Collaboration plays an important role in technology diffusion and integration for various reasons, one of which is basic economics -- some technologies simply are too expensive for individual schools and organizations to purchase. This roundtable discusses and demonstrates collaborative efforts to expand student access to the outputs of two relatively expensive technologies, high quality telescopes and high speed video cameras. Both efforts involve the use of technology to manipulate time and, in the process, make it possible for students to see objects and events they previously were unable to view.

*Share the Skies* is a project developed by the Virginia Department of Education with web presence support from the Center for Instructional Technology Solutions for Industry and Education at Virginia Tech with the goal of improving math and science education nation-wide. The project enables teachers and students to study astronomy via the Internet in a classroom setting by controlling high quality telescopes based in Australia, capturing digital images of deep space in real time and providing resources and learning activities for teachers and students. The project will be implemented with the assistance of approximately 1,500 instructional technology resource teachers throughout the state of Virginia.

The second collaborative effort involves the use of a high speed video camera to capture phenomena that occur too fast for the details to be observed by the human eye. Graduate students at Virginia Tech use cameras capable of recording 1,000 images per second to record events that occur at high speeds. These events, such as basketballs bouncing, eggs cracking, water dripping, and matches lighting, are then played back at slower speeds so students can observe the full range of actions that occur within each event.

Both projects demonstrate the benefits of integrating technologies in the classroom. With *Share the Skies*, students and teachers can control a high quality telescope in real time, capture and share their own images of deep space, have access to lesson plans, learning activities, resources and images on the web, and collaborate with other students and teachers. With high-speed video, students can design demonstrations of high-speed events they would like to witness, predict the results they expect to see based upon theories and principles covered in the classroom, and then observe the detailed results of their demonstrations over the internet.

The roundtable will discuss the roles of the parties involved in these collaborative efforts and the hardware and software employed to achieve the results, describe the outcomes of these efforts, and demonstrate some of the options available to participants in the collaborations. Roundtable participants will have an opportunity
to view the hardware and software in operation and to suggest additional opportunities for future collaboration.