Text Appearance

There are several issues related to text

characteristics that can help ensure a Web site communicates effectively with users:

- Use familiar fonts that are at least 12-points;
- Use black text on plain, high-contrast backgrounds; and
- Use background colors to help users understand the grouping of related information.

Even though it is important to ensure visual consistency, steps should be taken to emphasize important text. Commonly used headings should be formatted consistently, and attention-attracting features, such as animation, should only be used when appropriate.

11:1 Use Black Text on Plain, High–Contrast Backgrounds

Guideline: When users are expected to rapidly read and understand prose text, use black text on a plain, high-contrast, non-patterned background.

Comments: Black text on a plain background

elicited reliably faster reading performance than on a medium-textured background. When

compared to reading light text on a dark background, people read black text on a white background up to thirty-two percent faster. In general, the greater the contrast between the text and background, the easier the text is to read.

Sources: Boyntoin and Bush, 1956; Bruce and Green, 1990; Cole and Jenkins, 1984; Evans, 1998; Goldsmith, 1987; Gould, et al., 1987a; Gould, et al., 1987b; Jenkins and Cole, 1982; Kosslyn, 1994; Muter and Maurutto, 1991; Muter, 1996; Scharff, Ahumada and Hill, 1999; Snyder, et al., 1990; Spencer, Reynolds and Coe, 1977a; Spencer, Reynolds and Coe, 1977b; Treisman, 1990; Williams, 2000.



101

Relative Importance:

Strength of Evidence:

 $\mathbf{1264}$

11:2 Format Common Items Consistently

102

Guideline: Ensure that the format of common items is consistent from one page to another.

Comments: The formatting convention chosen should be familiar to users. For example, telephone numbers should be consistently punctuated (800-555-1212), and time records might be consistently punctuated with colons (HH:MM:SS).



Sources: Ahlstrom and Longo, 2001; Engel and Granda, 1975; Mayhew, 1992; Smith and Mosier, 1986; Tufte, 1983.

11:3 Use Mixed-Case for Prose Text

Guideline: When users must read a lot of information, use lower-case fonts and appropriate capitalization to ensure the fastest possible reading speed.



Comments: Using 'mixed-case' fonts for reading prose text means that most letters will be lowercase, with all letters that should be capitalized being in uppercase. Most users have had considerable experience reading lowercase letters and are therefore very proficient at it.

Sources: Larson, 2004.

Example:

This block of text is an example of displaying continuous (prose) text using mixed upper- and lowercase letters. It's not difficult to read. This is called sentence case.

THIS BLOCK OF TEXT IS AN EXAMPLE OF DISPLAYING CONTINUOUS (PROSE) TEXT USING ALL UPPERCASE LETTERS. IT'S MORE DIFFICULT TO READ. THIS IS NOT CALLED SENTENCE CASE.

Research-Based Web Design & Usability Guidelines



Text Appearance

11:4 Ensure Visual Consistency

Guideline: Ensure visual consistency of Web site elements within and between Web pages.

Comments: Two studies found that the number

of errors made using visually inconsistent displays is reliably higher than when using visually consistent displays. Visual consistency includes the size and spacing of characters; the colors used for labels, fonts and backgrounds; and the locations of labels, text and pictures. Earlier studies found that tasks performed on more consistent interfaces resulted in (1) a reduction in task completion times; (2) a reduction in errors; (3) an increase in user satisfaction; and (4) a reduction in learning time.

However, users tend to rapidly overcome some types of inconsistencies. For example, one study found that the use of different-sized widgets (such as pushbuttons, entry fields, or list boxes) does not negatively impact users' performance or preferences.

Sources: Adamson and Wallace, 1997; Adkisson, 2002; Badre, 2002; Card, Moran and Newell, 1983; Cockburn and Jones, 1996; Eberts and Schneider, 1985; Ehret, 2002; Grudin, 1989; Nielsen, 1999d; Osborn and Elliott, 2002; Ozok and Salvendy, 2000; Parush, Nadir and Shtub, 1998; Schneider and Shiffrin, 1977; Schneider, Dumais and Shiffrin, 1984; Tullis, 2001.

