ability and practical ability of college students' ideological and political education.

At present, behavioral intention analysis in the field of information technology is mainly carried out on the basis of technology acceptance model. The model assumes that behavioral intention is formed by conscious decision-making process, which specifies three factors in the context of information technology use and acceptance: perceived usefulness, perceived ease of use, and use attitude. Perceived usefulness means that individuals think that using a specific system will improve their performance; perceived ease of use refers to an individual's belief that using a particular system does not require too much effort; and use attitude refers to the individual's evaluation of the target system and its connection with the work. Perceived usefulness and perceived ease of use are regarded as cognitive factors, and use attitude is regarded as the causal factor for individuals' intention to guide future behavior or eventually lead to specific behavior when performing specific behavior. Technology use is determined by behavioral intention, which is jointly determined by the attitude towards technology use and perceived usefulness, and the attitude towards technology use is jointly determined by perceived usefulness and perceived ease of use. Perceived ease of use affects perceived usefulness [2]. The formation and development of network ideological and political education originate from the interaction between information technology and ideological and political education. Learners' acceptance of information technology in ideological and political education will affect the learning effect. The model has certain homogeneity to study students' perception of network ideological and political learning platform. Therefore, it is reasonable and feasible to study the network ideological and political education through the technology acceptance model. The application of the model is helpful to analyze the related problems of the use of information technology in the network ideological and political education.

With the continuous change of information technology, the academic continues to try to introduce new theories or new external variables to adjust and expand the technology acceptance model. For example, Yiweng Yang and others studied the influencing factors of consumers' willingness to recommend adoption by combining the information system success model and technology acceptance model [3], and Zhuoyu Xu and others studied the factors affecting users' willingness to use MOOCS platform from the perspective of technology acceptance model and information system success model [4]. The information system success model fully considers the characteristics of the information system from the system quality, information quality, and service

quality. The revised information system success model pays more attention to the use intention of the information system [5]. The technology acceptance model pays attention to people's perceived characteristics, and believes that behavioral intention determines technology use, and perceived usefulness and perceived ease of use are affected by the external environment such as website usefulness and website quality. Network ideological and political education is based on the application of information technology, and network ideological and political learning takes the information system platform as the main position. It depends on the use of network learning system and platform. The network learning system itself affects learners' acceptance of the learning platform, and learners' acceptance of the network platform affects the learning effect [6]. Therefore, this study attempts to construct the conceptual model of the behavioral intention of college students' Internet ideological and political learning by taking information quality, system quality, and service quality as external variables of the technology acceptance model, so as to study the technology acceptance status of learners in the network thinking educational environment under the background of Internet plus education, and analyzes the relationship among information system, learners' perception, and learning effect. This paper analyzes the technical resistance in network ideological and political education, in order to provide suggestions for improving the practical effect of ideological and political education.

2. Measuring Tool

2.1. Variable Design. The hypothetical model contains seven latent variables. In order to ensure the effectiveness of latent variables and measurement indicators, all measurement indicators come from the existing literature. Appropriate modifications are made according to the research environment, and finally, the design of the questionnaire items of this study is formed. The study used the Likert 5-point scale. Firstly, a small-scale pretest is carried out in the College of Computer Science and Engineering of Chongqing Three Gorges University to ensure that the structure of the officially issued scale was reliable and the measurement results are credible. We collected 149 effective prediction questionnaires. The reliability and validity of the questionnaire were 0.949 and 0.907. The results showed that the reliability and validity of the questionnaire were high. The formal scale includes two parts: basic information and measurement scale. The measurement scale includes seven constructs: information quality, system quality, service quality, perceived ease of use, perceived usefulness, use attitude, and behavioral intention, with a total of 25 measure questions; the items are listed in Table 1.

2.2. Data Collection. The subjects of this questionnaire are college students from seven universities in Chongqing and Hangzhou. In addition, in order to ensure the effectiveness of the questionnaire, a reverse lie detection question was added in the middle of the formal questionnaire: I often feel frustrated because of using the online ideological and political learning platform. When the score of the questionnaire is

TABLE 1: Explanation and source of research variables.

