Developing a Homegrown Course Management System — Community/course Action/interaction Management System (CAMS)©

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EXECUTIVE SUMMARY

This case describes the development of a unique, student-centered, online course management systems (OCMS). The system grew from a fairly straightforward grade reporting system into a full-blown collaborative system within a short — in traditional information systems development terms — timeframe of approximately one year. The

Community/course Action/interaction Management System, known as CAMS©, was developed iteratively with specifications derived from faculty and students working together to address the limitations of existing OCMS and to identify new functions and features that would contribute to the value of the educational experience. To address the most critical issue identified — limited interactive functionality — the participant became the focus of the development process. This case describes the evolution of CAMS© from both a product and a process perspective. Changes made to the system and the factors motivating the changes are discussed, as are challenges faced before, during, and after the development process.

BACKGROUND

Midwest University is a large state-funded university located in the central portion of the U.S. At every level, the organization was experiencing high demand for limited resources. The post-9/11 economic situation affected state budgets and mandated belt tightening at state funded institutions. Facing limited resources, the organization's ability and willingness to support change dramatically decreased.

The university was beginning the process of carving out a strategy to integrate web technology into standard classes, called web enhanced or hybrid courses, which involved primarily a face-to-face environment with some online interaction (Ko & Rossen, 2002), and into online classes with little or no face-to-face interaction. In spite of the economic situation and without additional funding, the university had mandated that **all** courses have a web presence within the academic year 2001-2002.

Within the Information Systems academic department in the School of Business, this mandate was seen as critical to maintaining credibility as a technology-focused department. During the previous year, the department had designed and implemented an innovative online presence implemented with Active Server Pages (ASP) as the front end and a database as the back end. All faculty members in the IS Department had been encouraged to provide some type of web-based support for their classes, and in an attempt to force this, the department announced that syllabi would no longer be printed for each student. In the fall semester of 2001, 85% of the IS faculty had developed course web sites.

Also at this time, the School of Business selected Blackboard™ as its product of choice in supporting web-enhanced, hybrid, and online courses. (See *Table 1* for a description of Blackboard™ and related products and terms.) Faculty were encouraged to put their new course materials on Blackboard™ and to move course web sites over to the Blackboard™ environment. Departments were publicly compared on percentage of faculty/courses using Blackboard™.

The University IT staff was heavily burdened with many high priority projects. One of their major endeavors was to develop and implement the IT infrastructure for a new Business School building. This was occurring in parallel with the ongoing updates to the university's Blackboard™ application and the addition of many new users to the system. (In fact, the number of new users to the Blackboard™ environment overwhelmed the system in the fall of 2001, and a new server was required.) This realistically exhausted the majority of IT resources at all levels of the organization.

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