

## Open-source database applications as collaboration and technology integration tools in teacher education

At SITE2002 the authors conducted a roundtable detailing an actual case where a database management system was designed through the collaborative efforts of university faculty and preservice and inservice teachers to support the teaching and learning of higher order historical thinking. The design and development of the database and the user interface were discussed and plans for the implementation of the database as part of a history and social science teacher education program were described.

The database was developed in response to an explicit National Council for the Social Studies call advocating computer technology integration into the social studies classroom to transform the teaching and learning of key social studies content and skills. A systematic instructional design model was used in creating the database. The design of the database required the development of a goal and the creation of a product to meet that goal. A collaborative relationship was required to mesh the content knowledge and system goals with the computerized implementation of those goals. The content domain was analyzed and defined a structure around which the instructional technologists could design and develop a system.

The 2002 roundtable presented information demonstrating that database management systems can constitute effective solutions to seamlessly integrating technology into education. Unfortunately, the original database also presented a problem. The database was meant to provide a low-cost solution to integrating technology into the classroom. Although the original database provided templates and examples that could

be adapted by instructors, the proprietary software used in the original database proved to be too costly for wide-spread implementation of the database.

The unexpectedly low level of implementation led the authors to explore alternate, less costly approaches. The current roundtable will detail the results of their efforts. The roundtable will describe the conversion of a well-designed, well-tested database from a proprietary application with relatively high acquisition costs to an open source application with minimal acquisition cost. The process involved in making the conversion will be discussed and the original and converted databases will be compared and demonstrated. Although the converted database incorporated history content, the authors will discuss how the same type of system could be expanded to include other content areas as well. Participants will receive copies of the open-source software, including sample templates and examples, which can be installed, without cost, on their local computers.