

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.

Relative Importance:

12340

Comments: Black text on a plain background elicited reliably faster reading performance than on a medium-textured background. When

Strength of Evidence:

12345

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.



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guidelines. Unfortunately, there's a lot of misinformantion floating around and lots of desperate people as

11:2 Format Common Items Consistently

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).

Relative Importance:

02340

Strength of Evidence:

12000

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.

Relative Importance:

12340

Strength of Evidence:

12300

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.

11:4 Ensure Visual Consistency

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

Relative Importance:

1234

Strength of Evidence:

1234

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.



11:5 Use Bold Text Sparingly

information.

Relative Importance:



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

Strength of Evidence:

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 Value		
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-col

Relative Importance:

125

Strength of Evidence:

12545

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

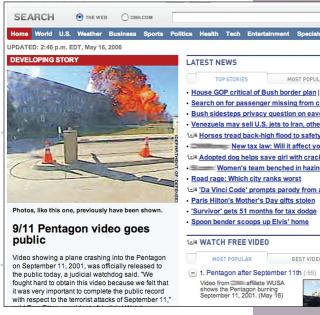
Not all features of a Web site will attract a user's attention equally. The following features are presented in order of the impact they have on users:

- 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.





11:7 Use Familiar Fonts

Guideline: Use a familiar font to achieve the best possible reading speed.

Relative Importance:

12300

Strength of Evidence:

12345

Comments: Research shows no reliable differences

in reading speed or user preferences for twelve point Times New Roman or Georgia (serif fonts), or Arial, Helvetica, or Verdana (sans serif fonts).

Sources: Bernard and Mills, 2000; Bernard, Liao and Mills, 2001a; Bernard, et al., 2002; Bernard, et al., 2001; Boyarski, et al., 1998; Evans, 1998; Tullis, Boynton and Hersh, 1995; Williams, 2000.

Example: Using unfamiliar fonts may slow reading speeds.

<u>r Info New TV Soripta Film Soripta Film Transoripta Halku Writera Anime Linka Cut Viewa Gulz</u> <u>Contest Trade Search Contact</u>



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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: 12300 Strenath of Evidence: 12340

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		

(12-point) font

cattings

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computers

11:9 Color–Coding and Instructions

Relative Importance:

02000

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

Strength of Evidence:

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														
	Heigh													_	
	5' 3"	123 lbs	131 lbs	139 lbs	147 lbs	155 lbs	163 lbs	171 lbs	179 lbs	187 lbs					
	5' 4"	125	133	141	149	157	165	173	181	189	1000				
	5. 4	lbs													
	5' 5"	127	135	143		159	167	175	183	191					
		lbs		-	-										
	5' 6"	129 lbs	137 lbs	145 lbs	153 lbs	161 lbs	169 lbs	177 lbs	185 lbs	193 lbs					
		131	139	147		163	171	179	187	195		-	-		
	5' 7"	lbs													
	5' 8"	133	141	149		165	173	181	189	197	213	229	245		
	5. 8	lbs													
	5' 9"	135	143	151		167	175	183	191	199		231	247		-111
	,	lbs													
	5' 10"	137	125	153		169	177	185	193	201		233	249		
		lbs													
	5' 11"					171 lbs	179 lbs	187 lbs	195 lbs	203 lbs	219 lbs	235 lbs	251 lbs	267 lbs	283 lbs
						173	181	189	197	205		237	253	269	285
	6' 0"					lbs									
	6' 1"					175	183	191	199	207	223	239	255	271	287
	6. 1					lbs									
	6' 2"					177	185	193	201	209		241	257	273	289
						lbs									
	6' 3"							195 lbs	203 lbs	211 lbs	227 lbs	243 lbs	259 lbs	275 lbs	291 lbs
								197	205	213		245	261	277	293
	6' 4"							lbs							
	6' 5"	1000					11111	199	207	215	231	247	263	279	295
	0 0							lbs							
	6' 6"							201 lbs	209 lbs	217 lbs	233 lbs	249 lbs	265 lbs	281 lbs	297 lbs
								203	211	219		251	267	283	300
	6' 7"							lbs							
	Women's General Sizing Guidelines														
S Dress Size 2-4 4-6 8-10 12-14 16-18 20-22 24-26										26					
	L)	Alpha	Size	xs	s	м	MED	LG	XL	XXL	XXX	ΚL
\	XL			<u> </u>	Numeri	c Size	32-3	4 34	-36	8-40	42-44	46-48	50-52	54-	56
Ī	_	_	/												

11:10 Emphasize Importance

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

Relative Importance: Strength of Evidence: 12345

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 Mark Comment

- Air Force
- Army
- Budget
- 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
- Iraq
- 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:

12000

Strength of Evidence:



