

## **COP-053**

### **Collaborative Co-construction of Documents by Student Design Teams**

**Susan Finger**

Associate Professor, Civil & Environmental Engineering, Carnegie Mellon University,  
Pittsburgh, PA

**Chris Neuwirth**

Professor, Department of English, Carnegie Mellon University, Pittsburgh, PA

#### **Abstract**

In engineering design classes, the final documentation is often the most important product that the students produce; however, they have few tools to help them in the collaborative co-construction of the documentation. Several systems, like Microsoft Word Reviewing tools, allow team members to exchange comments electronically and some researchers have developed systems in which team members can edit a single document together. However, none of the available tools addresses the problem that we have observed on the Kiva, a team collaboration tool developed in ICES. For most team writing assignments, one person is designated to be the scribe. This person divides up the document, gives writing assignments to different team members, and manages the process of maintaining version control of the parts of the document as they are written and edited by various team members. We frequently observe that toward the end of the process, this person has extreme difficulty maintaining a coherent version of the document. Also, once the document is assembled into a single file, multiple versions of the file (which is often several megabytes) will be posted, each with only minor changes from the previous version. Discussions about the content of the document are often overshadowed by discussions about the process by which the document is being constructed. We propose to take advantage of the conversation-based format of the Kiva to create a prototype document collaboration system that focuses attention on the discussion about the document contents.