Color

April 19, 2011
INF 143
Color Vision

- Color is often badly used in visual design
  - Web sites are among the worst
- If you are going to use color, learn something about color vision
  - Color has a dimensional structure
  - Many color contrasts are difficult to see
  - About 10% of men, 1% of women are color blind, particularly to red-green
Color blindness

- Many color contrasts are difficult to see
- About 6% of population is color blind, particularly to red-green (10% men, 1% women)
- Demonstration card: everyone should be able to see circle, star, square

Look for circle, star and/or square

Colormormal see square, circle
Some colorblind see only square
Look for dog, boat, balloon or car

Colornormal see boat
Some colorblind see nothing

<table>
<thead>
<tr>
<th></th>
<th>Normal Vision</th>
<th>L-cone defect</th>
<th>M-cone defect</th>
<th>S-cone defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>91.4%</td>
<td>2.45%</td>
<td>6.1%</td>
<td>0.011%</td>
</tr>
<tr>
<td>Women</td>
<td>99.6%</td>
<td>0.04%</td>
<td>0.36%</td>
<td>0.04%</td>
</tr>
<tr>
<td>Overall</td>
<td>95.5%</td>
<td>1.25%</td>
<td>3.24%</td>
<td>0.025%</td>
</tr>
</tbody>
</table>
THE WORLD COLOR SURVEY

PAUL KAY
BRENT BERLIN
LUISA MAFFI
WILLIAM R. MERRIFIELD
RICHARD COOK
Color Names: Berlin & Kay

Color Example #1

Color Example #2

Color Example #3

Color Example #4

Color Example #5
Color “syntax”

- Hard to read “yes” (hard-coded vs. user preferences conflict)
- Color meaning conflicts with verbal syntax (green=go=good)
  - Note: We are jumping ahead to interaction between primitive and interpretation