Example:

An example of good visual consistency: Location and size of pictures, title bar, and font all contribute to visual consistency.



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Relative Importance:

Strength of Evidence:

1234)

11:5 Use Bold Text Sparingly

Guideline: Use bold text only when it is important to draw the user's attention to a specific piece of information.

Relative Importance: **125** Strength of Evidence: **125**

Comments: In the following example with the Field Identifiers bolded on the left, users spent about four times as long looking at the bold Field Identifiers than the non-bold Field Values. In the example on the right, participants spent more time looking at the bolded Field Values. In addition, the non-bold Field Values elicited better search accuracy rates than did the bold Field Values. In situations like this example, it is probably best to not use bold for either field identifiers or field values. In general, bold text should be used sparingly.

Sources: Joseph, Knott and Grier, 2002.

Example: The bottom example proves easier to read than either of the top two examples.

| Field Identifiers | Field Values | Field Identifiers | Field Values |
|-------------------------|--------------|-------------------|--------------|
| Previous Bill | \$33.84 | Previous Bill | \$33.84 |
| Previous Payment | \$32.75 | Previous Payment | \$32.75 |
| Balance | \$1.09 | Balance | \$1.09 |
| Current Charges | \$18.89 | Current Charges | \$18.89 |
| Total Billed | \$19.98 | Total Billed | \$19.98 |
| Penalty | \$4.53 | Penalty | \$4.53 |
| Amount Due | \$24.51 | Amount Due | \$24.51 |

| Field Identifiers | Field Values |
|-------------------|--------------|
| Previous Bill | \$33.84 |
| Previous Payment | \$32.75 |
| Balance | \$1.09 |
| Current Charges | \$18.89 |
| Total Billed | \$19.98 |
| Penalty | \$4.53 |
| Amount Due | \$24.51 |
| | |



11:6 Use Attention–Attracting Features when Appropriate

Guideline: Use attention-attracting features with caution and only when they are highly relevant.

Comments: Draw attention to specific parts of a Web page with the appropriate (but limited) use of moving or animated objects, size

differential between items, images, brightly-colored items, and varying font characteristics.

Not all features of a Web site will attract a user's attention equally. The following features are presented in order of the impact they have on users:

- Movement (e.g., animation or 'reveals') is the most effective attentiongetting item. Research suggests that people cannot stop themselves from initially looking at moving items on a page. However, if the movement is not relevant or useful, it may annoy the user. If movement continues after attracting attention, it may distract from the information on the Web site.
- Larger objects, particularly images, will draw users' attention before smaller ones. Users fixate on larger items first, and for longer periods of time. However, users will tend to skip certain kinds of images that they believe to be ads or decoration.
- Users look at images for one or two seconds, and then look at the associated text caption. In many situations, reading a text caption to understand the meaning of an image is a last resort. Parts of images or text that have brighter colors seem to gain focus first.

Having some text and graphic items in brighter colors, and others in darker colors, helps users determine the relative importance of elements. Important attention-attracting font characteristics can include all uppercase, bolding, italics, underlining, and increased font size.

Sources: Campbell and Maglio, 1999; Evans, 1998; Faraday and Sutcliffe, 1997; Faraday, 2000; Faraday, 2001; Galitz, 2002; Hillstrom and Yantis, 1994; Lewis and Walker, 1989; McConkie and Zola, 1982; Nygren and Allard, 1996; Treisman, 1988; Williams, 2000.







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for detailed descriptions of the rating scales

11:8 Use at Least 12–Point Font

Guideline: Use at least a 12-point font (e.g., typeface) on all Web pages.

Relative Importance: **123** Strength of Evidence: **1234**

Comments: Research has shown that fonts smaller than 12 points elicit slower reading performance from users. For users over age 65, it may be better to use at least fourteen-point fonts. Never use less than nine-point font on a Web site.

