

Flash MX Live: Real-time Video and Audio Delivery in Multi-user Environments

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1. Introduction

To date, the most common forms of real-time messaging between individuals on the Internet have been text-based, including e-mail and instant messaging. Studies have suggested that Internet users overall spend more hours online with e-mail and instant messaging (IM) than with all other web browsing.¹ Macromedia's new technology opens up exciting possibilities for rich media applications that allow Internet users to hear and see each other instantly, using standard microphones and video devices. Although the reach of broadband connectivity is expanding into more businesses and homes, most Internet users have yet to utilize the full potential of two-way, high-speed communication available with broadband connections.

2. Overview

The presentation will highlight the new real-time video and audio capabilities of Macromedia's Flash Player 6 plug-in for web browsers by deconstructing a chat application that enables several listeners to hear and see a discussion between a host and any given listener in the group. This scenario is similar to a radio talk show format, but the audience can also see live video broadcast by the host and by the current "caller". The crucial issue of managing audio and video streams in a potentially crowded Internet space will also be covered. The new technology will be contextualized within an analysis of two main aspects of Internet communication: 1) the differences between one-on-one messaging and group discussion environments, and 2) the dynamics of audio and video "space" compared to that of a text-based landscape.

3. Deconstructing the Chat Mechanism

A portion of the presentation will be dedicated to breaking down the required technical components for two-way audio and video streaming with Macromedia Flash Player 6. Attendees will learn the process of setting up streams with client-side ActionScript and server-side scripting. Source files will be available for download after the presentation. If available, a separate session will enable users to see and work with the actual Flash documents.

4. Comparing Rich Media Presence to Text Messaging

After the chat application has been explained, I will discuss the differences between live audio visual chats and text-based IM, including:

- The expectation of immediate response time (and attention) in rich media communication. Text-based communication allows each participant to carefully weigh responses before sending them.

- The loss of perceived privacy in rich media communication. Text-based communication allows each participant to cloak his or her identity more easily. Moreover, with the introduction of video and audio, physical appearance, tone of voice, expression, and non-verbal communication--all components of normal human interaction--push through the anonymity of the Internet space.
- Investment in computer technology required for rich media communication. E-mail and IM are relatively inexpensive (or free) methods of communication over the Internet. Rich media communication requires an investment in high-speed connectivity and non-standard devices. Audience considerations must include some research on the penetration of web cams (or video

5. Considering Problems with Rich Media Communication

To conclude the presentation, consideration will be given to potential abuses of rich media connectivity among several users—including overuse of bandwidth and lack of communication management leading to user cross-talk (e.g. two or more users talking at the same time). Future modes of communication, such as instant video messaging, will also be briefly reviewed.

6. Web site

FlashSupport.com
<http://chat.flashsupport.com>
Login with any user name to channel "chat" (without the quotes).

7. About the Presenter

Robert Reinhardt is the lead co-author of the Flash Bible series and the forthcoming ActionScript Bible. He is also co-principal of [theMAKERS], a multimedia company based in Los Angeles.

He has developed multimedia courses for educational facilities in Canada and the United States, was a speaker at the FlashForward2000 conferences, and recently presented some of the exciting new features of Flash MX at the first-ever Canadian Flash festival, FlashintheCan 2002. With a degree in photographic arts, Robert takes a holistic approach to computer applications for the creation of provocative multimedia.

Recent projects include a Flash web site for the film *Training Day* (Warner Bros. 2001), screen graphics for Sean Penn's film *The Pledge* (Warner Bros. 2001), and on-set artwork and set design for *Gossip* (Warner Bros. 2000).

Reference

1. Study: Four sites account for half of Web surfing. (2001, June 5). Retrieved April 8, 2002, from <http://www.cnn.com/2001/TECH/internet/06/05/internet.consolidation/>