Prototype Design

Prototypes
- interactive design model of the product

Low-fidelity VS High-fidelity

- Breadth: number of covered features
- Depth: degree of functionality
- Appearance: building means
- Input methods: device mediation
Prototype Design

Prototypes - interactive design model of the product

- Low-fidelity
- High-fidelity

Tangible & Testable Artifacts

- Low-tech
  - Partial functionality
    - Simulated interaction
  - “Full” functionality
    - True interaction

- High-tech
Prototype Design

Creating Paper Prototypes

- One solid base
- Separate sketches for each screen
- Input related elements
- Separate sketches for overlays
- Sketches for changing elements
- Simulate intended layout
- Consistent style of elements
- High level content where possible
- Minimum colors
- Should look and feel like a sketch

Flickr. CannedTuna
Prototype Design

Paper Prototyping Tips

Work fast!

- Make it large
- Add ideas as they come
- Make it monochrome

Tips:
- Preprint widgets
- Use verbal description
- One sketch per screen
IDEO: An early prototype for the Gyrus ENT Diego, a surgical tool

Image by Victor Schade, source: Creative Edge Products
Understanding how to use a remote is made easier by a friend.

*Photo Nicolas Zurcher*
Create Design Ideas

- Static representations of the product
  - Sketches
  - Wireframes
  - Mockups

Visualization

Prototype Design

- Prototypes
  - Interactive design model of the product
    - Low-fidelity
    - High-fidelity

Testing and Evaluation
Prototype Design

Paper Prototyping Evaluation

1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
1. Identify testing goals
2. Identify items to test
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- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
1. Identify testing goals
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- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?

- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
1. Identify testing goals

2. Identify items to test

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- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough
Identify testing goals

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- ~5 testers is usually enough
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on a fly
- Recording setup
2. Identify items to test
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?

3. Choose testers
- Identify users' group
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4. Prepare materials
- Which components/features are you testing?
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5. Assign team roles
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on the fly
- Recording setup
- "Computer"
- Interviewer
- Note-taker/observer

6. Run evaluation
Prototype Design

The Wizard of Oz technique - a human simulates the responses of the system

Low-fidelity prototype → The Wizard of Oz technique - a human simulates the responses of the system → High-fidelity prototype

John F. (“Jeff”) Kelley

OZ = Offline Zero

Prototype Design

Low-fidelity prototype

The Wizard of Oz technique - a human simulates the responses of the system

High-fidelity prototype

John F. ("Jeff") Kelley

OZ = Offline Zero

You need:

- Detailed test plan with test scenarios
- Script of instructions for the facilitator, wizard, participants
- Procedure for the wizard to properly respond to input from a participant
- The “wizard”
1. Identify testing goals

- What do you want to know?
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2. Identify items to test

- Which components/features are you testing?
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6. Run evaluation
1. Identify testing goals
   - What do you want to know?
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2. Identify items to test
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   - Main prototype with all screens, elements and input methods
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5. Assign team roles
   - “Computer”
   - Interviewer
   - Note-taker/observer

6. Run evaluation
   - Present a task script to your participant
   - Give goals, not directions/instructions
   - Ask about reasons, opinions, suggestions. Ask to think aloud
Prototype Design

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