CS 4249: Prototyping

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Week 3
The design “process”

Needfinding
  ...gathering
  ...generation
  ...elicitation
  ...engineering

Requirements / Problems

Scenario Corpus

Conceptual Design

Physical Design

Scenarios in which
Personas are performing
Tasks are done to meet
Goals

Adapted from Benyon, Ch 9
Prototyping

- Use cases
- Design Language
- Mental Models
- Personas
- Scenarios
- Conceptual Design
- Physical Design

- Logic
- Function
- Structure
- Content
- Interaction: Who does what
- Representational: How it looks
- Operational: How it behaves

Adapted from Benyon, Ch 9
Bill Verplank on Interaction Design

1. How do you do?
   - Direct / Continuous
   - Indirect / Discrete

2. How do you feel?
   - Hot / Exact
   - Cold / Exploratory

3. How do you know?
   - Maps
   - Paths
A continuum

Lo Fi

“Paper Prototypes”
- Focused on underlying design ideas
- Broad scope
- Purposefully lack detail
- Quickly produced
- Thrown away
- Aid creative ideation
- Conceptual design*

Hi Fi

- Detailed evaluation of the main design elements
- Narrow scope: particular design element
- Useful for client acceptance
- Aid refinement towards a final product
- Physical design*
Methods

- Personas
- Scenarios
- Storyboarding
- Sketching
- Mood Board
- Card Sorting
- Video Prototype
- Navigation Maps

IDEO’s 51 methods in 4 suites:
- Learn
- Look
- Ask
- Try

Quick Q: Where along the continuum do these fit?
Quick Q: How are these suites related to our lectures?

28 Aug 2012
CS 4249: Phenomena and Theories of HCI

www.ideo.com
Personas

- As concrete and detailed as possible, like a real person
  - Representative of a cluster of users
  - Has a name, likes, dislikes, cultural background, religious views, etc.
  - Easy to relate to, or communicate about (to others)
  - Best based on observations or interviews

Karo, 27
“Wo ist was los und wo sind meine Freunde?”
A scenario spells out what a user would have to do and what he or she would see step-by-step in performing a task using a given system. The key distinction between a scenario and a task is that a scenario is design-specific, in that it shows how a task would be performed if you adopt a particular design, while the task itself is design-independent: it's something the user wants to do regardless of what design is chosen.

Developing the scenarios forced us to get specific about our design, and it forced us to consider how the various features of the system would work together to accomplish real work. We could settle arguments about different ways of doing things in the interface by seeing how they played out for our example tasks.

From *Task-Centered User Interface Design*
Storyboards: Paths

- Manifestation of a scenario
- Rough sketches of the scenario
  - Image only
  - Or with text
- Helpful with users to visualize

Previously from deniselynhue.com
Theory on the prototyping act

• They act as filters
  – Informs the final design
  – Traversing the design space, a dimension at a time

• They act as manifestations
  – Design embodied into a realization
  – Allows reflection, discovery of new dimensions
  – Examines resolution “fidelity” and scope “context”
Marshmallow Challenge

TALKS
Tom Wujec: Build a tower, build a team

FILMED FEB 2010 • POSTED APR 2010 • TED2010

bit.ly/9Rs8wB
Play

(Iterate)
Summary

• Prototyping is center of the tripartite design process, along with needfinding and evaluation
  – Not linear (although presented this way); cyclical

• Methods range in commitment/fidelity and purpose

Don’t forget: design is the still the critical element