James Landay CS Summer Camp: **Designing & Prototyping Smart Applications**

Early Stage (lo-fi & med-fi) Prototyping

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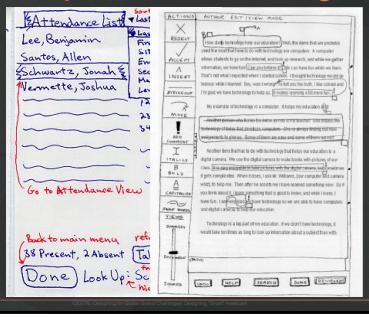
Summer 2018
July 18, 2018

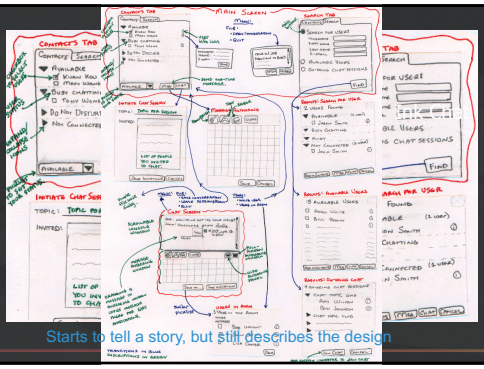
Outline

- Sketching vs. Storyboarding
- Low-fi prototyping
- Conducting a low-fi test
- Selecting tasks
- Medium-fi prototyping

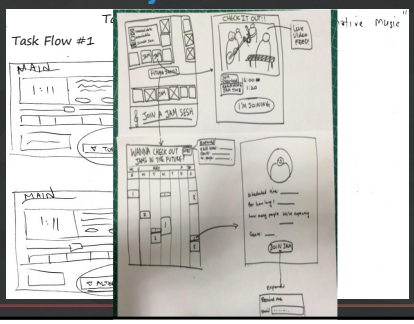
Sketches & Storyboards in UX Design



Sketches & Storyboards in UX Design

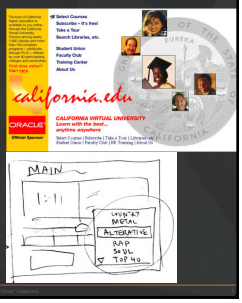


Sketches & **Storyboards in UX Design**



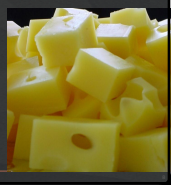
Fidelity in Prototyping

- Fidelity refers to the level of detail
- High fidelity?
  - –prototypes look like the final product
- Low fidelity?
  - –artists renditions with many details missing



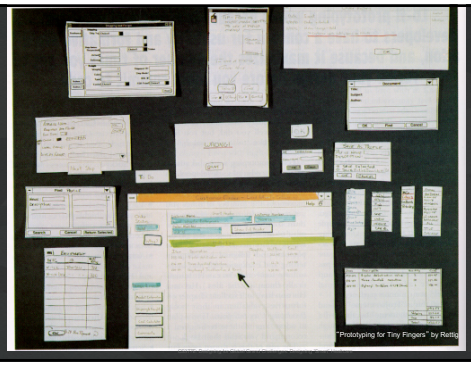
Hi-fi Prototypes Warp

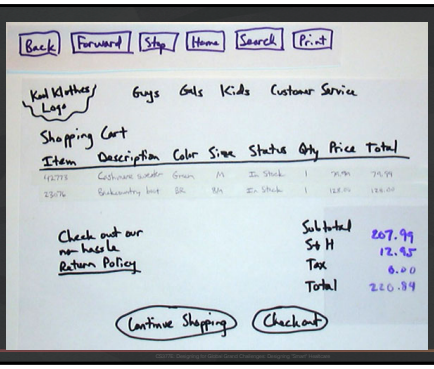
- Perceptions of the tester/reviewer
  - –representation communicates "finished"
    - comments focus on color, fonts, & alignment
- Time
  - –encourage precision
    - specifying details takes more time
- Creativity
  - –lose track of the big picture

