ASSIGNMENT 1 - NEEDFINDING

DUE: OCTOBER 15, 2024

OVERVIEW

With *needfinding*, we are interested in observing and understanding how people do things, to learn their goals and practices, and to generate (meaningful) design insights. This assignment should be done in group and aims at exploring some user needs, mainly through interviews. You can use the all the lab hours devoted to this assignment to start working on it and complete the work in the following days.

PREPARATION AND EXECUTION

1. **Select a domain of interest <u>within</u> your theme.** Narrow a bit the problem domain of your theme and agree on it with the theme's teacher. For instance, if the theme is "Transportation," you might narrow down to *daily commuting by trains* or *multimodality (bike, bus, etc.) for teenagers*. The domain is something you want to explore, to investigate further, not an "app idea" or "project vision". Choose a domain of interest that you find interesting and can keep you engaged throughout the entire project development.

2. **Plan your interviews.** Decide who you are going to interview, where, and which questions you will ask. Specifically:

    a. INTERVIEWEES. You must interview <u>at least</u> 4 people (more is better) belonging to different "types". Do not just think about the *immediate* users, but also think about other stakeholders and about the different perspectives they can provide on the topic. 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.
    The set of people can include *at most* 1 Politecnico's student, *at most* 1 domain expert (optional), and *at least* 1 lead/extreme user. If you interview just 4 people, be sure to include two immediate users.

    b. MODALITY. The interviews must be done *in person*, with people in their context. If it is impossible to conduct the activity in-person, for example if you have mobility limitations or the person is not in the area, you can do it over video chats (e.g., Google Meet) after agreeing with your theme's teacher.
    Make an extra effort to observe a few *people in actions* in the context of your domain of interest, either conducting a small observation or doing a contextual inquiry.

    c. QUESTIONS. Prepare some *pre-defined questions* for the interviews. A reasonable range can be 10-20 pre-defined questions. Questions need to be suitable for the domain at hand, the observed activity, and might also cover some specific topics or issues you are interested in. 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?". Be ready to skip some of them or ask any new/follow-up questions.

d. MATERIALS. You need to record what, how, and why interviewees are saying and doing. Take some *pictures* of the interviewees and any relevant artifacts (e.g., stemming from the observation), *audio-record* the interviews, and *take notes* of the questions asked (including the ones that stem during the conversation) and the main points in the answers.

3. **Interview.** Conduct a minimum of four interviews, with the people you planned for. You are encouraged to conduct *more* interviews (and a small observation/contextual inquiry for some of the recruited people).
   a. DURATION. You can expect each interview to last between 30 and 60 minutes.
   b. CONSENT. The first thing to do is to get interviewees permission to participate in the interviews. Do it on paper and have them to sign it. Without this explicit consent, you <u>cannot</u> proceed.
   c. PROCEDURE. Two team members (and not more than 3) must be present at each interview, one leading the interview and the other(s) taking notes. This will allow teams to conduct interviews in parallel, if needed. Remember the interviewing tips discussed in the lectures and during the exercise in class.

SUGGESTIONS FOR FINDING PARTICIPANTS

- **Leverage your personal networks.** Do not excess with friends and family members, but friends of friends are a good starting point.
- **Use social media and online communities.** To get past second-degree connections, you can post on social media sites, online communities, and encourage people to share with their connections.
- **Find people in context.** If it is safe to do, you can try recruiting people at some places related with your domain of interest. If you ask the right people respectfully, many will help you.

SYNTHETIZE THE RESULTS

1. **Unpack your findings and extract user needs.** Starting from the results of the interviews, *brainstorm a list of user needs*. Write down all the user needs that emerge from all the interviews. *Connect* each need to one or more interviews and answers. You can brainstorm with sticky notes (physically) or with tools like [Miro](#) (digitally), as you prefer.
   Needs are human emotional or physical necessities. Needs help define your design challenge and must be relevant for the domain. Remember: needs are verbs (activities and desires with which your user could use help), not nouns (solutions). Identify needs directly out of the user traits you noted, or from contradictions between two traits – such as a disconnect between what they say and what they do. It can be helpful to use the phrases "needs a way to" or "needs to be able to" in your list of user needs.
2. **Define 3-4 deep user needs.** From the brainstormed list of user needs, narrow them down to 3-4 of the most insightful ones, still retaining the connection with the interviews and answers. Each of these needs should be substantive enough to become the main goal of an interactive application. <u>**Beware**</u>: you are <u>not</u> looking for technical solutions or specific features here.
3. **Brainstorm at least 5 possible solutions for each user need.** For each need, set a 5-minute timer and have each team member individually come up with as many solutions as possible during that period. There are no bad ideas at this stage. Then, come together and look at all the generated solutions. As before, you can brainstorm with sticky notes or a digital tool.

