TO THE CONSTRUCTION MODEL OF PORTAL WITH OPEN SOURCE SOFTWARE FOR SCHOOLS IN VIETNAM

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The report examines aspects of creating a model of an information portal with open source software for use in schools. Creating modules-channels links between "school - teachers - parents - students". As the main base of the educational portal system chosen to the Moodle learning environment, to support teaching and training

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activities for teachers and students. Designed for integration module k-NN training «feedback» oriented to student work. The proposed model is successfully applied to the portal practice in secondary schools in Vietnam.

Key words : information portal, open source code, e-learning, self-learning, school, k-NN algorithm.

INTRODUCTION

A web portal or links page is a web site that functions as a point of access to information on the World Wide Web. A portal presents information from diverse sources in a unified way.

Apart from the standard search engine feature, web portals offer other services such as e-mail, news, stock prices, information, databases and entertainment. Portals provide a way for enterprises to provide a consistent look and feel with access control and procedures for multiple applications and databases, which otherwise would have been different entities altogether.

Portal has features to help administrators gather, manage many different sources, from which distributed them as individual services for different users depending on group rights, the needs and purposes the user.

The portal is at school portal for education organizations containing information about the school and the specific activities of the school is teaching, learning, and some other functions. There are many options when building a portal model for schools, but our model was selected as the open source product for free to save costs and be able to adjust upgrading in accordance with school.

Moodle (abbreviation for Modular Object-Oriented Dynamic Learning Environment) is a free source e-learning software platform, also known as a Course Management System, Learning Management System, or Virtual Learning Environment VLE). As of October 2010 it had a user base of 49,952 registered and verified sites, serving 37 million users in 3.7 million courses.

As a course management system, Moodle is designed to help educators who want to create quality online courses. The software is used all over the world by universities, schools, companies and independent teachers. Moodle is open source and completely free to use.

MODEL PORTAL SYSTEM

Model portal system for the schools have integrated architecture includes a core system Moodle, together with additional integrated modules and subsystems.

The integrated modules
- Allows students or teachers to start two-way dialogue with one another.
- Allows students to build mathematical expressions using a graphic drag-and-drop interface

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- Allows users to complete online feedback-style forms using a variety of user input methods.
- Support video conference.
- Integrates Google Apps' services with Moodle and allows for Google Apps management and use from within Moodle.

In addition, the integrated modules include: k-NN module rated feedback; CBR module;

Application of the proposed expansion of portal system based on CBR and k-NN algorithm, known application development k-NN feedback form module (form module activity) assembled into Moodle, non-interference in the source code Moodle root. k-NN-based feedback on the test scores of the test questions that students achieve and the situation by the experts that teachers pre-set to give feedback.

The purpose of the application-oriented to support learning for students: For student stake the knowledge or poor, by taking the test will need to know what parts to study more, of course, the proposed that school teachers should be studied carefully to make. For strong students, feedback and suggestions to improve the knowledge learned are made.
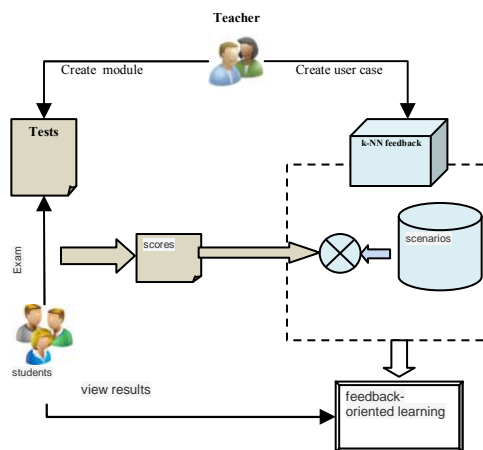
Content on the portal are organized in sections each unit, the largest grant the school managing board, below the lower levels. Each unit uses a number of services. Organization of content on the portal consists of three main groups: the groups - associations, teachers – staff and students. Inside the main group may include sub-groups or units. Members of the units are allowed to use the services of that unit and the service level above or below with limit rights and powers.

The subsystems include: 1. Inspection subsystem; 2. Integrated subsystem for demonstration Web information (other than environment of Moodle); 3. Subsystem to extract information via mobile phone; 4. Subsystem supports communication channel with parents; 5. Subsystem support tools for teachers.

Database system including the warehouse of the lecture course (Mathematics, Physics, Chemistry, Literature, History, Geography, English, Citizenship Education), the exercises, exams, video clips and the reference images.

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IMPLEMENTATION

The model portal system initially deployed applications for secondary schools in Vietnam and have good results.

In the future, we plan to implement additional functionality installed video-conference using Bigbluebutton module integrated with Moodle.

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