

## Previously Covered Material

- Nielsen's Usability Heuristics (loops)

## The Squint Test: A Tool For Evaluating Layout



- Squint at the document or screen so that details (such as text) appear blurred.



Original webpage



Blurred version

- It's used to determine what stands out or what elements appear to belong together
  - The goal is to determine the overall structure by hiding details

## A Webpage That Fails The Squint Test



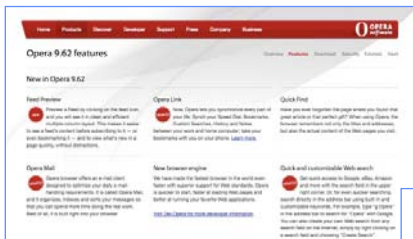
Original webpage



Blurred version

Images from: <http://www.usabilitypost.com/>

## A Webpage With Better Squint Test Results



Original webpage



Blurred version

Images from: <http://www.usabilitypost.com/>

## An Important Tool For Graphical Screen Design & Evaluation<sup>1</sup>

- Contrast
- Repetition
- Alignment
- Proximity

<sup>1</sup> From "The Non-designers Design Book" by Robin Williams

## Contrast

- Make different things look very different
- Make important things stand out, less important things are made more subtle

### Poor contrast ✘

Heading  
Subheading  
Heading  
Subheading  
Heading

### Stronger contrast ✔

**Heading**  
Subheading  
**Heading**  
Subheading  
**Heading**

## Example: Insufficient Contrast



<http://www.webdesignfromscratch.com>

- Grey is overused: makes it harder to read
- Problems compounded by small text and logo size
- (The Firefox logo is the most prominent part yet it's not a key part of the page)

## Example: Revised Webpage, Better Contrast

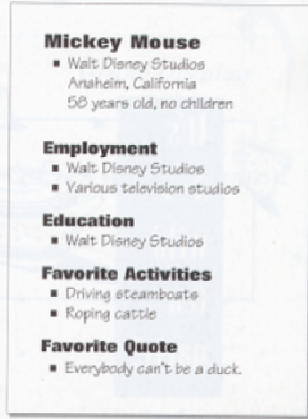


<http://www.webdesignfromscratch.com>

- The main logo stands out more
- The background is changed to make the text easier to read
- Also the change in background color makes the headings stand out more.

## Repetition

- Consistency
- Repeat conventions in order to demonstrate structure and relationships



From "The Non-Designers Design book by Robin Williams

## Alignment

- Visually associate related elements by lining them up
- Alignment can structure a document or screen by suggesting structure.

### **Poor alignment (center alignment)**

```
Heading      Heading    Heading    Heading
XXXXXXXXX    XXXXXXXXXXX XXXXXX    XXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXX
XXXXXXXXX    XXXXXXXXXXX XXXXXXXX XXXXXXXXXXXXXXXX
```



## Bottom Line: Center Alignment

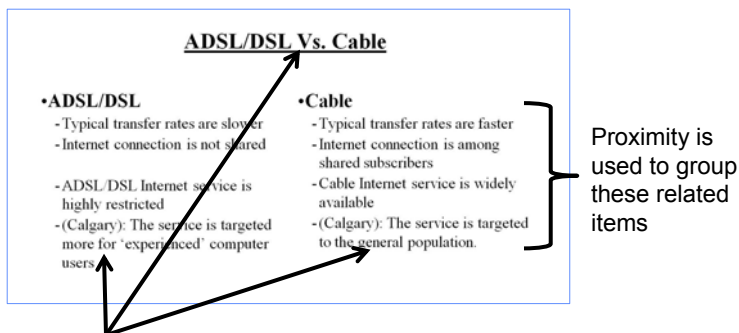
- It can be useful for providing additional contrast  
- e.g., titles vs. the body of the text.



- So it should be used sparingly
- It should also be used for a reason rather than as the default

## Proximity

- Group related elements
- Separate unrelated elements (implicit structure/white space)



Proximity is used to separate these three groups

## Proximity (2)

- White space can Be More Effective Than Explicit Structures (bounding lines)

No structure

Mmmm:

Mmmm:

Mmmm:

Mmmm:

Mmmm:

x

Explicit structure

Mmmm:

Mmmm:

Mmmm:

Mmmm:

Mmmm:

x

Implicit structure

Mmmm:

Mmmm:

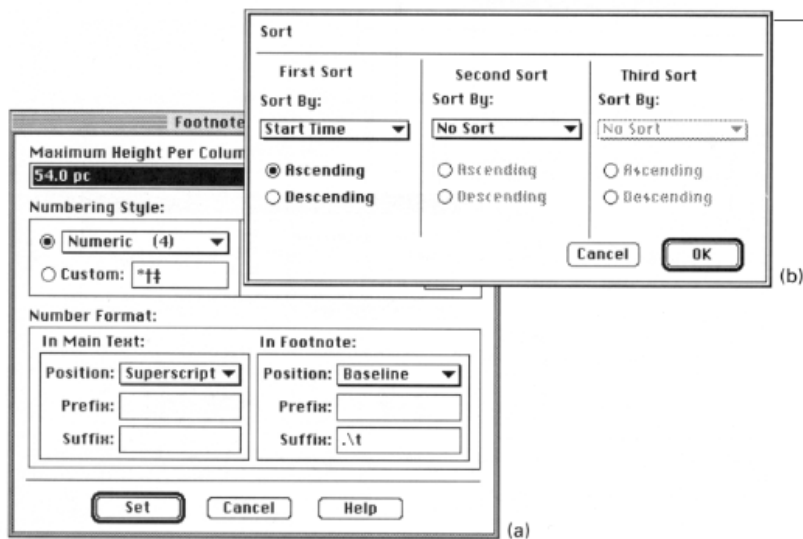
Mmmm:

Mmmm:

Mmmm:

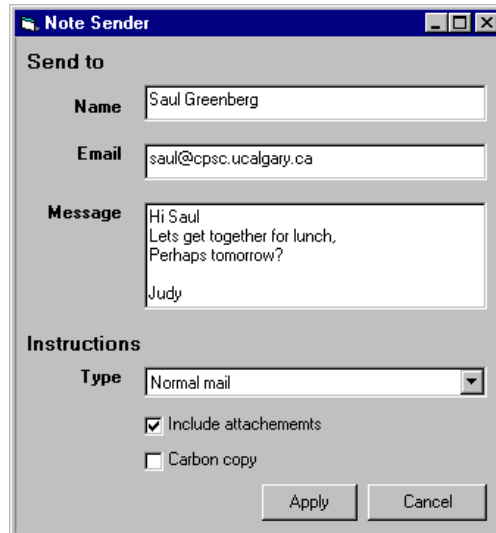
✓

## Example: Explicit Vs Implicit Structure





## A GUI That Employs All Four Principles



The image shows a screenshot of a Windows-style application window titled "Note Sender". The window has a standard title bar with minimize, maximize, and close buttons. The main content area is organized into sections:

- Send to**: A section containing two text input fields. The "Name" field contains "Saul Greenberg" and the "Email" field contains "saul@cpsc.ucalgary.ca".
- Message**: A larger text area containing the message text: "Hi Saul", "Lets get together for lunch,", "Perhaps tomorrow?", and "Judy".
- Instructions**: A section containing a "Type" dropdown menu set to "Normal mail", a checked checkbox for "Include attachments", and an unchecked checkbox for "Carbon copy".

At the bottom right of the window are two buttons: "Apply" and "Cancel".

## How Do These Principles (Contrast, Repetition, Alignment, Proximity) Apply

- As a design tool
  - As you create a report, spreadsheet, PowerPoint presentation, a GUI, even a text based program make sure that it conforms to these principles.
- As an evaluation tool
  - After the document or graphical design has been created these four principles can be used to determine how well it has been designed (how easy or hard it is to view and make sense of the design).

## Examples Of Poor Presentations: Input Vs. Output?

Form Title -- [appears above URL in most browsers and is used by WWW search engines]		Background Color: FFFBF0
Q&D Software Development Order Desk		Text Color: 000080
Form Heading -- [appears at top of Web page in bold type]		Background Graphic
Q&D Software Development Order Desk		<input checked="" type="checkbox"/> Center
E-Mail responses to (will not appear on Web page)	Alternate (for mailto forms only)	
dversch@q-d.com		<input type="radio"/> Mailto
Text to appear in Submit button	Text to appear in Reset button	<input checked="" type="radio"/> CGI
Send Order	Clear Form	
Scrolling Status Bar Message (max length = 200 characters)		
***WebMania 1.5b with Image Map Wizard is here!***		
<input type="button" value="Prev Tab &lt;&lt;"/>		<input type="button" value="Next Tab &gt;&gt;"/>

Webforms

### •Problems:

- What Are The Input Fields?
- What Is Output Only?

### •Causes:

- Bad alignment
- Poor choice of colors to distinguish labels from editable fields

## Examples Of Poor Presentations: No Regard For Order and Organization

IBM's Aptiva Communication Center