Interaction Design

Chapter 7 (May 13, 2015, 9am-12pm):
Prototyping UX - From Sketch to Prototype
Overview:

- Intro & Design process Phase
- Values and Levels of Prototyping
- UX Prototyping Techniques
- Prototyping Case Study
User Experience Design

- useful
- usable
- valuable
- findable
- desirable
- accessible
- credible

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Overview

Tell a story
Make it tangible

Prototype
Some Examples of a school called Interaction Design Institute Ivrea ... (IDII)
Task: Design a new interface for one of the functions of a radio alarm clock or phone answering machine.
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For the Designer:
- Exploration
- Visualisation
- Feasibly
- Inspiration
- Collaboration

For the End User:
- Effectiveness / Usefulness
- A change of viewpoint
- Usability
- Desirability

For the Producer:
- Conviction
- Specification
- Benchmarking

source: [5]
It’s really hard to design products by focus groups. A lot of times, people don’t know what they want until you show it to them.

Steve Jobs
Fidelity v. Resolution

low resolution
low fidelity

high resolution
low fidelity

high resolution
high fidelity

source: [5]
Low Resolution  |  High Resolution

Less Details  |  More Details

Focus on core interactions  |  Focus on the whole

Quick and Dirty  |  Deliberate and Refined

Early Validation  |  Concrete Ideas

source: [5]
1st Iteration
low-res/low-fi
4th Iteration high-res/high-fi
80/20 rule
A principle for setting priorities: users will use 20% of the features of your product 80% of the time. Focus the majority of your design and development effort (80%) on the most important 20% of the product.

source: [7]
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Paper-prototyping
What is it?

Paper prototyping is a widely used method in the user-centered design process, a process that helps developers to create products/screen based applications that meets the user's expectations and needs.

It is **throwaway prototyping** and involves creating rough, even hand sketched, drawings of an interface to use as prototypes, or models, of a design.
History

Paper prototyping started in the mid 1980s and then became popular in the mid 1990s when companies such as IBM, Honeywell, Microsoft, and others started using the technique in developing their products.
Paper prototype of a typical form-filling screen

Paper prototype of a tabs-based design

User test of a low-fidelity paper prototype of a website

Typical set-up of the usability laboratory for a test session with a paper prototype
User test of a device-based interaction

User test of a high-fidelity paper prototype of a homepage.

Testing hardware user interfaces: mockup of a kiosk.
Video-prototyping

http://2.bp.blogspot.com/-CBtuui7rZ4/U0MBJkCUfgI/AAAAAAAAEi4/fYp1bJQcdVY/s1600/Canon+XF205+left+side+view.jpg
Acting out the Scenario
EXAMPLES
Video Prototypes
low resolution
low fidelity
(a whole new world)
A whole new world
low resolution
high fidelity
(crossing on demand)
Zebra Zone
The Smoke & Mirror Approach
Sketching with Hardware
Force Sensor

Potentiometer

Magnet Switch
Distance IR Sensor  
Touch QT Sensor  
Ultrasound Sensor
Quick video overview
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Some Examples from a school called Copenhagen Institute of Interaction Design (CIID)
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Phase 1
User Research
- Field Research
- Desk Research

Phase 2
Analysis and Concept Generation
- Concepts

Phase 3
Prototyping
- Low Fidelity
- High Fidelity

Phase 4
Usability Testing
- Final Prototype

Phase 5
Implementation
He noticed that his neighbor Helga often get visits from her grandchildren. Apparently they look at old photos, but the album looks a bit strange.

One day he talks with Helga about kind of photos in it, and why the knot are so important. He is curious.

He: So you have photos in? Do you dont see a photo from Norway in here? And said.

Helga: Yes, there is a photo in the album that is a happy picture from her new house.

The photo is showing Helga's husband on a vacation in Norway 1964. The photo covers the whole screen, so no other buttons can be pressed. She touches the photo again, and it shrinks to it's original size.
On the right side of the screen is something that looks like a big wheel. Helga puts her hand on the screen, where the wheel is, and moves it up. The wheel starts rolling and numbers representing years start moving. When the year 1964 is centered, she removes her hand.
Viseaften
Journalistforeningen
1968, Music
Thanks for your attention!
References (books)

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ISBN-10: 0262134748

Bill buxton: sketching the user experience
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ISBN-10: 0123740371

Don norman: the design of everyday things
Publisher: Basic Books (September 17, 2002)
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Kevin mullet: designing visual interfaces
Publisher: Prentice Hall PTR (December 15, 1994)
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www.arduino.cc
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