Index

A

abbreviation, 145, 146
above the fold, 132, 171
    to attract attention, 43
access,
    to content or information, 87, 161
    to search, 164
accessibility, 22-28, 98
    assistive technology and, 23, 26, 27
    automatic evaluation tools and, 10
    Section 508, 23
accuracy
    of data entry, 110
    of headings, 74
    of scanning, 104
    of selecting links, 174
acronym, 147
    use of on websites, 145
action,
    control, 58
    of pushbuttons, 116, 128, 175
    of users, 42
    possible from a homepage, 36
activate,
    radio buttons, 119
    the default action, 128
    the pushbutton, 175
    using a keyboard, 26
active portion of the screen, 56
active voice, 150, 171, 174
activities performed by users, 17, 176
advanced web interaction skills, 125
advertisements, 101, 136
aid, 174
    or usability specialists, xvii
    navigation, 174
alignment,
    of page elements, 52
alphabetical,
    as an organizational method for lists, 103, 107
alt text, 24, 26, 134
anchor link, 57, 171, 176
animation, 131, 140
    as an attention-attracting feature, 101
    multimedia, 28
    text equivalents for, 24
annotation
    of graphics, 138
applet, 171
    accessibility of, 24, 27
    Java, 176
arrows,
    as clickability cues, 81, 82, 172
assistive technology, 23, 25, 26, 27, 28, 79, 171
asterisk, 111, 114
attention,
    attracting, 43, 70, 77, 82, 100, 101, 131, 147, 171
    user, 77, 129, 133, 139
audience,
    for the *Guidelines,* xv, xvii, xix
    multiple, 161
audio, 28, 131
    accessibility issues and, 24
automatic,
    cursor placement, 124, 171
    error detection, 112
    tabbing, 125, 171
    time-out, 16
    usability evaluation, 10, 176
auto-tab, 125, 171

B

Back button, 46, 58, 63
background, 31, 54, 96, 97,
    and methodology for the *Guidelines*, xx
    color, 25, 54, 96, 106, 158
    image, 137
banner ad, 136, 171, 173
bar,
    address, 171
    browser, 76, 174
    navigation, 18

bar, (cont.)
scroll, 45, 54, 70, 132, 175
title, 97
bar graph, 138, 162
benefit,
for audiences of the *Guidelines*, xv, xvii
of text links, 83
bias
tester, 9
bold, 54, 70, 77, 100, 101, 111, 114, 147
bookmark, 76
boolean, 167
brainstorming, 5
breadcrumbs, 18, 56, 171, 174
browser, 31, 58, 176
common, 30, 174
settings, 91, 98
bullets,
clickability, 81, 82, 172
lists, 24, 104, 109
button
Back, 46, 58, 63
radio, 23, 52, 108, 119, 121, 175, 176
bytes, 16, 135

C

capitalization, 108, 147
caption, 28, 101
card sorting, xxii, 171
cascading menu, 93, 172
case,
sensitive, 124
upper-, 101, 147
upper- and lower-, 100, 124, 129, 147, 168
center,
of the Web page, 48, 54, 81, 82, 152, 157, 171
characters,
limit for in text field, 117
per line, 53,
spacing of, 97
which require the use of the Shift key, 129
check box, 52, 108, 119, 120, 172
clicks,
double, 126
reducing user, 121, 156
clickability cue, 59, 61, 81, 82, 83, 94, 143, 172
"click here", 84
client-side, 26, 172, 176
code,
color, 56, 163
HTML, 8
user-entered, 124
zip, 123
cognitive walkthrough, 10, 172
color, 6, 25, 31, 56, 94, 97, 101, 135, 163
accessibility issues and, 25
background, 54, 97, 106, 158
for grouping, 106, 158, 163
of links, 18, 56, 81, 82, 83, 88, 172
to gain attention, 101
column,
alignment, 52
headings, 74
width, 53
computer,
capabilities/strengths, 17, 112, 113, 139
error detection by, 112, 139
human-computer interaction, xx, 11
speed/processing time, 6, 18, 135
connection speed, 6, 19, 33, 172
consistency
of alignment, 52
of clickability cues, 81
of formatting, 98
of labels, 117
of link names and targets, 85
of important items, 49, 59, 131
of titles, 76
physical, 174
visual, 97
content, 2, 3, 4, 6, 13, 26, 48, 51, 89, 131, 140, 172
accessing important, 87
length of pages for, 45, 69
meta-, 8

