CS160 Spring 06, Project Proposal

Due: Weds. Jan 25, in class

Overview

Your assignment is to propose an idea that could form the basis of a course project for this semester. Your design should be based on consideration of a real group of users and their needs. This is an **individual** assignment. However, it will be used to match-make the project groups. If you already have others you would like to work with, you should turn in related (not identical!) ideas. i.e. start with the same idea, but brainstorm on it individually.

Project Requirements

The theme for this semester is **Applications for Smart Phones**. This is a very open theme and should give you plenty of room to come up with a topic that is personally exciting to you. You application doesn't have to be fully dependent on the phone, and may use back-end services or have an interface from a normal PC (e.g. like calendars, datebooks etc.). But don't be too ambitious. You have limited time to work on the project and the goal of the course is to **iterate, test and improve users' experience** of your design, not to produce the longest list of features. You don't have to produce a fully-functional system, and we will show you later how to test and improve parts of it.

Try to **think out of the box**. There are already plenty of organizers, guides, games, media players etc. that run on cell phones. If you have an idea that you think is new, at least do a web search to make sure there isn't already a company (or several) already doing it. Think about what people care about, their everyday activities, and how you might improve them, no matter how slightly. That will give you a much better chance of a novel, useful, new idea. Talk to some potential users to understand their needs.

Don't be afraid to use advanced features on the phone. Think out of the box of keyboard and screen input – e.g. there are many interesting apps that use the phone's camera, its microphone and speaker, and computer vision or speech understanding. You don't have to actually code all these pieces (although e.g. some previous 160 groups did get speech recognition going), and you can hand-simulate them using "Wizard-of-OZ" (WOZ) techniques. Make sure you're realistic however. This is an exercise in prototyping apps that could eventually be built, not in science fiction.

Brainstorm! Your initial idea might be lame-looking, but a refinement of it might be a killer. Give every idea a chance, no matter how strange at first.

Deliverable

You will submit a project plan of *no more than* **2 pages** of text + sketches. Your plan should follow the outline below and will be graded using the writing guidelines that follow:

1. Target user group
2. Two personae (representative users)
3. Problem or Idea (short)
4. Context and Forces
5. Suggested Solution

Writing Guidelines

Creativity (3 pts)

The proposal should address a real user need. It doesn't necessarily have to be work-related, it could also cover health or lifestyle needs, or recreational needs. Pure games are not such a good idea however, as it's really quite difficult to design a good one, or to measure its effectiveness.

Writing (3 pts)

The writing must clearly present the important facts and be terse and concise. The nitty-gritty details aren't needed at this point. The organization should follow the outline, and it's encouraged (but not necessary) to use the outline bullets as section headings.

Target group and personae (3 pts)

Your target group should be sensible (people you have access to) and not trivial (CS undergrads is not a challenge). Personae should be developed in enough detail that they are **generative** (suggesting answers to questions about them). What are their needs and wants?

Problem Description (3 pts)

The problem description should be short and specific about the high-level goals of the project. The problem should be described in terms of user activities and situations where the problem occurs, and what aspects of the situation might be improved with a technical solution. Avoid describing or suggesting a solution at this stage – that will hamper your design thinking when you actually start solving the problem.

Problem Context and Forces (3 pts)

The analysis section should give more background for the problem. What aspects of the situation might influence the problem solution? Think about location, time, environmental factors etc. Then think about aspects of the user group, their education, available time, motivation, values etc., What related or complementary solutions exist already?

Solution Sketch (3 pts)

Give a very brief sketch of the kind of solution(s) you are considering. Since your problem has barely been specified and you haven't done any user interviews, you probably don't have enough information to make many design choices. So your solution sketch should be very general. This is an excellent place to make use of real sketches (drawings) as well as text.