Colors!
red
red
basics
tools/apps
hacks
models
no no’s
theory
My background
THE ELECTROMAGNETIC SPECTRUM

These waves travel through the electromagnetic field. They were formerly carried by the aether, which was decommissioned in 1897 due to budget cuts.

Other waves:
- Slinky waves
- Sound waves (20 Hz, 20 kHz)
- Audible sound
- The wave

Visible light
- Red
- Orange
- Yellow
- Green
- Blue
- Violet

Shouting car dealership commercials
- HAM radio
- Kosher radio
- CIA
-位於

Electromagnetic spectrum:
- Power & telephone
- Radio & TV
- Microwaves
- Toaster
- IR
- Infrared light
- UV
- Ultraviolet light
- Miller light
- X-rays
- Gamma/cosmic rays

λ (m) 10^-10 10^-9 10^-8 10^-7 10^-6 10^-5 10^-4 10^-3 1m 10m 100m
f (Hz) 10^18 10^17 10^16 10^15 10^14 10^13 10^12 10^11 10^10 10^9 10^8 10^7 10^6 10^5 10^4
Q (Gol.) 17 17 17 17 42 42 43 43 -2 2 10 100 1000

pack my box with five dozen liquor jugs

crazy Fredrick bought many very exquisite opal jewels

sixty zippers were quickly picked from the woven jute bag
Dogs have two types of color-receptive cones: Green & Blue.
This enables dogs to see blue, green, and a little bit of yellow.

Butterflies have FIVE types of color-receptive cones.

So in addition to seeing two colors we don't have names for, butterflies can see a massive spectrum of color our brains aren't even capable of processing.
Perhaps this is why they're so glorious to look at.

Photos via PlanetAnimalZone
Color Spaces, Gamuts & Models
99% of sRGB

Retina Display

71% of sRGB

Earlier MacBook Pro
<table>
<thead>
<tr>
<th>Color</th>
<th>Primaries</th>
<th>Relative luminance (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>R G B</td>
<td>100</td>
</tr>
<tr>
<td>Yellow</td>
<td>R G</td>
<td>90</td>
</tr>
<tr>
<td>Cyan</td>
<td>G B</td>
<td>70</td>
</tr>
<tr>
<td>Green</td>
<td>G</td>
<td>60</td>
</tr>
<tr>
<td>Magenta</td>
<td>R B</td>
<td>40</td>
</tr>
<tr>
<td>Red</td>
<td>R</td>
<td>30</td>
</tr>
<tr>
<td>Blue</td>
<td>B</td>
<td>10</td>
</tr>
<tr>
<td>Black</td>
<td>—</td>
<td>0</td>
</tr>
</tbody>
</table>
Color Guidelines
Fix your objectives first

Application
User needs
Interaction
Presentation
cheatsheet: just use these
Upto 6 best,
10 is difficult
12 gives negative returns

Each color should serve a purpose
Luminance contrast between foreground and background

If you can’t do that, border them.
Muted colors for large areas

High saturation color for small areas

Natural colors for most

Bright / dark colors to highlight
Color sequence for data maps
Use same background
PS: Gradients suck (mostly)

If it’s not data:
delete it,
make it grey,
Or mute it.
Color names if you're a girl...

Maraschino
Cayenne
Maroon
Plum
Eggplant
Grape
Orchid
Lavender
Carnation
Carnation
Strawberry
Bubblegum
Magenta
Salmon
Tangerine
Cantaloupe
Banana
Lemon
Honeydew
Lime
Spring
Clover
Fern
Moss
Flora
Sea Foam
Spindrift
Teal
Sky
Turquoise

Color names if you're a guy...

Red
Purple
Pink
Orange
Yellow
Green
Blue

Doghouse Diaries
"We take no as an answer."
Actual color names if you’re a girl … Actual color names if you’re a guy …

red
magenta
purple
blue
pink
hot pink
hot pink
orange
yellow
light green
lime green
neon green
green
aqua
teal
blue

5 million colors named
222,500 user sessions
Don’t use red and green in the same interface if you want to address most color deficiency cases.
White is your best friend.
Be consistent
Thank you