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# Electronic Commerce Teaching Resources Platform Construction Solution Study

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**Abstract:** The paper proposes the solution to teaching resource application platform that applies to electronic commerce teaching. Electronic commerce teaching resource platform system includes hardware system structure and software system structure. It is an open approach based on B/S mode that provides each faculty with local and remote teaching resources via Intranet/Internet and booming cloud technology. It establishes inner- and inter-scholastic supporting teaching resource library to meet the demands in teaching practices, and includes functions such as theory teaching, practice teaching, skill practice, entrepreneurial internship, teaching resource service, laboratory management, teaching management, teacher-student interaction and etc.

The paper combines the comprehensive teaching resource platform construction practices of modern business and logistics in Beijing Youth Politics College, and puts forward opinions on and solutions to construction scheme of electronic commerce laboratory and teaching resource system in colleges and universities, including construction purpose, system structure, network laboratory composition, teaching function, function of teaching resource library contents and other aspects. Besides, it proposes the basic solutions to experimental teaching platform, teaching management platform, practice and entrepreneurial platform and teaching resource library construction.

**Keywords:** electronic commerce teaching; cloud technology; teaching resource platform construction; system structure; function and application

## 1. Introduction

Laboratories and the teaching resource library system for electronic commerce and relevant majors are important strategic resources of electronic commerce construction. And they play a crucial part in perfecting teaching environment, improving professional teaching capability, enhancing student's professional application and practice skills, improving teaching quality of electronic commerce, as well developing the talented who can successfully apply knowledge into practice. Meanwhile, they can reflect a school's strength of professional construction, teaching study and practical teaching.

Teaching resource platform system construction is integrated with classroom teaching, experimental teaching and student's social practice and entrepreneurship. The system provides practical on-line teaching and resources that highly comply with electronic commerce teaching and strongly coordinate with experimental environment of both face-to-face and on-line teaching. Besides, it includes hardware system and software system and is an open structure based on B/S mode that provides each faculty with local and remote teaching resources via Intranet/Internet and booming cloud technology.<sup>[3]</sup> It establishes intra- and inter- scholastic supporting teaching resource library to meet the demands in teaching practices, and includes functions such as theory teaching, practice teaching, skill practice, entrepreneurial internship, teaching resource service,

laboratory management, teaching management, teacher-student interaction and etc. Additionally, it provides experimental teaching platform, teaching management platform, practice and entrepreneur platform and teaching resource library, so as to effectively conduct practices and experimental teaching activities, regulate the contents of experimental teaching, develop an experimental course based on workflow systemization, stress on the embodiment of typical workflow, post, responsibilities and skills of electronic commerce during experimental teaching courses and strengthen trainings on and development of practical techniques and skills.

## **2. Basic Design Idea of Teaching Resource Platform Construction**

### **2.1 Establish professional development direction and complete experimental teaching system**

The development purpose of electronic commerce covers multiple fields such as economics, management, electronic commerce application technology and etc. Therefore, electronic commerce teaching resource platform construction should be a comprehensive system based upon theory, technology, business management and technical teaching and practices of electronic commerce. It should tightly combine with the development purpose, teaching system and teaching program of electronic commerce by establishing a complete classroom teaching system and a supporting experimental environment for both face-to-face and on-line teaching based on network and information technology provided the professional development purpose of the college has been satisfied; taking the module of network marketing of electronic commerce as an example, electronic commerce application technology laboratory, modern logistics and distribution laboratory, on-line trading laboratory, enterprise management laboratory and other relevant physical experimental teaching bases shall be established; meanwhile establishing an information technology-based on-line teaching system that integrates classroom teaching, on-line teaching and remote teaching.<sup>[3]</sup> Classroom teaching mainly deals with theoretical teaching while network teaching and remote teaching mainly deal with knowledge development, electronic commerce application technology, and experimental teaching of electronic commerce business and management. In addition, enrich and perfect the contents of experimental teaching through the cooperation between physical laboratory and on-line experimental platform. By this way, the experiment and experimental platform of practical links such as market management, electronic commerce, electronic commerce project planning, electronic commerce process management, network marketing and website management are emphasized. Besides, relevant teaching experimental subjects and experimental processes are proposed to be established, as well as relevant laboratories and experimental platform.<sup>[4]</sup>

