

## Solution for Interactive Learning

An interactive and advanced learning management, content creation and content display system for effective conduct of classroom teaching and learning

Our client wanted to set up an online network of learners and trainers. The portal visualized connecting the community of professionals to share knowledge thereby providing opportunities to give and learn on a single platform. The portal was envisaged to have an ever-expanding knowledge repository. The teachers, professionals and mentors who registered with the portal, would contribute to the repository. Learners and mentees would be able to share this knowledge and learn. Teachers, mentors and professionals would be able to enhance their knowledge, share ideas and communicate with each other. The portal was envisioned to conduct formal certification courses in various streams.

### Problem

The portal was required to be designed and developed supporting the following major functional areas.

- Content management
- Database management
- Membership management
- Learning management
- Communication management to include mail, blog, chat and forum
- Relationship management

### Solution

The following factors determined the selection of technology.

- Small budgets
- Short time to design and develop
- Non-proprietary technology/ freedom from vendor dependence
- Availability of source code
- Scalable, robust, secure and search engine optimized system

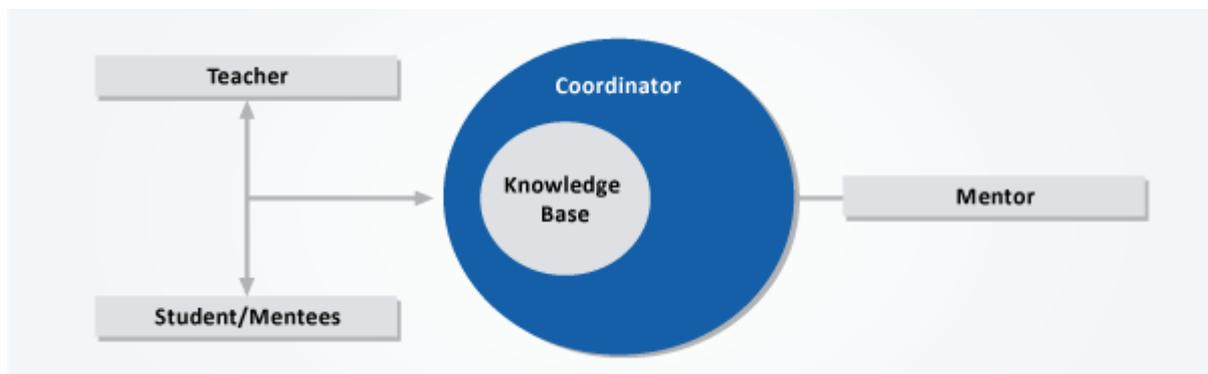
There were three options to developing such a portal.

- Use commercially-off-the-shelf systems, COTS.
- Develop from scratch or use a combination of COTS and development.
- Use open source systems.

## Training and Feedback Case Study

The COTS systems evaluated were cost prohibitive and did not meet the client expectations. Further customization would increase the costs. Developing from scratch would take a long time, would not be a fully stabilised system, and was cost prohibitive. Using a combination of development and COTS did not work out in terms of time to market and the cost of COTS as well as development and integration of new development with the COTS systems. Open source had almost all of the components required for the system. These components were well tried and tested being used in several systems across the world and have a large and ever growing community supporting the development and enhancement. These components come with hundreds of pre-developed ready to deploy functionalities. Open source would reduce the cost and time to market. The cost components would include integration of various components, user interface and look and feel design and customization that may be required. Open source allowed us to make the portal cost effective and development could be done within the stipulated time frame.

Having decided on the open source technology, the next major decision revolved around the architecture of the system. Designing a system, which deals with CMS, LMS, and CRM at the same time was a concept never tried before. Decisions such as the system workflow process, how to use the selected components, how to put them together, how and which parts of these components should be talking with each other, data exchange details between the components and user interface design were crucial aspects of the system architecture.



The system was required to serve many purposes - create different projects, exams, quizzes and assignments, content upload, one-on-one messaging.

Our designers, architects and system engineers at Web Access have created the system using all of these components together.

Integration of all these components and custom development to integrate the components to make the entire system more versatile resulted into creation of a new LMS. The LMS has, since it was developed in 2009, seen many implementations and customisations to suit client specific needs.