Early Stage Prototyping
*Low-fi and Medium-fi*

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Outline

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

**Sketches & Storyboards in UX Design**

Starts to tell a story, but still describes the 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

Prototyping for Tiny Fingers

Cookable
Cookable

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

Who is Zuki?
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

Typical session is 1 hour
- preparation, the test, debriefing
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

Commercial Tools

Remote Testing w/ Skype, Hangouts, ...

Task-based Design & Evaluation

• Real tasks customers have faced / will face
  – collect any necessary materials

• Do your tasks support the problem you are solving?

• Mixture of simple & complex tasks
  – simple task (common or introductory)
  – moderate task
  – complex task (infrequent or for power customers)

What Should Tasks Look Like?

• Say what customer wants to do, but not how
  – allows comparing different design alternatives

  Good

  Bad

What Should Tasks Look Like?

• Say what customer wants to do, but not how
  – allows comparing different design alternatives

• Be specific – stories based on facts!
  – say who customers are (use personas or profiles)
  – name can really differ depending on who
  – name names (allows getting more into later)
  – characteristics of customers (job, expertise, etc.)
  – forces us to fill out description with relevant details

• Some should describe a complete goal
  – forces us to consider how features work together
  – example: phone-in bank functions
Using Tasks in Design

• Write up a description of tasks
  – formally or informally
  – run by customers and rest of the design team
  – get more information where needed

Let my friends know where I am
Manny is in the city at a club that he wasn’t planning to go to and would like to let his girlfriend, Sherry, know where he is and be notified when she is about to get to the club.

Task Flows Show How to Do the Task

• Task Flows are design specific, tasks aren’t
• Task Flows force us to
  – show how various features will work together
  – settle design arguments by seeing examples
    • only examples → sometimes need to look beyond
• Show users storyboards to get feedback

Exercise: Task Definition

• 1 Easy task
• 1 Moderate task
• 1 Expert task

Fidelity in Prototyping: Instagator

Low-fi

Medium-fi
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

Further Reading

Prototyping

- Books
  - Paper Prototyping: The Fast and Easy Way To Design and Refine User Interfaces, by Carolyn Snyder, Morgan Kaufmann, 2003
- Articles
  - "Prototyping for Tiny Fingers" by Marc Rettig, in Communications of the ACM 1994

Next Time

- Lecture
  - Low-fi Prototype Test Results
- Project
  - Define tasks
  - Start medium-fi prototype