

Editors Podium:

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Convergence is the theme of symposia among educators and engineers alike. It heralds convergence of analog and digital technologies – which ultimately means phase-out of analog audio and video production, storage, transmission, and display technology. Digital compression for images, audio, and video substantially reduce storage, improve quality, and expand the effective bandwidth of broadcast, wire and fiber communications.

Many of us were first aware of this several years ago when telephone companies offered to digitize ITFS television frequencies that were, until that time, designated for education. They paid for system conversion and maintenance and a substantial annual fee for use of the frequencies. It was a good deal for education because it reduced operating cost and provided a source of revenue for educational programming. It similarly benefited communication companies because digital conversion set free up to 90 percent of available bandwidth for their use. A win-win situation.

Unfortunately, many educational institutions did not plough back the windfall into television courses and distance learning. Their organizations were so under funded that distance learning was low priority compared to other needs.

Explosive growth of the Internet for education caused many administrators to reduce or even abandon television for delivery of educational content. They ignored the cries of students who had come to depend on this educational resource. Everyone had a television but only one quarter of the students had access to a networked computer, and many who had access were not computer literate. The Web promised digital video, but broadband connections were beyond the budget of the majority of the populace. As a result, video images were small and jerky, and in some situations did not work at all.

All of this is changing. Better compression algorithms, video streaming, increased bandwidth for modems, and moderately priced Digital Service Lines (DSL) are putting video back into the picture. However, it is not the old video, carefully designed and professionally presented by PBS, foundations, and leading educational institutions, but an interactive culture of talking heads. If you are expecting to sit back and learn – forget it. That is the realm of entertainment! You must stay connected you must continually interact to perpetuate the learning process. And in many environments you must dodge the billboards that constantly distract you from your learning goal.

We have come a long way, but we have a long way to go! In the process we are getting digital cameras, digital video, digital editors, and digital display devices. You become suddenly aware of the limitations of the old technology when you

put a web page on TV, when you compare TV with High Definition TeleVision (HDTV), or when you play a Digital Video Disk (DVD) movie on a good TV.

Phase-out of the old technology has begun. In the interim, the educational enterprise has invested its technology funds in computers and networks. Will there be funding to maintain these systems? Will large and brilliant digital display devices become affordable?

The bottom line is this: Will convergence of digital and analog technologies result in quality television lessons that are interactive, rich in visual content, and responsive to multiple intelligences and a broad range of learning and teaching needs? Or, will video in education be an embellishment to the journalistic text and imagery of the Web? And where does DVD belong in this interactive digital realm?