Solutions describe how you would *address* a need without offering specific and concrete (technical) features, i.e., <u>not</u> "an app for this". You should not immediately worry about feasibility: even an idea that is not plausible might have a useful and meaningful aspect. See an example below.

> *Sample need:* "couriers' drivers need to use a restroom during deliveries without travelling out of their ways".
>
> *Sample possible solutions:* 1) "Shops, gas stations, gyms, … receive recognition as 'driver-friendly locations' for allowing drivers to use the restroom". 2) "Drivers can see the location of nearby places with parking and restrooms, and provides these locations with business".

4. **Select your top solution overall.** Diversity of ideas is best at this stage. You should aim for novelty here – pick solutions that do not already and fully exist!

   For selecting the top solution, you can use one of these two methods:

   a. *Post-it voting.* Each person gets three votes and marks three solutions they are attracted to. In this way, everybody can independently vote and make their choices. Some more details at https://public-media.interaction-design.org/pdf/Post-it-Voting.pdf.

   b. *Four-category method*. Each team member elects one or two solutions from the categories: the rational choice, the most likely to delight, the darling, and the long shot. Some more details at https://public-media.interaction-design.org/pdf/Four-Categories-Method.pdf.

5. **Craft a project name and value proposition.** The project name should be 1-2 words max and evoke your solution or the underlying deep user need.

   The value proposition, instead, is a one-liner that conveys what people get out of your solution. It should be applicable *specifically* to your idea, not to several other applications. For instance, Uber had "Always the ride you want", Stripe "Payment infrastructure for the Internet", and Slack "One platform for your team and your work".

DELIVERABLES

Create a new directory called "A1" in your assigned group repository on GitHub and upload, by the deadline, a set of slides (PDF) and any raw material you want to share. Keep in mind that the consent forms, any notes, pictures, raw materials, etc. might be useful when preparing the final report.

The presentation should contain:

1. Intro
   a. Team members
   b. Domain of interest and why/how you chose it
2. Methodology
   a. Participants – Why were they chosen? Why are they appropriate? How were they recruited? Which is their age, gender, …? Who is the extreme user and why? Who is the domain expert, if any?
   b. Where were the interviews conducted?
   c. What did you observe (if any) and ask?
   d. Team member roles for each interview
   e. Any material you used (camera, recorder, etc.)
3. Results
   a. Pictures and relevant artifacts
   b. Key quotes

4. User needs
   a. Include a list/picture/screenshot of all the brainstormed user needs
   b. Present the 3-4 deep user needs; explicitly connect each of them to one or more interviews and answers
5. Solutions
   a. Include some pictures/screenshots of your brainstorms
   b. Describe the solution you choose in 1-3 sentences; connect it with the need(s) it aims to solve
   c. How and why did you selected it?
6. Project name and value proposition
   a. How did the team land on the name?
   b. One-line value proposition

GRADING CRITERIA (100%)

The assignment will be evaluated at the exam, considering any changes made based on the feedback provided after the assignment deadline. The criteria outlined below indicate the focus of the evaluation and the relative weight of each aspect of the assignment.

Domain definition (5%)
Participants (10%)
___ Participant diversity and suitability – extreme/immediate/domain expert
___ Number of interviews
Methodology and execution (40%)
___ Methodology – location, recruitment, consent, questions, materials, etc.
___ Adoption of an observation or contextual inquiry
___ Appropriateness of the questions (pre-defined and follow-up)
___ Interview execution and results – pictures and relevant artifacts, key quotes
Synthesis quality (45%)
___ Thoroughness of the synthesis
___ Appropriateness of the user needs (brainstormed and deep)
___ Full brainstorms were conducted; proposed solutions are novel and complete
___ Rationale for the selected solution
___ Suitability of the project name and value proposition

ADDITIONAL READINGS

- [5 Steps to Create Good User Interview Questions](#) (Medium blog post)
- [Asking the right questions during user research, interviews and testing](#) (Medium blog post)
- [What to do in needfinding](#) (PDF)