Classroom 2K and Beyond
Leveraging New Technologies for Distance Learning

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Abstract:

Problem Statement

The college classroom is an environment rich in synergistic diverse forms of communication. Instructors use speech, projected images, spontaneous writing such as on a white board, body language such as gestures, and written materials to convey information. The interchange between the instructor and the students and between the students themselves during a classroom session can be key factors in learning.

However, most of this critical interchange is poorly or never recorded during the classroom exchange. Students take hurried notes, trying to capture the essence of the information that was conveyed. However, when they review their notes later it can be difficult to remember the context or to correlate notes to other materials. There is no way to revisit the lecture to clarify points or to reexamine answers to questions.

The Classroom 2000 project was initiated to study these problems and to experiment with automatic electronic capture, integration, and access to multimedia technology in the classroom. The goal of the research is to enhance both teaching and learning by incorporating the presentation and interaction capabilities of multimedia into audio, video, and electronic whiteboard capture of classroom sessions. Class sessions can be recorded and then replayed through browsers on the World-wide Web. Audio recordings can be searched for particular phrases and correspondences are made between audio, video, and electronic notes as they occurred in real time.

Our Computer Information Systems Department was approved for a $200,000 grant from the Provost to create and tailor a full Classroom 2000 environment for educational use and experimentation.

Evaluation

The Classroom 2000 project at GSU will use the technology in live classroom settings, targeted to begin in Fall 2000. Technology will be incrementally incorporated, beginning with electronic whiteboard capability and progressing to audio and then full video recording of class sessions. Instructors and students will be observed and surveyed to measure the impact and benefits of the new technology.

Additionally, results of this project will be a set of findings and recommendations for the technological infrastructure of a new classroom building that is scheduled for completion in 2002. The Governor of our state, in an effort to reduce the "digital divide", has also expressed an interest in using this project as a template to build a series of interconnected Classroom 2000s in libraries located in rural areas of the state.