

The Role of Conversational Models in Design Practice

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1. Introduction

Conversational models are a means to capture and effectively represent the complexity of discussions by applying a process to create interactive three-dimensional outcomes. Whereas a conversation proceeds linearly in time, the relationship between the topics covered can often be decidedly nonlinear, as the interlocutors build on previous parts of the sequence: adding, subtracting, modifying, providing nuance, suggesting supporting anecdotes or other forms of evidence, and adjusting detail. This paper describes an initial attempt to transfer this form of design activity to the office space. During a conference on design and healthcare participants were briefed on the concept and the process of creating physical models of conversations, then asked to create a model of their own discussions on suggested conference topics. Results of the pilot indicate that this exercise allowed participants to quite thoroughly explore the topic, with an interesting movement from summaries of content to a cycle of expressions of opinions and refinements of those opinions, followed by questions and more refinements. There may also be additional benefits in somewhat slowing down the conversation, allowing for a more evenly distributed contribution from all the participants, including those working with English as an additional language.

2. Capture and Codify Design Conversations

The model in its physical form posed problems in conversation flow not the least of which was forcing participants to walk up to the model and attach their contribution or 'snippet' captured on an index card. With a number of participants and precarious frame this interaction was reported to be disruptive particularly by the native English speakers. Where slowing the conversation was cited as a positive feature of the model interaction was now too slow to keep the flow of the conversation moving. The digital version of the model attempts to eliminate this but continue to capture the value of discussion as an archive of conversations, a reference to thoroughly explore a topic, and a tool to identify patterns in conversation, which the researchers identified as positive outcomes in the physical iteration.

The flow of conversation in design studios is one of the key methods of collaborative learning process around information gathered by designers. There are a variety of techniques to help manage the discussion, process tools, brainstorming sessions, using sketches and images where discussion takes place, organizational hierarchy, or the free for all group discussion that involves relatively unhindered give and take. There are also different strategies for keeping a record for example, individual note taking, 'cloud' solutions, notes on a whiteboard - using lists or producing visual topic maps. Verbal conversations are often not captured or at least not to the extent that all the speakers in a discussion have been captured in a visual representation. Our conversational model attempts to do this in digital form.

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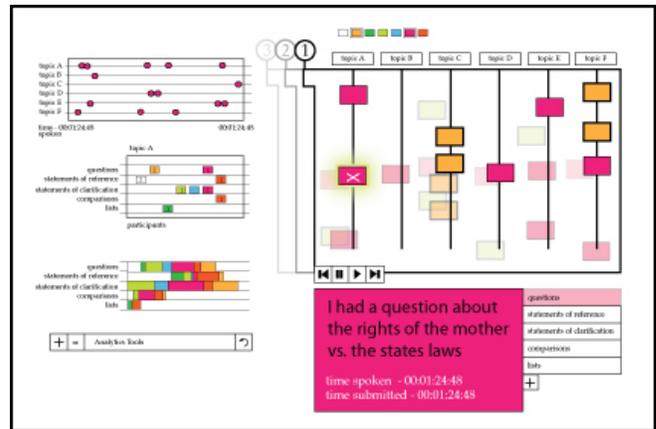


Figure 1. Proposed Interface for Conversation Model.

3. Results

The conversational modeling framework that had previously been developed for modeling help desk transcripts was repurposed for a design and healthcare conference, where it served as a means to support collaborative understanding of the key points in round table discussions. The design participants reported a clearer understanding of the non-designers after using the model. Similarly, to the non-native English speakers in our previous studies, (Ruecker, et al, 2013) slowing the conversation allows for reflection, participants can follow-up with a response while it is still relevant. This type of throttled speech may be useful to empathy research however further study is needed. Patterns in conversation were also similar to conversational models produced in other studies despite varying discussion topics.

4. Conclusions

In listening to audio recordings of conversations, less attention was paid to *when* a comment was made and more time was given observing to what extent the written snippets accurately represented the topic. In addition to the comparison of comments, noting the time code of audio recording could also be a benefit to analysis and give some indication of comment length. Participants are asked to submit comments, which would scale dynamically indicating the duration dedicated to each comment, collectively these visualize the length of time any topic was discussed during the conversation.

References

RUECKER S., DERKSEN G., POLLARI T., AUDETTE S., & MICHURA P.
2013 Applying Models of Help Desk Conversations to the Design of a Customer Sales Support Interface (ICED International Conference on Engineering Design) Seoul, South Korea.