Latent variables	Definition	Measurement factors	Measurement items	Source of references
Information quality (IQ)	Learners' perception of the information provided by the network ideological and political learning platform in use	Accuracy	IQ1: The information provided by the online ideological and political learning platform is very accurate.	
		Timeliness	IQ2: The information provided by the network ideological and political learning platform is always the latest.	
		Integrity	IQ3: The information provided by the network ideological and political learning platform is very systematic and complete.	
		Correlation	IQ4: The information provided by the network ideological and political learning platform can meet the needs of ideological and political learning.	
System quality (SyQ)	Learners' perception of the performance of network ideological and political learning platform in use	Stability	SyQ1: Network ideological and political learning platform rarely goes out of action.	
		Operability	SyQ2: The interface design of the network ideological and political learning platform is very friendly.	
		Effectiveness	SyQ3: The network ideological and political learning platform runs very fast.	
		Functionality	SyQ4: The functional modules of the network ideological and political learning platform are clearly classified.	
Service quality (SeQ)	The gap between learners' perception and expectation of the network ideological and political learning platform in use	Responsiveness	SeQ1: The network ideological and political learning platform provides me with fast and effective learning support at any time.	([5]; [7]; [8][9]; [10]; [2]; [11]; [12]; [13])
		Empathy	SeQ2: The services provided by the network ideological and political learning platform can meet my learning needs.	
		Technical support	SeQ3: I can get enough technical support when studying.	
		Resource availability	PEOU1: It is easy to use the network ideological and political learning platform to obtain learning resources.	
Perceived ease of use (PEOU)	Learners believe that the online ideological and political learning platform is easy to use	Platform usage	PEOU2: It is easy to use the network ideological and political learning platform for ideological and political learning.	
		Learning interaction	PEOU3: It is easy to use the network ideological and political learning platform for learning interaction.	
		Problem solving	PEOU4: It is easy to solve the difficulties encountered in the use of network ideological and political learning platform.	
		Learning resource	PU1: Using the network platform for ideological and political learning can help me better collect learning resources and information.	
Perceived usefulness (PU)	Learners believe that the network ideological and political learning platform can improve learning efficiency	Content presentation	PU2: The network ideological and political learning platform can better present the learning content.	
		Understanding of knowledge	PU3: The online ideological and political learning platform can help me better understand the learning contents, key and difficult points.	

TABLE 1: Continued.

Latent variables	Definition	Measurement factors	Measurement items	Source of references
Usage attitude (UA)	Learners' perception and evaluation of the use effect of network ideological and political learning platform	Mission accomplished	PU4: The online ideological and political learning platform can help me complete my learning tasks more efficiently.	
		Learning process development	UA1: Using the network ideological and political learning platform will affect the development of the learning process.	
		Learning content acquisition	UA2: Using the network ideological and political learning platform will affect the acquisition of learning content.	
		Learning quality improvement	UA3: Using the network ideological and political learning platform will affect the improvement of learning quality.	
Behavioral intention (BI)	Learners' tendency and willingness to use the network ideological and political learning platform	Use of platform	BI1: In the ideological and political learning, I will consider using the online ideological and political learning platform.	
		Learning related skills	BI2: I will actively learn relevant skills of online ideological and political learning platform.	
		Platform promotion	BI3: I will actively recommend the students around me to use the online ideological and political learning platform.	

high and the score of lie detection is also high, the untrue filling of the questionnaire shall be considered, and the corresponding questionnaire results shall be excluded. The questionnaire was distributed in the form of a combination of paper questionnaire and online questionnaire. As of December 2020, 1291 questionnaires were recovered, and 1219 valid questionnaires were finally obtained after excluding invalid answers, with an effective rate of 94.4%.

2.3. Research Method. This paper mainly uses the structural equation model to test the model hypothesis. It is a method to analyze the relationship between variables based on the covariance matrix of variables and establish, estimate, and test the causality model, including two parts: measurement model and structural model [14]:

The measurement model is also called exogenous variable observation model. The relationship between each measurement variable and latent variable is described by factor load. The mathematical expression is

$$X = \Lambda_x \xi + \delta, \quad (1)$$

$$Y = \Lambda_y \eta + \varepsilon. \quad (2)$$

In this formula, X is the vector composed of exogenous variables, and Y is the vector composed of endogenous variables; Λ_x is the factor load of X ; Λ_y is the factor load of Y ; ξ and η are exogenous latent variable vector and endogenous latent variable vector, respectively; and δ and ε are the measurement error vectors.

Structural model is the internal relationship between latent variables that cannot be measured directly in the

structural equation model. The mathematical expression is

$$\eta = B\eta + \Gamma\xi + \zeta, \quad (3)$$

where B and Γ are the factor path coefficient matrices; B represents the influence relationship between endogenous latent variables; Γ indicates the influence relationship between exogenous latent variables and endogenous latent variables; and ζ , the residual term, reflects the endogenous latent variable η unexplained part.

3. Research Hypothesis

3.1. Information Quality, System Quality, and Service Quality. Summarizing the research related to website quality, it can be found that system quality and information quality are important determinants of perceived website quality, which often appear in the measurement of website quality, especially system accessibility, system timeliness, information integrity, and information accuracy. The research on service quality was initiated by the team of marketing scholar Parasuraman, which has always been highly related to the structure of customer service environment [7]. SERVQUAL, the most widely used service quality framework, describes customers' perception of suppliers' service reliability, assurance, empathy, visibility, and responsiveness. From the analysis of communication theory, information is produced by the system, and the problem of system quality will reduce the actual quality of the information it produces. For example, when the system cannot operate stably, the user's system perception of its output information will be greatly reduced. A high-quality system is the basis for obtaining high-quality information. Based on the

psychological cognitive model, when users evaluate the information quality output by the information system, their experience of system quality will certainly participate in it. The evaluation of information quality must include consideration of content and delivery. Existing studies have confirmed that the perception of service content and delivery is two important predictors of customer perceived service quality. When customers evaluate the service quality, in addition to the evaluation of service quality, they will also evaluate the information quality and system quality. When the system quality is low and the information quality is poor, customers will think that the service quality of the system is not ideal. For example, Xu's empirical research on integrating service quality, system, and information quality in e-service system confirms that information quality and system quality can directly or indirectly improve customers' perception of service quality [8]. In view of these, put forward some hypotheses:

Hypothesis 1: The system quality of network ideological and political learning platform will positively affect its information quality

Hypothesis 2: The system quality of network ideological and political learning platform will positively affect its service quality

Hypothesis 3: The information quality of network ideological and political learning platform will positively affect its service quality

3.2. Information Quality, System Quality, Service Quality, and Perceived Ease of Use, Perceived Usefulness, Use Attitude. Computer-assisted instruction (CAI) helps or replaces teachers to perform some teaching tasks through computers, so as to impart knowledge and provide skill training to students. In the network ideological and political education, the network platform is the main position of learning, and learning occurs through direct contact with the platform. When the learning platform can run reliably, has stable performance, and is easy to access, flexibly adapts to various information needs of users and provides systematic and accurate information services in time. Users do not need to spend too much time and energy to find the services they want; then, learners will feel that the platform is easy to use and helpful to learning when using the platform. Many scholars agree that the information quality, system quality, and service quality of network platform may greatly affect learners' platform use attitude and learning perception. For example, Kuei Fang Ho et al. pointed out in the theoretical integration research on user satisfaction and technology acceptance of nursing process information system that information quality and system quality will affect users' satisfaction with using information technology products, and then affect users' perception of usefulness and ease of use of the products, thus affecting behavior attitude [15]. Some scholars also pointed out that the quality of computer-based information system represents the interaction among interface and participants and system, has a strong positive impact on the attitude of microcomputer, and can reduce computer anxiety. Computer experience and management support directly affect people's attitude

towards computer [16]. Through the research on the sustainable use of mobile sites, some scholars found that technology perception, including system quality and information quality, affects the sustainable use by affecting satisfaction [17]. Rana et al. pointed out that the system service quality has a direct impact on individual satisfaction, and individual satisfaction has a direct impact on the continuous use of the website [18]. The empirical research results of Yiming Zheng et al. show that information quality and system quality directly affect perceived personal interests and user satisfaction and ultimately determine users' willingness to continue consumption and provide information [19]. In view of these, put forward some hypotheses:

Hypothesis 4: The information quality of network ideological and political learning platform has a positive impact on the perceived ease of use of the platform

Hypothesis 5: The system quality of network ideological and political learning platform has a positive impact on the perceived ease of use of the platform

Hypothesis 6: The service quality of network ideological and political learning platform has a positive impact on the perceived ease of use of the platform

Hypothesis 7: The information quality of network ideological and political learning platform has a positive impact on the perceived usefulness of the platform

Hypothesis 8: The system quality of network ideological and political learning platform has a positive impact on the perceived usefulness of the platform

Hypothesis 9: The service quality of network ideological and political learning platform has a positive impact on the perceived usefulness of the platform

Hypothesis 10: The information quality of network ideological and political learning platform has a positive impact on the platform use attitude

Hypothesis 11: The system quality of network ideological and political learning platform has a positive impact on the platform use attitude

Hypothesis 12: The service quality of network ideological and political learning platform has a positive impact on the platform use attitude

3.3. Perceived Ease of Use, Perceived Usefulness, Use Attitude, and Behavioral Intention. Perceived ease of use means that learners believe the network ideological and political learning platform is easy to use. Perceived usefulness means that learners believe the network ideological and political learning platform can improve learning efficiency. When learners think that the platform is easy to use and can be easily used without complicated training and learning, they are likely to try. On the contrary, if the platform is difficult to use and learners need to spend a lot of energy on learning to use the platform, users will weigh their efforts and expected returns. When it is not necessary and mandatory, it will affect learners' perception of the usefulness of the platform; that is, learners' use attitude and perceived usefulness of the platform are affected by perceived ease of use. When the network ideological and political learning platform is enough to meet learning needs, improve learning efficiency, and improve learning performance, learners will have

enough motivation to use it [20]. Many scholars have done research on perceived ease of use, perceived usefulness, use attitude, and behavioral intention. As a robust model across gender, environment, and era, many experiential analyses support the technology acceptance model. For example, Shroff et al. found in the research of electronic archive system that learners' ease of use perception has a very significant impact on usefulness perception. When students think that the electronic archive system is simple and easy to use and does not need to spend too much time thinking about how to use it, students will think that the electronic archive system is useful [12]. Mei Hong et al. confirmed in their research on the impact of MOOC learning perception on learning performance that college students' ease of use perception of MOOC learning significantly affects useful perception and further affects online interaction and learning performance [13]. In view of these, put forward some hypotheses:

Hypothesis 13: Learners' platform usability perception has a positive impact on platform usefulness perception

Hypothesis 14: Learners' perception of platform ease of use has a positive impact on platform use attitude

Hypothesis 15: Learners' perception of platform usefulness has a positive impact on platform use attitude

Hypothesis 16: Learners' perception of platform usefulness has a positive impact on platform use behavioral intention

Hypothesis 17: Learners' platform use attitude has a positive impact on platform use behavioral intention

To sum up, the theoretical model constructed in this study is shown in Figure 1.

