Today’s Lecture

- Playing with Sound
- Aesthetics
  - More examples
- Focus / emphasis
- Labels / captions

Reminders
- Blog Post (Week)
- Project 3
- Alpha Submission

Different Interfaces

- Wii Theremin - How It Works
  - http://www.youtube.com/watch?v=wINCstV50HA

Discussion

- Extend to the Surface only
  - Thoughts?

Stimulant Tone Grid / Highlight Reel

- Stimulant: ToneGrid
  - http://vimeo.com/3873450

Groupings

- Functional groupings of associated elements
- Recommendations
  - Create spatial groupings close to five degrees of visual anagle (1.67”, 6 to 7 lines)
  - Evenly space w/in grouping
  - Separate liberally between groups with white space
  - Provide line borders
  - Provide meaningful titles
Group Delineation

- Proximity
  - Close elements are perceived as a group
- Similarity
  - Call attention to various groupings
- Closure
  - Users will automatically group if similar
  - Effort to ID pattern vs. individual item
  - Matching pattern (line, border, symbol)
  - Ordering (#’s, alphabet)
  - Visual org principles

Discussion

- Beck / Palmer 2002
  - Difficult to ignore color similarity
  - Proximity stronger influence vs. common ground
  - Color similarity > proximity, common region
  - Color, shared background, co-location > outlines

Let’s Try It

- Cereal
- Toast
- Cow
- Bed room
- Donut
- Bagel
- Pig
- Kitchen
- Goat
- Basement

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Let's Try It

**Breakfast Foods**
- Toast
- Bagel
- Cereal
- Donut

**Rooms in a House**
- Bedroom
- Kitchen
- Basement
- Bathroom

**Farm Animals**
- Cow
- Sheep
- Pig
- Goat

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**Focus / Emphasis**

- **Brightness**
  - Good attention-getting
- **Indicate**
  - Items in error
  - Data on an inquiry screen
- **External consideration**
  - Contrast setting on monitor

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**eBook Readers**

- **Older school**
  - No backlight
  - Use normal light to be able to read

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Distinctive Typeface
- Multiple fonts
  - Can differentiate components
- Careful on sizing
  - Header versus data entry
- Guideline
  - Maximum two at a time

Let’s Try It
- Breakfast Foods
  - Toast  Bagel
  - Cereal  Donut
- Farm Animals
  - Cow  Sheep
  - Pig  Goat
- Rooms in a House
  - Bedroom  Kitchen
  - Basement  Bathroom

Let’s Try It
- Breakfast Foods
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Good Example

Focus / Emphasis
- Styles in a Font
  - Subtle differences
    - **Bolding** – generally preferred
    - **Italics** – less detectable / legible
    - **Underlining** – adds noise / reduces legibility
  - Web functionality meaning
**Focus / Emphasis**

- Blinking
  - With great power comes great responsibility
  - High visual fatigue
  - Turn off once attention captured
  - Guidelines
    - 2 to 5 Hz
    - Duty cycle >= 50%
    - Wink vs. blink (duty cycle >> 50%)

**Focus / Emphasis**

- Line rulings / boxes / frames
  - Horizontal – break a screen
  - Vertical – note up / down reading
  - Denote groupings
    - Help reinforce
  - Guidelines
    - <= 3 thicknesses
    - <= 2 line styles

**Example**

I would like you to read this then pause.

Enjoy the break near the tail end of class.

For the third project, you should hopefully have begun coding in the lab, either on the simulator or with the Surface Dev unit. Our bulb has not yet arrived and will likely not show up until after Thanksgiving.

**Focus / Emphasis**

- Emphasize / assist identification
  - Which drawn to first
  - Bright vs. dark colors
  - Use for importance
  - Display
    - <= 4 colors -> mostly text
    - <= 6 colors -> statistical graph

**Focus / Emphasis**

- Koyani et. al 2004
  - Fixate on larger items
    - Auto-tuned though to ignore ads / decoration
  - Animation
    - Movement effective
    - Annoying if not relevant or useful
    - Should stop after attention captured

**Application – Caption Design**

- Resnick / Sanchez 2004
  - Study on labels / efficiency
  - Good labels
    - 90% more efficient in finding
    - 25% fewer clicks
    - Less errors
    - More items found
    - High user satisfaction
Captions / Labels

- Study findings
  - Identify controls w/labels and captions
  - Avoid jargon
  - Can sometimes use structure (address)
- Fully spell captions out in meaningful way
- Use mixed-case font
- Capitalize first letter of each sig word
- End each caption with a colon
- Choose distinct captions
- Provide consistency

Example - Distinct

First Amount: 
Last Amount: 
This Amount: 
That Amount: 
Who Cares Amount: 

Example - Distinct

 Amount >> First: 
 Last: 
 This: 
 That: 
 Who Cares: 

Customizable UI - Android

Sony Ericsson Xperia X10 - http://vimeo.com/7691669

Questions?

- Weekly Blog
- Project 3
- Alpha Submission