COS 436 / ELE 469
Spring 2013

P2: Contextual Inquiry & Task Analysis
Due 3/4/13 at 11:59 PM

Overview
In this assignment, you will use the contextual inquiry methodology to learn more about the relevant practices of your target users. The interviews will help you perform a task analysis of your idea. Try to focus on as specific a group of users as you can. It will be easier and more effective to develop an application that helps a specific group of users such as backpackers visiting Princeton from Japan who don't know any English, rather than all backpackers visiting the US.

You will also design rough sketches of your proposed user interface. Be sure to start early on this assignment. It will take time to schedule users for interviews, and the bulk of the assignment is based on your interview data.

The Assignment
1. Contextual Inquiry
Interview at least 3 target users (ideally they should not be your friends or COS 436 classmates) using contextual inquiry. You should carefully choose your target user group. Try to be as focused as possible and address the needs of a specific group.

2. Task Analysis
a. Answer the 11 task analysis questions presented in class (see slides from Lecture 4).

b. Think about the tasks that users will perform with your system. Describe at least 3 tasks in moderate detail. Rate each task as easy, moderate or difficult. You should consider two aspects of difficulty:
> How difficult is it to perform the task currently, with existing tools or applications?
> How difficult would it be to perform the task using your proposed system?

3. Incorporating Findings Into Design
Use your findings above to flesh out your ideas for what your system will look like. Communicate your design using text, rough sketches, and storyboards.

What to turn in
You will submit a write-up of text and sketches through the course blog. Your write-up should use the following outline, and you will be graded using the rubric at the end of this document. Try to be succinct but complete. Long-winded descriptions are just as bad as descriptions that are too short.

1. Create a new blog entry using **the "Project2" category** when you create the post.

2. Include on your blog, in order, and with section headings:
- **Your group number**
- **Each team member's name** (first names are fine) and a short description (one sentence per person at most) of how they contributed to this assignment.
- **Problem and solution overview (2 pt)** Provide a concise statement of the problem you are addressing and a brief synopsis of your proposed solution. Say why your solution addresses the problem or task. (1 short paragraph)
- **Description of users you observed in the contextual inquiry (8 points)**. Clearly describe your target user group, and describe the rationale behind your choice of this target group. For each of the "users" you actually observed, give some details of their backgrounds, their likes/dislikes, and their priorities. If it's not obvious, say why they are good observation candidates given your target user group. **Avoid information that may reveal their identities.** (1 paragraph)

- **CI interview descriptions (10 pts)** Describe the process you followed when conducting the interviews, and the environment where you observed people. Identify tasks and themes that were common across people. Then, note anything unique about each interview, and propose explanations for the commonalities and differences you observed. (2–3 paragraphs)
- **Answers to 11 task analysis questions (5 pts)** Answer the 11 task analysis questions from lecture for your system. (Answer them in the same order as in the lecture, and use a subheading followed by a few sentences of text for each question.) Use examples from your interviews when applicable.
- **Description of three tasks (10 pts)** Choose 3 tasks users will perform with your system, chosen to represent a variety of difficulty levels. Describe them in moderate detail. Rate their current and proposed difficulty as described above. (1 short paragraph per task.)
- **Interface Design (15 pts)**
  o Provide a text description of the functionality of your system. What can a user do with it, and how? What benefits does the application offer to the user? What is the scope of functions offered? How will your idea differ from existing systems or applications? (1 paragraph)
  o Provide 3 storyboards. Each one should show how someone would use your system to accomplish one of the three tasks you chose above. Show motivation for using the system, as well as steps the users will go through to accomplish the task.
  o Provide a few sketches of the system itself. What might it look like? How might a user interact with it? If your system includes GUIs of any sort, provide some initial sketches of what might be included in them. If no, that's fine; see if you can come up with an equivalent sketch to show what the user interface looks like (or sounds like, or smells like, or whatever it does in lieu of a GUI). Clearly label each sketch and explain it in text.

  The most important thing here is to clearly communicate the most essential, important qualities of your system. We expect that your system will evolve over time, so don't worry that this current design must be final.

3. Fill out the form at the URL below to make your group official and point the TAs to your blog:
https://docs.google.com/forms/d/1U2QD_o5dso5FP6GYQUCuFZc7BfG0qDmkcv6CHfJ7cso/viewform

Grading
- For all written content, you will be graded on clarity, completeness, thoughtfulness, and presentation (including spelling, grammar, organization, and appropriate length of response).
- For the sketches and storyboards, you will **not** be graded on artistic quality! However, your figures should be in high enough resolution to see clearly, and they should be drawn neatly enough to be easily readable.
- You will be graded on the appropriateness of the people and context you chose for the contextual inquiry. You will also be graded on the extent to which your interview findings yield insight into the problem domain, users, potential solutions, etc.
- For the task analysis questions and task descriptions, you will be graded on thoroughness, thoughtfulness, and appropriateness of your responses. (Have you considered all important factors of the task? Have you chosen tasks that will, in fact, be informative in the design and evaluation of your system? Etc.)
- For the interface design component, you will be graded on both the clarity of your presentation and on the appropriateness of the design. Have you communicated in your text and sketches/storyboards that you have considered this problem domain carefully, have taken your findings from observations and task analysis to heart, and are on the path to a good solution?

FAQ
Q: Where can we get more info on contextual inquiry?
A: For starters, try
http://incontextdesign.com/articles/helpful-tips-to-improve-your-contextual-inquiry-techniques/

Q: Where can we get more info on task analysis?
A: For an overview, check out
http://www.usabilitynet.org/tools/taskanalysis.htm
For a much deeper explanation, look at
http://www.idemployee.id.tue.nl/g.w.m.rauterberg/lecturenotes/UFTtask-analysis.pdf

Q: Where can we get more info on sketching and storyboarding?
A: Lots of information online! For starters:
- Storyboarding: http://hci.stanford.edu/courses/cs147/2009/assignments/storyboard_notes.pdf
- Sketching: Start with http://29thdrive.com/blog/user-interface-sketching/
- For inspiration, check out
  http://webdesignledger.com/inspiration/18-great-examples-of-sketched-ui-wireframes-and-mockups
  (See the original Twitter UI sketch!)
- See list of practical tips at http://ui-patterns.com/blog/User-interface-sketching-tips-part-1
- If you want lots more information (e.g. for course projects, life), check out *Sketching User Experiences: Getting the Design Right and the Right Design*, a book by Bill Buxton, available **online for free** through the Princeton Library / Safari Books Online. (Search by title @ Princeton library website.)

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