
02JSKOV - HUMAN COMPUTER INTERACTION

LAB 2 - NEEDFINDING

With *needfinding*, we were interested in observing and understanding how people do things, to learn their goals and practices, and to generate (meaningful) design insights. This lab, which bootstraps the work needed for Milestone 1 and should be done in group, aims at better describing your project and to define specific user needs, through observation and interviews of 3-4 users. You can use all the three hours devoted to Lab 2 (i.e., two weeks) to start working on Milestone 1 and complete it in the following days. The milestone needs to be submitted by *October 27, 2021* on the GitHub repository assigned to your group, by following the [Markdown template](#) available in the course website.

PLANNING

The goal here is to observe people in your target population while they perform some activities strongly related to your (approved) project idea. Such observation activities should be performed in their natural setting, to find out some potential needs that your web-based application will eventually fulfill. Importantly, the observation of your target users may or may not include any digital device. Observing how people behave with “analog” tools, often, can inspire ideas also for the digital world. Basically, you are asked to follow the same process of the [exercise done in class](#), which is summarized in this section.

For this lab (and the related milestone), your activities will be:

- 1) *observing* a few of your target users in their environment, with their tools and devices, while they do their usual tasks (linked to your project idea);
- 2) and *interviewing* them, after the observation.

While it is better to perform these actions *in situ*, you can also perform your observations/interviews *remotely*, over video chats (e.g., Skype), for instance if you have mobility limitations or the activities you would like to observe are infrequent.

To get started, **make a list of “types” of people in your target population and some activities you would like to observe** to come up with some needs that your web application can help solve. Do not just think about your *immediate* target users, but also think about other stakeholders and about the characteristics of your users.

As an example, this [IDEO design team](#) was asked to redesign a cart for grocery shopping. The IDEO team did not only interview everyday customers, but also involved *lead users* (e.g., professional shoppers) and other *extreme stakeholders* such as grocery store managers. Lead and/or extreme users, as well as marginalized ones, often help to come up with better solutions and to create more inclusive design.

Then, **pick one main activity** to observe. You have to observe the *same* activity across all your selected target users. The activity you choose can be as specific as you need to develop a meaningful list of needs. It is typically easier to find useful and meaningful needs when the activity is specific. For instance, if you simply observe a bunch of people walking around Politecnico, that is too broad. Notice that you must *observe people performing activities*, not asking them what they want or need. As you learned during the lectures, this is because people are usually bad at simply telling you what they really need. That is the core

of the needfinding process: it should start with you observing people doing real activities and noticing issues and possible areas of improvement.

Finally, **prepare some pre-defined questions** for the interview that will follow the observation of the main activity you chose. Questions need to be suitable for the activity at hand and might also cover some specific topics or issues you are interested in. You may get inspiration from the exercise started in class on October 12, 2021. Try to understand why people are doing things in the way they do by asking questions like “Are there existing solutions that people aren’t using? Why or why not?”.

OBSERVATIONS AND INTERVIEWS

Now, **select 3-4 people to observe** while they perform the activity you chose. Select the participants from the list of “types” of people you made before. Avoid observing your own team members and choose people who are not similar to yourself (in some way).

Get their permission to participate in this activity and coordinate with your participants to select a time (and a place, if it is the case) that will be appropriate for observations.

Before starting the **observation**, tell the participants to perform the activity as realistically as possible and to communicate with you only if appropriate and needed. *Take notes* of what happens and *use still pictures* (e.g., photos taken with your phone, screenshots, ...) or sketches to document the observed activity. Pictures or sketches are used to highlight specific issues, design opportunities, etc. Those may include accidental slips, mistakes (users have the “wrong” mental model), or awkward interactions that take too many steps. *Accompany each picture/sketch with a note* that explains what you observed and describes the issue or the opportunity.

After each observation, **interview** the participants about what you observed. Use the questions you prepared but be ready to skip some of them or ask some new/follow-up questions, according to what you have just observed. The interview should be audio-recorded, and you should *take note* of the questions asked (including the ones that stem during the conversation) and the main points in the answers.

Overall, it should take you around 3 hours to make all three-four observations and interviews.

USER NEEDS AND PROJECT DESCRIPTION

Stemming from your observations and findings, **brainstorm a list of specific user needs**, opportunities for designing a web-based application in the context of your idea. Write down all the user needs that are based on your observation.

Then, **narrow them down to around 5-6** of the most insightful ones. Each of these 5-6 needs should be substantive enough to become the main goal of your web-based application. Remember: you are not looking for technical solutions or specific features, yet.

An example might be “Sometimes, when Mark wants to cook dinner for him and his friend, there is not enough diverse food in the fridge. Mark needs a way to plan what to buy based on how many friends he meets for dinner and on what he cooked the days before.” It is helpful to use the phrases “needs a way to” or “needs to be able to” in your list of user needs.

Starting from the short list you created, **write a short paragraph** that describes how your project would *address* one (or two) *deep user needs*, by including your personal take on suitable strategies to adopt, again without offering any specific and concrete solution.

Finally, consolidate your work according to the [Milestone 1 template](#).