### **2.2 Purpose of teaching resource platform construction**

First of all, experimental teaching platform construction should fully reflect professional characteristics, by establishing the business environment and teaching platform that complies with or is similar to actual business activities, taking advantages of electronic commerce systems such as enterprise informatization management, business management, electronic commerce management and logistics management and etc.<sup>[4]</sup> provided by laboratory, using them as the experimental teaching platform for students and conducting experimental teaching and skill trainings that comply with practical use to deepen students' understanding of electronic commerce and relevant courses, as well to help them master the basic links and basic business process of electronic commerce application. Secondly, it should enhance the cultivation of students' business and vocational techniques and skills through simulation experimental teaching, to help them grasp the basic application laws and operative skills of enterprise information management system and electronic commerce system. Thirdly, in order to improve teaching level and conduct teaching study, it should constantly revise and perfect experimental (practical) teaching system and provide to all teachers the basic experimental environment for teaching reform, skill experiment and system development. The teaching experimental projects mainly include intranet construction, website planning and construction, network finance, on-line advertisement, network marketing,

logistics track and etc.

### 2.3. Basic guidelines for teaching resource platform construction

When designing and planning the professional experimental teaching platform, accord with experimental teaching system and emphasizes on the designing of teaching and experimental contents closely related to professional skills, typical business process and job competence. For example, the experiment and practical teaching contents of supply volume management, marketing, network marketing, human resource management and customer service and so on. Besides, take into account the functions of current existing laboratories of the faculty when designing the functions of virtual laboratories of teaching platform. Establish a scientific and reasonable on-line experimental teaching platform that complies with practical teaching activities. Develop experimental teaching courses that ground on working process systemization, design supporting teaching experimental (practical) process and subjects and plan and establish the teaching experimental environment that comply with experimental teaching requirements.

### 2.4 Construct an open teaching resource platform

Electronic commerce teaching resource platform should comprehensively consider the professional characteristics of electronic commerce, make full use of network advantages of the resource platform, and construct an open experimental and practical teaching application platform. Provide to the teaching, studying, innovation and practical activities of teachers and students great material conditions and practical environment together with networked, integrated, real-time, advanced and comprehensive teaching platform and resource library. Effectively upload and download resources, and conduct interactive teaching activities. Through local network, the resource platform will be accessible to relevant majors within the college and provide teaching of experimental and practical projects of related course. Besides, the system can establish interscholastic teaching resource sharing platform through Internet and thus mutually develop and utilize the resource platform and conduct remote teaching and practical teaching by cloud technology, so as to enrich the contents on the resource platform. This is aimed to enhance students' understanding of electronic commerce courses and develop their practical ability in real enterprise environment where they need to apply knowledge into practices. The electronic commerce experimental system is a bridge between theoretic knowledge of electronic commerce and the real application of technology.<sup>[5]</sup>

## 3. Design of the Structure of Teaching Resource Platform System

The structures of basic hardware and soft systems are included in the system of electronic commerce teaching resources platform system that provides the related fields of the university with local and remote teaching resources through the B/S-based open structure, Intranet/Internet and the growing cloud computing technology.

### 3.1 The structure of network platform system of teaching resource platform

The platform system referred is actually a network system with B/S structure, including basic network system, systematic sever cluster (application server, Web server, database server), campus network connection system and Internet access system.<sup>[5]</sup>

