

Integrating WebCT with Diverse Campus Systems

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ABSTRACT

The University of Delaware has a powerful legacy SIS system. The University plans to replace this system in 2004-05. In the meantime, we have populated WebCT rosters using custom written scripts and batch jobs. This paper describes how these scripts have evolved into an administrative web application, which integrates information from a variety of existing campus systems to help automate the administration of WebCT. It also discusses future directions and lessons learned.

Categories and Subject Descriptors

H.5.3 [Information Interfaces and Presentation]: Group and Organization Interfaces – *Collaborative computing Web-based interaction, Organizational design.*

General Terms

Management, Performance, Design, Experimentation

Keywords

Administration, CAS, Integration, LDAP, Legacy, MySQL, SIS

1. INTRODUCTION

Faculty adoption of WebCT at the University of Delaware has increased quickly since the fall of 2000. In only two years, we have grown dramatically from 40 WebCT courses our first semester to almost 400 courses. This much content, combined with more than 10,000 individual students, could have created an administrative nightmare for our support staff of six. In addition to the regular workload associated with administering WebCT, our legacy SIS system has been a challenge to work with at times.

With these obstacles in mind, we have created a number of tools to decrease the workload of creating and maintaining WebCT courses. These tools include web-based request forms and a Microsoft Access front-end to our course database. Initially, only a simple SQL database captured requests from a course request form. But we have expanded the abilities of our system to include help in tracking course creation, past and current course information and statistics, and coordination with our legacy SIS system.

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2. HOW IT ALL BEGAN

The fall semester of 2000 was the first in which the University of Delaware supported WebCT. We had recently installed version 3.5 and were learning how to use it ourselves. Nevertheless, we had plenty of time to handle all requests. The fact was, there just weren't many people using the software. We quickly became victims of our own success, however, and it became clear that we needed to develop a system to help our small support staff maintain control of WebCT and provide quality service to our users.

We decided that the first thing we needed to develop was a means to capture all of the course requests that came in. We also knew that the web would be the simplest and most efficient medium for this system. We created a simple PHP form that saved the submitted data in a simple MySQL database table. We soon added an ODBC link to an Access database front end. From here, we could connect to the database and view the course requests. We also used it to obtain statistics of WebCT use on our campus. These statistics came in the form of total number of faculty using WebCT, total number of students in the system, etc.

3. WHERE WEBCT AT UD IS NOW

We have recently upgraded to WebCT 4.0. To update WebCT course rosters automatically, we run batch jobs to transfer data from our SIS system into WebCT using the standard WebCT API to input student data. Unfortunately, this process still requires a few manually maintained text files describing which University course and section rosters should be mapped with the appropriate WebCT courses. In addition, we have a separate file to identify which users should be classified as WebCT TAs and WebCT Designers. Finally, we have recently set up a mechanism to place the rosters of non-credit courses into WebCT.

Our course map file contains both the SIS code (e.g. ENGL110010) and the WebCT course ID. A script runs on this file and uses the standard API to insert the roster from the Registrar's list into WebCT.

Next, our non-credit courses are entered into WebCT. An example of a non-credit course is our DOHS department. Labs at the University require students to pass safety training. This training is now run in the form of WebCT quizzes. To accommodate this process, each non-credit course has a file on our WebCT server which has the same name as the WebCT Course ID. One person is then able to update this file, adding the students he or she wants to have access to the course. Again, a

script runs on the files and the students are added to the appropriate WebCT course.

Finally, we have a file that picks up any other users that have not been added to WebCT courses. This file contains usernames, the WebCT Course ID, and what role they should have in the course (Student, TA, or Designer). A script runs on this file and inserts these users into WebCT.

On the administrative side, we have used htaccess files and server-side includes on our course request form. Now, faculty and staff can login and are verified as users. We can then make sure that they are University staff, the only people eligible to request a course. This was an improvement from our initial request form because we can now authenticate who the users are and can begin to tailor options to them. At the University of Delaware, we require faculty instructors to request creation of WebCT courses each semester. One problem that still remains is that we cannot know whether a TA is requesting a course until we receive the form. At that point, we will contact them and ask that the faculty member fill out the form.

4. WHERE WE ARE GOING

In future versions of our system, we will have improved authentication using our CAS authentication system as well as automatically create the text files from our administrative database to use in populating WebCT with students.

We plan to use CAS on our course request form to authenticate users, and then use our own MySQL database to personalize the page in a number of ways.

Our new form will retrieve information about what the faculty member has already done in WebCT. For example, we allow

faculty to base new courses on courses that they have previously taught, so that they don't have to start from scratch. We will display all their past courses and allow them to choose the desired course from a drop down box instead of typing it. We will also be able to know what position a user holds. If they're a TA and not faculty, then we will not allow them to request the course. We believe that this will lead to fewer typing mistakes, easier course creation by the support staff, and ultimately better overall service for the faculty.

One final change that we will implement soon at the University of Delaware involves the API for entering students. We have always used the standard WebCT API to input student data. However, we will soon begin using the IMS API for student input, taking advantage of the active/inactive field.

5. WRAP UP

The University of Delaware has come a long way from the fall 2000 semester. The number of courses has grown 1,000 percent. The number of students has also increased exponentially. Now, we quickly need to ease WebCT's administration requirements for our small support staff. This is why we developed an administrative interface, and this is why we are continuing to update and upgrade this interface.

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