4. Data Analysis and Hypothesis Testing

4.1. Reliability and Validity Analysis. Before formal data analysis, we used IBM SPSS Statistics 19 (SPSS) to analyze the reliability and validity of the collected data. The value of Cronbach alpha was used for reliability analysis as the judgment standard; when the value is greater than 0.7, the consistency reliability of the scale is good. The Cronbach alpha coefficients of the whole scale and seven subscales, including information quality subscale, system quality subscale, service quality subscale, perceived ease of use subscale, perceived usefulness subscale, usage attitude subscale, and behavioral intention subscale, were 0.971, 0.910, 0.901, 0.881, 0.888, 0.910, 0.931, and 0.888, respectively. The whole scale had good consistency reliability. The validity analysis used "Kaiser-Meyer-Olkin and Bartlett's Test"; Kaiser-Meyer-Olkin measure of sampling adequacy is 0.978. The result shows that the questionnaire has good criterion-related validity.

4.2. Descriptive Statistical Results of Core Variables. The descriptive statistical results of gender, grade, and core variables are shown in Table 2. Compared with boys, girls' perception levels of information quality, system quality, service quality, perceived ease of use, perceived usefulness, use attitude, and behavioral intention are lower, and there are significant differences between boys and girls. By comparing

different grades, it is found that the sophomores' perception level of information quality, system quality, service quality, perceived ease of use, perceived usefulness, use attitude, and behavioral intention is low. Least significant difference (LSD) test results show that there are significant differences in the perception of core variables between sophomores and other grades.

4.3. Correlation Analysis of Core Variables. The correlation between core variables is calculated by Pearson correlation coefficient, and the results are shown in Table 3. The results show that service quality is highly correlated with information quality, system quality, perceived ease of use, perceived usefulness, and behavioral intention; in terms of information quality, system quality, service quality, perceived ease of use, and perceived usefulness, perceived ease of use is the most related to use attitude; among information quality, system quality, service quality, perceived ease of use, and perceived usefulness, perceived usefulness has the highest correlation with behavioral intention; there is a high correlation between information quality and system quality; perceived ease of use has high correlation with information quality and system quality; perceived usefulness is highly correlated with information quality, system quality, and perceived ease of use; the correlation between use attitude and behavioral intention is relatively small.

4.4. Hypothesis Test. In the study, we used IBM SPSS Amos 22.0 to build the initial model and obtained the initial model fitting index: RMSEA = 0.05, IFI = 0.972, NFI = 0.963, CFI = 0.972, and GFI = 0.932. The fitting degree of the model is good, but there are some invalid paths. In order to make the model more reasonable, delete the unsupported paths: information quality -> use attitude, information quality -> perceived usefulness, perceived usefulness -> use attitude, information quality -> service quality, system quality -> perceived usefulness, system quality -> use attitude, system quality -> perceived ease of use, service quality -> use attitude.

Table 4 shows the modified model fit index, RMSEA = 0.05, IFI = 0.971, NFI = 0.962, CFI = 0.971, and GFI = 0.931, and the modified model is shown in Figure 2. The results show that the fitting degree is good. The combination reliability of latent variables in the modified model is greater than 0.6, and the average variance extraction value is greater than 0.5. The internal quality of the model is ideal. Hypothesis 1, hypothesis 2, hypothesis 4, hypothesis 6, hypothesis 9, hypothesis 13, hypothesis 14, hypothesis 16, and hypothesis 17 are supported.

4.5. Path Action Analysis. The effect of each latent variable is shown in Table 5. The results show that system quality has a direct positive impact on service quality and information quality, and the impact effects are 0.95 and 0.897. System quality has indirect positive effects on perceived ease of use, perceived usefulness, use attitude, and behavioral intention, and its effects are 0.904, 0.869, 0.417, and 0.767. Service quality has a direct positive impact on perceived ease of use and perceived usefulness, and its impact effects are 0.688 and

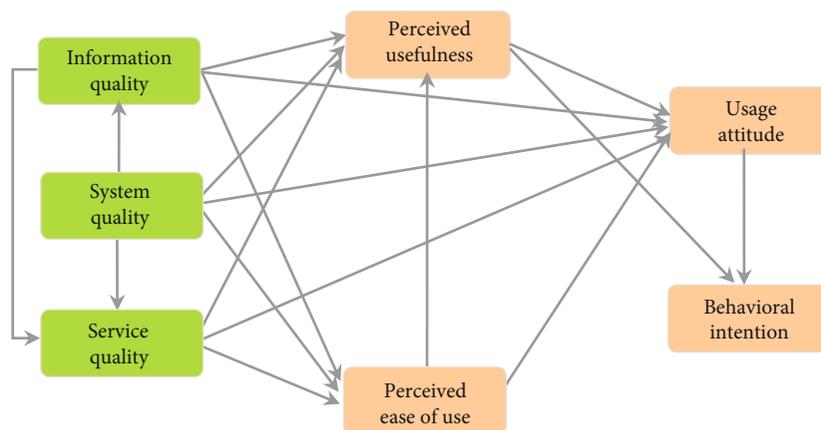


FIGURE 1: Hypothetical model of students’ behavioral intention in network ideological and political learning.