content, (cont.)
organization of, 154-163
writing Web content, 144-153
content page, 145, 172
structuring to facilitate scanning, 157
contents,
clickable list of page contents, 57
table of, 62, 173
See also Anchor link and Within-page links
contrast,
high-contrast backgrounds, 96
lightness, 25
control,
of animation, 140
of link wrapping, 91
of page layout, 28
screen-based, 110-129
See also Widgets
cue,
clickability, 59, 61, 81, 82, 83, 94, 143, 172

D

data
comparison of, 50
critical, highlighting of, 77
display of, 117, 138, 139, 162
formatting, 12
re-entry of, 113
tables of, 74, 160
user-entered codes and, 124
data entry, 52, 111, 124, 172
accuracy of, 110
fields, labels for, 114, 115, 117, 125
indicating required vs. optional fields, 111
reducing errors during, 123
speed of, 118, 122, 125, 129
user, 113, 117, 122, 123, 124, 129
errors with, 112, 113, 123, 125, 129
minimize, 113
dead-end pages, 55
default,
action, 128
browser, 31
link colors, 88
selection, radio buttons, 119
value, 118
delay,
user tolerance for, 68, 135
density,
page/screen, 51, 172
design
iterative, 2
parallel, 5
destination page, 56, 60, 172
matching link names with, 85
disabilities,
number of people with, 23
See also Accessibility, Assistive technology, and Section 508
document,
lengthy, 14, 69
double-click, 126
download,
convenience related to, 45
time for, xxii, 16, 19, 83, 131, 133, 135, 137, 172

E

entry field, 117, 124, 129, 172
labels for, 114, 115, 123, 125, 129
required vs. optional, 111
errors,
automatic detection of, 112
increasing the possibility of, 113, 129
reducing the number of, 60, 93, 97, 123, 125, 127, 129
ethnographic evaluation, xxii
evaluation
automatic, 10
heuristic, 9, 173
of website designs, 3
tester bias during, 9
evidence
strength of, xvi, xvii, xix, xxi-xxii,
expert evaluation, 172
See also Heuristic review
expert opinion, xv, xix, xxi, xxii

expert review, 7, 9, 173
See also Heuristic review
eye-tracking, 48

F

feature,
attention attracting, 101
feedback,
providing to orient users, 56, 88
providing while users wait, 18,
field,
data entry, indicating required, 111
data entry, labeling, 114, 115, 117
data entry, partitioning, 123
data entry, placing cursor in, 124
fold, 173
above the, 43, 132, 171
below the, 43, 45, 132, 173
impact on homepage design, 43
limit large images above, 132
font,
attracting attention with, 101
emphasizing importance with, 100
size and reading speed, 98
style and reading speed, 99
sans serif, 99, 100
serif, 99, 100
form(s),
assistive technologies and, 23
designing entry fields for, 111, 114-115, 117, 123
displaying default values in, 118
making user friendly, 112-113, 122, 124-125, 129
widgets and, 116, 119-121, 126-128
working memory limitations and, 20
frame(s), 173
accessibility issues and, 24, 27
appropriate use of, 46, 63
title, 27

G

gloss, 173
assisting navigation with, 65
graphics, decorative, 6, 81, 101, 133, 136

H

heading, 73-79, 85, 173
impact on scrolling, 54, 70, 157
introducing lists with, 105
placing on the page, 59
providing feedback with, 54
help, user, 13
heuristic evaluation, 9, 173
hierarchy,
information, placement of critical items in, 156
information, showing with site maps, 62
information, use of html headers and, 79
high speed access, percent of users with, 33
high-contrast backgrounds, reading performance and, 96
homepage,
announce changes to website on, 40
characteristics of, 36
communicating website purpose on, 41
conveying quality with, 35
enabling access to from all other pages, 38
length of, 43, 45
panels, 39
presenting options on, 37
prose text on, 42
horizontal scrolling, 67
hourglass, use of to indicate waiting times, 18
HTML order, headings and, 79

