

# CS 4249: Prototyping

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Week 3

# The design “process”

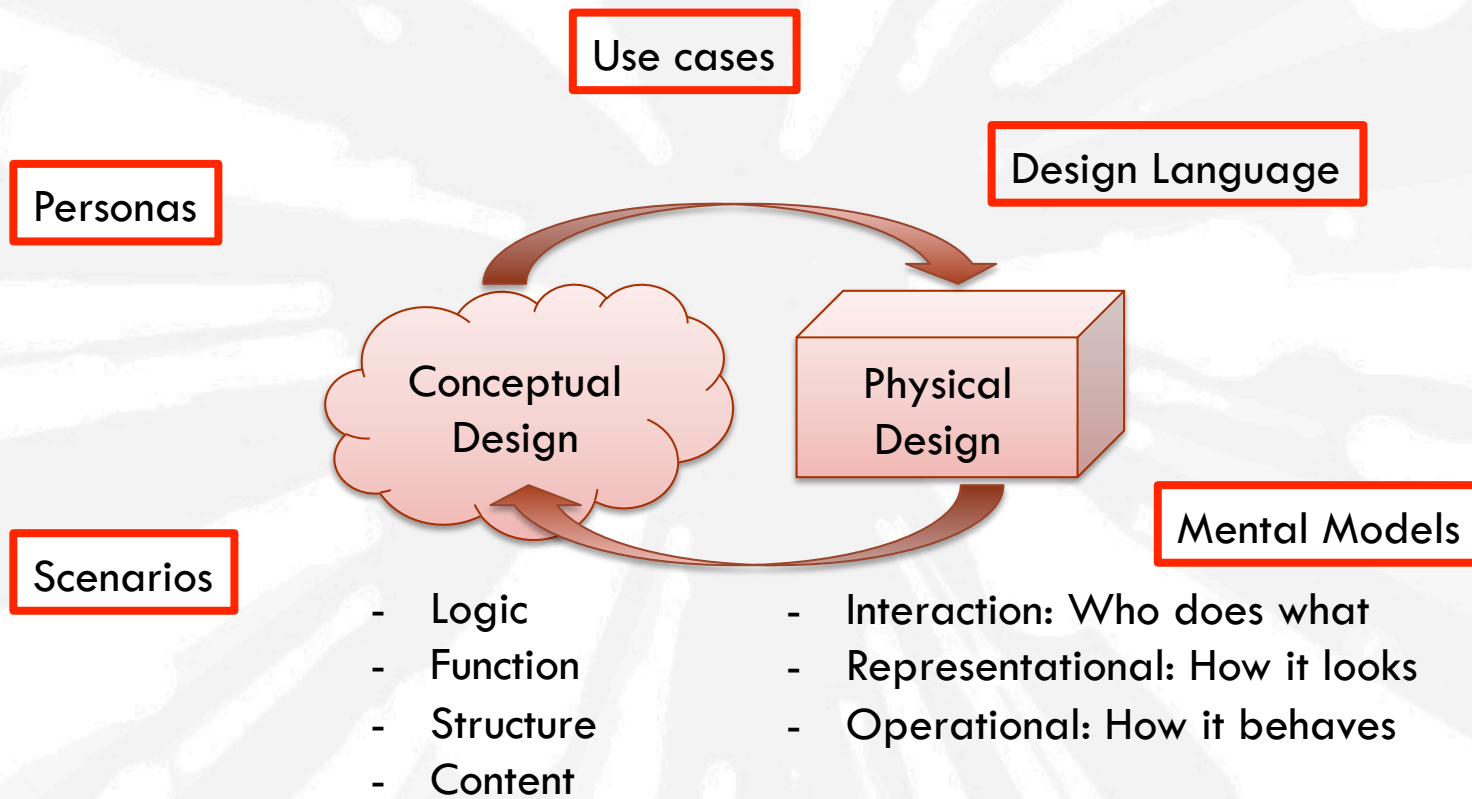
## Needfinding

- ...gathering*
- ...generation*
- ...elicitation*
- ...engineering*



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

# Prototyping



# Bill Verplank on Interaction Design

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[bit.ly/7qkOoG](http://bit.ly/7qkOoG) Image: Wikipedia

One of Xerox Star's graphical designer.

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

Hi Fi



“Paper Prototypes”

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

- 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
- ...

**Quick Q:** Where along the continuum do these fit?

IDEO's 51 methods in 4 suites:

- Learn
- Look
- Ask
- Try



[www.ideo.com](http://www.ideo.com)

**Quick Q:** How are these suites related to our lectures?

# 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

"Heute ist der Anfang vom Rest  
deines Lebens – Carpe diem!"

"Wo ist was los  
und wo sind meine  
Freunde?"



[www.guerillagirl.de](http://www.guerillagirl.de)

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.

## Scenarios

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 [deniselynshue.com](http://deniselynshue.com)

# Theory on the prototyping act

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- They act as filters
  - Informs the final design
  - Traversing the design space, a dimension at a timeA red-bordered box with the word "Refinement" inside, with a white arrow pointing to the left towards the list.
- They act as manifestations
  - Design embodied into a realization
  - Allows reflection, discovery of new dimensions
  - Examines **resolution** “fidelity” and **scope** “context”A red-bordered box with the word "Broadening" inside, with a white arrow pointing to the left towards the list.

# Marshmallow Challenge

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TALKS

Tom Wujec: Build a tower, build a team

FILMED FEB 2010 • POSTED APR 2010 • TED2010




[bit.ly/9Rs8wB](http://bit.ly/9Rs8wB)

# Play

(Iterate)

# Summary

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- 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 still the critical element