Traditional paper-based font sizes do not translate well to Web site design. For instance, Windows Web browsers display type two to three points larger than the same font displayed on a Macintosh. User-defined browser settings may enlarge or shrink designer-defined font sizes. Defining text size using pixels will result in differently-sized characters depending upon the physical size of the monitor's pixels and its set resolution, and presents accessibility issues to those individuals who must specify large font settings.

Sources: Bailey, 2001; Bernard and Mills, 2000; Bernard, Liao and Mills, 2001a; Bernard, Liao and Mills, 2001b; Bernard, et al., 2002; Ellis and Kurniawan, 2000; Galitz, 2002; Ivory and Hearst, 2002; Tinker, 1963; Tullis, 2001; Tullis, Boynton and Hersh, 1995.

Example: Examples of cross-platform text-size differences generated on a variety of browsers and platforms by using HTML text in a one-cell table with a width of 100 pixels.

| Macintosh | PC-Small | PC-Large |
|---|---|---|
| 72dpi assumed | 96dpi assumed | 120dpi assumed |
| This passage shows the relative sizes of default (size=3) text on different computers using the browser's default (12-point) font setting | This passage shows the relative sizes of default (size=3) text on different computers using the browser's default (12-point) font | This passage shows the relative sizes of default (size=3) text on different |

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11:9 Color–Coding and Instructions

Guideline: When using color-coding on your Web site, be sure that the coding scheme can be quickly and easily understood.

Relative Importance: 12 Strength of Evidence: 1234

Comments: One study found that participants were able to answer questions significantly faster when the interface was color-coded, but only when information about the color-coding was provided. When both color-coding and information about how to interpret the colors were provided, user performance improved by forty percent. Be sure that the information provided does not require the user to read and comprehend a lot of text to understand it.

Sources: Resnick and Fares, 2004; Wu and Yuan, 2003.

Example:

The key in the bottom left brings clarification to the highlighted sizes in this Men's General Sizing Guidelines.

