Designing User Interfaces

- User Interface: People’s perception of “The Product”
- Good UIs have two well-integrated conceptual parts:
  - Form / Visual Design
  - Functionality / Navigation
- Implementing good UIs requires harmony between them

Visual Design is about

- Information “Resolution”
  - How much you try to tell in a screenshot
  - Especially if you convey quantitative information
- “Interaction” between Design Elements
  - It draws your attention, then what?
- Color Issues -- Support or interfere with UI?
- Typographical Issues -- Support or interfere with UI?
- Overall Design “Quality”

The Problem

Intelligent human

Powerful machine

Map page to screen?

- Scrolling requires users to rely on visual memory (a weak skill)
- Multiple screens per page make it difficult
  - to make a comparison, a choice
  - to keep track of context (“Where am I?”)
- Multiple screens management adds lots of administrative debris (buttons, menus, navigational images, etc.)
- Design needs to increase “signal” & reduce “noise”

Principles of design

Alignment
Contrast
Proximity
Repetition

ways to achieve unity

Alignment is central to understanding

Lay out the page with grids

Robin Williams' cheat sheet: http://www.urlsinternetcafe.com/classroom/features/featuresgood.html
Negative grid space can be powerful

Break the rules only when you know why

Diagonals add tension

Think of usage

Alignment is not strictly via squares
Alignment is not strictly straight lines

**Contrast** brings out the focal point

Contrast should be intentional

**Visual weight**

Anything that is **different** from the rest

Contrast in:
- Color
- Size
- Shape
- Photo v. drawing
- Orientation
- Font

Where you place graphics or text creates or upsets balance

**proximity**
The edges of the page and the center seem to exert a magnetic force on everything within the page.

Margins relax edge magnetism.
empty space can be effective
Map
physical or mental, is a very familiar metaphor.

Example of a map used in lieu of menus or buttons

Historylines
very useful but tricky to compress tons of data in a small screen

A good example of increasing information density

Beware!
Form beats function

Screen real estate sold cheap