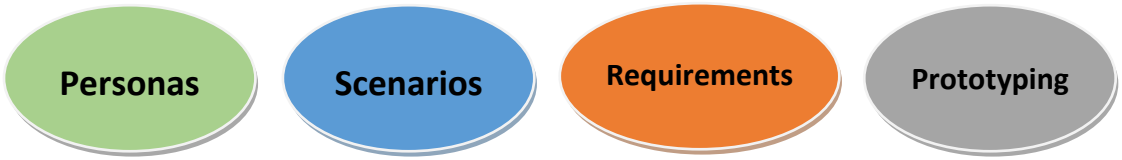

Requirement analysis Lab class

Topics

- Personas
- Scenarios
- Requirements
- Prototyping

Overall Purpose and Goals

During this class you will explore Personas and Scenarios to obtain the requirements for your application. Remember, avoid focusing primarily on what you want to do and the technologies you want to use. Instead, find what motivates the users and when/where they will use the system. Finally, the requirements will support the creation of a low-fidelity mock-up for conceptual validation.

1.1 Step 1: Characterize your users through Personas

"The purpose of personas is to create reliable and realistic representations of your key audience segments for reference. These representations should be based on qualitative and some quantitative user research and web analytics." In Personas @ usability.gov

For this step, we will shorten the Persona creation process by considering your knowledge about the end-users as the main source of data. Naturally, you can (should) later search other sources of data and speak with other people, as representatives of the potential users, to enrich the Persona. To understand and define what should be considered for the Personas for your application you may consider the following information, as a start: Personas@usability.gov

1) Gather as much data as possible about relevant characteristics of your target users
2) Can you find one representative Persona or do you need more? Think carefully. Personas should have significant differences to justify their existence.
3) Build a narrative gathering all the relevant information for your Persona(s). Also consider the Personas slides (from lectures) for examples. Keep it at a reasonable detail and size (around half a page is a good rule of thumb, but not mandatory).
4) Brainstorm about what are the **motivations** of the Persona(s) that will be addressed by your work. Do not limit yourself to low-level aspects such as "Send emails" or "See match results". Instead, consider more high-level motivations such as "Joana would like to keep in contact with her friends and be able to know and participate on their regular hiking activities" or "Peter would like to improve his quality of life by performing more exercise and eating healthier food".

5) Find a name and photo for your Persona
6) Let potential end-users (and other third-parties) read the Persona. Do they feel well represented, overall? Is the Persona credible? Do they have suggestions that are relevant for the domain?

1.2 Step 2: Characterize contexts of use and routines through Scenarios

"Scenarios describe the stories and context behind why a specific user or user group comes to your site. They note the goals and questions to be achieved and sometimes define the possibilities of how the user(s) can achieve them on the site." In Scenarios @ usability.gov

Create scenarios for the identified Personas describing their routine while using the envisaged application, for example: Where will the system be used? For how much time? What activities does the Persona need to perform? Expected end results of using the system. How much complexity is permitted based on the Persona skills and frequency of use?

1) Context scenarios can have multiple scenes, preferably with titles, such as "Nuno shares a photo", "Maria sends a document to a colleague" or "Peter checks the results for the Premier League matches of this weekend";
2) Brainstorm about what features the system should support having in mind the **motivations** of the Persona(s). Be open-minded. Let ideas flow.
3) Avoid entering into technical details; talk about features and when, where and how they are used;
4) If you have multiple Personas, consider if they need to interact (e.g., a father and his daughter exchanging messages using your system);
5) Let end-users read the scenarios. Do they find them credible? Do they identify with those actions and contexts?

1.3 Step 3: Identify Requirements from Scenarios

Now, consider the scenarios to infer the requirements for your application.

1) Identify actions described in the scenarios
2) Write a list of these actions (tasks) such as "Send messages to friends", "Associate an emotion to a photo", "Provide information about medication side-effects".
3) Which requirements are more important, i.e., those that would provide a first useful (although not complete) prototype?
4) Are there any requirements that cannot be accomplished? Why? Do not remove them from the list. Instead, provide enough information to justify not targeting them (e.g., time constraints, technology not available, etc.).

1.4 Step 4: Conceptual validation using Mockups

"A prototype is a draft version of a product that allows you to explore your ideas and show the intention behind a feature or the overall design concept to users before investing time and money into development. A prototype can be anything from paper drawings (low-fidelity) to something that allows click-through of a few pieces of content to a fully functioning site (high-fidelity)." In Prototyping @ usability.gov

Prepare, for the next lab class, a paper prototype to test your ideas with your classmate. Paper prototyping is a fast and cheap way to test ideas before developing a functional prototype. It allows to easily delete, modify or change the prototype during the testing. It is faster to create than any computer implementation and involves users in a very early stage of

the project. It is estimated that 80% of usability problems are possible to be detected with low level prototypes.

1) The prototype developed needs to support, at least, three scenes from the scenarios, but, the most important aspect is that it enables end-users to validate the overall concept of the application. Take, as a first reference, the most important requirements identified in the previous step;
2) For the sake of simplicity, we advise you to develop a paper prototype. However, you may use an alternative prototyping tool such as: balsamiq, mockingbird, marel, InVision, proto.io, powerpoint, etc…

Next class deliverables

- Paper prototype for user evaluation
- 3/5 slides presenting: personas, scenarios and tasks for discussion