

A STUDY ON VISUAL BACKCHANNEL WITH IMAGE CLOUDS

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ABSTRACT

We mainly focuses in this article are visual backend channel interface. These type of interfaces are mediated the conversations while conducting large scale events. Next important aspect is event participants, engage these participants in large events to gain the system performance with all processing and transmission capabilities.

Key terms: Backchannel, information visualization, events, multiple views, micro blogging, Information retrieval, World Wide Web

Introduction

Backchannel[4] ref: from wikis

Backchannel is very much a discipline-in-progress. While many lament the diverted attention spans of people on chat, a number of people believe that backchannel can provide a valuable collaborative learning environment. Towards that end, a number of people are conducting their own backchannel experiments.

Joichi Ito's HeckleBot includes an LED text panel displays phrases sent from the chat room to catch the attention of the speaker or audience. The USC Interactive Media Division has experimented with

"Google Jockeys" to feed visual information and search results between the speakers and the backchannel, projected on multiple screens surrounding their seminars. Software

like SubEthaEdit allows for more formal backchannel: collaborative notetaking. In 2007 the Building Learning Communities Conference in Boston, Massachusetts used tools such as Twitter and Skype to create backchannels that included participants who were not on location and at times in remote parts of the world. At times presenters were not aware of the backchannel and other occasions the

presenters themselves were involved in the backchannel.

In Amsterdam, Slandr.net's

BackChannels provides backchannels amongst others at the local Mobile Monday events on a regular basis. Combining backchannels with live videostreaming by means of using services such as Ustream or Qik, people at home can join the discussion at the event virtually. The backchannels get their input from Jaiku, Twitter and SMS. A typical backchannel can display the chat transcript, inline pictures and voting. Experiments in Twitter subtitling have also been conducted combining recorded videostreams with the backchannel transcript.

Backchannel is the practice of using networked computers to maintain a real-time online conversation alongside the primary group activity or live spoken remarks. The term was coined in the field of Linguistics to describe listeners' behaviours during verbal communication.

The term "backchannel" generally refers to online conversation about the conference topic or speaker. Occasionally backchannel provides audience members a chance to fact-check the presentation.

First growing in popularity at technology conferences, backchannel is increasingly a factor in education here WiFi connections and laptop computers allow students to use ordinary chat like IRC or AIM to actively communicate during class. More recently, researchers from Penn State University have explored bringing "backchannel" up front in classrooms - "ClassCommons," to increase students' participation and promote community building in classrooms.

Twitter is also widely used today by audiences to create backchannels at technology conferences. When audience members add an event hashtag to their tweets (for example, #w2e was the hashtag used for the Web 2.0 Expo New York in 2009), anyone can run a Twitter search to review all the backchannel tweets related to that event.

Existing System:

In the existing system, Micro blogging communities, such as Twitter, are increasingly using as digital backchannels for timely exchange of brief comments and impressions during political speeches, sport competitions, natural disasters, and other large events. Here shared updates are typically displayed in the form of a simple list, making it difficult to get an overview

of the fast-paced discussions as it happens in the moment and how it evolves over time. This has the unintended but well-known consequence that participants get distracted from the main event, have difficulties focusing, and lack an overview of what the backchannel contains.

Proposed System:

Visual Backchannel design provides an evolving, interactive, and multi-faceted visual overview of large-scale ongoing conversations. To visualize a continuously updating information stream, we include visual saliency for what is happening now and what has just happened, set in the context of the evolving conversation. Visual Backchannel integrates three visualizations with a list of backchannel posts via linking, brushing and filtering. In order to give new perspectives on backchannel conversations, we introduce Topic Streams. This is accompanied by two compact visualizations, People Spiral and an Image Cloud, presenting visual aggregates of active participants and shared images. These visualizations offer a visual sense of the conversation at the moment, using visual accentuations that make the present visible, in the context of the topical

development.

Proposed approaches with participants

- 1) **Admin:** In this module, we can create current topics and can post images relating to that topic.
- 2) **User:** In this module user can select topic for backchannel conversation, can view the images related to the topic and current present users making conversation on the selected topic.
- 3) **Image Cloud:** In this module user can view and upload images related to the topic.
- 4) **Participants:** In this module we can view the users who are participating in the conversation.
- 5) **Post:** In this module user can post his view on the selected topic and can view the posts of different users on the same topic.



visual backend channel

Visual Backchannel is another application that visualizes Twitter data in real time using multiple views. Dork, Gruen, Williamson & Carpendale (2010) proposed a novel way of visualizing evolving Twitter conversations in real time. This visualization interface shows large scale data over time by visualizing topic streams from the data with a flexible time slider of different granularities, a visualization of user’s activity around a spiral curve, and frequently shared images using image clouds. This visualization interface includes interesting features like topic stream as waves in which new topics are stacked on or above one another for a particular time period. The wave moves left to right to show topics over different time periods.

