

# Adding Another Communication Channel to Reality: An Experience with a Chat-Augmented Conference

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## ABSTRACT

This paper reports our recent experience with a 3-day technical conference, which was fully augmented by a chat system and a telepresence camera. In this trial, the chat acted as a sub-channel to reality; participants both in local and remote conference rooms can freely interchange their thoughts or opinions inspired by presentations through the chat. We observed several interactions between virtual (chat) and real discussions during the conference - namely, (1) Chat discussions often activated discussions in the real world, while treating tiny questions, (2) Co-authors could provide supplemental information through the chat while the first author was presenting, and (3) Participants who were not familiar with the research topic could get more understanding from the chat. We also observed the effect of anthropomorphic representation by switching the chat system between text- and comic-based.

## Keywords

Chat, Computer-Supported Conferences

## INTRODUCTION

Technical conferences, such as CHI itself, are normally organized as a series of presentations. Each presentation starts from a talk by a presenter, followed by questions/discussions with audience. In spite of recent advance in computer and communication technologies, this style remains almost the same; only visual aids became computer screens from slides or transparencies.

Although there have been many researches for supporting small-sized meetings, few efforts have been done for enhancing a large-scale conferences. Takeuchi et al. introduced a chat-system to a panel session in the Japan Society of Software Science and Technology annual conference[1],

where participants and panelists could interchange opinions through real (voice) and virtual (chat) communication channels (Rekimoto and Uoi have participated in the organization team of this trial). This paper reports our recent experience with a 3-day technical conference, which is fully augmented by a (text and comic) chat system and a telepresence camera that allows local and remote participants to see the presentation and interact with each other.

## A CHAT-AUGMENTED CONFERENCE

WISS (Workshop on Interactive Systems and Software) is an annual workshop in Japan, focusing on user interface technologies [2]. WISS is a moderately sized (about 80-100 attendance), single-track conference. At WISS'97, which was held during December 3-5, 1997, we provided special "online" facilities to celebrate its fifth anniversary.

Figure 1 shows the system configuration of what we have installed at WISS'97. Participants who bring note PCs can connect to the chat server and give comments, questions, or opinions during the conference (i.e., participants can exchange opinion without waiting for the "question and answer time" after the presentation). A screen for chat conversation was located beside the main presentation screen, to show the conversation flow for the participants who can not access to the chat system. We also have installed a remote control video camera in the conference room, to feed audio and video streams to the "annex" conference room, located in the same building as the main conference room (this is partly because the main conference room was not large enough). The participants in the annex room can watch and listen to the presentation, and can also connect to the chat server to join the discussions. A Java-based camera control interface was developed to manipulate and quickly switch the camera direction and scaling between close-up of presentation screen and the entire view of the conference room.

Initially, we planned to use a text-based chat system, but in the middle of the conference, we decided to switch the main chat screen from text-based to comic-based using

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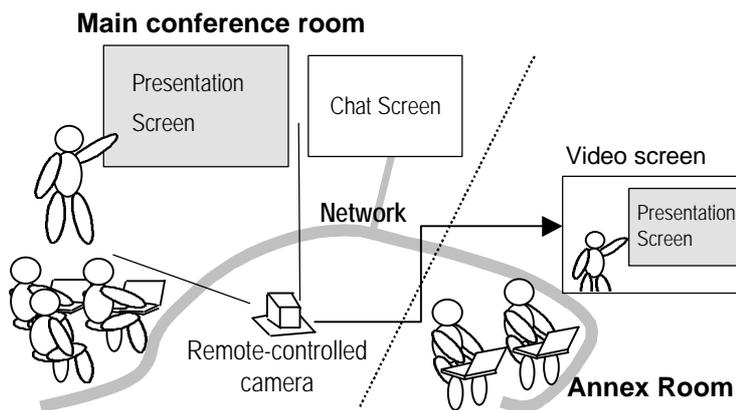


Figure 1: Configuration of the System



Figure 2: Main and Chat Screens

Microsoft ComicChat [3], to see the effect of anthropomorphic representation.

## RESULTS AND OBSERVATIONS

Currently, we are analyzing a chat-log and video tapes. Here, we summarize our observations that are also confirmed by the post-conference survey.

33 people (about one third of the entire participants) have connected to the chat server and generated messages at least once. The average message generation ratio was 2.67 times/minute, and the top 30% of chat users created 70% of the total messages.

One of our concerns before this trial was that the chat communication gains too much attention, and audience leaves presenters alone and thus degrading real-world discussions (3% of conference participants felt so). However, 88% felt that the chat often encouraged real-world discussions while treating tiny questions (e.g., “Why is this system called XYZ?”) in a chat space and preserving more time for “qualified” discussions. Although we did not control the chat discussions explicitly, several social protocols (e.g., “Q:” means a question to the presenter, and “M:” means meta.) have been emerged throughout the conference. Occasionally, chat topics slipped from the presentation’s (often triggered by related research information) but returned within a few minutes (by a “M: let’s focus on the talk” message). Participants who were not familiar with the research topic felt that the chat information was particularly helpful, like commentaries of live TV programs, to understand presentations. Co-authors, who normally have nothing to do while the first-author is talking, could also actively join chat discussion, and answer questions from audience.

Comparison between text and comic is also interesting. 82% felt ComicChat was more attractive, while others pointed out several technical disadvantages (less information on the same screen space, and difficulty of detecting chat speakers, because of the limited number of selectable

avatars). Many audiences liked comic-like avatars than more realistic (e.g., photographic) ones.

For the presenters, however, benefit from the chat was not immediately apparent. Some presenters tried to answer questions on the chat screen during their talks, but it was difficult because the screen was located behind the presenter (Figure 2). Many suggested there should be another chat screen for presenters. However, 84% of presenters felt examining the chat log after the conference is helpful to reflect and improve their presentations and researches.

Overall, 91% of participants admitted this augmentative chat system could enhance the conference, and most encouragingly, 91% were willing to use a similar chat system in the future WISS conferences. Even though the current system has much room to improve, we believe that combination of virtual / real communications has a potential to be a vital part of conferences. We also feel that similar systems can also be used with lectures in schools, TV programs, sports games, and any kind of real world events that may invoke discussions in a virtual space.

## ACKNOWLEDGMENTS

We are in debt to the WISS’97 conference committee for encouraging us to try an experimental system within a real conference. We would also like to thank Satoshi Matsuoka of Tokyo Institute of Technology for introducing ComicChat to us. Finally, we deeply appreciate for the active participation from all the WISS’97 attendees.

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