Prototyping

Selected material from *The UX Book*, Hartson & Pyla
- Evaluate design before it’s too late and too expensive
Prototypes

- Horizontal or vertical or “T”
- Exploratory or evolutionary
Prototypes

- Must be less than the full system
- **Horizontal** – overview of feature coverage, but more abstract so less effective evaluation
- **Vertical** – more depth for a few features with more effective evaluation
- “**T**” – the “middle way”, mostly horizontal with a few vertical features
- **Local** – where horizontal and vertical slices intersect; analyze isolated concern, e.g., icon design
Fidelity of Prototypes

- Reflects **how “finished”** prototype is perceived to be by customers and users
- **Breadth** - % of features covered
- **Depth** – degree of functionality
- **Look** - appearance, graphical design
- **Feel** - input method, degree of interaction
Fidelity of Prototypes

- **Low fidelity**
  - **Paper** sketches, story boards or simple wireframes
  - Low fidelity in look and feel, more abstract
  - **Can be high fidelity** in depth with **human voiceover**
  - Can be effective in user evaluation

- **Why paper?**
  - Easy, fast, and **low cost** to create and change
  - **Creative focus on design not** on the drawing or programming **tool**
  - Designer in **control** during user evaluations
Fidelity of Prototypes

- **High fidelity**
  - Include *details* of appearance and interaction behavior
  - Users see *more complete* design
  - *Advanced wireframes* with navigation (medium fidelity)
  - Programmed without being the final product
    - Backend simulation
    - Storyboard animations
What Type of Prototyping?

- **Progress** prototype **fidelity** during the design life cycle to...
- Understand the **ecological** (low), **interactive**, and **emotional perspectives** (high) and to ....
- **Focus on behavior first** then appearance

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Cautions

- Rationalize **cost-value tradeoffs** to gain budget support
- **Do not oversell** - capabilities that can’t be delivered, development completeness
- **Do not overbuild** – “good enough” as a prototype
  - Decide early on exploratory or evolutionary prototypes

Your software engineering challenge – build an exploratory prototype within the course constraints