The network platform of teaching

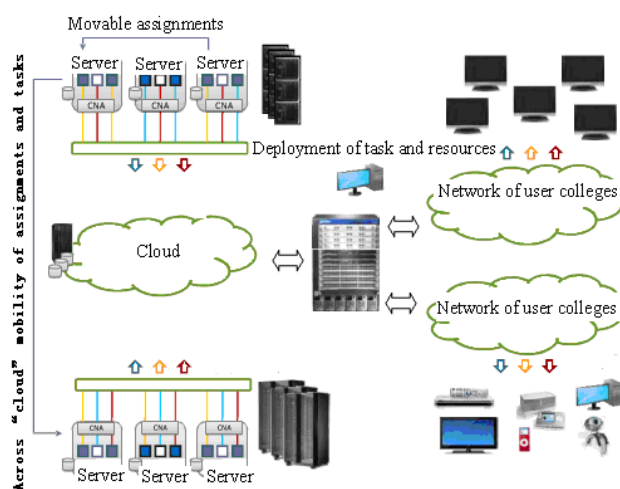


Figure 1 Cloud structure of interscholastic applied electronic commerce teaching resource platform

resource platform consists of two parts - the Intranet-based single college application platform and the Internet-based interschool application platform set by cloud technology (See Figure 1).

### 3.2 Design of the utility system of teaching resource platform

It promotes the overall service efficiency of the teaching platform with the integrative teaching design idea. The experimental teaching is integrated with the technologies of network, website, database and multimedia, which means that the information technology is employed not only to support teaching or learning but also to create a novel teaching environment where circumstances, information and resources are available and shared and also there are access to self exploration, multiple interaction, collaborative learning and development of a new teaching style. [5]

During the construction of the network teaching platform, the teaching resources must be integrated to be more systematic, scientific, orderly and easy for application by organically utilize the various teaching materials in the platform according to the education direction and teaching program of the specialties and the actual conditions of the students. Apart from this, emphasis should be laid on a new integration of the teaching procedure and resources as well as the management, supervise and evaluation of the learning process.

The five primary modules of the system are platforms of teaching, teaching management, experimental learning and business founding as well as the teaching resource library. (See Figure 2)

