Building a Better Conference Experience through User-Centered Design

Rachael Hodder  
North Carolina State University  
rachael.hodder@gmail.com

Michael McLeod  
University of Washington  
mikemcleod@gmail.com

Donnie Johnson Sackey  
Wayne State University  
donniej sackey@gmail.com

ABSTRACT
In this poster, we present user experience research demonstrating that current tools designed to facilitate conference communication and organization fail to support the needs of attendees and the goals of academia in general. Current conference technologies have failed to support the scholarly exchange of ideas at conferences, both in effectively facilitating dialogue at conferences and preserving those exchanges for later scholarly purposes. We recommend new information models and interfaces that can better support how conferences actually work that, when utilized, can better facilitate the exchange of ideas and can prevent that exchange from being lost in the ether.

Categories and Subject Descriptors
H.5.2 [Information Interfaces and Presentation]: User Interfaces – Evaluation/methodology, User-centered design, Prototyping.

Keywords
Twitter, conferences, community-centered design, accessibility, information architecture, user experience research, archive design

1. INTRODUCTION
As conference discourse in industry and academic contexts alike is proliferated increasingly by digital, networked technologies, it has become more urgent to reconcile traditional conference genres with the possibilities offered by new technologies. While new technologies such as archival, recording, writing, and storage tools have been adapted by with relative ease by presenters and attendees of conferences, the genre of the conference has remained largely unchanged.

2. ABOUT CONFERENCE COMMUNICATION
2.1 The Problem

2.1.1 Conferences
Conference meetings are designed to be places where ideas are exchanged. Participants present their work and ideas, while attendees react to those ideas, offering constructive criticism and making connections with other work. This idea exchange is almost universally ethereal, lost in the vapor once attendees depart, with no way of tracking connections that were made or ideas that developed, outside of individual memory. A conference that publishes proceedings leaves a record, but there’s no way to trace how attendees engaged with those ideas. In recent years, ad hoc social networks have provided space to continue these conversations, but they still do not leave an enduring record or reliable means of tracking the evolution of ideas.

For example, Twitter.com is widely seen as a platform for “backchannel” discourse, or online communication that runs concurrent to conference events. Such activities have become commonplace at conference meetings and are discussed in terms of etiquette and best practices [1, 2] and inclusion and privilege [3, 4, 5, 6]. Proliferation of new communication technology has indeed impacted conference discourse, but there is no adequate solution for archiving the exchange of ideas that happen at conferences, connecting it to presenters and attendees, or tracking the evolution of an idea as it evolves across conferences, disciplines, and individuals.

2.1.2 Web-based conference applications
Existing social networking sites and conference applications fail because they are constructed with a flawed understanding of conferences. Conference applications are designed to support specific tasks such as event discovery, professional networking, and attendance, but they do so by constructing each meeting of a conference as an isolated silo with no connection to other fields or even to other meetings of the same conference, making any sort of research across time or tracking of speakers and conversations impossible by design.

These applications seem to be designed based on overly simplistic use cases (Find an Event, Network with Peers, Attend/Experience an Event) such as those found in Unified Modeling Language (UML) [7]. Likewise, they provide simple solutions that do not enhance conference experiences, but add additional steps or tasks to conference experiences under the guise of enriched interaction.

2.2 The Opportunity
Interfaces of present applications demonstrate misunderstanding of conferences as isolated events, rather than as complex ecosystems of activity. We believe that the theory, methods, and research of rhetoric and technical communication illuminate a more richly considered understanding of conferences both as reoccurring rhetorical action, or genre [8], and intricate actor-networks [7]. Following Hart-Davidson’s [9] call for technical communicators to take an active role in the invention of tools, we aim to build a better conference application and affect the development of more meaningful, more accessible conferences.
2.3 Challenges
Our primary challenge will be to preserve autonomy for conference meeting organizers and presenters. We do not wish to compete with organizers or presenters, but to be their partners. We hope to accomplish this by conducting user experience (UX) research on conferences and applications (rather than conference applications alone) and enacting user-centered design methods.

Our second challenge will be to develop a shared metadata schema across conferences in industry or corporate settings, academia, and among hobbyists or enthusiasts. Employing variant methods of UX research will help us trace the complex ecosystem of conference activity in order to model an appropriately complex information architecture to support conferences of any topic, field, or breadth of reoccurring instances.

3. PRACTICING USER-CENTERED DESIGN

3.1 Research Questions
Our research will be guided by the following questions: What is a conference? What makes a conference different from an event or meeting? How do conference attendees and organizers (stakeholders) experience conferences? What tools or methods do stakeholders use to create more accessible conference experiences for themselves or their colleagues? These questions, along with our desire to involve stakeholders in the design process, have driven our research and resulting designs to date.

3.2 Research Methods
Through the implementation of a variety of research methods, we are afforded a prismatic perspective on conferences and their activity networks. To date, we have conducted survey research on conference communication practices within an academic conference stakeholder community in spring 2013. Based on survey responses, we created a basic heuristic for analyzing web services used in conference communication.

Thus far, we have utilized this heuristic to analyze three tools our survey participants identified as having been used at conferences: Twitter for ad-hoc communication as well as Lanyrd.com and Conferize.com for conference facilitation. Our findings reveal that while some conferences have become proactive in assigning hashtags to sessions to better aggregate conference communication, Twitter makes researching past events exceptionally difficult and fails as a long-term solution for archiving conference dialogue. Lanyrd and Conferize aim to help conference organizers publicize sessions, facilitate attendance, and have recently begun to archive materials, but by constructing events as content silos that don’t speak to one another, these tools fail to enable users to research the history of a conference, let alone the development of an idea across scholars and disciplines.

We have also carried out some early iterative user-centered design work based on survey participant responses as well as our perceived need. We developed a complex object model and information architecture that address the structural failures of current tools, compiled a set of desired features, and constructed initial wireframe interfaces. Most recently, we held a focus group with stakeholders to review our design work. This poster displays findings from our research and some mock-ups of our early designs.

3.3 Future Work
A new conference communication tool has the potential to change the experience of conference attendance, research methods and development activities, and the nature of field-specific discourse. We have demonstrated that current tools fail because of their focus on tasks associated with conferences, rather than the complexity of conferences themselves.

The next steps for this project will be to improve our designs based on further research and stakeholder feedback. We also plan to seek resources that will support the construction of a new conference communication tool.

4. REFERENCES