On-Air Forum: A Chat System Designed as an Event Backchannel

Abstract
On-Air Forum is a text chat system specially designed as a communication backchannel during real-time events, such as academic conferences or sport events. We propose to use the system as a communication backchannel at the CHI Japanese symposium to facilitate communication in an international context.

Author Keywords

ACM Classification Keywords
H.5.3. Group and Organization Interfaces.

Introduction
Exchanging thoughts and feelings while watching real-time contents such as conferences and sport events make watching much more fun and also help understand what is going on. Online communication systems allow us to interact with more people while watching together and remote.

However, it is difficult to catch up to those backchannel communication because they are required to track multiple streams of events at the same time. Most people do not have enough margin to contribute carefully to the conversation. As a result, communication log or timeline often get filled up by
simple reactions making it even more difficult to deepening discussion.

On-Air Forum is a chat system specially designed for use as a backchannel during those real-time events, by providing reaction features to replace frequently observed simple reaction posts. The system has been used at a Japanese workshop for years, and is ready for use at the CHI 2015 Symposium.

**Designing for Conferences**

Years of experience building a chat system for a conference [1][2] and an analysis of chat log revealed what kind of reactions are very frequently made and tend to fill up the chat log: excitements, agreements, and answers to a questionnaire (detailed analysis reported in Japanese [3]).

We designed reaction features to replace each of those typical reactions to achieve the following design goals:

- Make it much more reasonable to use than text.
- Minimize the required attention to use.
- Collect the reactions to better visualize the chat log.

Users can express their excitement to the watching content just by hitting the Enter key without entering text (Figure 1). The window will gradually become red as more people share their excitement through this feature. This allows the users to share excitement without a glance to the user interface. Users can agree to each message in the chat log just by clicking a button on the message. The more agreed messages, the bigger it becomes in the chat log (Figure 2). Users can also make a quick Q&A post, which can be answered just by clicking one of the options (Figure 3).

Results will be displayed as a pie chart embedded in the chat log.

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![Figure 1](image1.png)

**Figure 1.** Excitements are shared by hitting the Enter key without entering text, increasing the excite count and making the background more red.

![Figure 2](image2.png)

**Figure 2.** More agreed Messages becomes bigger in the log.

![Figure 3](image3.png)

**Figure 3.** Quick Q&A can be answered by clicking the options, which will be displayed as a pie chart.
Previous Experiences
On-Air Forum has been used as an official backchannel chat during presentation sessions at an annual Japanese workshop on interactive systems and software (WISS) since 2009. The system was heavily used by more than 100 participants throughout the three day conference (more than 5 posts/min in average), providing a factual evidence for its ease of use and stability. Detailed reports are published in Japanese [3].

Plans for the CHI 2015 Japanese Symposium
We propose to use the system at the CHI 2015 Japanese symposium to facilitate communication and support understanding in an international context. Catching up to presentations and discussions in a non-native language is obviously difficult, providing a strong rationale to have backchannel support.

On-Air Forum is ready for an international event, provides Japanese and English UI based on the locale setting of the PC. We will also provide user manuals in the two languages.

We expect a wired or wireless LAN service available at the symposium venue. We will prepare local and remote servers and find out the better option: one in the LAN and the other in Kobe university network. At WISS, we bring in a physical server (a laptop PC) to the conference venue where wired and wireless LAN is specially prepared for the conference. We can expect the best performance when users and the server is in the same network, but we also have successful experience of a remote setup where the conference participants access to a remote server.

Future Impact
We believe that every future conferences, especially the international ones, will be augmented by specially designed communication systems like On-Air Forum. We, HCI researchers, should be responsible in freeing the world from illusionary assumptions that everyone can be good conversant on their own. We will drive the “universal communication design paradigm” where extroverts and introverts, English native and non-native, and every other personal differences are kindly treated.

Biography
Takeshi Nishida is a researcher in the field of HCI / CSCW, who have been working on discovering how to facilitate active participation in large group interaction. He is now an associate professor at Kobe University. He has extensive experience in creating network-based communication / collaboration tools/services and other GUI apps as well.

References