



USC Confluence: A Campus-Wide Academic Wiki

University of Southern California

What is it?

In the fall semester of 2005, the University of Southern California's Center for Scholarly Technology (CST) launched Confluence, a pilot of a campus-wide wiki service designed to make it easy for faculty to introduce collaborative learning activities into the curriculum. At its core, a wiki (from the Hawaiian word for "quick") lets users add, edit, and delete pages, text, and hyperlinks to a Web site from within a Web browser without having to know HTML, JavaScript, or FTP programs. In the context of teaching and learning, USC found that the wiki offers unique flexibility: as a tool, it combines features of an e-portfolio, a content management system, and a blog, while supporting the collaborative construction of knowledge in ways that these more familiar technologies do not. USC's campus-wide wiki pilot uses a commercial product (Confluence) to support more than 35 course projects, reaching several thousand students.

For the many campuses around the country struggling with the question of how best to implement various types of collaborative or social software in the curriculum, USC's successful experiment (now in the process of being expanded) offers a number of valuable lessons about collaboration in the classroom and across the institution. The CST identified six basic categories of wiki use that emerged from the Confluence pilot. Four categories emerged that have particular relevance to instruction:

- **Student journaling:** Whether for personal reflection, peer-based evaluation, or instructor review, students are being called on to use the campus wiki space to express their understanding of key concepts and to become aware of their own cognitive process. For example, USC's major initiative in service learning for undergraduates, known as the Joint Education Project (JEP), had a history of using student journaling as a means of reinforcing metacognitive reflection over the course of a student's internship in the community. Given the highly distributed nature of the program—with students reporting to their department advisors and the JEP staff, in addition to their instructors—they often waited weeks for feedback on their journal entries, and the opportunity for just-in-time learning had passed. Using its Confluence wiki space, the JEP was able to exploit the technology's instantaneous publishing and editing features, making it quick and easy for students to reflect on their experiences and receive timely comments and suggestions from their mentors.
- **Personal portfolios:** The USC Department of Preventive Medicine assigns personal wiki workspaces to students enrolled in a public health practicum so they can assemble the results of their comprehensive literature review, track their progress through the semester's on-the-job training experiences, and generate a culminating portfolio they can use as they seek positions in their field.

- **Collaborative knowledge base:** In an approach to wiki use that capitalizes on its classic features, students are being asked to contribute to a general repertoire of knowledge, whether in support of a collective project (such as a course Web site) or a small group learning activity. Many instructors reserve this freewheeling form of collective editing for particular assignments where students are being judged less for their individual contributions than for the collaborative results. Many instructors involved in the USC pilot have opted to provide each student with his or her own wiki space to which only the individual student and the instructor have access. In this way, the faculty member can keep track of individual student progress while providing timely feedback. When the wiki's classic collaborative feature was used to enable peer-based dialogue, as it was in a USC course on the evolution debate, the instructor encouraged students to contradict and respond to one another but restricted their ability to delete one another's work.
- **Research coordination and collaboration:** Wiki projects may be used to involve students in public outreach and expose them to professional practices. For example, a new course offered by the USC School of Policy Planning and Development (PPD) uses the USC Confluence wiki environment to engage students in the construction of a public resource. In the wake of the Katrina disaster, PPD joined a multiuniversity research project aimed at providing planners and urban designers working in New Orleans with exhaustive information on the social, political, architectural, ecological, cultural, and geographic contexts of the city. PPD students gather images, documents, and interviews and organize their research materials within the dynamic course wiki, placing the information into thematic groups. In the fall of 2006, the course wiki received the Los Angeles and the California 2006 American Planning Association (APA) awards; was exhibited at Italy's prestigious Biennale di Venezia; and was nominated for the national APA Public Outreach Award. Currently, it is being used as an academic tool by more than 20 architecture, design, and planning programs at universities across the country that have banded together to work collectively on New Orleans revitalization and other urban renewal projects.

What problem does it solve?

A core group of USC faculty came to the CST looking for ways in which they could use technology to expand critical thinking, self-reflection, faculty mentorship, and service learning beyond the boundaries of a specific course, a particular discipline, and a single semester. Some faculty members wanted to engage their students in metacognitive reflection, others in team-based learning projects, and still others in longitudinal studies that spanned multiple semesters. A few were intrigued by the learning potential of online social networks where members contributed their expertise to a collective knowledge base. As a group, these faculty advisors agreed that they wanted to provide students with greater opportunities to collaborate on the construction of knowledge, to reflect on what they had learned, and to recognize connections and continuities that would allow them to transfer skills learned in one course to problems encountered in other contexts.

How did they do it?

In conjunction with CST staff, a faculty advisory group chose Confluence as its wiki infrastructure because it enabled them to set editing privileges, preventing students from deleting, commenting upon, or otherwise altering certain Web pages in the course space. They often asked CST to carve out personal wiki spaces for each enrolled student so that faculty could track individual student progress. Helping faculty tailor their course wikis to meet their specific learning objectives, CST staff provided consultation and training, helping instructors add attachments and comments or take advantage of the simple syndication feature supporting the importing and exporting of material between the wiki and other social software tools (such as del.icio.us, CiteULike, and Flickr). Finally, CST advised faculty to assign a nontrivial measure of the student's final grade to participation in wiki-enabled activities so that wiki usage would have a better chance of transforming teaching and learning across campus.

Why is it noteworthy?

- **Transformative educational uses:** While the defining feature of the classic wiki has been the ease with which it allows for the collective construction of knowledge through its collaborative editing capabilities, the USC campus-wide pilot project reveals the wiki's capacity to support a range of pedagogical uses, from personal journaling and portfolio creation to undergraduate research involving deep collaboration, group editing, and coordination across disciplines and institutions.

- **Faculty-generated innovation:** This campus-wide pilot initiative originated with faculty and was driven not by the technology but by curricular needs identified by an advisory group made up of faculty, students, and research groups. The success of the pilot implementation owes much to the collaboration between willing faculty and the CST staff, who listened to faculty recommendations when selecting the underlying technology, kept the technology running efficiently and reliably, and provided a full spectrum of support to faculty and students, including necessary training.
- **Replicable practices:** A set of effective approaches to the use of wikis in the classroom has emerged from the USC pilot program, along with some preliminary studies on student usage performed by instructors within the Marshall School of Business.

To learn more

For more information, please contact Jude Higdon, Assistant Director of the USC Center for Scholarly Technology, at higdon@usc.edu.

To share your innovation

If your institution has a practice that you believe would be of interest to the EDUCAUSE Learning Initiative, please share it with us. To submit your innovation for review, please use the ELI Innovations Contribution Form on our Community Exchange page <<http://www.educause.edu/ELICommunityExchange/6797>>. A panel will review your submission and make a recommendation to the ELI staff.

About the EDUCAUSE Learning Initiative

The EDUCAUSE Learning Initiative (ELI) is a community of higher education institutions and organizations committed to advancing learning through IT innovation. To achieve this mission, ELI focuses on learners, learning principles and practices, and learning technologies. We believe that using IT to improve learning requires a solid understanding of learners and how they learn. It also requires effective practices enabled by learning technologies. We encourage institutions to use this report to broaden awareness and improve effective teaching and learning practice.
