Design Languages and Experience Design

SWE 432, Fall 2016
Design and Implementation of Software for the Web
Today

• What (exactly) is, and how can one make effective color design choices?
• What is a design language?
• What are design values, and how do they influence the design process?
• Course evaluations.

• Next time: Final review
Color
What is color?

- **Hue**: What we usually see as color
- **Luminance**: Amount of light entering eye
- **Brightness**: Perceived amount of light
  - (blue appears brighter than white)
- **Saturation**: Purity of color
Color combinations

- Analogous color combinations - adjacent in color wheel
- Triadic color combinations - at corner of

High contrast, vibrant
Tools for finding color combinations

• Interactive tools can help you find color combinations
  • https://color.adobe.com/
Guidelines on color use

- Number of colors - use color conservatively, limiting to ~5 colors; redundantly encode info to support color-blind
- Use appropriate color combinations
- Use warmer colors for foreground & colorer colors for background
- Use saturated colors to draw attention & for excited
- Use desaturated, dark colors for serious & professional
Guidelines on color use

• Avoid highly saturated opponent colors at the same time
• Older users need more brightness
• Do not require color discrimination in small areas
• Use color for relative differences, but not numeric information
• Use greater intensity for hues that indicate larger amounts
Design Language
Design language

- Many, many choices about visual variables and syntax of composition
  - How do you ensure choices are made consistently across web app?
- Solution: design language
  - Describes how to express ideas and concepts in the interface
  - May be communicated through Human Interface Guideline documentation
  - (Example of consistency and standards)
Example: Elements, Google 2004
Example: Syntax, Google 2004

(task) Find results with all of the words or with the exact phrase or with at least one of the words without the words

(subject) This is a placeholder for a subject.

(Toolbar) A Google toolbar is shown with various options for searching and browsing.

(list) A list of email messages is shown, with different senders and subjects.

GMU SWE 432 Fall 2016
Examples: Google 2016
Examples: Google 2016
Examples: IBM
Examples: IBM
## Examples: IBM

### Application data

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<thead>
<tr>
<th>Title</th>
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<th>Value</th>
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<tr>
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<tr>
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<td>Mash tun</td>
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<tr>
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<tr>
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<td>19. Feb 2014</td>
<td>434</td>
</tr>
</tbody>
</table>
Examples: AirBnb
Examples: AirBnb
Examples: Microsoft
Examples: Microsoft
Example: Header with text blocks layout

From: http://ranjithakumar.net/resources/webzeitgeist.pdf
Elements strongly associated with position

From: [http://ranjithakumar.net/resources/webzeitgeist.pdf](http://ranjithakumar.net/resources/webzeitgeist.pdf)
Web design languages over time

https://blog.hubspot.com/marketing/look-back-20-years-website-design#sm.00000ip14jejk1d51u53crk6cwrns
Web design languages over time
Web design languages over time

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Web design languages over time
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Web design languages over time
Common visual idioms, circa 2016

- Hero images: large attractive header image
  - [Link](https://envato.com/blog/exploring-hero-image-trend-web-design/)
Common visual idioms, circa 2016

• Single page designs: hero image with a navbar
  • https://envato.com/blog/exploring-hero-image-trend-web-design/
Common visual idioms, circa 2016

- Rotating image galleries (carousels)
- [Link](https://envato.com/blog/exploring-hero-image-trend-web-design/)
Why it matters

• Users will have idioms they expect to see, particularly if suggested by other related elements

• Branding: Users will see your website and have particular associations based on what it exemplifies
Goals in designing a design language

• Offer guidance and options on
  • Colors: examples of color palettes
  • Typography: justification, sizes, fonts, different heading levels
  • Organization

• Support different resolutions, devices
Design Values
Example: Information Density
Is this too much?
Is this too much?

• If task is to to show influence of Elvis Presley on subsequent bands, yes.
• But what if task might also be to understand influences of pop soul?
• Flexibility / usability tradeoff
  • Can design more powerful flexible interfaces that trade effectiveness of a specific task for supporting a broad range of tasks
• What’s the right answer?
  • A value choice, rather than a usability question.
  • Need to know what priorities are.
• Often called experience design rather than usability
Activity: Identify Design Values

• In groups of two or three:
  • Pick a website.
  • Identify key tradeoffs in design approach.
  • Given the approach taken, what values does this final design reflect?
Discussion of course structure

- Choosing project topic vs. canned assignment?
- Project split into 11 assignments vs fewer bigger deadlines?
- Teams vs. individual assignments?
- Pacing of assignments and lectures. Topics that were too fast or too slow?
- Quizzes vs. midterm?
- Previous offerings: 10 usability lectures, 3 PHP, 12 Java Servlets lectures
  - What did you think about usability last?
  - Alternative: Backend, asynchronous programming, Usability, then frontend?