

### MediLog: Medical Dialog Mapping

MediLog is an audio recording device that allows both doctor and patient to annotate important events in the verbal exchange of a dialog as a conversation unfolds. The patient can take the recording home and re-examine its content. This may help the patient to better understand a diagnosis, share the conversation with family members, and formulate follow-up questions for clarification. By transforming the dialog between doctor and patient into an artifact, we seek to support problems that arise where conversations can be stressed or rushed, patients can be inundated with new information, and where uncertainty is inherent.

The conversation map will be populated as the conversation occurs. The patient's side of the conversation is visualized on the inside part of the circle, while doctor's side will appear on the outside. When the conversation reverses from one party speaking to another, it is often because there is a question being asked or answered. These reversals therefore lend an inherent structure to the conversation and in and of themselves mark places that one might want to return to. We have turned these reversals into tracks within the overall dialog. If no other interaction occurs during the conversation, the patient will still be able to return to the map later and use these landmarks to navigate.

Luke Woods, Interaction Design  
Aaron Piazza, Industrial Design  
Louise Foster, Design Studies

### Design Solution

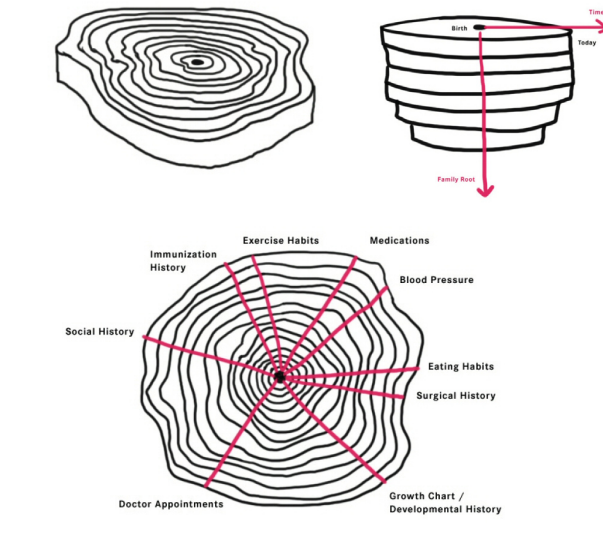
Use Over Time



00:08 The conversation between patient and doctor is mapped, like a dialog shot in film, revealing the speaker reversals that structure the audio map.  
00:20 The patient responds to the doctor's question and this shift is revealed in the map on the device.  
00:34 The doctor responds and continues to discuss the patient's symptoms.  
01:03 The doctor indicates a shift from the discussion of symptoms to her diagnosis. This high-level organization is designed to help the patient organize and browse in the future.  
01:47 The doctor discusses her diagnosis of the patient's symptoms.  
02:09 The patient leaves behind a marker when he heard something that he wanted to double-check later. These temporal bookmarks can be added and annotated later.  
02:36 The doctor continues to discuss the diagnosis.



**MediLog Beyond the Appointment**  
After the appointment, the audio recording and map are transferred to the patient so that he can annotate the map, review the conversation, and share it with other care-providers.

