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.

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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.







105

ext Hppearance

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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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109

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/