Seeking the TAO of Medical School Testing:
The University of Alberta Discovers Its Open Source Solution

UNIVERSITY OF ALBERTA

BACKGROUND

University of Alberta, Medical School Searches for a New Assessment Solution

The undergraduate medical education program at the University of Alberta provides services to nearly 800 students. Student assessments for over 30 courses are administered on a regular basis. To effectively meet their needs, an assessment platform must (1) seamlessly upload and administer student assessments on an on-going basis; (2) evaluate student learning on a longitudinal basis; and (3) integrate with the University's existing electronic learning systems.

The Medical School IT team had to find a new assessment platform when their in-house solution was no longer supported. It was essential that the new platform work with their existing eLearning system. They didn't want to recreate all that content!

Thirty-three functional requirements were identified as the staff conducted a needs assessment exercise. These requirements would guide the selection of an assessment platform. On-the-fly test administration and easy verification of test content were among the basic concerns the new system would have to address. Most importantly, any solution would have to be Open Source so that it would easily integrate with the existing eLearning system.

CHALLENGE

Researching and Selecting an Open Source Assessment Solution

At first, the team considered building an in-house solution. But they quickly realized this would require reinventing the wheel. Why invest huge amounts of time and talent developing features that were already available from almost any market solution?

After surveying the field, they narrowed the search to TAO and Moodle. Both platforms are Open Source,

but TAO offered some distinct advantages. In medical education, course content is much more integrated than in the typical university environment. Medical students must integrate multiple core subjects rather than segregate their knowledge by course. For this reason, test questions are best organized longitudinally across the entire curriculum. TAO can accommodate this approach, whereas Moodle requires that administration of assessments be organized by course. Additionally, Moodle did not have a comprehensive item-banking solution, which is provided as part of TAO at no extra cost.

Stay Connected f in t g+

SOLUTION

Why TAO

TAO was the best option for the following reasons:

1. It worked with their existing eLearning system, because it is Open Source.

2. It helped avoid long and costly development cycles for an in-house solution.

3. It included item banking, so there was no need to pay extra.

4. It didn't require items and assessments to be organized by course, which perfectly suited the needs of the Medical School.

RESULTS

Implementing TAO

In only four months, using a dedicated server for hosting, University of Alberta implemented a rapid development framework by completing tasks in three components:

1. An authentication gateway was built to verify student identity based on university logins. An SAML-SSO based authentication was developed to pass login information between the university authentication server, client, and TAO server. Given that the product is Open Source, the Medical School IT team was able to undertake all this development on their own, with just a few meetings with TAO to make sure they were on the right track.

2. An automated upload function was built to read Word documents and convert them directly into QTI item formats for upload.

3. An administration interface was modified to fit the item types and administrations used in their program.

In just eight weeks of development, the platform was operational! It has been administering assessments — constructive response and multiple-choice — for the past eight months. Forty assessments have been uploaded and administered over 6,700 instances with an average of 170 entries submitted for each. When an assessment is requested, it can be uploaded and ready to administer within the hour. Conditional assessments (custom answer paths) can be set up within a day.

> University of Alberta Assistant Professor Hollis Lai reports that, "TAO was the best solution in providing a customizable assessment platform without requiring an extensive development effort. Our staff is really happy with the flexibility of TAO. We didn't have to develop a time-consuming custom solution or cave in to an expensive proprietary system. TAO gave us exactly the functionality and flexibility we needed.

Open Assessment Technologies S.A.
9, avenue des Hauts-Fourneaux
L-4362 Esch-sur-Alzette, Luxembourg

Stay Connected