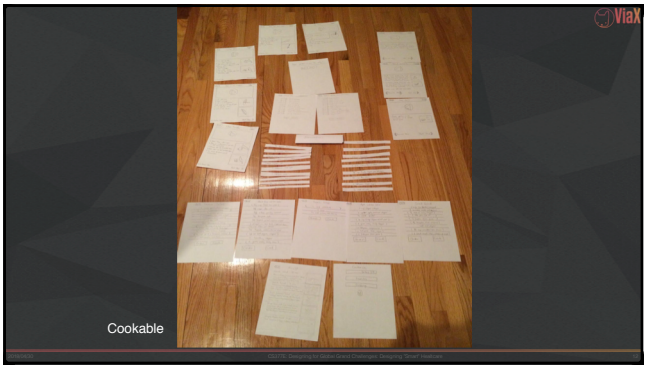


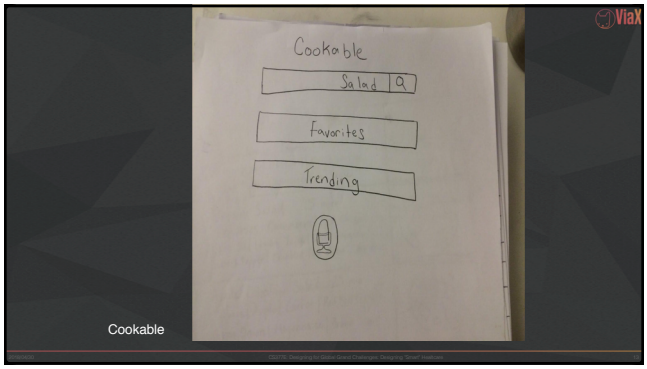
Why Use Low-fi Prototypes?

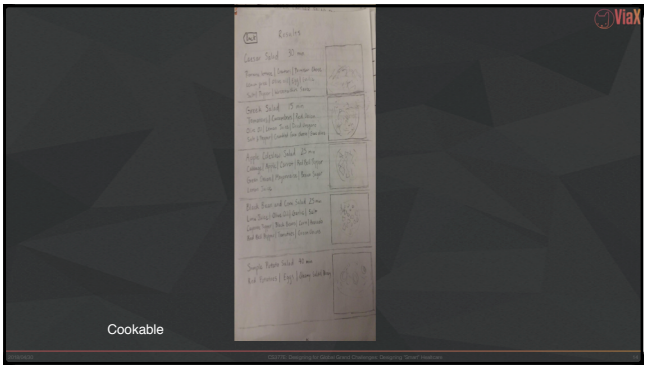
- Traditional methods take too long
  - –sketches → prototype → evaluate → iterate
- Can instead simulate the prototype
  - –sketches → evaluate → iterate
  - –sketches act as prototypes
    - designer "plays computer"; others observe & record
- Kindergarten building skills
  - –allows non-programmers to participate