I

IBM, 38, 43, 56, 196
IEEE, 84, 196
image, 171, 175
accessibility issues and, 24
appropriate use of, 133
attracting attention with, 101
background, 96, 137
conveying messages with, 141
decorative, 6, 81, 101, 133, 136

image, (cont.)
facilitating learning with, 142
full-size, 135
labeling of, 134
link, 83, 134, 143
thumbnail, 135, 176
image map, 173
accessibility issues and, 26
clarifying clickable regions of, 94
important items, placement of, 48, 49
index link, 173
information,
facilitating user performance of, 12, 115, 155, 156, 158-163
hierarchy, html headings and, 79
quantitative, format of, 162
supportive, 90
information-based website, xix
instructions, writing of, 150
italics,
attracting attention with, 101
emphasizing text with, 100
iterative design process, 2, 3

J

jargon,
avoiding the use of, 148
providing links to explain or define, 90
Jupitermedia Corporation, 30, 32, 33, 197

K

keyboard, entry speed and, 122
keyword, 173

L

label,
category, 72
data entry field, 114-115, 117, 125
link, 38, 72, 84
list, formatting of, 106
tab, 60
widget, 108, 116, 119, 120
layout,
page, horizontal scrolling and, 67
page, importance to finding information, 47
page, structuring for data comparison, 50
learning, using images to facilitate, 142
letter,
first, capitalization of in lists, 108
case of, use in codes, 124
case of, use in mixed prose, 147
case of, use in search terms, 168
uppercase, attracting attention with, 101
line length, reading speed and, 53
link
anchor, use of on long pages, 57
blue, 81, 82, 88
clickability cues for, 81
embedded text, designing, 86
importance in site being found by search engines, 8
index, definition of, 173
internal vs. external, indicating, 92
missing, detection by automated evaluation methods, 10
navigation, assistive technology skipping of, 26
navigation, effects of prose text on, 152
placement on the homepage, 36, 37
placement denoting importance, 47
repeating, 87
to information for new users, 4
to complete printable/downloadable documents, 14
to homepage, labeling of, 38
to related content, 89
to supporting information, 90
used, color for, 88
visual characteristics of, 82
link, image,
cautions emulate on use, 83
importance of labels with, 134
real-world objects, 143
link label,
make specific and descriptive, 72
text, appropriate length of, 91
use the user's terms in, 84

link text,
matching to destination page heading, 56, 85
reasons for use, 83
redundant use with image maps, 26
list,
alignment of elements to maximize performance, 52
bulleted, when to use, 109
drop-down, performance compared to radio buttons, 119
drop-down, use compared to open list, 127
format, capitalization, 108
format, ease scanning, 106
format, place important items at top, 107
headings, use of, 105
horizontal, cautions for using 104
numbered, when to use, 109
order to facilitate user performance, 103
placement for differentiation, 59
pull-down, use compared to open list, 127
vertical, displaying items in, 104
list box,
entry speed compared to data entry box, 129
showing options in, 126
list of contents, use of on long pages, 57
logo,
use as link to homepage, 38
placing on each page, 131
lowercase,
use in user-entered codes, 124, 129
use in prose text, 147
use in search terms, 168

m

masthead, use of to designate homepage, 36
mental representation, effects of paging on user's ability to create, 68
menu,
cascading, selection of items from, 93
formatting to provide user feedback, 56
sequential, when to use, 63
simultaneous, use of frames with, 46, 63
minesweeping,
using to determine clickability, 81, 83
mixed case, use in prose text, 147
monitor,
flicker frequency and accessibility, 28
reading from and multitasking, 20
monitor/screen resolution, 43, 91, 173, 175
horizontal scrolling and, 67
impacts on design, 33
impacts on font size, 98
mouseover,
accessibility issues with, 26
compared to 'pointing and clicking', 93
multimedia,
synchronize equivalent alternatives to ensure accessibility, 28,
appropriate use of, 131,
introductory explanations of, 140