This visualization distinguishes new topics from recent past topics by their position in the same vertical position of the wave along with a corresponding color encoding from blue to yellow green. It also separates recent topics from past topics by their horizontal position. Topic strengths, identified as the normalized frequency of words, are shown by the wave amplitude at that topic’s position.

All topics currently appearing in incoming tweets are highlighted in yellow (degree of

opacity represents frequency of tweets) to notify users about the currently topics



Image cloud



Useractivity



twits

The people activity cloud represents how active people (users) are on Twitter over time by showing the frequency of their activities which is displayed in the system by increasing or decreasing the size of

their label, and also the size of the dot placed for each user around a spiral curve. Interestingly, the saturation of the colour of each dot also changes with the frequency of the original tweets posted by the corresponding Twitter user. In the image cloud, image size represents how frequently each image is shared in Twitter conversations over time. Another similar tool is **Trendsmap** (Trendsmap, n.d.), a real-time Twitter data visualization tool that portrays trends of tweets over time by topics, and by geographic locations. Most importantly, this visualization categorizes all tweets by different themes and topics based on their hash tags and most frequently used words. Trendsmap shows all the categories on Google Maps, and updates those in real-time.

Users can see tweets from each category by clicking on the category labels on the map.

Trendsmap visualizes tweets categorized by topics and users on the map. When a topic or user is selected, it also shows all the associated tweets in the separate message window (Trendsmap, n.d.) Search-based web applications such as **Tweetsters** visualize recorded Twitter data generated from different locations of the US (United States) in a coordinated view. In Tweetsters' visualization, the

users' queried terms from tweets are visualized geographically on the US map (limited to 70 cities)

Design Goals for a Visual Backchannel

When considering large-scale backchannel conversations, there is a growing need to consider fragmented awareness and the shifting attention of participants. In order to explore these issues of switching between the main event and the backchannel, we attempt to represent the “now” in the context of the “recent”. By aligning the visual variables for current activity with the representations for recent developments, we attempt to help participants in recreating awareness. In particular, we want to help participants quickly answer common questions about an ongoing backchannel conversation, for example: What are the main topics right now? How are topics changing over time? Who are the most active participants? What are certain participants talking about? Based on these questions, previous research, and our own experiences with events and backchannels, we derived the following design goals for a Visual Backchannel interface: Summarize the conversation. A Visual Backchannel should include views that summarize the topical, social, and pictorial aspects of backchannel conversations, decreasing the

cognitive effort required to follow a backchannel. The main topics, most active participants, and most popular images of a conversation should be visualized indicating both activity and development. Integrate the ‘now’ and the ‘recent’. Visualizations should capture how a backchannel conversation is unfolding at the current moment and in the context of its recent development. This way participants should be assisted in making sense of current activity by being able to review recent developments. For example, when briefly switching attention away from the event toward the backchannel, it should require little effort to recover awareness and focus. Extend presence of the present. As the ‘now’ really does not take any time, there should be visual accentuations for current activity such as incoming posts and subsequent changes in the visualizations. This way current backchannel activity should become more comprehensible. Ideally, the half-life of visual highlights representing the present should bridge the gap to the visualization of the recent past. Provide flexible time windows. Considering that events may last from minutes to several weeks, the interface should provide flexible methods for modifying the time window under exploration. The temporal selection should

influence the extent of visual change in the interface. With narrower time spans, more visual activity is expected. Allow for topical and social exploration. Besides time, the main dimensions for interactive exploration should be the topics and the participants of the backchannel. Selecting individual participants should indicate their pattern of topical development over time. Selecting topics should reveal their most active authors and co-occurring topics.

CONCLUSION

Finally we conclude that the visual back channel is a medium for large scale events. By this get the visual sense of back channel , dynamic data sets which are ever changed continuously. It also focused on temporal, topical, social, and pictorial facets. Image clouds are used for effective visualization. Cloud services are also utilized with adjustable cost. The viewer/user can use the service in different types of interactive sessions through backchannel in a particular time span this gives temporal experiences to the user.

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