

Introduction to the Minitrack on Multimedia Documents in the Office and Education

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Digital media uses in the office and classroom continues to increase. Speeches given by corporate officers are recorded and stored on the Web so workers can access them on demand. Meetings and presentations are recorded and placed on Web sites for later reference. Rather than requiring workers to attend training classes at specific locations and times, companies are now recording training materials and letting users access the information as needed. Digital video is also becoming common in real-time applications such as distance learning. Students can view classroom video online while interacting with the instructor through text chat windows.

This new type of rich, augmented media use suggests new paradigms for user interaction. For this type of new media to succeed, conventions and protocols must be established between users so that the communication is effective.

This suite of four papers spans a broad range of interests, suggesting the broad scope of future work as video enters the school and workplace.

The ideas described in *Virtual Jukebox: Reviving a Classic*, by Drews and Pestoni, both of IBM's Almaden Research Center, center on providing audio content over the Internet. Rather than creating yet-another metaphor, they take the well-known (and almost universally understood) metaphor of a jukebox, and recast it as the control panel for audio services.

The group from Università di Salerno presents a set of ideas about how agents can be used to support common video editing operations. In their paper, *On the applicability of the MultiAgent system paradigm for parsing videos*, a collection of agents each examine a video document, searching for transitions, cut points and other elements of interest to a human user. Rather than trying to construct a single monolithic program that knows everything about a video document, the multiagent approach tries to take advantage of a multiplicity of analytic resources, and provides a

framework where it is straightforward to incrementally add new competence components as required.

IBM's USER Group at the Almaden Research Center has been studying *Exploratory navigation in large, multimedia documents using context lenses*. This work shows a user interface technique that supports very simple, lightweight interaction with a large and complex document. Here, the key idea is that fast and very interactive ways of interacting with a complex document create truly different kinds of readings. The method shown in this paper – a kind of brushing technique where the user rolls the mouse over portions of the document – is an old technique, but still offers a new way to work with the body of content.

And finally, the paper from Fuji Xerox's Palo Alto Lab *Supporting group-to-group collaboration in videoconferences*, illustrates several techniques to enhance the use of video conferencing. In these days of a continuing search for increased productivity and reduced costs of travel, and in the rise of distributed virtual workteams, anything that can improve on the quality of videoconferences is to be greatly welcomed.

During the past two years, several high-visibility businesses have begun to populate the market with tools for capture, indexing and use (especially in educational markets). We believe that the use of video for training purposes will continue to explode, especially given the tools to capture and automatically index such media.

Video is a relatively new medium. It is influential, yet still a second-class citizen in many educational settings. While necessary for business, for the most part, video is still second-tier with respect to traditional media forms.

With the contributions reported here – papers that combine new and simple-to-use metaphors of content, novel ways to analyze video and deepening understanding of what makes real-time videoconferencing function well, we fully expect new kinds of media literacy to develop, in both academic and professional settings.