TABLE 2: Descriptive statistics of gender, grade, and core variables.

		Information quality	System quality	Service quality	Perceived ease of use	Perceived usefulness	Usage attitude	Behavioral intention
Male	Mean	3.988	3.928	3.983	3.914	3.96	3.31	3.827
Female	Mean	3.723	3.687	3.758	3.644	3.778	2.95	3.558
	T	5.209	4.912	4.605	5.499	3.909	5.159	5.251
	P	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001
Freshman	Mean	4.016	3.982	4.032	3.957	4.047	3.25	3.891
Sophomore	Mean	3.540	3.509	3.614	3.46	3.588	2.853	3.341
Junior	Mean	4.034	3.977	3.985	3.96	3.959	3.331	3.9
Senior	Mean	4.172	4.056	4.069	4.072	4.207	3.379	4.015
	F	37.301	34.281	24.170	38.197	35.407	13.024	43.621
	P	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.001

TABLE 3: Correlation coefficient of variables.

	Information quality	System quality	Service quality	Perceived ease of use	Perceived usefulness	Usage attitude
System quality	0.808**					
Service quality	0.769**	0.837**				
Perceived ease of use	0.780**	0.824**	0.818**			
Perceived usefulness	0.743**	0.771**	0.800**	0.828**		
Usage attitude	0.364**	0.386**	0.354**	0.446**	0.398**	
Behavioral intention	0.682**	0.714**	0.738**	0.754**	0.776**	0.487**

**Correlation is significant at the 0.01 level (2-tailed).

0.298, respectively, and it has an indirect impact on perceived usefulness, use attitude, and behavioral intention, and its impact effects are 0.446, 0.317, and 0.649, respectively. Information quality has a direct positive impact on perceived ease of use, and its impact effect is 0.28. Information quality has an indirect impact on perceived usefulness, use attitude, and behavioral intention, and its impact effects are 0.182, 0.129, and 0.169. Perceived ease of use has a direct positive impact on perceived usefulness and use attitude, and its impact effects are 0.648 and 0.461, respectively. Perceived ease of use has an indirect impact on behavioral intention,

and its impact effect is 0.602. Use attitude has a direct positive impact on behavioral intention, and its impact effect is 0.196. Perceived usefulness has a direct positive impact on behavioral intention, and its impact effect is 0.788.

The analysis of path effect shows that system quality affects other potential variables directly or indirectly. Therefore, system quality plays a basic role in network ideological and political learning. Perceived ease of use is an important mediating variable; perceived ease of use is an intermediary variable of service quality and perceived usefulness; and the proportion of indirect effect is $0.446 / (0.298 + 0.446) = 59.9$

TABLE 4: The data of the modified structural equation model.

			Estimate	S.E.	C.R.	P
Service quality	<—	System quality	0.969	0.029	33.669	***
Information quality	<—	System quality	0.894	0.028	32.444	***
Perceived ease of use	<—	Information quality	0.292	0.041	7.174	***
Perceived ease of use	<—	Service quality	0.701	0.044	15.775	***
Perceived usefulness	<—	Perceived ease of use	0.569	0.058	9.761	***
Usage attitude	<—	Perceived ease of use	0.631	0.042	15.153	***
Perceived usefulness	<—	Service quality	0.267	0.057	4.685	***
Behavioral intention	<—	Usage attitude	0.156	0.016	9.522	***
Behavioral intention	<—	Perceived usefulness	0.978	0.035	27.657	***
IQ4	<—	Information quality	1			
IQ3	<—	Information quality	1.108	0.028	39.853	***
IQ2	<—	Information quality	1.04	0.028	36.908	***
IQ1	<—	Information quality	0.981	0.028	34.626	***
SyQ4	<—	System quality	1			
SyQ3	<—	System quality	1.043	0.028	36.95	***
SyQ2	<—	System quality	0.971	0.027	36.51	***
SyQ1	<—	System quality	1.047	0.029	35.896	***
SeQ3	<—	Service quality	1			
SeQ2	<—	Service quality	0.997	0.027	36.373	***
SeQ1	<—	Service quality	0.985	0.027	36.277	***
PEOU4	<—	Perceived ease of use	1			
PEOU3	<—	Perceived ease of use	1.025	0.033	31.087	***
PEOU2	<—	Perceived ease of use	0.988	0.03	32.456	***
PEOU1	<—	Perceived ease of use	0.922	0.03	31.221	***
PU1	<—	Perceived usefulness	1			
PU2	<—	Perceived usefulness	1.12	0.031	36.312	***
PU3	<—	Perceived usefulness	1.069	0.031	34.747	***
PU4	<—	Perceived usefulness	1.091	0.031	35.384	***
UA1	<—	Usage attitude	1			
UA2	<—	Usage attitude	1.064	0.022	47.859	***
UA3	<—	Usage attitude	1.06	0.023	45.555	***
BI3	<—	Behavioral intention	1			
BI2	<—	Behavioral intention	0.991	0.025	40.233	***
BI1	<—	Behavioral intention	0.847	0.024	35.22	***

Note: Indicates significant at the 0.001 level.