| Men's General Sizing Guidelines Height | | | | | | | | | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|------------|-----------|------|------------|------------|------------|------------|------------|------------|
| 5' 3" | 123 Ibs | 131 Ibs | 139 Ibs | 147 Ibs | 155 Ibs | 163 Ibs | 171 Ibs | 17 Ibs | | 187 Ibs | | | | | |
| 5' 4" | 125 lbs | 133 Ibs | 141 lbs | 149 Ibs | 157 Ibs | 165 Ibs | 173 Ibs | 18 b | 1 1 | 189 Ibs | | | | | |
| 5' 5" | 127 Ibs | 135 Ibs | 143 Ibs | 151 Ibs | 159 Ibs | 167 Ibs | 175 Ibs | 18 Ib | | l91 lbs | | | | | |
| 5' 6" | 129 Ibs | 137 Ibs | 145 Ibs | 153 Ibs | 161 Ibs | 169 Ibs | 177 Ibs | 18 Ib | | 193 Ibs | | | | | |
| 5' 7" | 131 Ibs | 139 Ibs | 147 Ibs | 155 Ibs | 163 Ibs | 171 Ibs | 179 Ibs | 18 Ib | | 195 Ibs | | | | | |
| 5' 8" | 133 Ibs | 141 Ibs | 149 Ibs | 157 Ibs | 165 Ibs | 173 Ibs | 181 Ibs | 18 Ib | | 197 Ibs | 213 Ibs | 229 Ibs | 245 Ibs | | |
| 5' 9" | 135 Ibs | 143 Ibs | 151 Ibs | 159 Ibs | 167 Ibs | 175 Ibs | 183 Ibs | 19 b | | 199 Ibs | 215 Ibs | 231 Ibs | 247 Ibs | | |
| 5' 10" | 137 Ibs | 125 Ibs | 153 Ibs | 161 Ibs | 169 Ibs | 177 Ibs | 185 Ibs | 19 b | | 201 Ibs | 217 lbs | 233 Ibs | 249 Ibs | | |
| 5' 11" | | | | | 171 Ibs | 179 Ibs | 187 Ibs | 19 b | | 203 Ibs | 219 Ibs | 235 Ibs | 251 Ibs | 267 Ibs | 283 Ibs |
| 6' 0" | | | | | 173 Ibs | 181 Ibs | 189 Ibs | 19 b | | 205 Ibs | 221 Ibs | 237 Ibs | 253 Ibs | 269 Ibs | 285 Ibs |
| 6' 1" | | | | | 175 Ibs | 183 Ibs | 191 Ibs | 19 b | | 207 Ibs | 223 Ibs | 239 Ibs | 255 Ibs | 271 Ibs | 287 Ibs |
| 6' 2" | | | | | 177 Ibs | 185 Ibs | 193 Ibs | 20 Ibs | | 209 Ibs | 225 Ibs | 241 Ibs | 257 Ibs | 273 Ibs | 289 Ibs |
| 6' 3" | | | | | | | 195 Ibs | 20 Ib: | | 211 Ibs | 227 Ibs | 243 Ibs | 259 Ibs | 275 Ibs | 291 Ibs |
| 6' 4" | | | | | | | 197 Ibs | 20 | | 213 Ibs | 229 Ibs | 245 Ibs | 261 Ibs | 277 Ibs | 293 Ibs |
| 6' 5" | | | | | | | 199 Ibs | 20 | 7 | 215 Ibs | 231 Ibs | 247 Ibs | 263 Ibs | 279 Ibs | 295 Ibs |
| 6' 6" | | | | | | | 201 | 20 | 9 2 | 217 | 233 | 249 | 265 | 281 | 297 |
| 6' 7" | | | | | | | lbs 203 | lb: 21 | 1 3 | lbs 219 | lbs 235 | lbs 251 | lbs 267 | lbs 283 | lbs 300 |
| 6'7" bs bs bs bs bs bs bs bs | | | | | | | | | | | | | | | |
| S M | | | | Dress | | 2-4 | 2-4 4-6 | | 8-10 | | 12-14 | 16-18 | 20-22 | | |
| L XL | | | | Alpha | | XS | SI | | ME | | LG | XL | XXL | XXX | |
| XL Numeric Size 32-34 34-36 38-40 42-44 46-48 50-52 54-56 | | | | | | | | | | | 42-44 | 46-48 | 50-52 | 54- | |



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11:10 Emphasize Importance

Guideline: Change the font characteristics to emphasize the importance of a word or short phrase.

Comments: Font characteristics that are different from the surrounding text will dominate those that are routine. Important font characteristics include bolding, italics, font style (serif vs. sans serif), font size (larger is better to gain attention), and case (upper vs. lower). When used well, text style can draw attention to important words.

The use of differing font characteristics has negative consequences as well-reading speed can decrease by almost twenty percent, and thus should be used sparingly in large blocks of prose. Do not use differing font characteristics to show emphasis for more than one or two words or a short phrase. Do not use underlining for emphasis because underlined words on the Web are generally considered to be links.

Sources: Bouma, 1980; Breland and Breland, 1944; DeRouvray and Couper, 2002; Evans, 1998; Faraday, 2000; Foster and Coles, 1977; Lichty, 1989; Marcus, 1992; Paterson and Tinker, 1940a; Poulton and Brown, 1968; Rehe, 1979; Spool, et al., 1997; Tinker and Paterson, 1928; Tinker, 1955; Tinker, 1963; Vartabedian, 1971; Williams, 2000.

Example: Limited use of bolding effectively emphasizes important topic categories.

DoD Sites DoD on the World Wide Web Mide Comment Air Force Army Budget Iraq Business Opportunities

- Civilian Job Opportunities
- Coast Guard
- Combined Federal Campaign
- Dear Abby, Operation
- Defend America
- DeploymentLINK
- Enduring Freedom
- Environment
- Facts and Statistics
- Family
- Force Transformation(03/27/2003)

 Unified Combatant Commands
- NEW!

