

Iterative Design Lab

Due: Before Class Tuesday, October 13, 2009

Overview

You will iteratively design and refine a photocopier for which the entire user interface is a **180x300 pixel, black & white** pixel touch sensitive display. This is an **individual** assignment.

Your photocopier should allow people to:

- Set the lightness/darkness of the copies
- Choose the # of copies (up to 50)
- Choose 1 sided -> 2 sided, 1 sided -> 1 sided, 2 sided -> 1 sided, or 2 sided -> 2 sided
- Choose whether or not to collate
- Choose whether or not to staple
- Select which paper source to use. The copier has 3 paper bins, called “A”, “B”, and “C”.
- Provide the ability to have a special cover sheet on multi-page collated runs, where the cover sheet comes from a different bin. For example, there might be colored paper in one bin, and regular paper in another, and the person should be able to specify that the first page of each set should be copied from a different bin.
- Have a START button to begin copying
- Have a STOP button to cancel a copy job while it is running
- Have an account code to bill (e.g., 5150)

The goal of this assignment is to give you a first taste of iterative design driven by user testing.

Process

View the video regarding paper prototyping that is posted on the course website.

Your design should be made with 3x5 note cards. You may not use anything larger, because you are simulating a display with limited resolution. Note the display is monochrome.

Develop 2 or 3 tasks. These tasks should test all important aspects of your design. Good tasks provide a starting condition and a goal, then allow the person to work through how to accomplish that using your interface. A script like “*click A, now click B, type 4, click C*” is not a task.

Use your tasks to test your design with at least 2 people. We recommend 4 people so that you provide yourself with the fullest opportunity to observe interesting limitations of your design.

Prepare a report discussing the results of your testing and three proposed changes, as discussed in more detail in the next section.

More on back...

Deliverable and Grading

You will submit an essay of *no more than 2 pages* of text, approximately 1000 words. Pictures are free, so your actual document can be more than 2 pages, but only 2 pages of text.

Your submission must be in PDF format.

When finished, upload it to the catalyst drop box here:

<https://catalysttools.washington.edu/collectit/dropbox/summary/jaf1978/7152>

Your report should follow the outline provided below.

Bring to class, in a large envelope or some other secure mechanism:

- Your paper prototype (the 3x5 cards from your sessions).
- Instructions on how to “run” your prototype. One way to do this is to number the back of each of your cards, hand-draw a flow chart explaining their connection, and write brief notes explaining any parts that are not immediately obvious.
- The task scripts that you used for testing your prototype.
- Notes that you collected during testing.

Prototype and Instructions (10 pts)

The paper prototype and instructions. The interface should be easy to follow and should include all of the features listed above.

Task Scripts (5 pts)

The task scripts you used in your testing. The task scripts should collectively require interacting with all of the features of your design. Tasks should be plausible scenarios of use, defined in terms of starting conditions and goals (not scripts that tell a person exactly what to click).

Study Notes (5 pts)

Submit your raw notes collected during your testing. Keeping good notes is important to you being able to recall and describe the difficulties that people have with your design.

1. Report: Design, Testing, and Task Discussion (10 pts)

Your report should introduce your interface and briefly provide any rationale you believe is critical to understanding why you designed your interface in the way that you did. You should then discuss your tasks and the process you used for testing your design, again including any relevant rationale for why you chose your approach.

2. Report: Proposed Improvements (10 pts)

You should then propose three concrete and specific improvements to your design, informed by the results of your testing. You should discuss how your design currently works, what the problem is, and what your proposed solution is.

Report: Writing (5 pts)

Your report should be clearly written. The organization should follow the outline, with the section leading into the next in a logical manner.