



Web vs. Print

Designing with the Audience in Mind

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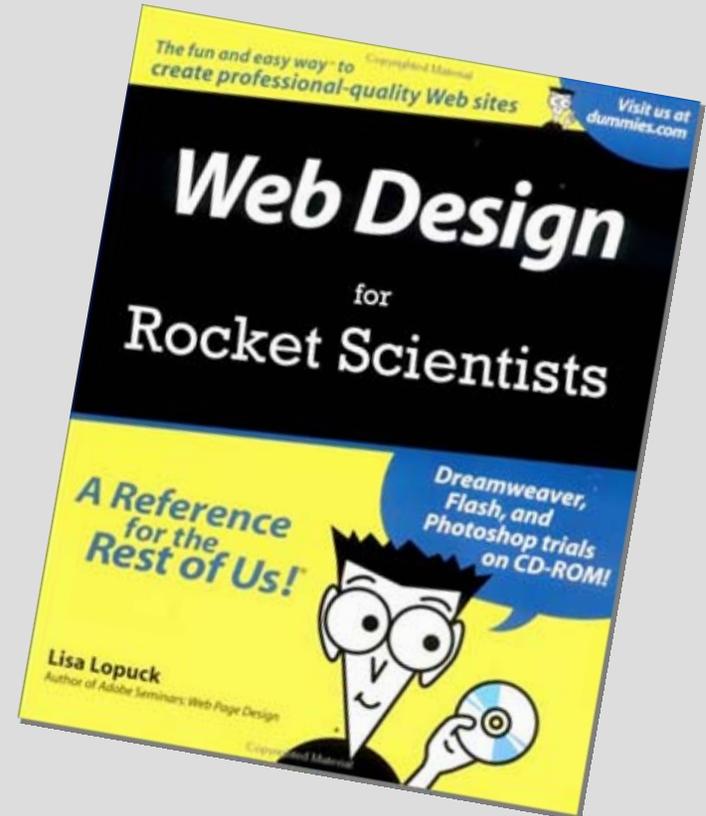
Pacific Northwest National Laboratory

My goals as a designer

- ▶ Visual appeal
- ▶ Successful communication

User-centric design

- ▶ Design with the user in mind



Resolution

► Resolution

- Printer's screen
 - controls ink coverage
 - Dot- fluid unit of measurement
 - Larger dots=lower dpi, finer dots=higher dpi
 - News press, catalogue, coffee table book
- Monitor screen
 - Pixel- fixed unit of measurement
 - Resolution fixed at 72dpi



Differing Goals

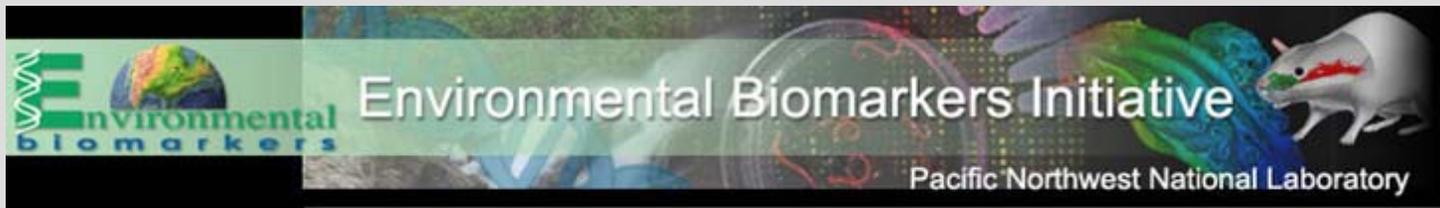
► Cross-purposes

- Print requires 300dpi minimum
- Web is regulated by bandwidth requirements



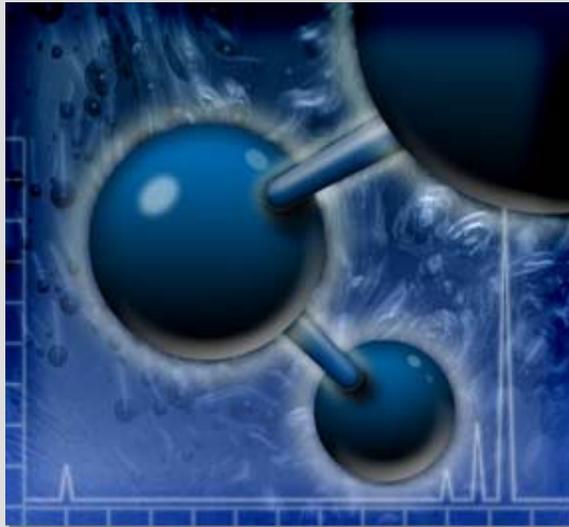
Compression

- ▶ Achieved by removing information from the file
- ▶ How many pixels can be removed while maintaining
 - Legibility
 - Fidelity
- ▶ Solution?
 - Design according to print standards, if there is any chance that the images will be printed