n

National Cancer Institute, xv, xvi, xviii, xx
navigation,
dead-end pages and, 58
glosses and, 65
importance of in meeting user expectations, 4
navigation elements,
differentiation and grouping of, 59, 158
placement of, 48, 58, 64, 83
navigation links,
allowing assistive technologies to skip, 26
placement in frames and accessibility issues, 27, 152
navigation pages,
design of, 45, 48, 64, 152
scrolling and, 64
navigation schemes, use and benefits of, 59
navigation tab,
formatting of, 61, 143
placement of, 49, 54,
numbers,
partitioning of for data entry, 123

o

open list, 119, 126, 127, 174
performance compared to radio buttons, 119
showing options in, 126
use compared to drop-down/pull-down list, 127
operating systems, designing for different, 32
options,
presenting on the homepage, 37
reducing number of, 78

p

page
length, appropriate, 45
loading and byte size, 16
loading and scrolling, 68
navigation, 48, 64, 152
scrolling and reading comprehension, 68
text-only and accessibility, 25
titles, 76
titles and role in being found by search engines, 8
page layout,
designing for data comparison, 50
horizontal scrolling and, 67
level of importance and, 47
placement of important items, 48
paging,
and reading comprehension, 68
versus scrolling, 68
panel,
width on the homepage, 39
location of links in, 59, 81
use with frames, 63
participants, number for usability testing, 7
partitioning, long data items, 123
passive voice, 150, 174
path, 56, 174
performance,
benchmarks, 2
goal/objective, 6, 174
performance test, 7, 174
user bias in, 9
picture,
alt text and, 24
facilitating learning and, 142
pixel,
dimension tags, 135
number, and impact on page design, 33
number, and impact on screenful size, 43
size, and impact on font size, 98
plug-in, 174, 176
accessibility and, 27
point-and-click, 93, 174
pop-up window, 173, 174
glosses, and, 65
user performance, and 13
preference,
objectives, 174
user, and design considerations, 6
user, and font type, 99
presentation, 175, 176
multimedia, accessibility and, 28
prose text, 172, 175
emphasizing importance of, 100
formatting of, 96
impact of scanning on, 152
limiting on the homepage, 42
limiting on navigation pages, 152
mixed case and, 147
readability of, 151
scanning and embedded text link lengths, 91
scanning issues and, 157
scrolling issues and, 70
prototype, use in the design process, 2, 176
pushbutton, 175
design of, 97, 143, 116
prioritization, 128

R

radio button, 175, 176
  appropriate use of, 119
  assistive technologies and, 23
  capitalization of labels, 108
reading comprehension, impacts on, 68, 151
reading performance,
  font size and, 98
  multitasking and, 20
  performance and page layout, 96, 98
reading speed,
  font type and, 99
  impact of font characteristics on, 100
  impacts of line length on, 53
  impacts of multitasking on, 20
redesign, announce changes before, 40
related content, linking to, 89
related information, grouping to enhance user performance,158
relative importance, xv, xvi, xvii, xviii, xix, xx, xxi, 23, 24, 101
requirements,
  user, establishing and understanding, 5
  user, and tailoring online display of information, 159
research-based evidence, xxi, xxii
resolution,
  design considerations and, 33
  horizontal scrolling and, 67
  impact on font size, 98
  screen, impact on homepage, 43
reveals, use of to attract attention, 101, 175
row,
  alignment of, 52
  headers and headings, 74, 160