%; perceived ease of use is the intermediary variable between information quality and perceived usefulness, and the proportion of indirect effect is $0.182/0.182 = 100\%$; perceived ease of use is the intermediary variable between service quality and use attitude, and the proportion of indirect effect is $0.317/0.317 = 100\%$; perceived ease of use is the intermediary variable between information quality and use attitude, and the proportion of indirect effect is $0.129/0.129 = 100\%$. Perceived ease of use indirectly affects behavioral intention through perceived usefulness and use attitude. Among all potential variables that affect behavioral intention, perceived usefulness has the highest impact.

5. Research Findings

First, there are group differences in college students' online ideological and political learning behavioral intention. There are group differences in system perception, technology acceptance perception, and behavioral intention of college students with different gender and grade. In terms of gender, girls' perception level is low. The reason may be that there is a stereotype in the engineering and technical literacy of college students, and the engineering and technical literacy of boys is significantly higher than that of girls. In terms of grade, sophomores have poor perception. The reason may

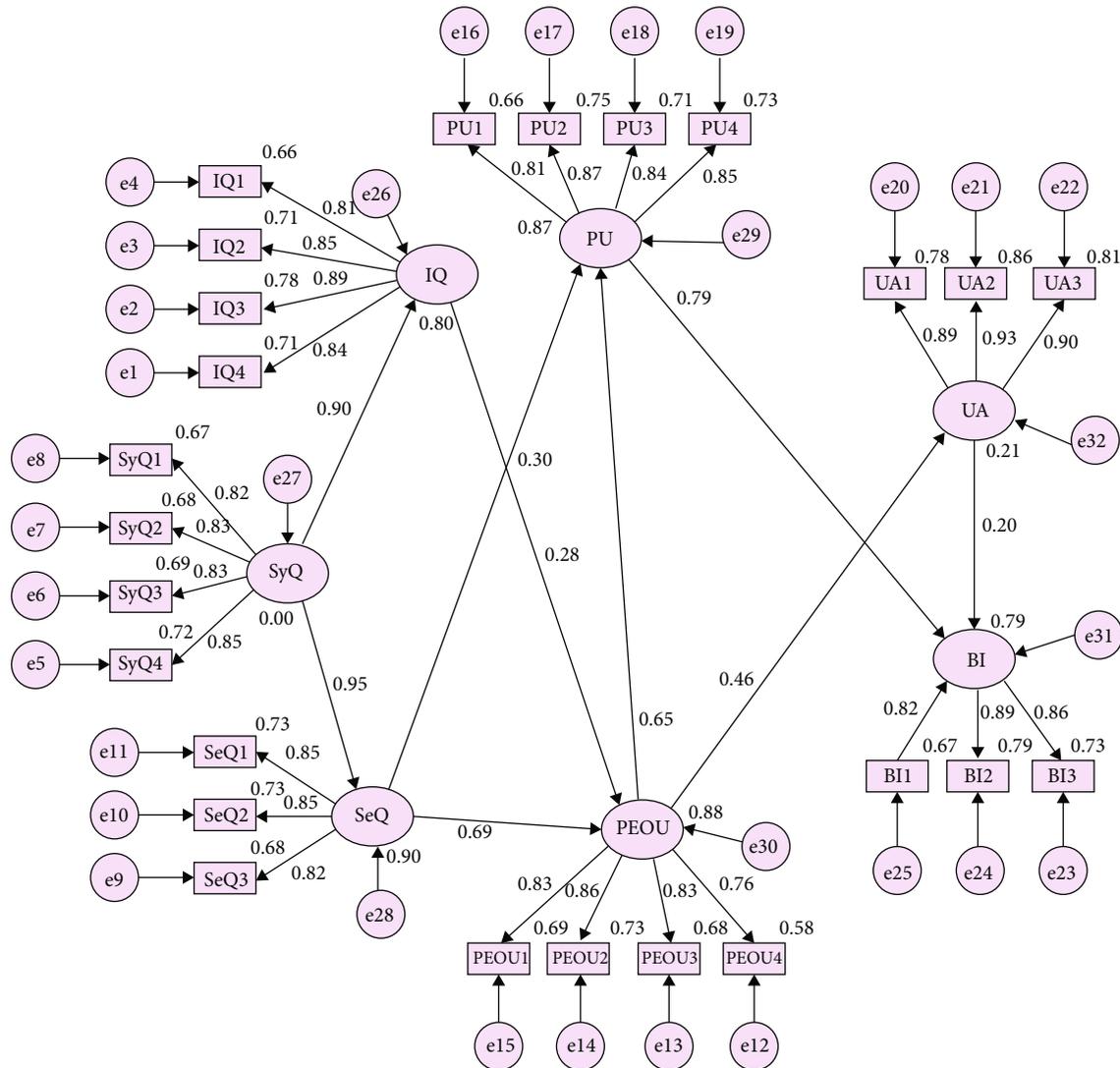


FIGURE 2: Modified structural equation model.

be that sophomores are in the period of developmental anxiety at the university stage [21], and students' satisfaction with supportive and external health care dimensions decreased significantly during sophomores [22]. Therefore, in the network ideological and political education, we need to pay more attention to the group differences of female college students and sophomores and adopt different network ideological and political education strategies according to different types of college students.