Pixelation

▶ Too many or too few pixels



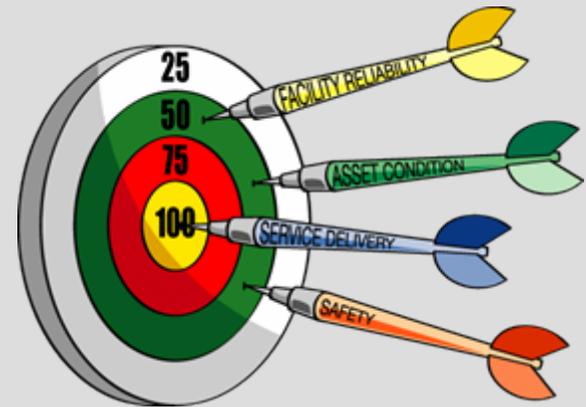
150 dpi (450x450 pixels)



25 dpi (75x75 pixels)

Raster or Vector?

- ▶ Raster
 - Pixel-based
- ▶ Vector
 - Mathematics
 - Fills & strokes
 - Gradients
 - Clip-art
 - Recommended for logos



Common file types

▶ Web

- .jpg
 - great for photos
 - variable resolution/rates of compression
- .gif
 - fewer colors
 - transparency
 - animation
- .png
 - transparency
 - not supported by all browsers

▶ .pdf

- Metafile
 - Graphics and text are embedded
 - Appropriate resolution
- Requires Acrobat reader

▶ .swf

- Flash file; requires Flash player
- Robust
 - Complex animation
 - Fonts can be embedded
 - Sound
 - Vector-based; allows for raster

Print file formats

▶ Print

- .tif
 - Compressed or uncompressed
 - Very little information loss
- .bmp
 - No compression
 - Large files
 - universal
- .eps
 - Vector images

File formats

▶ Native

- .psd
- .ai
- .doc
- .ppt

▶ Important to save with extension

Color modes

▶ Single color

- Black and white
- Grayscale



▶ RGB

- Red, green, blue

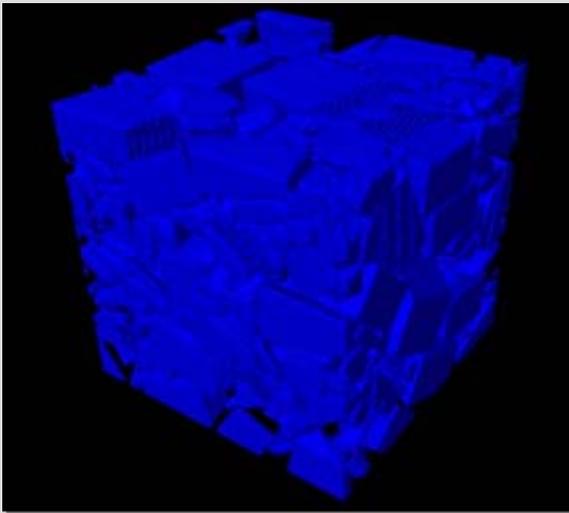


▶ CMYK

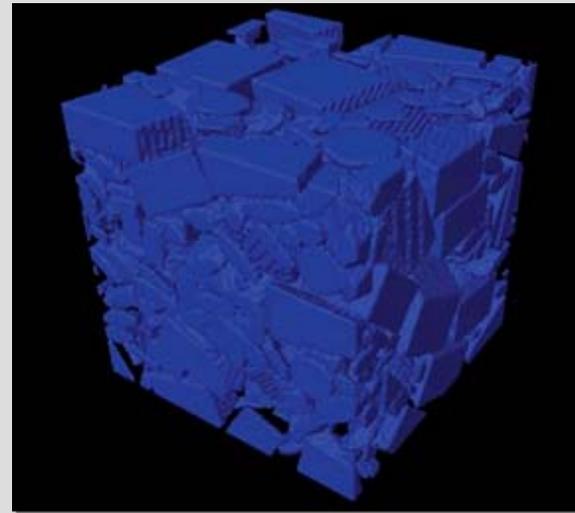
- Cyan, magenta, yellow, black
- Spot colors



