HCI and Design
Today

Assignment 1 is graded
Assignment 3 is posted

Understanding prototype fidelity
What is Digital Prototyping?
Introduction to various digital prototyping tools
Reminder: What is a prototype?

A prototype is an incomplete, early version of a product.

There are many approaches to building prototypes for software user interfaces.

UI prototypes can be as simple as a drawing on a piece of paper or as complex as functional web application.

- Or anywhere in between those extremes!
Lo-Fi vs. Hi-Fi

Traditionally, prototypes are categorized as either lo-fi (low fidelity) or hi-fi (high fidelity)

Fidelity can be thought of as how close of an approximation of the final product is being attempted

In this class, we will often use lo-fi as a synonym for paper prototyping and hi-fi as a synonym for digital prototyping

Your design process should use *multiple* levels of fidelity as you move from an idea to a fully designed product
Dimensions of Fidelity

Fidelity can be broken down into four basic dimensions:

- Breadth
- Depth
- Look
- Interaction

Breadth

The “breadth” of a prototype refers to how much of the product’s functionality is represented in the prototype

- A very narrow prototype only represents a single feature
- A broad prototype represents all intended functionality

- Prototypes should generally be as broad as needed to cover basic or most important tasks, but not much more
The “depth” of a prototype refers to how much of the prototype is functional, and how robust it is.

- A very shallow prototype has no backend at all and is hard-coded to respond as though the user had provided ideal input.
- A deep prototype has some logic and error-handling capabilities.
- At first glance, depth may seem unimportant, but it affects the amount of exploration a user can do.
- Thus depth can actually have a profound influence on user testing!
Look

“Look” is probably what most people think of when they think of prototype fidelity

It refers to how accurately a prototype represents the product’s intended appearance, including fonts, colors, and graphics

It’s generally a good idea to hold off on something that has a high fidelity look until later in the design process

◦ People are less likely to point out flaws and mistakes
◦ People can easily fixate on the “little” things
◦ You are less likely to throw it out and start again
Interaction

“Interaction” refers to how the prototype handles input and output

Interaction can often be simulated

For example, you might create a digital prototype for an iPad application which runs on your desktop and responds to traditional a traditional mouse and keyboard

You might use hyperlinks or animation to simulate clicking interaction (e.g., in Powerpoint)
Once you have developed a lo-fi prototype and solicited feedback on it through peer critique and user testing:

- You may wish to create another lo-fi prototype
  - (isn’t iterative design fun?)
- Or you may be ready to move on to a hi-fi prototype

Remember, a high fidelity prototype is a substantial time investment!

It is good for evaluating a working design that has been derived from a few rounds paper prototyping.
Things you will need to consider…

Choice of tool (more in a minute)
Typography / font
Color palette
Device
Interaction
Implementation

Start by creating a digital version of your paper prototype
Then iterate through user testing and feedback

Don’t design a beautiful prototype that can’t be implemented!
Digital Prototyping Tools

There are literally hundreds...
And more released every day.
I don’t know them all!

What you choose will depend on a variety of factors...
Choosing a tool: Considerations

• **Learning Curve**
  • How long will it take me to learn this tool?

• **Usage**
  • Which device will it be used on?

• **Fidelity**
  • Will it showcase layout structure or complex interactions?

• **Sharing**
  • Can I collaborate with others on the prototype?

• **Cost**
  • How much am I prepared to pay for this tool?
Comparing prototyping tools

A cool tool to help you do this: http://www.prototypr.io/prototyping-tools/
Powerpoint or Keynote

All platforms

Costs money ... but many of you have it already
Sketch

Only for Mac
Costs money ($99)
Student discount ($49?)
Figma

All platforms

3 projects free
Proto.io

All platforms
Free trial (15 days)
Then monthly fee
InVision

All platforms
One project free, then monthly subscription
Comparing prototyping tools

Let’s Practice

Goal: work through a tutorial using a new digital prototyping tool.

Comparison tool: http://www.prototypr.io/prototyping-tools/

Suggestions (But you can also find your own.....)

Sketch: http://megumi.co/learn/sketch.htm


InVision: https://support.invisionapp.com/hc/en-us/articles/203009719-How-do-I-get-started-


Submit: Upload a screenshot of your work to this google folder.