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	mparisor	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 Retail *	\$34,150 [eve]	137.477 (79)	\$30,695 [E/B]	129,970 [MI]	\$31,350 [em]	132,415 [3/8]	130,765 [3/8]	\$10.000 M
Base Invoice 1	\$31.091 tent	\$10.000 PML	\$28,445 [199]	\$27,332 [1/8]	\$27,453 [RM]	\$29,959 [5/H]	129,042 [4/8]	ESSLAIN MA
POWERTRAIN	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Displacement	3.0 [2/8]	3.0 [2/8]	2-2 [1/0]	3.5 (88)	3.0 [2/8]	3.0 [2/8]	2.0 (8/9)	3.2 [1/1]
Compension 8 atio	10.1 paj	10.2 [4/8]	10.0 [6/8]	10.3 [pm]	10.5 [1/8]	10.3 [1/0]	9-1 (979)	To'o leval
Valvez Per Cylinder	5 [170]	4 (2/4)	4 (2/4)	4 [2.8]	4 (2/4)	4 (2.70)	4 [2/9]	1 9-71
otal Number Valves	30 [1/8]	24 (2/11)	24 [2/8]	24 PA1	24 [2/8]	24 [2/8]	11 (8/8)	10 (78)
Horsepover	220 @ 6300 RPM (3/8)	225-@ 5900 RSM [2/8]	220 @ 6000 RFM [3/8]	171 0 4100 170 (85)	215 @ 5600 RPM [3/8]	232 @ 6750 RPM [1/8]	230 & 5500 5816 \$780	215 @ 5700 RPM (S/R)
Torque	явм fxal 257 @ 3500	23.4 (B-27.00 ASHA (BAN)	220 @ 3400 NEM [4/8]	171 9 3000 1101 BWG	218 @ 3890 RPM [6/8]	ENM fetal 550 @ 4200	222 @ 2500 RPM [1/8]	222 @ 3000 RPM [I/M]
EPA CITY	35.000 800	200	TO NECE feval	19 HEG [EM]	towns page	20 MPG [MB]		20 MPG PM
EDA HUY	54 WDG DWI		56 NDG DWI	28 MPG [8/8]	24 1054 (0.00)	26 MPG [DMI]	4	26 MPG PM
DIMENSIONS	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 9
Head Room: Front	38,4 in. [678]	39.4 in. [E/8]	39.5 in. [5/8]	1114 98	39.1 in. [3/8]	40.4 in. [1/8]	39.2 in. [ZW]	38.9 in. 14.7
Head Room: Rear	11.2 to 1781	37.5 in. [2/8]	30.7 m. (8/8)	37.5 in. [2/8]	37,7 in. [1/6]	37.5 in. [2.8]	37.5 th. [2/0]	37.3 In. 16/1
Leg Room: Front	\$1.3 m (BR)	11 to DW	42.4 in. [3/8]	42.4 in. [3/8]	42:7 in: [2/8]	42.0 in. [M]	42.3 in. [5/8]	41.7 in. per
Leg Roomi Rear	24,2 m. [2,9]	34.6 in. [4/8]	37.0 in. [2/8]	24.4 in [6/8]	10-1 m (88)	37.4 in. [1/9]	35.1 in. [3/0]	PRO DA
Shoulder Rm: Front	55.1 in. [49]	54.4 in. (6/8)	56.1 in. [3/8]	54.5 in. [589]	12 to (88)	57.7 in. [1.0]	56.3 in. [2.8]	53.5 to \$50
Shoulder Rm: Rear	51.4 to \$80	54.2 in. (5/8)	56.2 in. (2/6)	53.7 in. [ERS]	50.5 m (9.8)	57.0 in. [1/8]	55.1 in. [3/8]	54.3 in [48
EPA Trunk or Cargo	13.4 cuft [4/8]	19 7 (6.7) (2.8)	12.8 cu.ft. [5/8]	16.9 out: [tm]	15.1:00 0 950	13.5 cu.ft. [D/8]	14:E cuft [P/II]	12.2 cu.ft. [6/
WARRANTY	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Powertrain	4 years or [Z/II] 50000 miles	4 years or [2/1] 50000 miles	4 years or [2/8] 50000 miles	4 years or [2A] 50000 miles	6 years or [I/I] 70000 miles	4 years or [ZA] 50000 miles	4 years or [2/l] 50000 miles	4 years or 12/ 50000 miles
Corroller/Rust Thru	12 years or [1/8] Unlimited miles	6 years or [2.6] Unlimited miles	6 years or [Z/6] 100000 miles	6 years or [2/4] Unlimited miles	6 years or [2.8] Unlimited miles	Depart of BAS	5 years or [X/5] Unlimited miles	*
SPECIFICATIONS	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Wheel base	3040 H. P#1	107.9 in. [28]	113.4 in. [2/8]	104.7 in. [5/1]	100:1 - DW1	224.5 in. [1M]	205.2 in. (6/9)	106.9 in. (4)
Overall Length	179.0 in. [5/8]	STREET BOY	190.1 m. [2/8]	193.9 in. [DAI]	\$24-4 m \$28\$	193.9 m. [I/II]	182.5 in. [4/8]	178.2 in. 164
Width	69.5 in. [48]	68.5 in. [6/8]	70.6 in. [2/8]	76.4 in. [3/8]	\$2.5 m. (8.8)	73.2 in. [1.8]	69.0 in. [5/0]	LEAD IN THE
Height	56.2 in. [3/8]	55.7 in. [5/8]	56.7 in. [2/8]	Sein BRL	55.5 in. [6.0]	56.1 in. [449]	36.8 in. [1/0]	20-1 in DM
Curb Weight	3462 lbs. [5.8]	3362 lbs. [DAI]	soul in DAS	3516 lbs. (6A)	3285 lbs. [2/l]	34.74 Bit. BRI	3175 lbs. [I/N]	3450 lbs. [4/
Turning Radius	THE PART	24.4 p/g	-	35.7 [44]	33.4 [t/B]	19.1 (9.9)		35.3 [3.0]
Fuel Capacity	18.5 [1/8]	16.6 DAI	17.5 [3/9]	15.0 929	17.5 D/SI	18.0 [2/8]	28.2 (278)	16.4 [6/8]