- **Guard and Reserve**
- Homeland Security
- Joint Chiefs of Staff
- Korea
- Marine Corps
- Navy
- Organization of DoD
- Pay
- Pentagon
- Recruiting
- Secretary of Defense
- **Terrorism and Terrorists**
- Tricare (Military Health System)
- Vaccines



11:11 Highlighting Information

Guideline: Do not use two (or more) different ways to highlight the same information on one page.

Relative Importance: **12** Strength of Evidence: **125**

Comments: One study found that participants were able to complete tasks faster when the interface contained either color-coding or a form of ranking, but not both. The presence of both seemed to present too much information, and reduced the performance advantage by about half.

Sources: Bandos and Resnick, 2004; Resnick and Fares, 2004.

Example: "Which model has the smallest trunk?" Users were able to complete the focused tasks faster when the diagram contained either color-coding or ranking, but not both. It seems that the presence of both identifiers presented too much information and users had trouble indentifying the information they needed.

| Side-By-Si | de Car Co | omparisor | n Mid | -Size Lux | ury Sedar | ns (8 Mod | dels) | - |
|---------------------|-------------------------------------|-------------------------------------|----------------------------------|-------------------------------------|-------------------------------------|--|-------------------------------------|--------------------------------|
| PRICING | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 |
| Base Recal * | \$34,150 [ere] | 121.072 (194) | \$30.695 (2/8) | 129,970 [1/8] | \$31,350 [4m] | 132,475 [5/8] | 130,765 [3/8] | terrare p |
| Base Invoice f. | 131.091 (6/8) | 110.000 (0.00) | \$28,445 [IMI] | \$27,332 [1/8] | \$27.453 (2.M) | \$29,959 [5/8] | 129.062 [4/8] | ADD. NO. 10. |
| POWERTRAIN | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 9 |
| Displacement | 3.0 [2/8] | 3.0 (2/8) | 2-2 [1/0] | 2.2 0.001 | 3.0 [2/8] | 3.0 [2/8] | 2.0 8491 | 3.2 [1/1] |
| Compression Ratio | 10.1 [5/8] | 10.2 [4/8] | 10.0 [eva] | 10.3 [1/4] | 10.5 [1/8] | 10.5 [1/0] | 3.1 (898) | 10.0 jen |
| Valves Per Cylinder | 5 [(//)] | 4 [2/0] | 4 (2/4) | 4 [2.4] | 4 (2/4) | 4 [2.40] | 4 [2/9] | 1 00.003 |
| otal Number Valves | 30 [1/8] | 24 (2/11) | 24 [2/8] | 24 [2.4] | 24 [2/8] | 24 [2/8] | 11 19/01 | 10 0740 |
| Horsepover | 220 @ 6300 RPM [3/8] | 225-@ 5900 RSM [2/8] | 220 @ 6000 8.PM [3/8] | 101 0 cold 100 0.00 | 215 (9 5600 RPM (5/0) | 232 @ 6750 RPM [1/8] | 310 # 5500 5818 (7/0) | 215 @ 570 КРИ [5/1] |
| Torque | 221 @ 3200 RPM [243] | 23.4 (\$ 1505 2514 \$505 | 220 @ 3400 8.004 [403] | 1211-0 2000 | 218 @ 3890 RPM [eve] | 1250 @ 4200 | 222 @ 2500 R.PM [8/8] | 222 @ 300 RPM [I/R |
| EPA City | TH SHALL BRIDE | | TO NO P INT | TO HER BOARD | The same lines | 20 MPG [1/8] | | 20 MPG P |
