

# Construction of Network Teaching Platform Based on Web Techniques

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**Abstract** - The article discusses the design model, general construction and implement scheme of network teaching platform based on Web techniques, probes the application of education informationization in the teaching process. Combined modern teaching theory and multi-medium techniques, the article demonstrates and implements the main function and demand of network teaching platform from m teaching and learning point of view.

**Index Terms** - Web techniques, multi-medium techniques, network teaching platform

## 1. Introduction

Currently, in order to make education and teaching activities can be more vivid; school teachers are actively developing and producing multimedia courseware as well as online courses. Build a can effectively improve the level and quality of education for students and teachers and the shared network teaching resources system, the education and teaching resources formational planning and integration has become an urgent task no doubt.

### 1. Teaching platform design objectives

Teaching platform design goals can be divided into: online communication system, online service system, online network examination management system, online publishing system.

The online learning platform enables students and teachers as well as school management and functional departments to each other, and better, real-time communication. For students, registered users can use the learning platform: In the Web of network multimedia teaching environment, a message asking for help learning, teacher-student online communication, online video education through learning new knowledge, real-time interactive multimedia network classroom , courseware on demand, you can download learning materials, but can also publish their views, and even students can be on this platform and network self-examinations, the entire platform is like a closed complete the process of learning and teaching and self-examination. The system implements the traditional "teaching" and "learning" in all teaching, to provide users with a common network application platform, users on this platform and unified path to personalize portal web space and a number of network management of teaching service.

### 2. Requirements analysis and system design

Platform development in line with the principles of user

needs, in a safe, simple, fast and stable as the main purpose, with the most simple and effective way to design the entire system, based on the current focus on existing resources from the network operating costs, information security, system maintenance and operating costs, the platform's ease of use and other considerations.

**2.1 Requirements analysis:** First, the requirements to run stable and secure: be timely data backup protection and automatic data recovery prevent system crashes or database can be corrupted.

Second, requiring maintenance facilities: background operation interface features clear, clean and simple.

Third, and constantly improve the functional requirements: You must have a strong background in functional support in order to meet the growing information, both learning function, but also have the services and guidance functions.

User object is complete online teaching activities include the basic elements; they have different identities which in turn has different rights.

Clients use the browser makes a request to the WEB server, and then service agent middleware and database links through which the contents of the request for service form WEB page feedback to the user.

**2.2 System Design:** L The platform of choice for a hierarchical design forms, from ease of use and simplicity, analyzes. The platform of choice for a hierarchical design forms, from ease of use and simplicity, analyzes the platform's features and specific achievement. Figure1 is a front module and back across the logical connections between the modules relationship.

Above around Manage departure, background administrator by managing editor of four core modules of all organic resources organized into a platform for them.

#### 2.2.1 Overall design

Online communication module, online management module, on-line service module, online publishing module is to provide services for different users following diagram can be seen very clearly with the large small module dependencies between modules.

#### 2.2.2 Frame design

The platform designed for different users with different services. Figure 1 shows the framework of the planar layered

graph. From the layered graph can be very clearly seen in small modules with large affiliation between modules.

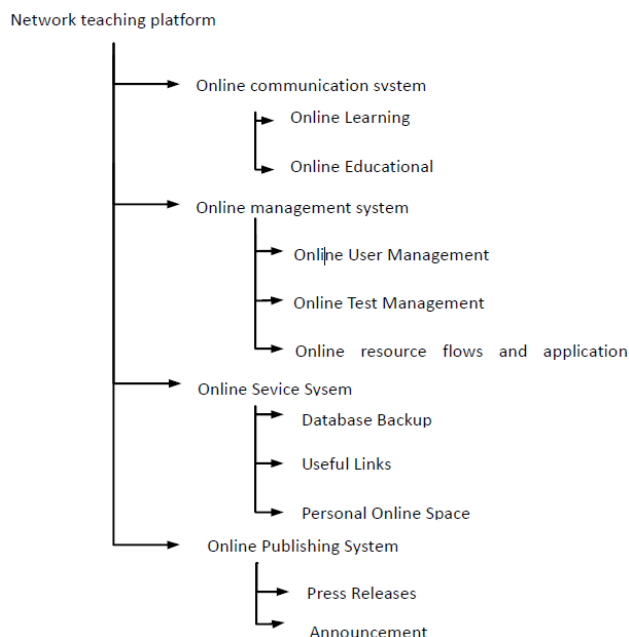


Fig.1 Network teaching platform for the overall functional structure

### 2.2.3 Technical design

The network teaching platform in the clear teaching platform based on the basic structure and function of research and discusses a network teaching platform to build it to ASP technology mainly through data collection, needs analysis, system planning, system design, network configuration the server preparation, web design, programming, system debugging, test run the system, the system sound input to the final use of these stages, the final initially completed. Shown in Figure 2, the database access realize shown, in order to reduce the cost of building and maintaining database through middleware integration server and browser, speed up the whole process online.

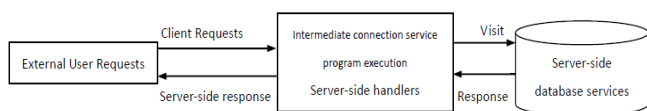


Fig.2 Database access implementation Figure

Using visual development tools network courseware overall production framework, directory navigation structure, dynamic Web page design, a variety of courseware material in the form of plug insertion Web pages with the corresponding driver, according to their location in the overall framework of

the sections into the appropriate level folders, between the individual files, pages, each hot key can be used to switch between the hypertext technology.

### 3. Conclusion

System integration using Web technologies can improve the system compatibility and scalability, while improving the quality of service system based on network teaching platform also enhances the ability to adapt. These Web Service based application in development there are many areas that need improvement. In the network teaching platform design and development of Web applications as emerging implementations, Web Service will have a very good development prospects, and also play a more and more important role.

The network teaching platform to make the teaching process can span time and space constraints, through an extended out from the traditional classroom teaching environment networks improve teaching efficiency and effectiveness of teaching.

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