

Milestone I

Problem Definition

Due: Monday, December 9, 2019, **9:00 am**

Description

During the first week of the project, you will understand the problem domain in more detail by gathering background information about it, and conducting user observations and/or interviews.

Tasks

For the topic you have been assigned to work on*, you will spend this week performing the following tasks:

1. Gather domain-specific information before performing user observations or interviews. You can use websites, books, and research literature to do this.
2. Perform user observations and/or interviews[†] in the environment where the problem occurs. In the video lectures, you will learn about user observations and interviews, both are techniques used to understand problems from the users' perspective.

Based on these steps, identify 1–3 problems that you find interesting, important, and good candidates for this project. For each problem, *write* down the **problem statement**, which is a 1–2 sentence description of the problem. A **good** problem statement is

- **user-centered**, i.e., focuses on the user's problem and is not about technical or financial difficulty,
- **specific** enough to be manageable during the time frame of this project (e.g., "*Singing is difficult to learn*" is too broad), and
- **problem-centered**, i.e., does not already discuss or hint at solutions to the problem.

Note

- Make an effort to **empathize** with the user. Do not assume that the user is at fault. Instead, try putting yourself in the user's position and understand his/her motivation.
- Perform user interviews with an **open mind**—your objective is not to get the user to talk about a specific problem, but to understand the environment in which she performs her task, and her motivation.
- During user observations and interviews, collect **demographic information** (e.g., age, gender, nationality) that might be useful later on during analysis.

* You will know this before Tuesday 12 pm.

[†] User observation is when you *passively* observe the user performing the task in his/her work environment. During a user interview, you talk to the user in a one-on-one setting to understand the user's motive. Both have their benefits: Observations could be a useful first step that helps identify potential problems, whereas interviews can help identify user's motivations and learn more about the problem.

Resources

The following resources might be helpful to achieve this project milestone:

- **Concept maps** can be used to organize the problems you have collected and can also help you get an overview of the problem space: See **Video 7.6. Personas and Brainstorming**.
- Often times, the problem you have been asked to solve has an underlying problem that needs to be solved. **Root-cause analysis** (repeatedly asking 'Why?') can help you identify the underlying problem: *The Design of Everyday Things* by Don Norman, pg. 164–165.

Deliverables

Please prepare the deliverables as a **PDF**. If you link to a video or other sources include the URL in the PDF. You can also include videos or other relevant files. Gather everything in a **ZIP** file. It should eventually contain:

1. **Problem statements** for 1–3 problems that you find interesting, important, and good candidates for this project.
2. **Details of user observation and/or interview:**
 - User's demographic information.
 - For user observations, a description of the procedure you followed.
 - For user interviews, the questions you asked (i.e., protocol) and the summary of each user's response. (You can also attach the accompanying audio or video clips to the submission in addition to the written text.)
3. Any other material that you used to gather information from users e.g., online surveys.
4. (This is optional.) A short description (4–5 lines) of the domain knowledge that you have gathered from online resources, books, and research literature, concept map of the problem space, etc.

Name your file **P01-GXX.zip**, where XX indicates your group number. E.g., if you are in group 5, name your ZIP file as P01-G05.zip. Submit your ZIP file to RWTHmoodle before **9:00 am, Monday, Dec. 9**.