Hall of Fame or Shame?

- Password dialog in Eudora Pro for Mac
- Most passwords are mixed case – caps lock often leads to failure to authenticate
- Good idea to inform user Caps Lock is on
- Flashing and “!” unnecessary

Hall of Shame!

- 20 pages of scrolling to get to the next action
Visual Information Design

Prof. James A. Landay
University of Washington
CSE 440
Winter 2012

Outline

- Simplification
- Small Multiples
- Typography & Grid systems
- Things to Avoid
- Color
- Proportion & Scale
- Design economy
- Visualization

Quotes: Mullet and Sano

“Design is not something that can be applied after the fact, when the fundamental organization of the product has already been determined—though this is indeed a common misconception. To be effective, design must be an integral part of the product development lifecycle.”

Quotes: Mihai Nadin

“Method helps intuition when it is not transformed into dictatorship. Intuition augments method if it does not instill anarchy. In every moment of our semiotic existence, method and intuition complement one another.”

How Might We Improve This?

“Some space must be narrow so that other space may be wide, and some space must be emptied so that other space may be filled.”

- Robert Bringhurst
  Elements of Typographic Style
Can We Do Better Still?
You’re invited to Zelda’s 30th Birthday Party!
Please come dressed as your favorite Gilbert and Sullivan character. Children are welcome. Dinner will be served; if you’d like to bring food, call Stacy at 555-1212.
When: October 20th, at 7:00 PM
Where: Zelda’s house. If you need directions, feel free to call Zelda and ask.
Please RSVP to Stacy by October 10th. See you there!

Use size contrasts to indicate hierarchy
“Information consists of differences that make a difference.”
– Edward Tufte
Envisioning Information

Quotes: Antoine de Saint Exupery
“In anything at all, perfection is attained not when there is no longer anything to add, but when there is no longer anything to take away.”

Simplification & Reduction

Abstraction
London Underground
**Small Multiples**

- Economy of line
- Similarities enable us to notice differences

Images from Edward Tufte’s *Envisioning Information*

**International Women’s Day**

Enseñanza, Heriberto 1971
March 8 - International Women’s Day
Cuban Poster Art Gallery, http://www.sims.berkeley.edu/~lcush/GenCat.html/

Díaz, Estela 1974
March 8 - International Women’s Day

**Small Multiples**

Reid Miles, Blue Note Cover

Fred C. Hubbard, Duke Jordan, Sam Jones, Art Taylor

**Jan Tschichold’s Revolution**

- Champion of Modernist Typography

Die Neue Typographie
Berlin, 1928
Bauhaus school
Dessau, 1925-26

**Type Classifications**

- Typeface (Arial) vs Font (Arial Bold)
- Serifs: Structural details in letters that help the reader connect them

<table>
<thead>
<tr>
<th>Sans Serif</th>
<th>Serif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optima</td>
<td></td>
</tr>
<tr>
<td>Roman</td>
<td>answ</td>
</tr>
<tr>
<td>Oblique</td>
<td>answ</td>
</tr>
<tr>
<td>True italic</td>
<td>answ</td>
</tr>
</tbody>
</table>

**Asymmetric Typography**

How blocks used to be arranged in magazines. Schematic, thoughtless centering of blocks (ugly).

The same blocks, correctly arranged in the same type area. Constructive, meaningful, and economical (beautiful).
Grid Systems

- A key pattern for implementing rationality, modernism, asymmetry
- Note that no elements are “centered”

Use alignment to guide the eye & reduce clutter

- Avoid slight misalignments; undermine your ability to beacon organization
- And they draw the eye – our perceptual system notices deviations from patterns
- When you deviate from a pattern, do so strategically

Icon Design: Differences that Make a Difference

www.jensondesign.com/1+1=3.pdf

Administrivia

- Last project assignment out later today
- Medium-fidelity prototype
  - as much of the final UI as possible
  - much of backend processing or data faked
  - run on phone in web browser
  - use a prototyping tool (we will highly recommend 1-2)
- Due a week from Thursday
- Presentations & poster session during final exam slot (Thur 3/15)

Color

- Hue is gradation of colour
- Saturation/purity is intensity of the hue
- Luminance is the brightness in an image

Technology-Centered Colors

- Nice Hex codes, “evenly” distributed
- But yowch! Lime green and hot pink?
Color Spaces

Human-Centered Colors

• Munsell (left): Perceptually based
• Pantone (right): Functionally based

Color: Edward Tufte

• Design in grayscale first
• Keep luminance values from grayscale when moving to color

Scale
Proportion and Scale

Visualization

- Tree maps
- Design Galleries

Tree Maps (SmartMoney)

Design Galleries

Kevin Mullet and Darrell Sano, Designing Visual Interfaces

Tree Maps (PhotoMesa)

Design Galleries
Some Starting Points

- Gather materials you find...
  - Successful
  - contextually relevant
- Could be from a very different domain
  "Good artists borrow, great artists steal"
  -- Picasso
- Include visual design professionals in the iterative design cycle

Further Reading

- Kevin Mullet and Darrell Sano, *Designing Visual Interfaces*
- Edward Tufte’s books and course
- Anne Spalter, *The Computer in the Visual Arts*
- Robin Williams, *The Non-Designer’s Design Book*
- Typography
  - Jan Tschichold, *The New Typography*
  - Robert Bringhurst, *The Elements of Typographic Style*
  - http://www.adobe.com/type/

Further Reading

- Color: Charles Poynton, *A Technical Introduction to Digital Video*
  - also his SIGGRAPH course
  - web http://www.inforamp.net/~poynton/
- Typography on the web
  - http://www.microsoft.com/typography/

Summary

- Grid systems help us put information on the page in a logical manner
  -- similar things close together
- Small changes help us see key differences (e.g., small multiples)
- Abstraction is a key to design
- RGB color space leads to bad colors
- Use color properly – not for ordering!
- Avoid clutter