What Normally Happens …

- We’ve collected data from real users and from competitive products.
- We’ve determined the Mental Models our users have by developing Personas.
- We have a good idea of the Scenarios of use that our users will attempt.
- It’s pretty tempting to go find a computer and start building something!

Put Down The Laptop.

- Not! Wait! Once we start using the computer (Photoshop, Coding, Alias) …
  - … we stop thinking conceptually and start thinking pragmatically.
  - … we focus on the software tool’s constraints instead of the problem’s constraints.
  - … we pay attention to painstaking details (colors, font sizes, pixels) instead of overarching concepts (users, goals, needs).

Storyboarding: Overview

- Borrowed from the film/animation/comic industries.
  - One panel = One Scene.
  - Presented to a group of people.
  - Gauge their reactions, understanding.
  - Takes time up front, saves time later.
- Intended to visualize our scenarios.
- Provide a mechanism to gracefully move from conceptual design to screen design.
- Allow us to make mistakes early, in paper (cheap and quick), instead of later, in software (expensive and tedious).

Storyboarding: General Concepts

- Screens
  - You are not designing the detailed interface yet.
  - Include general layout, navigation elements, core concepts.
  - Capture relevant information, remove extraneous information.
- Scenes
  - Personas in their physical context.
  - Cultural/Interpersonal relationships or handoffs.
  - Show sequencing of main ideas.
- Although these can be quite visually attractive, they are not works of art:
  - Black & white, pencil.
  - Quick.
  - No renderings!
Storyboarding: Tips

- Use long paper
- Use one square per scene
- Number each scene
- Visually group similar scenes into conceptual tasks
- Include a text description of each scene
- Call out interesting or important aspects into the margins and annotate them

Storyboarding: An activity

In groups of two or three, create storyboards for the following scenario:

**Melvin Freshman is going to check his email on the computer in the cluster in Gulfstream. He's expecting a pressing email from his girlfriend.**

Start as Melvin enters the computer lab; be sure to list your assumptions as you progress.

Prototyping: Overview

- A representation of the product
- Determining level of fidelity required is imperative!
- Iterative, so it’s hard to be “done”:
  - Paper prototypes always come first.
  - A progression and evolution of ideas and fidelity (level of finish)

Prototyping: A Progression: Paper

- Quick
- Portable
- Easy to edit
- Easy to annotate
- Easy to copy
  - Can still focus on visualizing the concepts without being bogged down in the details
  - Sketches of main ideas, concepts, navigation paths
  - Important ideas are annotated for later reflection

Prototyping: A Progression: Wireframe

- Able to focus on navigation and composition while ignoring many other factors
- Solidify concepts
- Determine composition and layout
- Identify navigation between pages as well as navigation on a specific page
- Identify vocabulary used for main concepts, "greek" the rest of the content

Prototyping: A Progression: Visual Elements

- Focus attention on extended emotional responses, giving the interface human qualities
- Begin to add visual, emotional qualities ("womanly", "child-like", "businesslike")
- Refine font sizes, choices
- Refine vocabulary and content placement
- Solidify composition, navigation and layout
Prototyping: A Progression: Style Refinement

- Visually complete the interface to make it "sexy"
- Add colors
- Solidify vocabulary and content placement
- Solidify font choices, visual style

Prototyping: A Progression: A Cycle

- But really, our progression is an iterative cycle.
- It’s ok to go do more paper prototyping at any stage!

Rule of thumb:
You will become emotionally attached to your visual designs, and will be hesitant to change them - even when they are unusable! Push them off as long as you can!

Prototyping: Fidelity

- Static vs. Dynamic
- Level of “polish”
- What is the purpose of the prototype?

Prototyping: Some Tricks

- The photocopier is your friend
- Spend as much time as possible on paper before moving to the computer
- Scan your paper prototypes, add an Image Map in Dreamweaver, and get an instant clickthrough
- Photoshop/Illustrator are great for wireframes – turn layers on/off as necessary
- Powerpoint can also be used with "link hotspots" for a quick clickthrough

Prototyping: An activity

In groups of two or three, create prototypes for the following scenario:

Melvin now wants to send his girlfriend a greeting card. Prototype a website that allows him to create a musical greeting card and then send it to his girlfriend.

Wrap Up

- Mental Models
- Personas
- Scenarios
- Storyboarding
- Prototyping