

## Conducting Site Visits To Learn More About Users

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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



## We Need Data About Users

- Our job is to help users do their work using a product
- As designers, we need to know:
  - Who are ALL of our users?
  - What are their needs (esp. their questions)?
  - How do they really work within the constraints of their workplace?
- Users often cannot articulate the details of how they work out of context



## 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



## 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?

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## Brainstorm a List of Questions

- What do you really need to know to design a better product (confirm critical design assumptions)?
- Are there any facts about users or tasks that are in dispute?
- What aspects of your product design are dependent on the user's environment?

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## Group and Prioritize Questions

- Groups make it easier for you to jump around during an interview
- Small groups may indicate that you need to do some additional brainstorming
- You may not be able to answer all of your questions, so highlight the most critical ones

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## Determine Task Scenarios

- Figure out what you need to see to answer your questions
- Task scenarios can be real or staged
- Tasks will reveal new paths to explore during the interview—there are always surprises

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## Be Prepared

- Write a site visit plan
- Use a checklist to make sure you have everything you need
- Practice before you go

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## Conducting a Site Visit

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

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## 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

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## Orient 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

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## Get 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

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## Start with a Survey

- 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

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## Ask 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?
- Demonstrate the technique
- Tell them you will prompt them if they forget

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## Encourage Users to Talk

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

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## Show That 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?
- Remain neutral to comments

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## Focus 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

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## Solicit 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?

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## Read 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

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## Keep Users 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
- Don't assume the role of trainer/expert

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## Adjust Your Plan As Needed

- Each interview will set its own direction
  - You may not be able to ask all of your questions
  - You may ask many questions not on your list
- Follow the most promising trail rather than stick rigidly to a list of questions
- Be flexible and follow new leads

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## Identify Tasks

- Keep track of tasks performed
- Record the duration and count errors, but don't get obsessed with low-level details
- Note relationship of tasks to each other
- Determine the overall workflow (and look for obstacles)

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## Review the Environment

- Look for external impacts on their work
  - Physical, Social, and Cultural
- Examples
  - Interruptions and surrounding noises
  - Location of the work and related resources
  - Available equipment and documentation
- Take pictures

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## Collect Artifacts

- 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

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## Record 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
- Separate facts from opinions

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## Tie Up Loose Ends

- Make sure to tie up loose ends before you leave the site
- Ask for opinions and suggestions at the end of the visit
  - If you could change any aspect of this product, what would you change?
- Ask "Is there anything I forgot to ask?"

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## Give a Post-Interview Survey

- Measure satisfaction, ease of use, interest at the end of the interview using a survey
- Surveys can be completed orally or in print

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## Analyzing the Results

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

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## Applying the Findings

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

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## Becoming a Better Designer

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

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## 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

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## 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.

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