**Effective, Efficient, and Innovative?**  
**Incorporating video in e-learning environments**

Video has held a key position throughout the history of e-learning. From VHS-based courses to televised, over the air, cable and satellite broadcast instruction, video has served as the conduit if not the catalyst for what educators have come to know as teaching and learning at a distance. The emergence of the Internet as a medium for instructional interaction progressed from the use of single dimension text to multi-level graphics and media. Alongside that development, the quest for the ability to transmit tv-quality video across the Internet continued to gain momentum. From early attempts to accomplish interactive video transmission through unix based utilities such as vat, and user-friendly products such as cu-see-me, the desire to attain quality video and audio over IP has continued to grow.

Through today’s innovations in compression approaches along with advances in network switching and transmission; larger, faster networks; increased memory; faster processors; and higher-resolution displays, the capabilities of video - live, archived, synchronous, as well as, asynchronous - present a wide range of challenges and potential. Designing e-learning environments with a focus on effective use of video is an essential component of the instructional development and delivery process.

The Arizona State University Information Technology Instruction Support Group (IT|IS) provides support for over 2700 faculty and instructors, delivering instruction to roughly 30,000 on-line students. The Instruction Support group provides ongoing support of faculty toward the design and development of effective video resources. Employing a model of guided assistance the Instruction Support Video Unit has been established primarily to further the implementation of innovative techniques, tools, and materials into instruction, research, and learning. This approach is directed toward serving information consumers in the field of education at all levels of instructional delivery. As a working and functional model of technological innovation, this unit serves to provide information, programming, and services related to the implementation of innovative technologies and methods in instruction, as well as provide research and demonstration of their effective use. The strengths of video as a communication medium are employed to expand and emphasize focus on varied subject matter relevant to innovative instructional technology and research.

Faculty and instructors, along with support staff, are provided a range of instructional workshops addressing production and pre-production aspects. Through a multi-dimensional range of communications technologies and approaches, video is constructed to best meet the needs of the instructional environment. These include: linear, non-linear, and interactive video programming material distributed via broadcast, cable, and digital networks; asynchronous and synchronous Internet communication; and interactive DVD and CD-Rom based resources.
Through the use of video, this session will showcase several examples of e-learning video modules along with behind-the-scenes views of the planning, production, and post-production development of these instructional resources. Video from across curriculum and content areas will be featured, along with details on the planning and production components. Approaches to effective delivery of video-based resources for e-learning will be examined.