Multimedia Education: A Multisensory World

Everyone who casually browses the literature of almost any discipline is now finding that one word is appearing in many different contexts: the word is "multimedia." However, most of us do not know how to define that word and its implications for education except in the most elementary way. Let's begin, then, with a description of what happens when personal computers have the hardware and software that enables the user to access multimedia programs. At that point, the user is presented not only with written text and data, but also information that is enhanced with high resolution color images, stereo sound, animation, and full motion video segments—thus empowering the user to make use of selected senses beyond vision. Moreover, the latest applications employ "hypertext;" this means that the written material is linked to the other sensory components. Assume for a moment that you are reading about whales. When you arrive at the passage which describes whale songs, you can, by clicking the mouse pointer on "songs," hear the whale songs through the computer's speakers—or, by clicking on size or description, see illustrations of the different species in comparative formats or swimming in their natural habitat. As a result, more than one sense is involved and thus, multimedia.

In order to take advantage of this technology, the computer itself must have specialized software and hardware including a powerful processor, a CD-ROM drive, a sound board, and a set of speakers. In addition, the faculty member must have skills in the areas of electronic presentation technology, multimedia authorship, and other computer-based tools. As a result, in early 1994, planning began on the establishment of a University Libraries unit, Information and Instructional Services, that was designed to assist faculty and students in these areas. The primary goal of ISS is to supply full production support to those faculty who lack the technical expertise to display their ideas in a multimedia format.

Information and Instructional Services, located in Sangren Hall, houses a staff of graphic-multimedia designers who can provide start-to-finish support on any instructional project. Faculty may seek advice and meet with design consultants when developing multimedia instructional materials, hypertext-based learning modules, slides, transparencies, electronic presentations, and other advanced instructional delivery tools. Each designer has experience with computerized graphic design and illustration, as well as animation and video production.

The design team helps the instructor to explore options and determine how the goals will be attained. Options are invariably plentiful: in some cases a set of electronically produced slides will suffice; other projects require hundreds of hours to create modules which utilize animation, video clips, sound bites, and text. In addition to consulting, this unit will accept projects and, in cooperation with the faculty member, create complete multimedia products or other computer-generated teaching resources.

The Instructional Technology Laboratory, in 3302 Sangren (formerly the Media Lab) has also expanded its services to meet the needs of those who wish to use the new software and produce their own multimedia units. This facility now includes a small computer laboratory equipped with two IBM compatible Pentium computers and four Macintosh Power PCs to permit the use of the newest in multimedia authoring, illustration, and presentation software. Furthermore, computer scanners, digital cameras, and specialized audio- and video-capture hardware and software are available so that video clips, sounds bites, or photographs may be used to enhance multimedia projects or electronic presentations.

The Education Library now houses the WMU video tape/film collection, and is acquiring a new demonstration collection of multimedia resources. Finally, in order to implement the teaching mission of ISS more effectively, another area, 3307 Sangren, has been converted into a multifunction classroom. This room includes a small video tape studio, an area for large group film/video previewing, and the necessary equipment to allow real time demonstrations of WESTNET resources, multimedia titles, computer software, and Internet resources.

The University Libraries is excited about and proud of the capabilities offered and services provided by these new facilities. The director is Dennis Strasser, Associate Professor of Libraries. Professor Strasser urges that you call 387-5010 if you have questions, ideas, or wish to investigate the new teaching technologies that open up the classroom to the evolving universe of multimedia/multisensory instruction.

D.S.