Prototyping
Plan for today

• A quick pass through takeaways from the reading
• Dig in on this week's prototyping + design critique activity!
Prototyping

“…users can't tell you what they want, but when they see something and get to use it, they soon know what they don't want.”

Interaction Design: Beyond Human - Computer Interaction by Yvonne Rogers et al.
Prototype Roles

- Make you think harder, plan more thoroughly about what you want to build
- Help you solicit feedback on the thing you plan to build
Low- vs. High-Fidelity Prototypes
Interactable, higher-fidelity

Low-Fidelity Prototypes

• Claims you may hear about low-fi prototypes:
  • People love to give you feedback on font size and if your icons make sense to them
  • If you don’t want that kind of feedback, if you want feedback on elements deeper than aesthetics, consider low-fidelity prototypes
  • Also if it looks like you drew it in crayon and didn’t sink a lot of time into it, people are more willing to criticize, which is what you want

• Personally haven’t found research-backed evidence of the above
  • (Send me your references!)
• But…lots of evidence that you get just as much/just as good feedback from low-fi, and they’re faster and cheaper to make, faster to tweak and change
Low-Fidelity Prototypes

• **But**...lots of evidence that you get just as much/just as good feedback from low-fi, and they’re faster and cheaper to make

• ...with the result that maybe **you’re** more willing to criticize yourself and to throw things away when you realize they’re not right
A nice resource on the case for low-fi prototypes

- With good arguments for the claims mentioned on prior slides
Wizard-of-Oz Prototyping

- Like what we did the very first day of class!
- Lets us get around engineering effort by having a human do the work that our tool will eventually automate
  - Human can be:
    - Compiler, interpreter
    - Program synthesizer
    - Programming environment
    - Program transformation tool
    - …
We’ve talked about lo-fi...

• ...because for today’s purposes, we’re mostly interested in early-stage formative studies

• But of course we want to be getting feedback from users at all points!

• Calling it low-fidelity naturally suggests the existence of high-fidelity...
<table>
<thead>
<tr>
<th>Type</th>
<th>Advantages</th>
<th>Disadvantages</th>
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| Low-fidelity prototype | Lower development cost  
Evaluates multiple design concepts  
Useful communication device  
Addresses screen layout issues  
Useful for identifying market requirements  
Proof of concept | Limited error checking  
Poor detailed specification to code to  
Facilitator-driven  
Limited utility after requirements established  
Limited usefulness for usability tests  
Navigational and flow limitations |
| High-fidelity prototype | Complete functionality  
Fully interactive  
User-driven  
Clearly defines navigational scheme  
Use for exploration and test  
Look and feel of final product  
Serves as a living specification  
Marketing and sales tool | More resource-intensive to develop  
Time-consuming to create  
Inefficient for proof-of-concept designs  
Not effective for requirements gathering |
Let’s do some prototyping!

- In-class prototyping and design critique activity:

  - https://docs.google.com/document/d/1vWzZWg8l_kOexNltuEDX0-K1m8DeqnuveSLKzCc6Eqc/edit