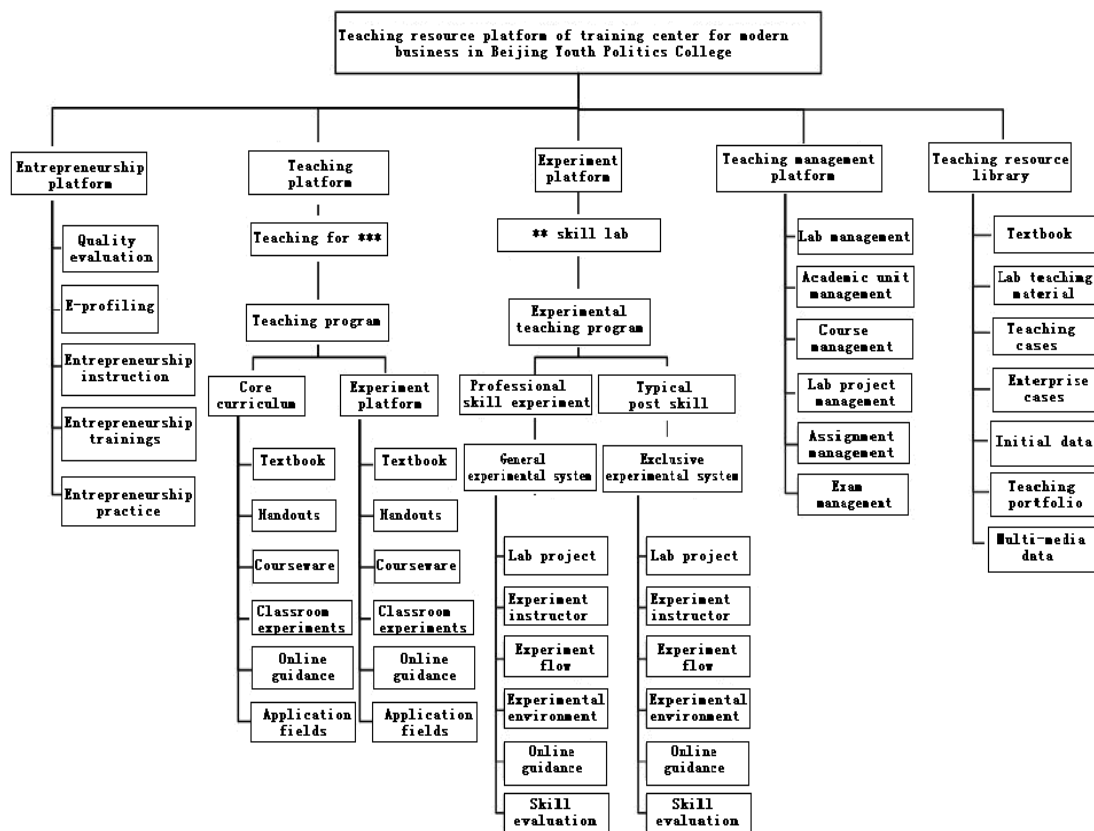


Figure 2 Structure of teaching resource platform system

## 4. Functions of Teaching Resource System

### 4.1 Teaching platform system

Specific teaching platforms are separated in accordance with different specialties. This is exemplified by electronic commerce program that is with teaching platform system of four sub-modules: introduction, core courses, typical post group as well as the experimental and practice system.

#### **4.2 Experimental teaching platform**

Constructed in connection with the physical labs in experiment and practice system, it has obtained one-to-one functional corresponding, including professional skill experiment and typical post skill experiment.

#### **4.3 Teaching management platform**

Teaching management system covers the managements of lab, academic unit, courses, experiment project, assignment and exam, and other functions.

##### **4.3.1 Courseware management system**

It provides the administrators and lecturers with the accesses to upload, release, browse and download the courseware, etc.

##### **4.3.2 Assignment management system**

It provides the lectures and students with the online access to issue, tutor, submit and comment the homework and to govern and inquire the homework performance, etc.

##### **4.3.3 Test system**

It offers the course-based exam resource management, including item pool, paper management system (paperless exam system and conventional paper generation system), online exam, auto marking system and result inquiry system.

#### **4.4 Practice teaching platform system**

The module of experimental and practical systematic functions is divided on the basis of the disciplines. Centered on the core curriculum, kernel post and key skills, the in-class and extra-curricular experiments and practices, and the in-school experiment and practice platform with the integration of comprehensive experiment and practice are established in this module.

#### **4.5 Entrepreneurship platform**

A true on-line entrepreneurship practice platform is provided to the users, including such functions as ability and quality evaluation, instruction, simulated training and practicing.

#### **4.6 Forum**

As an online communication platform, every user is allowed to write words, release messages or express opinions on it. The students can exchange their learning experience or discuss the social hot spots via the forum. The teachers can participate in academic discussions or educational exchanges via this forum as well.

#### **4.7 Back-stage management system**

It covers the managements of systematic essays (edit, add and delete), connection, registration, authorization (edit, add and delete), uploaded pictures and documents (upload directory designated to the teachers and the students, edit, add and delete) and other miscellaneous functions. All the information are retained in the data base, mainly including the information of user registration, authorization, forum and guest book, the records of the website linkage information and the uploaded picture and video information, marking and result information, etc.

##### **Including:<sup>[6]</sup>**

- User management: the administrator assigns an ID and its password to each teacher and each student in order that they can log on the platform of multiple teaching materials and operate the varies soft wares in the platform.
- Database update: amend, add and delete the system data.

#### **5. Conclusions**

Through the long-term electronic commerce teaching practice and the researches on electronic commerce lab and teaching system construction, the fundamental system model and systematic building solutions have

been come up with for the college electronic commerce teaching resource platform by combining with the establishment of the teaching resource platform of the modern business and logistics in Beijing Youth Politics College. The conclusions are mainly including:

- The teaching resource platform has become an essential part of the teaching procedures of the college electronic commerce and related specialties, being the important means to effectively solve the space shortage of physical labs, improve the skill and practice teachings and the student internship.
- The construction of teaching resource platform will provide the teaching with systematic and efficient services to totally get rid of the previous unbalanced development of the hard and soft wares and the low availability of the modern teaching equipment.
- The teaching resource platform will vigorously push forward the innovation model of the IT-based electronic commerce teaching in terms of the application of modern education technology. It motivates the growing of electronic commerce teaching model and boosts the promotion of electronic commerce practice teaching level in all aspects.
- The teaching resource platform will greatly promote the campus network-based teaching application level and make it possible to share resources.

The teaching resource platform is an open comprehensive teaching system with resource sharing.

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