Weaving an Interactive Thread:

An Interactive Event for Tales

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Abstract

The Interactive Thread is a set of interactive participatory design activities woven through the Tales conference. This special event has several complementary goals: to encourage Tales participants to collaborate with each other in an interactive event, to share and discuss research methods developed by the interLiving project, and to take advantage of the collective design skills of our colleagues to contribute to the development of disappearing technologies for families.

Keywords: Participatory Design, Interactive Thread, Technology Probes

Overview

The interLiving project explores the design of novel technologies for families, especially those that support inter- and intra-family communication. We normally work with a small number of family members distributed over several households over two or three years, using a variety of participatory design techniques [1]. However, we would also like detailed information from other people. Standard techniques, such as surveys and questionnaires, are useful but provide little of the human context we seek. So our challenge is to find an enjoyable, accessible way to engage a group of people so as to obtain anonymous but real family stories and generate grounded inspirations for design.

Our solution is an Interactive Thread, woven through the conference. (The first Interactive Thread was held at DIS2002 in London; this is the second.) We start with a venue full of interested people, each with families and expertise in interactive system design. Our goal is to capture specific stories about individual families and obtain specific design ideas, using one-on-one or small-group techniques. In exchange, we offer to teach these techniques, in an entertaining, hands-on way. Participants will find this an effective way to meet other conference attendees and discuss their own strategies for developing disappearing computer technologies.

Participants will receive a "Participatory Design Toolkit" composed of a set of 12 printed cards (see appendix). Each describes a participatory design technique, illustrated with a short (15 minute) exercise. We hope Tales attendees will bring these design kits back to their respective projects, either to teach other project team members techniques they may not already know or as exercises for HCI courses.

The special session is organised in three parts. We introduce the Interactive Thread in session 1 and hand out the "participatory design toolkit" and describe a specific design problem. Participants will then collaborate with each other on two data-gathering exercises: creating a relationship map and using a Polaroid camera as a cultural probe. The results will be added to a large poster displayed in the exhibit area.

Between sessions, Tales attendees will be able to experiment with a video-based technology probe [2]. We will distribute personal cards with RFID tags to each participant, which can be attached to different objects, such as a booklet or bottle (fig. 2). Participants will be able to record video (fig.3), comment on other videos, or overlay new messages on top of existing videos (fig.4). Others will be able to use these objects to play previously-recorded clips and append or merge new videos.

Figure 2: Technology Probe

We hope to create an ongoing video thread: a collaboratively-developed story that gathers experiences and ideas from Tales participants while simultaneously demonstrating one of the participatory design methods we use with our families.

Figure 3: Placing a bottle (with an associated RFID tag) onto the table to record a video clip.

Figure 4: Using a second tagged object to superimpose a second video clip over a previously-recorded clip.

Figure 5: The result of merging a new clip with a previously-recorded video clip.

The closing session will present a brainstorming exercise and the collaborative development of an augmented object. We will also show the results of the earlier exercises and the videos created by the participants in the interim session. We will

conclude with a discussion and, if there is time, illustrate the ideas generated by the attendees with a live video prototype [3,4] that reflects a design relevant to disappearing technologies for families.
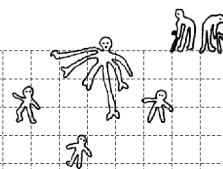
Conclusion

Our goal is to create an enjoyable, educational experience for DC Tales participants, and at the same time, to provide new ideas and critical feedback to our interLiving project. We think that the best way for people to understand participatory design methods is to actively participate in a collaborative design exercise. We hope to accomplish several objectives with the Interactive Thread:

- Encourage participants to meet each other and discuss interaction design strategies,
- Teach interactive design techniques relevant to all Disappearing Computer projects,
- Test design methods developed by interLiving in a new context, and
- Gather data and design inspirations about family communication.

References:

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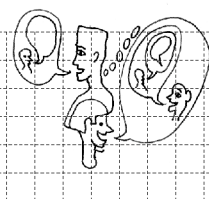
Appendix: Participatory Design Toolkit

Finding out about users : Designers use a variety of sketching techniques to illustrate and communicate ideas, using simple symbols to represent concepts and dynamic events as well as objects.

Instructions : Ask a potential user to draw the current relationships between himself and other people in the form of a map, using whatever organizing scheme makes most sense: geographical, emotional, technical, genealogical, etc.
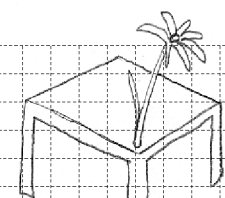
02 RELATIONSHIP MAP

Finding out about users : Designers use cultural probes not only to discover more about users, but also to inspire and engage users in a design discussion. Probes should be open-ended to give both participants and designers a chance to think creatively.

Instructions : Provide a potential user with a disposable instant camera and ask her to take photographs of objects that are relevant to your design problem. Ask her to annotate the photo, explaining why the object is important.
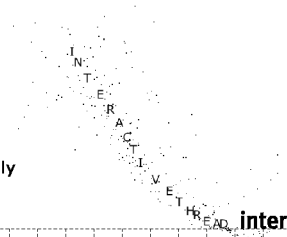
03 CULTURAL PROBE

Generating new ideas : Psychologists developed brainstorming to facilitate creativity. The emphasis is on quantity not quality of ideas. Brainstorming sessions work best with a specific topic, limited time (one hour maximum), a scribe to record every idea and a moderator to ensure that all participate and that ideas are not criticized.

Instructions : Choose a theme relevant to your project and generate as many ideas as you can in 30-60 minutes. Record all ideas and do not discuss them, except to clarify what you meant.

06 BRAINSTORMING

Generating new ideas : Psychologists and designers use techniques such as the "exquisite corpse" to force people to build on each other's ideas. The goal is to create new associations and inspire new design directions.

Instructions : Choose an existing physical object that is relevant to your design problem. Draw the object and then draw a variety of different ways to augment it, using the layers of tracing paper.

07 AUGMENTED OBJECT

1 person: Sketch a map that illustrates the geography of your family and indicate what aspect of their homelife you would like to see.

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2 people : Imagine you could see into your family home right now. What is it it about your home that you wish to see and how? Is it a panorama, close up or a particular point of view? Show this in a photo.

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4 people : Generate as many ideas as you can about innovative communication technologies for families.

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9

4 people : Choose an object to "augment", then draw different examples of how technology might enhance it to help people to communicate.

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