CIS 4930 / CIS 6930 User Experience Design

Project #1: Controls, due 09/17/2014

Project Overview

This is an individual assignment. You will look for real-world controls in your daily life that could be improved. You will generate design ideas, and you will **redesign a control of your choice** and present your design in class during critique. **The control you select should not be a software interface.**

Project Detail

Process:

- **Identifying a control.** You should identify 10+ controls you encounter in your daily life that would benefit from a redesign. I suggest you spend a day considering every interaction you have with a physical interface, and noting where breakdowns and opportunities seem to occur. After you have 10+ ideas for controls, you should select one to redesign based on the "importance" of fixing this thing (see grading rubric).
- **Brainstorming design ideas.** Once you have a control selected, you should generate 10+ alternative control designs. These design ideas should span the range of the breakdowns and opportunities you identified, but it is not necessary that **each** design idea address **all** problems. Make a note of which breakdowns and opportunities are addressed by each one. I recommend finding a location to do this activity which is inspiring, focusing, or otherwise engenders creativity in you.
- **Designing a solution.** Once you have generated a good set of 10+ partial or possible solutions, you should draw from these ideas to generate a final design which is grounded in your brainstorming process. Merge ideas, refine or modify ideas, all based on your evaluation of which breakdowns and opportunities are the most critical to address. Solutions will be evaluated on the degree to which they improve over the original control, the usability of the new control, and how well the new control fits into the context of use.

Additional Guidance:

Many controls have "good" versions and "bad" versions already out there. Don't choose a "bad" version when a better one already exists. When you have found a problem worth solving and are thinking of solutions, be sure to search and see how others have addressed this problem. Don't offer a solution that does not advance the state of the art.

To ensure the new designs will work within the context, put yourself in the place of a user at the moment of use and feel what the solution should be. Think about how the interaction with the control fits into the user's performance of their task. What are the action possibilities in the moment? When thinking about context, think about the role a person is enacting, the place they are in, and their intention for being there. Make your solution for a specific context, and not for all cases of this control.

Deliverables:
You will produce two posters, one detailing your **process** and one detailing your design **solution**. Posters can be hand-sketched or digitally produced, but must be printed out to bring to class on the due date. Digital versions should be submitted (either a photo or scan if hand-sketched are acceptable) via Canvas by the assignment due date. Accepted file types will be .pdf, .png, or .jpg. Both posters must be of size 11" x 17". Please note: this is a poster, not a novel or a product specification; text descriptions should be brief. Include only enough text to express the relevant information.

Posters should include but are not limited to the following:

- **Poster #1: Process:**
  - Evidence of the brainstorming of controls you considered, including breakdowns and opportunities for redesign for each control
  - Evidence of how you selected which control to redesign
  - Evidence of the brainstorming process for that control, including breakdowns and opportunities addressed by each design
- **Poster #2: Solution:**
  - Evidence of the final new control design against a comparison of the original control design
  - Evidence of the breakdowns in the original control (reiterated from Poster #1)
  - Evidence of how the new control design solves the problems with the original control, and how users will use the new control
  - Evidence of how you combined your brainstormed design ideas to result in the final new control design

Both posters should include student names in the lower left-hand corner. No UFIDs.

During class on the due date, we will conduct an in-class critique of the design solutions. You should come prepared to speak for 2-4 minutes about your solution, and to critique your fellow students' solutions. **Please note:** due to time constraints within the class period, it is possible that not everyone will have a chance to present. This will not affect your project grade.

Ideas for Contexts:
You may look for controls to redesign in any context (location) you encounter in your daily life. To help kick-start the process, here is a list of suggestions:

- Basement
- Classroom
- Restaurant
- Rental car agency
- Department store
- Coffee shop
- Grocery store
- Parking garage
- Bathroom
- Garage
- Apartment
- Library
- Bus or public transportation
- Automobile
- Airport
- Laundromat
- Movie theatre
- Home office or business center

Project Grading

1. Problem Selection: 20%
2. Brainstorming: 20%
3. Solution: 50%
4. Execution: 10%

The goal of this assignment is to give you an initial experience with ideation and with looking at products through a design lens (breakdowns, opportunities). Each component of this assignment will be evaluated based on the degree to which you engaged in creative thinking versus analytical thinking, evidenced through your deliverables.

Project Rubric

Problem Selection (20%)

- (10 pts) Did you generate 10+ controls you encounter in your daily life which suffer from clear breakdowns and provide clear opportunities for redesign?
- (5 pts) Is this a problematic situation worth addressing? Will the effort and expense of addressing this problem advance the state of the world?
- (5 pts) Did you redesign a single control, or are you working on an entire product? Limit yourself to a single control and to a situation where fixing a single control will solve the problem.

Brainstorming (20%)

- (10 pts) For your selected control, did you generate 10+ alternative control designs which address the range of breakdowns you identified? Each design need not address all breakdowns, but may be focused on 1-2 specific breakdowns.
- (10 pts) For each alternative control design generated, did you identify the breakdowns and opportunities addressed from the original control?

Solution (50%)

- (20 pts) Did you generate a solution clearly grounded in the results of your brainstorming process (e.g., merging, refining, modifying original designs)?
- (10 pts) Does the redesign "significantly" improve the control?
- (10 pts) Does it allow people to elegantly and more effortlessly perform their task?
- (10 pts) Does it harmonize with the context of use?

Execution (10%)

- (5%) Documentation of brainstorming process
- (5%) Documentation of final design solution

*** **Note:** grading of design assignments is inherently subjective. There cannot be a "right" and a "wrong" answer to a design problem, only a design solution that meets or exceeds the user's expectations. I can provide you the above guidelines of what I will be looking for in your design solutions, but in general, if you are applying yourself creatively and coming up with interesting ideas, you will do well on this assignment. Samples of successful posters from Fall 2014 are available on Canvas for your reference.