

COMPASS: A CS Program Assessment Project

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1. INTRODUCTION

This demonstration accompanies the paper of the same name. The COMPASS project uses free, open-source [4] tools combined with a locally developed database (also to be open-source) to support the development and analysis of course portfolios, and provides a means of formally documenting our computer science program assessment. The data collected using the COMPASS database is used internally by the department for continual improvement of our curriculum, and externally to satisfy requirements of program and university accrediting agencies.

Using the Moodle course management system [3], we are able to standardize how course materials are collected and stored, without imposing significant restrictions on course content or teaching style. Since Moodle is open-source, we are able to make customizations as needed. With its modular architecture, developing local plug-ins is relatively painless and does not affect other parts of the system.

To survey students and third parties such as alumni and employers, we utilized the PHP Easy Survey Package (phpESP) [5], an open-source tool for conducting online surveys. phpESP provides an easy to use, step-by-step method of creating surveys, with the ability to setup pre-defined respondents who are permitted to access a given survey. All of our departmental surveys and instructor course evaluations are collected using this system. Since it is also open-source,

we were able to create “hooks” into both phpESP and Moodle to allow students to easily access the surveys from their course webs, without needing to access and login to another site.

The COMPASS database augments the course webs and the surveys by providing the tool to formally document the curriculum structure and collect assessment data. The database provides input forms for faculty and curriculum committees to enter assessment observations and recommendations. Since it uses a standard relational database, development of reports is straightforward. Finally, the database connects the assessment data, course webs, and survey results by providing contextual links between each of the systems, so both internal and external users can visit a central web site to get an overall picture of the entire curriculum as well as the assessment process.

During the session, we will demonstrate main capabilities of the COMPASS database, to include: public view of the overall curriculum structure, showing how courses and CC2001 [2] knowledge areas, topics, and learning objectives are associated; faculty view for input of course assessment data; and administrative functions. Additionally, we will show a sample of course webs from Moodle and demonstrate how the “hooks” inserted in the Moodle and phpESP systems allow for easy access to the assessment database and to student surveys.

For additional information, see [1].

2. REFERENCES

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- [4] Open Source Initiative. Open Source Definition. <http://www.opensource.org/docs/definition.php>.
- [5] php Easy Survey Package. <http://phpesp.sourceforge.net/>.