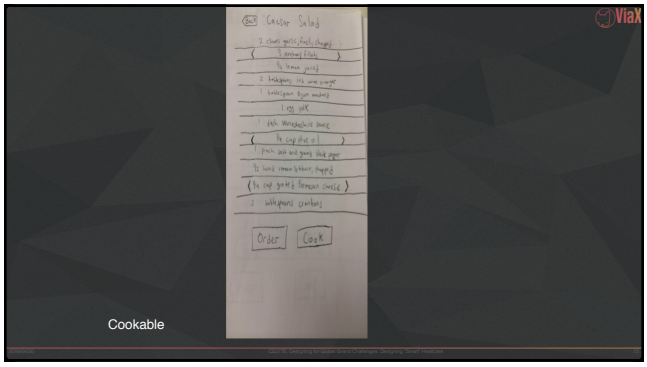


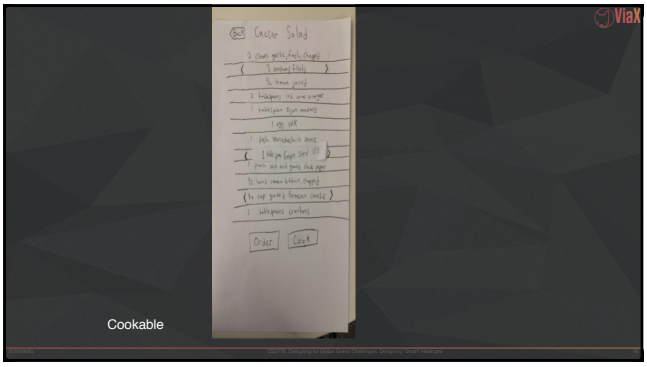


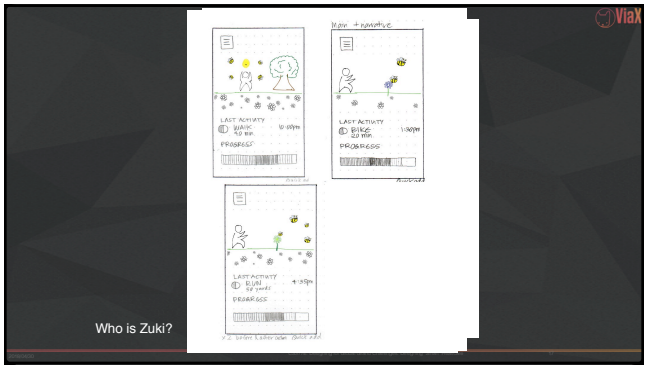












Constructing the Model

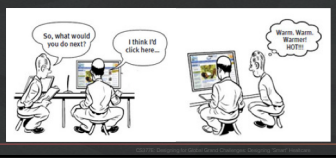
- Set a deadline
  - –don't think too long - build it!
- Draw a window frame on large paper
- Put different screen regions on cards
  - –anything that moves, changes, appears/disappears
- Ready response for any user action
  - –e.g., have those pull-down menus already made
- Use photocopier/printer to make many versions

Preparing for a Test

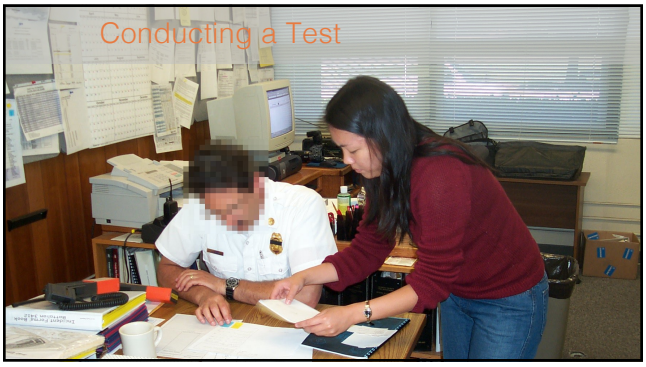
- Select your "customers"
  - –understand background of intended users
  - –use a questionnaire to get the people you need
  - –don't use friends or family
- Prepare scenarios that are
  - –typical of the product during actual use
  - –make prototype support these (small, yet broad)
- Practice to avoid "bugs"

Conducting a Test

- Four roles
  - –greeter – puts users at ease & gets data
  - –facilitator – only team member who speaks
    - gives instructions & encourages thoughts, opinions
  - –computer – knows application logic & controls it
    - always simulates the response, w/o explanation
  - –observers – take notes & recommendations



Conducting a Test



Wonderlust

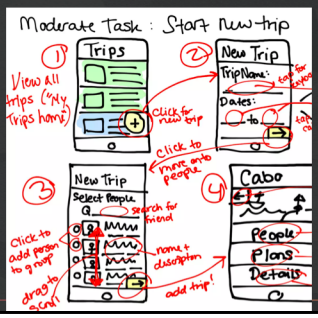
Who is Zuki?

Evaluating Results

- High level questions about your design
  - –does it address the problem you want to solve?
  - –is this the right realization of your solution?
- Sort & prioritize observations
  - –what was important?
  - –lots of problems in the same area?
- Make changes & iterate
  - –even iterate between tests

Fidelity in Prototyping:

Instagator



Fidelity in Prototyping

Task 1: Support Destination Polls

Summary

- Prototypes are a concrete representation of a design or final product
- Low-fi testing allows us to quickly iterate
  –get feedback from users & change right away