
Ways to Represent User Data: Best Practices in Communication Design

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Abstract

The need for user research is accepted by most high-tech companies. But getting the research into the minds of the people creating products remains challenging. UX professionals must represent the users' world and communicate findings in compelling representations that lead to design action.

The challenge has become harder because mobile devices let us accomplish activities in bits of time across multiple devices. Also, service design, total customer experience, journey maps and process design all require visualization.

But what are the best ways to represent the user data? How can UX professionals immerse the team in user data to drive design?

This SIG helps participants improve their data representations. Co-organizers present their best practices, the visualizations they use, and how they use them. Participants try the techniques and share their own experiences—and missteps—for communicating user research.

Author Keywords

User-Centered Design; User Research Analysis and Representation; Requirements Gathering and Specifications; Journey Mapping; User Models; Contextual Design Models

ACM Classification Keywords

D.2.1 Requirements/Specifications; H.1.2 User/Machine Systems; H.5 INFORMATION INTERFACES AND PRESENTATION; H.5.m Miscellaneous

Issue for Representing and Communicating User Research

For many years UX professionals—along with others who define, design, develop, and manage technology products—thought of users in terms of tasks to be supported. They employed representations like task analysis and scenarios to show the user’s tasks. But now UX professionals must represent how users are fitting work or personal tasks into the structure of their overall lives, doing activities in pieces of time, while moving between place, platform, and device. Task focused representations don’t do the job.

Also the growth of UX involvement in service design, end-to-end customer journey design, and process intervention require different representations. But typical representations and journey maps can become too complex; they may overwhelm the team instead of drawing them into the data. They may not help the team come to core insights.

For example, Nielsen Norman Group evaluated journey maps and asked UX professionals about their positive and negative experiences. They identified what makes journey maps effective: storytelling language, clean well structured visualizations that reduce complexity, and communication of insights [1, 2]. Contextual Design models are built on similar principles of visualization developed and validated with design teams [3].

Finally, visualizations that are not used by the cross-functional team tasked with product design and development are not achieving their goal. Often UX professionals understand the lives of users, talk about them and communicate one way—but their cross-functional team members think very differently. Bridging the gap between these two world views is challenging. Yet if they are not successful in engaging product managers, developers, designers, and other stakeholders the voice of the customer will be ignored.

Getting the product team to internalize and employ user data continues to be one of the greatest challenges of today’s UX professionals. Even when product management, developers, and other team members want the data, too often they resist diving into the complexity of human lives in the name of time. Instead, they seek a few simple insights and design implications. This oversimplification does not serve the espoused goals of innovation and product success—nor does it help the team come to a shared understanding of the users they are supporting.

Communication design must encompass both the creation of the data representation and the use of design workshops to engage and immerse the team in the data for the purpose of design.

To characterize user data, UX professionals have worked with various types of modeling over the past 25 years: task analysis, scenarios, process maps, Contextual Design affinity diagrams and models, and more. Today personas and journey maps are also widely used.

Overall issues for anyone creating a representation must include:

- The quality of the data collected and used in the model,
- The structure and content of the visualization,
- The balance of complexity and oversimplification,
- The ability to derive insights from the model, and
- The techniques used to engage the team to interact with the data.

This SIG helps participants think about these issues and learn principles and techniques that they can bring to their own work. Also, they can share their own experiences of what works and what doesn't. During the session participants:

- Share their experiences of what works and what doesn't in their own work as stimulated by the SIG organizer's experiences,
- Identify key principles of communication design, and then use the principles to evaluate their own models or example models available on the web, and
- Practice interacting with example models and try different immersion techniques.

The goals of this SIG is to articulate what UX professionals must think about to create best-in-class representations of user data and share techniques that work to get the data into the design process. A focus on *communication design* as a core UX skill will help raise consciousness of the importance of these techniques.

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