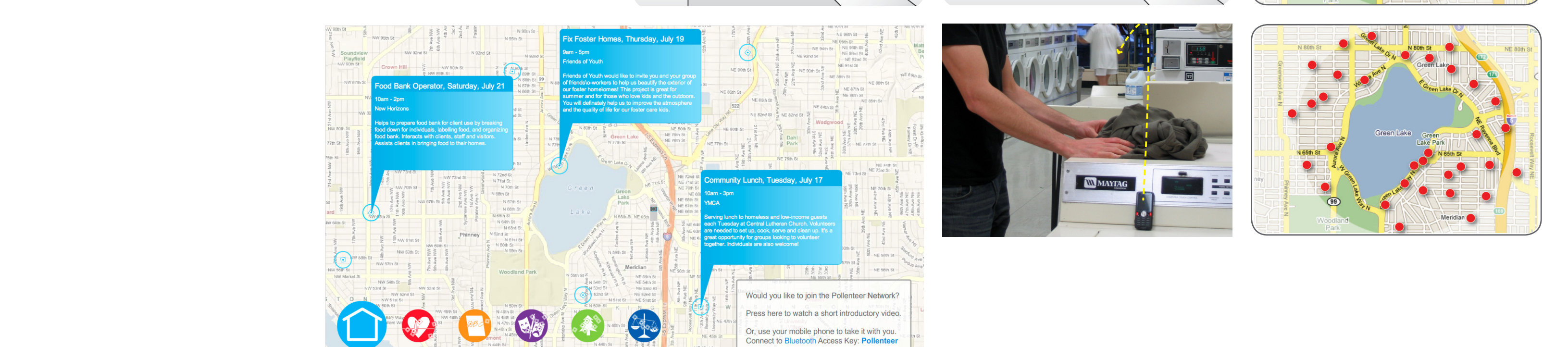
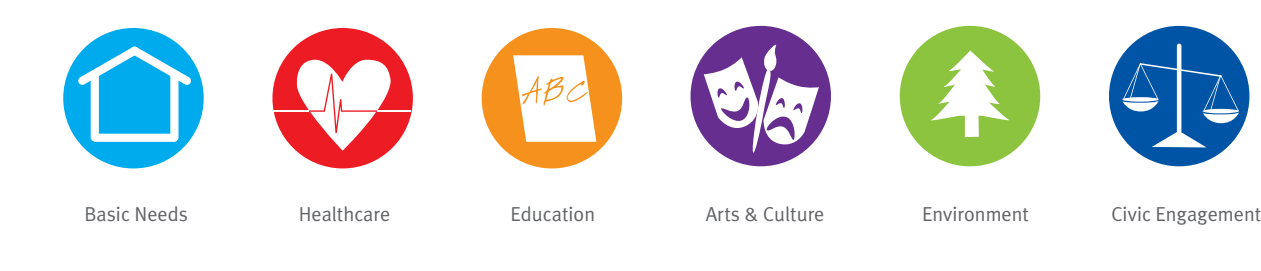


### Medical Records Visualization Tool

The Portable Medical History project serves as a platform on which your entire medical history can be stored and displayed. Patients exercise ownership of their medical history. Such ownership works in several directions: patient ownership of the medical information allows the patient to view and for the first time keep a professional opinion of their health on hand. The patient lends ownership of that data to doctors, and can permit or deny access of that information to relatives, friends, insurance companies, or researchers.

The goal that we aimed to accomplish is to display consumer's medical records in an immediately understandable format. The Tree Ring, being the initial view the user is presented with, is an "overhead view" in both a figurative and literal sense. The users can see where the problem areas are very quickly, they can see where the most active areas are, and they can see useful combinations of data with little effort.

Michael Innes, Industrial Design  
Steve Huarte, Technical Communication  
Allen Lau, Visual Communication Design



### Pollenteering Network

Our approach was to address how we can improve the health and wellness of the community at large. Which, in turn, benefits the individual. By integrating positive activity into people's daily routines and activities, our group's mission is to leverage the desire to help people improve their environment, community and themselves.

The Pollenteering Network consists of dynamic community information hubs that distribute opportunities (or pollen) for volunteer activity. People interact with the network by using their cell phones as information "magnets", grabbing appropriate opportunities according to their interests and geographically relevant communities.

Signs are placed in various locations throughout a community and have three major functions for the Pollenteering Network.

First, they act as hubs for displaying real time volunteer events that only relate to that community. Second the signs are an entry point into involvement in the Pollenteering Network. Finally, the signs act as transmitters of the volunteer opportunities, or "pollen."

**Like bees collecting pollen on a flower, users collect opportunities through proximity to the sign.**

The next step for the user is to "tune" the pollen collector to areas of volunteer interest. Immediately after set up, the users' phone begins collecting Pollenteer events from the sign.

Although events can be actively forwarded to friends in a familiar manner, the real power of the Pollenteering Network comes from the passive exchange of event pollen. As users move around their community, events jump from one phone to another without requiring any action from the sender or receiver. These exchanges only occur when users are in close proximity to each other and when a user has an event to give that matches the receiver's areas of interest.

By moving throughout their community and being involved in the Pollenteer Network, users constantly gather and pass on pollen that informs a greater number of people as to the needs of the community.

These exchanges only occur when users are in close proximity to each other and when a user has an event to give that matches the receiver's areas of interest. Resulting in a system that empowers the individual as a contributor to the greater community.

Kris Martin, Computer Science  
Craig Panthen, Industrial Design  
Jaclyn Knapp, Design Studies  
Brian Smith, Computer Engineering  
Matt Carthum, Technical Communication



University of Washington  
Interaction Design  
Microsoft Design Expo'07