S

scanning, 175
  accuracy, 104
  facilitating, 157
  importance of color, 163
  importance of headings, 75, 84
  lists and, 104, 106, 107
  page layout/structure and, 50, 51, 52
  performance, importance of grouping to, 158
  prose text on the homepage and, 42, 152
  text link lengths and, 91
screen, 171, 172, 173, 174, 175, 176
  browser, 27, 76
  density, 51
  flicker, 28
  locating items on, 48, 49
  real estate, widget selection and, 121, 126, 127
  resolution, 33, 43, 91, 173, 175
screen reader, facilitating use of, 25, 26, 74, 124, 175
screenful, 171, 175, 176
  content page design and, 69
  homepage length and, 43
  large images and, 132
  navigation page length and, 64
script, 172, 176
  accessibility issues and, 24, 26
scroll bar, 70, 132, 175
scroll box, 70
scroll stopper, 54, 175
scrolling, 171, 173, 174, 175
  data entry fields and, 117
  facilitating, 70
  horizontal, 67
  impact on homepage design, 43
  keeping functions available during, 46
  lists, 107, 126, 127
  navigation pages and, 64
  page length decisions and, 45
  reading comprehension and, 68
  scroll stoppers and, 54
  searching for information and, 69
  versus paging, 68
search engine/function,
  advanced, 167
  cautions when using, 165
  functionality of, 167, 168, 169
  page titles and, 76
search engine/function, (cont.)
  placing on each page, 165
  placing on homepage, 36
  registration with, 8
  results, making usable, 166
  template, design and use of, 170
  terms used in, 166, 167, 168, 169
search sequences, standardizing, 15
Section 508, 23, 175
sentence(s), 172, 175, 176
  descriptive, 149
  impact of on scanning, 157
  reading comprehension and, 151
  use of voice in, 150
sequential menu, 63, 175
server-side image map, 26, 172, 176
shift key, 129
signal, auditory, 18
simultaneous menu, 176
  use of frames with, 46
  versus sequential menus, 63
site map, 173, 176
  link to, placing consistently, 59
  link to, on homepage, 36
  use of, 62
software, 171, 174, 175
  use of in the design process, 2, 10,
  accessibility issues and, 27, 124
sound, accessibility issues and, 24
source documents, xvi
speed
  connection, definition of, 172
  connection, and design issues, 6, 33
  connection, and download times, 19, 172
strength of evidence, xvi, xvii, xviii, xix, xxi
style sheet, 176
  accessibility issues and, 28
survey, xxii
  customer, establishing user requirements and, 5
  use in creating lists of user terms,147

T

tab, 176
  design and placement, 59, 61
  labels, 60
  ordering, 103
table,
  quantitative information and, 162
  row and column headings, 74
  scrolling issues and, 160
tag,
  html heading, 79
  pixel dimension, 135
tagline, 36, 41, 176
target page, 176
  matching link names with, 85
task(s),
  appropriate menu types for, 63
  completion times and visual consistency, 97
  ordering/sequencing to maximize user performance, 103, 153
  sequence, standardization of, 15
task analysis, 159, 176
  importance in meeting user expectations, 4
test subjects, correct number of, 7
tester bias, 9
testing results, use of, 10
  website, common browsers and, 30
  website, common screen resolutions and, 33
  website, operating systems and, 32
text, 172, 175
  alignment of, 52
  alternatives for image maps and accessibility, 26
  blocks of, 52, 54, 100
  blue, 81, 82, 88
  continuous, 104, 172, 175
  formatting for emphasis, 100, 101
  formatting for reading performance, 96, 98
  grouping with color, 158

text box, 117, 173
  accessibility issues and, 23
text equivalents, accessibility issues and, 24
text label
  clickable images and, 134, 143
text link,
  appropriate length of, 91
  benefits of, 83
  embedded, 86
  image maps and, 26
  indicating used, 88
  matching to destination page title, 85
  use of compared to image links, 83
text only pages, accessibility issues and, 24
thumbnail image, 135, 176
time out, 16, 176
title(s), xvi,
  abbreviating, 146
  frame, accessibility issues and, 27
  link, 42
  page, 8, 76, 174
  page, and link text consistency, 85, 174
tool(s), xviii
  automatic evaluation, role in the design process, 10
  software, development of prototypes and, 2
transactions, data entry, 122, 129