Second, different dimensions of information system quality have different effects on behavioral intention. Path analysis shows that among the influencing factors of the impact of information system quality on learners' final behavioral intention, the order from high to low is system quality, service quality, and information quality. The results also show that system quality, service quality, and information quality have no direct relationship with students' behavioral intention. System quality affects other latent variables directly or indirectly. Further, service quality and information quality have a direct effect on students' technology per-

ception, and service quality has a relatively strong predictive effect on students' technology perception. There are two possible reasons for this phenomenon. On the one hand, from Web1.0 to Web6.0, the core role of the network is changing from information sharing, information co-construction, knowledge transmission, knowledge distribution, semantic network, and the Internet to Internet of Things. In the "Internet plus" environment, the quality and information quality of the new generation of network ideological and political education system generally reach the user acceptance criteria. The demand for the quality of education services is constantly improving. On the other hand, according to the schema theory, when learners are asked to evaluate the information quality or service quality, they are bound to evaluate and describe their perception of the system quality. Therefore, in the practice of improving college students' network ideological and political learning behavior, we should focus on the basic role of system quality, return to the original intention of technology assisted teaching, and devote much attention to the catalytic role of service quality.

TABLE 5: Summary of path effects.

	System quality			Service quality			Information quality			Perceived ease of use			Usage attitude			Perceived usefulness		
	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect
Service quality	0.95	—	0.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Information quality	0.897	—	0.897	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Perceived ease of use	—	0.904	0.904	0.688	—	0.688	0.28	—	—	—	—	—	—	—	—	—	—	—
Usage attitude	—	0.417	0.417	—	0.317	0.317	—	0.129	0.129	0.461	—	—	—	—	—	—	—	—
Perceived usefulness	—	0.869	0.869	0.298	0.446	0.744	—	0.182	0.182	0.648	—	—	—	—	—	—	—	—
Behavioral intention	—	0.767	0.767	—	0.649	0.649	—	0.169	0.169	0.602	0.196	0.602	0.196	—	0.196	0.788	—	0.788

Third, perceived ease of use is an important intermediary variable, which has a direct positive impact on use attitude. From the relationship of latent variables, perceived ease of use is the intermediary variable between service quality and perceived usefulness; perceived ease of use is the intermediary variable between information quality and perceived usefulness; perceived ease of use is the intermediary variable between service quality and use attitude; perceived ease of use is the intermediary variable between information quality and use attitude; and perceived ease of use affects perceived usefulness; only perceived ease of use has a direct positive impact on use attitude. From the perspective of technology acceptance psychology, simplicity and ease of use are the basis for the rapid acceptance of new technologies. With the same use effect, the simpler the product is, the more positive the user's attitude is, and the easier the product is to be accepted. Perceived ease of use plays a significant role in the prediction of perceived usefulness and use attitude. Therefore, we should pay attention to students' awareness of the ease of use of the network platform, so as to enhance students' recognition of the role of the platform and correct students' attitude towards the use of the platform.

Fourth, perceived usefulness and use attitude have a direct positive impact on behavioral intention. Both perceived usefulness and use attitude have a direct positive effect on behavioral intention. Therefore, they all have a predictive effect on behavioral intention, and the predictive effect of perceived usefulness is higher than that of use attitude. The role of use attitude in predicting technology acceptance is only moderate. As long as the technology itself is considered useful or easy to use, users may use the technology, even if they do not have a positive attitude. Therefore, considering the use behavior, it is more important to develop a useful platform than an easy-to-use platform. As a result, when improving students' online ideological and political learning behavioral intention, we should not only take care of students' attitude towards the platform, but also have an eye on whether students perceive that the platform is useful.

6. Research Revelation

Initially, we need to focus on the group differences of college students and optimize the practical mechanism of network ideological and political education. The results show that college students of different genders and grades have group differences in system perception, technology acceptance perception, and behavioral intention. Therefore, we should formulate the practical methods according to the group differences of college students. On the one hand, notice the adaptation of college students to the learning platform and technology reception, and timely understand the behavioral intention of college students' e-learning, especially the female college students and sophomore students. On the other hand, general courses on engineering technology should be added appropriately, in order to meet the needs of popularizing basic engineering technology knowledge for different student groups in the process of educational informatization among different student groups. At the same time, keep a weather eye on cultivating the self-

efficacy of female college students in science and technology literacy, so as to increase their learning motivation in technology supported e-learning. Moreover, we should look out for the growth pains of college students in the turning stage of goal seeking and role transformation, especially the sophomores and provide psychological counseling in time to help them establish a sense of self-identity, for the sake of enhancing their perceived identity ability of e-learning.

