


Gathering Usability Data Through Site Visits

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User-Centered Design


To make technology that fits human beings, it is necessary to study human beings. But now we tend to study only the technology. As a result, people are required to conform to technology.

- Donald Norman




What is a site visit?

- Method for gathering information about users, tasks, and environment
- Asking questions of users and watching them work in their workplace
- Foundations are in ethnographic interviews and contextual inquiries




Why perform a site visit?

- Our job is to help users do their work using a product
- As designers, we need to know:
 - Who are our users?
 - What do they know?
 - How do they really work?
- Users often cannot articulate the details of how they work out of context



Who should perform site visits?

- Everyone on the design team should be involved early in the planning
- May limit the number of people who actually go to a single site
- Everyone involved with the design of products should go on-site sometime



When do you perform site visits?

- Early in the development process, during the analysis phase
- Ideally before design
- It's possible to perform them even before the product exists
- Later in the development cycle, site visits help to identify performance problems



Planning a Site Visit

- What do you know already?
- What do you need to find out (most)?
- Who will you visit and where?
- What will each person do at the site?
- How will you collect the data?
- What will happen as a result of the visit?



Conducting a Site Visit

- Executing your plan
- Listening
- Observing
- Asking questions
- Gathering artifacts
- Being ready for the unexpected



What are you looking for?

- User characteristics, which come out mostly through interviews
- Tasks, which come out through observations and interviews or think-aloud protocols
- Environmental constraints, which come out mostly through observations



Orienting the User

- Help the user relax by engaging in friendly conversation
- Explain the purpose for the visit
- Describe what you and the other team members will be doing
- Reassure the user that the information you gather will be used to design the product, not to evaluate the user



Getting Down to Business

- Verify your schedule
- Be respectful of the user's time
- Ask the user to sign a consent and release form (for the pictures/sound)
- Administer any pre-observation surveys



Starting with Surveys

- Surveys help get the information flow started
 - Provides an effective way to gather background information quickly
 - Allows you to compare responses from multiple users
- Keep surveys brief and simple



Encouraging Users to Think Aloud

- Ask users to think aloud as they work
 - Can you tell me what you're trying to do?
 - Could you tell me what you're thinking?
 - What are you feeling right now?
- Listen and watch
- Don't become the trainer/expert
- Remain neutral to comments



Asking Questions

- Ask open-ended questions
 - Why do you think X happened?
 - What happens when you do X?
 - What just happened?
- Give the user time to respond
- Use your voice and body language to encourage them to talk



Showing You Are Listening

- Summarize what they said to clarify and encourage them to continue
 - So first you do this and then what?
 - You said that you're trying to create X, so what will you do next?
 - You said you expected to see X, why is that?



Focusing on Specifics

- Use end results to prompt the users to explain how they were created
 - Who created X?
 - What would you do with X?
 - How would you go about creating X?
- Keep the users grounded in tasks by focusing on the artifact, even if not actually creating it from scratch



Soliciting War Stories

- Ask about problems
 - Do you ever have any problems doing X?
 - What would you do if X happened?
 - Where do you go if you have questions?
 - If you could change one thing about the current way you do it, what would it be?
 - Could you tell me about another time when X happened?



Reading Between the Lines

- Watch for non-verbal behavior and listen to the tone of voice for clues
- Listen for subtle criticisms and suggestions
- Remember that some users try to please the observer by providing what they think the observer wants to see and hear



Staying On-Track

- Learn to redirect users when they get windy, bogged down, or off-track
- Make sure you answer your most important questions early in the process
- Be flexible in case you have to adapt your plan to changing circumstances or unexpected opportunities



Identifying Tasks

- Keep track of tasks performed
- Note relationship of tasks to each other
- Determine the overall workflow



Reviewing the Environment

- Keep an eye out for homemade job aids or other cheat sheets for using the tool
- Ask for copies of their input and output such as planning worksheets or reports
- Look for external impacts on their work
 - Physical
 - Social
 - Cultural



Recording Observations

- Helps to have a note-taker/observer and an interviewer
- Use predefined data collection sheets
- Can use video or audio recording
 - Time issues
 - Cost issues
 - Privacy issues



Analyzing the Results

- Debrief as a team
- Allow everyone time to catch up
- Stay open to new interpretations
- Summarize critical information
- Report your findings



Applying the Findings

- Confirm and expand user profiles
- Reflect the real tasks
- Understand the mental model
- Organize to support the workflow
- Make decisions and set priorities
- Set usability objectives



Becoming a Better Designer

- Knowing your audience
- Learning to anticipate user questions
- Moving beyond delivering information to designing the user experience



Conclusion

- Think of yourself as a user detective
 - Collect all the clues and analyze them
 - Get your suspects to re-enact the crime
 - Observe both behavior and environment
 - Listen more than you talk
 - Record important clues in your notebook
 - Always question your assumptions



Recommended Reading

- Hugh Beyer and Karen Holtzblatt. *Contextual Design: Defining Customer-Centered Systems*. San Francisco: Morgan Kaufmann Publishers, 1998.
- JoAnn T. Hackos and Janice C. Redish. *User and Task Analysis for Interface Design*. New York: Wiley Computer Publishing, 1998.
- Karen A. Schriver. *Dynamics in Document Design*. New York: Wiley Computer Publishing, 1997.