U

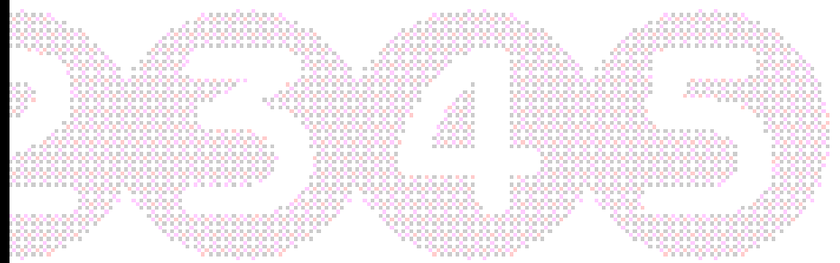
underlining,
  attracting attention with, 101
  clickability cues and, 81, 82, 100, 172
  emphasizing importance with, 100
  highlighting critical data and, 77,
uppercase,
  attracting attention with, 101
  use in prose text, 147
  use with search engines, 124, 129, 168
URL, 176
  indicating destination of links with, 92
  providing feedback to users with, 56
usability, xv, xvi, xvii, xviii, xix, xx, xxi, xxii
  problem, 9, 173
  role of 'before and after' studies in determining, 3
  specialist, xvi, xvii, xx, 7
  study, role in the design process, 3
usability goal, 6
  role in the design process, 2
usability test(ing), xviii, xx, xxii, 176
  automatic evaluation and, 10
  bias in, 9
  cognitive walkthroughs and, 10
  determining user information needs with, 159, 163
  expert evaluations and, 9
  heuristic evaluations and, 9
  performance/preference goals and, 6
  role in designing headings and labels, 73, 114
  role in the design process, 6
  test subjects and, 7
  widgets and, 121
user(s),
  acceptance of website, text line length and, 53
  attention, drawing with highlighting, 77
  color deficient, designing for, 25
  disabilities, designing for, 22-28, 79
  expectations, designing to meet, 4
  experienced/frequent, designing for, 49, 125
  groups, role in establishing user requirements, 5
  inexperienced/new, importance of clickability cues to, 81
  inexperienced/new, paging and, 68
  inexperienced/new, providing assistance to, 13
  inexperienced/new, search functions and, 167
  interface issues, 6
  multitasking, reading performance impacts of, 20
  older, importance of descriptive headings to, 75

user(s), (cont.)
  older, scrolling behavior of, 69, 75
  older, widgets and, 121
  performance, design considerations and, 6, 103, 110
  requirements, 5
  terminology, using in help documentation, 18
  visually impaired, 31
  working memory limitations, designing for, 20, 46
  workload, reducing, 17
  younger, scrolling behavior of, 69

V

video,
  accessibility issues and, 24
  meaningful use of, 131
  user control of, 140
vision-related disabilities, 23
visual
  consistency, importance of, 97
  design, importance of, 3
visual cues,
  designating required data entry fields with, 114
  providing user feedback with, 56
visualization techniques and quantitative information, 162
visually-impaired users, 31
vocabulary, user, designing search terms around, 169
voice,
  active, 150, 171
  negative, 150
  passive, 150, 174

W

walkthrough, cognitive, 10, 172
Web page,
  attention attracting features on, 101
  layout, consistent alignment of items on, 52
  layout, facilitating scrolling, 70
  layout, style sheets and accessibility issues, 28
  layout, white space and, 51
  length, primary use and, 45
  positioning important items on, 48
  printing options for, 14
  titles, 76
  visual consistency of, 97
website,
  accessibility issues and, 22-28
  attention attracting features, 101
  designing to be found by search engines, 8
  format, meeting user expectations for, 4
  goal, importance in design process, 2
  hierarchy, place critical information high in the, 156
  information, format for multiple audiences, 161
  purpose, communicating, 41
  redesign, announcing changes to users, 40
  use of and help documentation, 18
  visual consistency across, 97
white space,
  appropriate application of, 51
  use of in lists, 106
widget, 176
  alignment of, 52
  capitalization of labels, 108
  check box, 172
    appropriate use of, 120
    displaying default values in, 118
  drop-down list,
    appropriate use of, 121, 127
  entry field,
    distinguishing required and optional, 111
    labeling, 114, 115, 125
    partitioning of, 123
    placing cursor in, 124
  list box,
    entry speed compared to data entry box, 129
    showing options in, 126

widget, (cont.)
pushbutton, 175
labeling of, 116
prioritizing, 128
radio button, 175, 176
appropriate use of, 119
assistive technologies and, 23
visual consistency and, 97
width,
homepage panels, 39
page, printing issues, 21
pixel dimension tags for images, 135
screen, maximum dimensions, 43
window, unsolicited, 13
within-page links, 57, 176
working memory, 20, 46, 160