- ▶ Loss of saturation due to conversion from one mode to another



Original RGB



Converted RGB-CMYK-RGB

Layout constraints

► Print

- Paper size
- Number of pages
- Bleed margin
- Mailing standards

Layout constraints

▶ Web

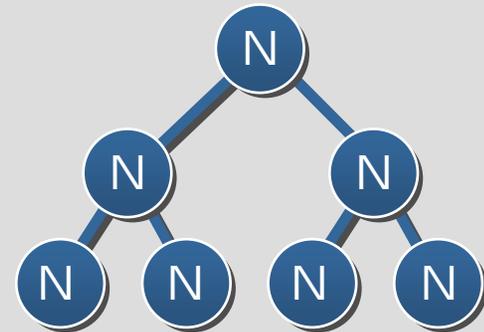
- Browser
 - IE
 - Netscape
 - Firefox
- Browser window
 - Blackberries and cell phones
 - Important content should be visible in frame
- Font choice

Navigation

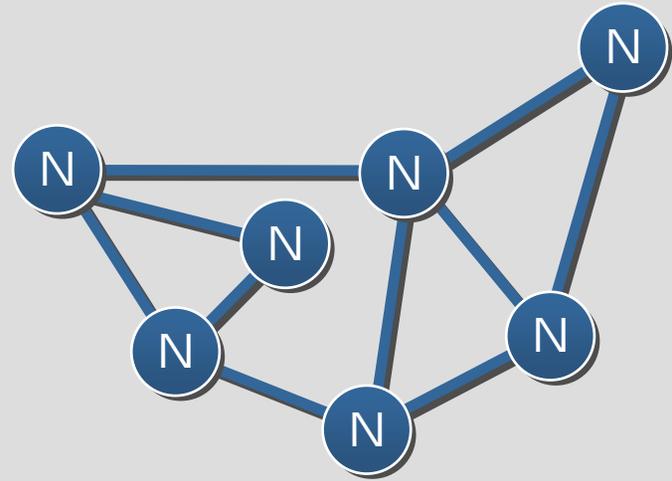
- ▶ Structure
 - Linear
 - Novel



- Hierarchy
 - Encyclopedia



- Web
 - No apparent structure

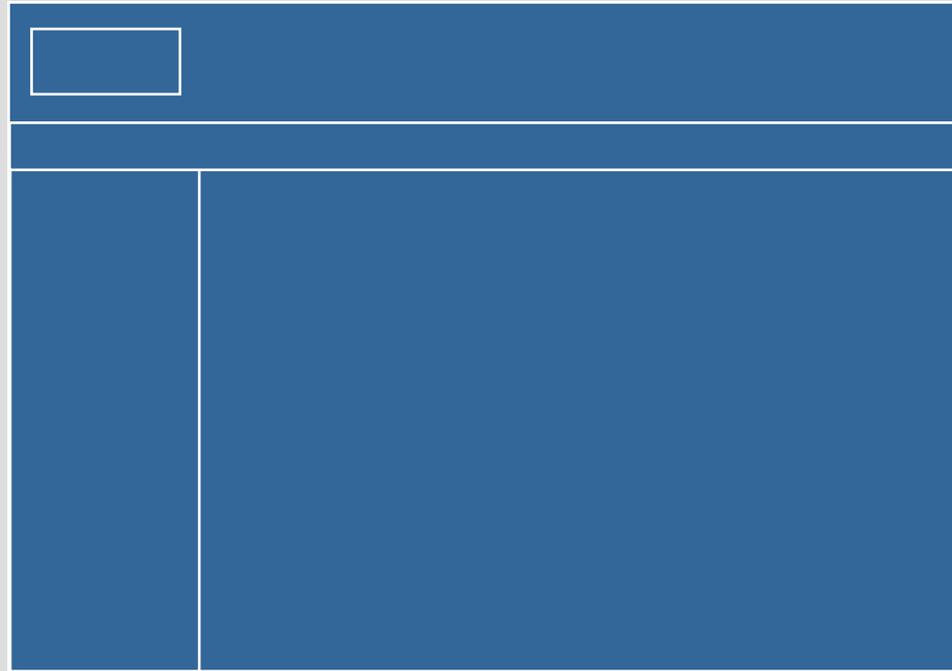


Wayfinding

- ▶ Concept borrowed from architectural field
 - Decision making- plan formulation
 - Decision executing- plan put into action
- ▶ Navigation of physical space
 - Architectural clues
 - Viewer expectations
 - Sign-posting
 - “You are here”



Viewer Expectations



User-centric design

- ▶ Adapt design to the user
 - Browser differences
 - Screen resolution differences
 - Plug-in support
 - Ease of navigation