Porject Part 2 - Design Alternatives

Deadline: March 18 (Tuesday Class) 9pm; March 20(Thursday Class) 9pm

This is a project assignment that you should complete with your group members. Each team should submit one electronic copy of the report.

Overview

The key goal of Part 2 of the project is to use the knowledge gained in Part 1, as well as that from class, to **develop multiple design alternatives** for your problem. This is the stage of "informed brainstorming." These alternatives should explore the **design space** of the problem.

In this part of the project you will develop storyboards, and sketches of your interface designs. That is, you should provide pencil-and-paper images of the interface at various stages. You do not need to build a working prototype. In fact, we recommend that you do not try to develop full prototypes in this part so that you can focus your time and effort on a broad exploration of the many design possibilities that exist for your problem or task.

Although we are not looking for a full-scale prototype, your design sketches should be sufficiently detailed for a potential user to provide useful feedback about the design. Along with your design mock-ups, you should provide a brief narrative walk-through of how the proposed system will work. Perhaps most importantly, you should also include your justifications for why design decisions were made, and what you consider to be the relative strengths and weaknesses of your different designs.

The design process you follow here is important. *Recall the video on the IDEO design team and how they accomplished group brainstorming.* You should arrive at your different designs through direct collaboration and group brainstorming. **Do not** split up, have everyone create one design, and present each person's design as a possible alternative. Good, creative design processes do not work in this fashion. Your results should come from something more like a brainstorming session with all team members present. You should seek to create some fundamentally different

design ideas, i.e., concepts all over the potential design space for the problem you have chosen. The key is to push the boundaries of the space of design possibilities.

Your project report should include all the explanatory material mentioned above as well as all the design sketches, drafts, storyboards, etc., that you generated. Make sure that your report adequately reflects the design process that your group undertook. **The key** in this part of the project is to develop **several different design ideas**, not just a set of minute varations on some basic design. At a minimum, you must submit three different designs. It cannot be stressed enough that we seek significantly different design ideas; quality is more important than quantity. In particular, we would much rather see three very different designs descibed in great detail than five or six rather similar designs described in shallow detail.

Submission and Grading

Use the following structure for your report. **No more than five pages of text** in PDF format submitted to Introductor's email.

1. Each team member's name (with student No.) and a contribution score (percentage, e.g. 20%) with a short description (one sentence per person at most) of how they contributed to this assignment.
2. [2pts] **Title**: A short, creative, and marketable title capturing the key idea.
3. [4pts] **Project Description*:*** Write an updated **one paragraph** description of your project. Simply re-introduce the general area of application, intended tasks it will support and the intended user population.
4. [4pts] **Requirements Summary**: Briefly state key requirements from your system. Again, the goal here is to re-introduce the requirements developed in Part 1, though it is OK if you introduce new or altered requirements here. What were the changes and how did they arise? Do not exceed one page in this summary.
5. [10pts] **Design Space**: Describe the design space of the potential interfaces for your system. In particular, answer the following questions (you may use each of these questions as section sub-headings if you wish, but that is not required).

- What requirements may be difficult to realize?
- What are some tradeoffs that you should or did explore?
- Which tasks will be easiest to support? Which are hardest?

6. [30pts] **Proposed Design Sketches - "3x4":** Present scanned images of your three initial designs in the context of their four tasks. Include one paragraph for each design, discussing how it supports your tasks.
   - [10%] High-level idea of the design (one paragraph)
   - [30%] Scanned images of the design (sketches, not digital mockups)
   - [60%] How to complete each the four sketched tasks (e.g., a list of steps, one or two sentences per task)
7. [50pts] **Selected Design - "1x2":** From your design sketches, select o**ne design** that you will refine in the remainder of this course. Then select **two tasks** that will be the focus of your design refinement. The selected tasks need to be representative of the experience of using your design. Cover the selected design by presenting the following information:
   - [20%] **Discussion of your design and task choices**. Answer the questions like Why this design and these tasks? what makes the design better suited to the people for whom you are targeting your design? Why are these tasks more compelling than the others?
   - [60%] **Illustrations of the design in 2 storyboards**. Create a storyboard of each task for your selected design. These should be done on paper, then scanned (i.e., do not create or recreate them in a drawing package). They should clearly indicate the functionality of the design and what the interface will be like, conveying the major aspects of the design in enough detail that a person not in your group can understand how the design supports each task. As needed, add descriptions that explicitly reference the storyboard, add more sketches, or annotate them in multiple colors.
   - [20%] **An assessment of the selected design** (advantages, disadvantages, and the degree to which your requirements can be met by the design). Include feedback from potential users in the assessment. Make sure to express how you gathered this feedback.