Furthermore, taking quality construction of information system as a handle to tamp the network platform service system, the results show that different dimensions of information system quality indirectly affect students' behavioral intention, and the influence effects from strong to weak are system quality, service quality, and information quality. And system quality affects other latent variables directly or indirectly. Service quality has a relatively strong predictive effect on students' technology perception. Therefore, under the condition of ensuring the quality of learning information, we should center on the system quality of learning platform and continuously improve the service support. Firstly, take education noumenon as essential, and design the system for teaching. According to the use needs of ideological and political education and the theme content or characteristics, the resources should be organized into an orderly collection to adapt to the development of educational informatization and help realize the optimization of education and teaching. Secondly, ideological and political education is a social practice to cultivate people's ideological and moral character in line with the needs of China's social development. The competent education department should design reasonable incentive policies and evaluation and supervision mechanisms to provide human, financial, and even policy support for network ideological and political education in colleges and universities, so as to bridge the resource asymmetry between the government and colleges and universities. Thirdly, the school should seriously consider the technical needs and implementation standards of online ideological and political education, communicate closely with third-party institutions, and urge enterprises to provide products and technical support that meet their own needs. Fourth, schools should provide appropriate technical training for teachers and help teachers, especially those with technical difficulties, to enhance their teaching ideas and teaching abilities in the new Internet plus environment. In addition, in order to avoid the "ratchet effect" in education, colleges and universities should strengthen process control and management services and strengthen teachers' incentive mechanism and teaching motivation, so as to achieve a win-win situation for colleges and universities and teachers. Fifth, in addition to the cost investment of tuition fees and traditional learning methods, students also need to make efforts to change technology and learning methods to adapt to the new learning environment in the network ideological and political education. Therefore, teachers need to strive to reduce students' technology adaptation cost.

Additionally, focus on improving the usability of the platform under the guidance of improving the use attitude. The results show that perceived ease of use is an important

intermediary variable and has a direct positive impact on use attitude. The network ideological and political learning platform carries out design interaction on the web and app. It is also a product. The user's initial intuitive feeling of the product is particularly important, and the product use feeling will affect the user's cognition, which has a direct impact on the behavior. Therefore, in order to promote learners' positive attitude, we should strive to improve their perception of the ease of use of the platform. First, in order to ensure that learners accept the platform, we should adopt strategies to improve students' self-confidence in the network ideological and political learning, increase students' perception of the ease of use of the system, and then improve students' use attitude. Second, simplify the process of students entering the learning and task completion by improving the platform environment design, and provide explanation of use strategies before learning to help them get familiar with the environment. Third, we should focus on strengthening learning interaction in teaching practice, avoiding loneliness in e-learning, reinforcing support for problem solving, enhancing online support and offline services, and avoiding students' efforts to offset the benefits of Online Ideological and political learning because of difficulties in practical use and seeking problem solving. Fourth, increase the feedback channels used by the platform. We should not only collect user suggestions, but also use the data traces generated by the platform for data analysis, integrate user suggestions and big data analysis results, and constantly improve the online ideological and political learning platform, so as to improve the user experience and increase user stickiness.

Finally, with the goal of promoting use behavior, we should focus on improving the usefulness of the platform. The results show that perceived usefulness has a direct positive effect on behavioral intention, use attitude has a direct positive effect on behavioral intention, and perceived usefulness has a higher predictive effect on behavioral intention. Therefore, whether learners choose the network platform for ideological and political learning, the usefulness of the platform to themselves is the key factor to consider. First of all, learners choose the network platform mainly because of its rich resources, which can help reduce the time consumption caused by resource collection. The content presentation is more intuitive; the content classification and the nodes are clear. We can watch it repeatedly, avoid complicated notes, meet the uneven learning needs, promote the understanding of obscure knowledge, and better complete academic tasks. However, from the analysis of the existing online ideological and political learning platforms, a majority of them have a large number of resources, but most of them mainly release official current political news and recorded teaching videos. The traditional ideological and political learning is spread through reading, teaching, and communication in paper books. If it is only the video of news release and PPT explanation, the difference between it and the traditional is only the replacement of content presentation media. Therefore, the variety of resources needs to be more abundant. We can add animation, hot reviews, etc., and the resource classification needs to be more detailed. The content can also be divided into economic, livelihood,

education, medical, and other modules according to social fields. Rich and detailed resources are convenient for learners to obtain faster and high-quality knowledge. With the exception of those, in content presentation, we need to make ingenious design to avoid reenacting traditional classroom. We can combine the ubiquitous learning and fragmentation learning features of the Internet plus environment, reconstruct the knowledge, strictly control the length of resource fragments, and make use of AR and VR to make the content more consistent with the contemporary aesthetic and trend, so as to catch the interest of learners, increase the sense of learning substitution, and help them understand the learning content. Last but not least, e-learning is not isolated from offline classroom learning. It should actively intervene in traditional classroom, such as adopting the teaching mode of combining flipped classroom and massive open online courses, improving the integration of online and offline teaching, and combining the advantages of online and offline learning, so as to improve the learning effect.

Data Availability

The data used to support the findings of this study are included within the supplementary information file, and they are available from the first author upon request.

Conflicts of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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