Using User-Centered Design to Discover Motivation and Priorities in an Established Online Community

Elly Searle  
University of Washington  
423 Sieg Hall, Box 352315  
Seattle, WA 98195  
206-616-7936  
elly.searle@gmail.com

Katie Derthick  
University of Washington  
423 Sieg Hall, Box 352315  
Seattle, WA 98195  
206-616-7936  
derthick@u.washington.edu

Toni Ferro  
University of Washington  
423 Sieg Hall, Box 352315  
Seattle, WA 98195  
206-616-7936  
tdferro@u.washington.edu

Jonathan T. Morgan  
University of Washington  
423 Sieg Hall, Box 352315  
Seattle, WA 98195  
206-616-7936  
jmo25@u.washington.edu

Mark Zachry  
University of Washington  
423 Sieg Hall, Box 352315  
Seattle, WA 98195  
206-616-7936  
zachry@u.washington.edu

ABSTRACT

This poster presents our work using a face-to-face user-centered design method to inform the design of a reputation visualization for an established online community. The benefits of conducting an offline group session with online community members included insights into motivation and priorities, an understanding of community norms, and a member check on previous findings.

Categories and Subject Descriptors

H.5.2 [Information Interfaces and Presentation]: User interfaces – evaluation/methodology. user-centered design.

General Terms

Design, Verification.

Keywords

Online communities, user-centered design, Wikipedia.

1. THE RESEARCH

We are engaged in a multi-year project to explore the use of visualizations to communicate the reputations and valued work of participants in online collaborative environments, such as Wikipedia. This poster presents how we used a popular user-centered design technique, a wants and needs analysis (WNA) session, to bring community members together to inform the design of a reputation visualization for the community [1]. This method of engaging in a structured face-to-face conversation with a group of diverse community members allowed us to investigate motivation and priorities that are not available through online surveys or other non-interactive research methods. Additionally, this technique served as a member check.

To overcome the challenge of recruiting local participants from a non-geographically based population while respecting the community’s norms, we consulted with experienced community members. We used their recommended method of leaving a message on talk pages of those who self-identified with our region. Out of the 450 users we contacted, sixteen responded that they were interested, and nine were able to attend our WNA sessions. Since Wikipedia lacks a policy on recruiting participants for academic research, we were concerned about receiving negative feedback for our potentially spam-like recruiting method. However, all feedback was neutral to actively supportive of our research efforts.

While conducting the sessions required more effort than hosting a chat forum or other online data gathering methods, there was significant benefit to using an offline UCD method to complement our other approaches. Group interaction and individual responses provided us rich insight into their motivation and priorities. Idea co-creation happened more efficiently and robustly than it would have in a chat forum. Facilitated discussion allowed us to read body language and encourage novice members when they appeared intimidated by the experts. The experts provided lengthy background stories and explanations that may have seemed cumbersome to type. The feedback on our overall project goals and motivations verified that there is a user need for our final design. The participants spent time socializing after the session ended, suggesting they also benefitted from the face-to-face format. These sessions also developed relationships with key community members who are interested in supporting our on-going research effort, which helped our team build credibility in the broader Wikipedia community.

Overall, our participants wanted to discern similar information about other community members: motivation (if they are well meaning or malicious) and interactions with other community members. However, their preferred methods of analyzing the available data vary greatly based on their personal experiences and interests within the community. For example, experts often wanted to discern if others were well-meaning novices with little
understanding of community norms or malicious editors with an agenda and a cabal. Novices often wanted to discern if someone was a subject matter expert and if that person would be willing to mentor them.

Considering these complex themes of motivation and interactions, we created a set of visualizations that we felt represented our participants’ wants and needs and then presented them in an online survey. Our premise is that displaying several variables together is essential to understanding online reputations, and participant feedback is helping us determine those variables. Preliminary results suggest that the visualizations are useful and are on the right track for illustrating the two major themes, but need to add more customizable options and offer different visualizations for the same information. For example, an improvement would be to let users define “interaction” instead of a monolithic definition, such as letting users choose between displaying the number of total posts per username on a user’s talk page or only the number of posts that had at least one response. A beach storyboard, a tag cloud, and a standard graph were praised, but a tree storyboard was resoundingly criticized as “too cute,” and many asked to see the data as text only. Ideally, users will contribute their own skins for our parsed data to better accommodate the wide range of tastes in our target community.

The information gathered during our in-person sessions was valuable when designing community-appropriate visualizations and for providing a richer context for future participant feedback. The interpersonal exchanges improved our understanding of community norms and helped us see how users combine seemingly disparate data to assess other community members’ reputations. We believe that following these practices could be beneficial for other researchers beginning to study an online community, as well.

Detailed information about our research method and findings will be presented on the poster at SIGDOC 2009. Researchers interested in the design of communication in online collaborative environments will find the poster of particular value.

2. ACKNOWLEDGMENTS
Research supported in part by NSF grant IIS-0811210. We would like to thank Ivan Beschastnikh, Alan Borning, Travis Kriplean, and David W. McDonald for their contributions to this work.

3. REFERENCES