| EDA Huy | 26 MDG [2/8] | | SENDO DAN | 28 MPG [1.8] | Samp Build | SE MOG IDMI | + | 26 MPG 12 |
| DIMENSIONS | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model |
| Head Room: Frank | 38.4 in. [6/8] | 39.4 in. [6/8] | 39.5 in. (5/0) | 12.1 - 840 | 39.1 in. [3/8] | 40.4 in. [1/8] | 39.2 in. [2/0] | 38.9 in P |
| Head Room: Rear | 11.1 10.00 10.000 | 37.5 in. [2/8] | 30.11.1 | 37.5 in. [2/8] | 37.7 16. [1/6] | 37.5 in. [2.9] | 37.5 ib. [2/0] | 37.3 in. N |
| Leg Room: Front | 12.2 11 2000 | 12-1-12-12-12-12 | 42.4 in. [3/8] | 42.4 in. [2.0] | 42.7 in. [2/8] | 42.8 in. [1/8] | 42.3 in. [5/0] | 41.7 in. [8 |
| Leg Roomi Rear | 24,2 m. [2/9] | 24.6 in. [4.9] | 37.0 in. [2/8] | 24.4 in. [6.9] | 10.2 - 201 | 37.4 in. [1/8] | 25.1 in. [2/0] | 10.0 to 1 |
| Shoulder Rm: Front | 55.1 in. [49] | 54.4 in. [6/8] | 56.1 in. [3/8] | 54.5 in. [54] | 32.4.00 (0.04) | 57.7 in. [1/8] | 56.3 in. [2.8] | ALC: NO |
| Shoulder Rm: Rear | 20.0 to | 54.2 in. [5/8] | 56.2 in [2/6] | 53.7 in. [6.8] | 33.5 m (24) | 57.0 in. [1/8] | 55.1 in. [3.41] | 54,3 in 14 |
| EPA Trunk or Cargo | 13.4 cu.ft. [4/8] | 197.0.11 0000 | 12.8 cu.ft. [5.8] | 16.9 OLT. [1/0] | 10.1 00.00 00.00 | 13.5 cu.ft. [D/8] | 14:8 cu.ft [2/8] | 12.2 OJ.R. |
| WARRANTY | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model |
| Povertrain | 4 years or [2.49] 50000 miles | 4 years or [241] 50000 miles | 4 years or (2/8) 50000 miles | 4 years or (2A) 50000 miles | 6 years or [UR] 70000 miles | 4 years or [2/4] 50000 miles | 4 years or [2/4] 50000 miles | 4 years or 1 50000 mile |
| Corrosien/Rust Thru | 12 years or [1/8] Unimited miles | 6 years or [2.6] Unlimited miles | 6 years or [2/6] 100000 miles | 6 years or [2/4] Unlimited miles | 6 years or [2/8] Unlimited miles | Deserves or party and a server of the server | 6 years or [2/3] Unlimited miles | • |
| SPECIFICATIONS | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 |
| Wheel Base | STATES PART | 107.3 in. [2.4] | 110.4 in. [2/0] | 104.7 in. [5.4] | 100-1 - DAG | 324.5 is. [199] | 105.3 in. (6/9) | 106.9 in. |
| Overall Length | 179.0 in. [5.0] | 174-04 2011 | 190.1 m. [2/0] | 193.9 in. [24] | 176-4 8 2701 | 193.9 in. [1/8] | 182.5 in. [4/8] | 178.2 in. 1 |
| Width | 69.5 in. [4/8] | 68.5 in. [6.8] | 70.6 in. [2/8] | 76.4 in. [3/8] | 152.5 m. (848) | 73.2 in. [1/8] | 69.0 in. [5.0] | Laboratory of |
| Height | 56.2 in. [3/8] | 55.7 in. [5/8] | 56.7 in. [2/8] | 34.0 mm (\$40) | 35.5 in. [6.0] | 56.1 in. [449] | 36.8 in. [1/0] | 35.1 m 4 |
| Curb Weight | 3462 lbs. [5.41] | 3362 lbs. [241] | station gray. | 3516 lbs. (64) | 3285 lbs. [2/0] | Da 24 Dec. BARI | 3175 lbs. [1/0] | 3450 bs. |
| Turning Radius | | 34.4 [2/8] | - | 25.7 [44] | 33.4 [1/8] | 19.1 10.00 | - | 35.3 pv |
| Fuel Capacity | 18.5 [1/8] | 16.6 [5/0] | 17.5 [3/8] | 18.0 25.0 | 17.5 [3/8] | 18.0 [2/8] | 18.1 20700 | 16.4 16/ |