

Content Organization

After ensuring that content is useful, well-written,

and in a format that is suitable for the Web, it is important to ensure that the information is clearly organized. In some cases, the content on a site can be organized in multiple ways to accommodate multiple audiences.

Organizing content includes putting critical information near the top of the site, grouping related elements, and ensuring that all necessary information is available without slowing the user with unneeded information. Content should be formatted to facilitate scanning, and to enable quick understanding.

16:1 Organize Information Clearly

Relative Importance:

12345

Strength of Evidence:

1234○

Guideline: Organize information at each level of the Web site so that it shows a clear and logical structure to typical users.

Comments: Designers should present information in a structure that reflects user needs and the site's goals. Information should be well-organized at the Web site level, page level, and paragraph or list level.

Good Web site and page design enables users to understand the nature of the site's organizational relationships and will support users in locating information efficiently. A clear, logical structure will reduce the chances of users becoming bored, disinterested, or frustrated

Sources: Benson, 1985; Clark and Haviland, 1975; Detweiler and Omanson, 1996; Dixon, 1987; Evans, 1998; Farkas and Farkas, 2000; Keyes, 1993; Keyes, Sykes and Lewis, 1988; Lynch and Horton, 2002; Nielsen and Tahir, 2002; Redish, 1993; Redish, Felker and Rose, 1981; Schroeder, 1999; Spyridakis, 2000; Tiller and Green, 1999; Wright, 1987; Zimmerman and Akerelrea, 2002; Zimmerman, et al., 2002.

Example: This design clearly illustrates to the user the logical structure of the Web site. The structure is built on the user's needs—namely, completing a form in ten steps.

FAFSA Steps:

- 1 Info About You
- 2 Your Finances
- 3 Your Student Status
- 4 Your Parents' Info
- 5 Your Household Info
- 6 Schools to Receive Results
- 7 Review Completed FAFSA
- 8 Signatures
- 9 Submit Your FAFSA
- 10 Finish

Need help with this page? This page may scroll downward.

Step 1 questions relate to your personal demographic and marital status information, as well as school related and financial aid eligibility information that applies to you (the Student).

1. Last Name:
2. First Name:
3. Middle Initial:
4. Permanent Street Address (include Apt. Number):
Only use letters (A-Z), numbers (0-9), periods (.), commas (,), apostrophes ('), dashes (-), number symbols (#), at symbols (@), percent symbols (%), ampersands (&), slashes (/), or blanks (spaces). No other characters are allowed. Use street address abbreviations such as APT (apartment) or AVE (avenue) if the address extends beyond the space provided.
5. City (and Country if not U.S.):
6. State: Select
7. Zip Code:
8. Your Social Security Number: (Data can not be entered in this field.)

Need help with this page?

Previous Next

16:2 Facilitate Scanning

Relative Importance:

1 2 3 4 5

Strength of Evidence:

1 2 3 4 0

Guideline: Structure each content page to facilitate scanning: use clear, well-located headings; short phrases and sentences; and small readable paragraphs.

Comments: Web sites that are optimized for scanning can help users find desired information. Users that scan generally read headings, but do not read full text prose—this results in users missing information when a page contains dense text.

Studies report that about eighty percent of users scan any new page. Only sixteen percent read each word. Users spend about twelve percent of their time trying to locate desired information on a page.

To facilitate the finding of information, place important headings high in the center section of a page. Users tend to scan until they find something interesting and then they read. Designers should help users ignore large chunks of the page in a single glance. Keep in mind that older users (70 and over) will tend to scan much more slowly through a web page than will younger users (ages 39 and younger).

Sources: Bailey, Koyani and Nall, 2000; Byrne, et al., 1999; Evans, 1998; Koyani and Bailey, 2005; Koyani, et al., 2002; Morkes and Nielsen, 1997; Morkes and Nielsen, 1998; Nielsen, 1997e; Nielsen, 2000; Schriver, 1997; Spool, et al., 1997; Spyridakis, 2000; Sticht, 1985; Sullivan and Flower, 1986; Toms, 2000; Zimmerman, et al., 1996.

Example: This page facilitates scanning.

The screenshot shows the Usability.gov website. At the top, there is a navigation bar with tabs for 'Plan', 'Analyze', 'Design', and 'Test & Refine'. The 'Plan' tab is selected. Below the navigation bar, the main content area is divided into several sections. The first section is 'Develop a Plan', which includes a list of links: 'Create a Plan', 'Determine Project Scope', 'Identify User Audiences', and 'Set Objectives'. The second section is 'Create a Plan', which contains a paragraph of text and a list of bullet points: 'Scope - What are you developing? What is the Web site going to cover? About how many pages will it be?', 'Audiences - Who are the major groups you want the site to serve?', and 'Objectives - What goals should the Web site help your agency or organization to meet?'. The third section is 'Determine Project Scope', which contains a paragraph of text. On the right side of the page, there are three sidebar sections: 'Step-by-Step Usability' with a link to 'View a Diagram of All Usability Steps', 'Related Templates and Scenarios' with a list of links: 'Project', 'Planning', and 'Scenarios', and 'Methods' with a link to 'Task Analysis'.

16:3 Ensure that Necessary Information is Displayed

Guideline: Ensure that all needed information is available and displayed on the page where and when it is needed.

Relative Importance:

12345

Strength of Evidence:

12000

Comments: Users should not have to remember data from one page to the next or when scrolling from one screenful to the next. Heading information should be retained when users scroll data tables, or repeated often enough so that header information can be seen on each screenful.

Sources: Engel and Granda, 1975; Smith and Mosier, 1986; Spyridakis, 2000; Stewart, 1980; Tullis, 1983.

Example: This header row disappears as users scroll down the table. This can negatively effect users' performance on the site by exceeding their 'working memory' capacity.

	Total Sources Including Syn. Minors	Total Permits Issued	% Issued (T5 + syn minors)
REGION 1			
Connecticut	493	486	99%
Massachusetts	564	551	98%
Maine	351	349	99%
New Hampshire	253	249	98%
Rhode Island	154	149	97%
Vermont	82	80	98%
TOTAL	1897	1864	98%
REGION 2			
New Jersey	560	557	99%
New York	4767	4737	99%
Puerto Rico	91	65	71%
Virgin Islands	8	6	75%
TOTAL	5426	5365	99%
REGION 3			
District of Columbia	34	34	100%

16:4 Group Related Elements

Relative Importance:

1 2 3 4 5

Strength of Evidence:

1 2 3 4 5

Guideline: Group all related information and functions in order to decrease time spent searching or scanning.

Comments: All information related to one topic should be grouped together. This minimizes the need for users to search or scan the site for related information. Users will consider items that are placed in close spatial proximity to belong together conceptually. Text items that share the same background color typically will be seen as being related to each other.

Sources: Ahlstrom and Longo, 2001; Cakir, Hart and Stewart, 1980; Faraday, 2000; Gerhardt-Powals, 1996; Kahn, Tan and Beaton, 1990; Kim and Yoo, 2000; Nall, Koyani and Lafond, 2001; Niemela and Saarinen, 2000; Nygren and Allard, 1996; Spyridakis, 2000.

Example: This site organizes information well by grouping core navigation elements and key topic areas. These features allow users to search and scan for information faster.

The screenshot shows the FIRSTGOV.gov website, which is the U.S. Government's Official Web Portal. The page features a top navigation bar with a search bar and links for Home, About Us, Site Index, Frequent Questions, Help, Español, and Other Languages. Below this, there are tabs for different user groups: Citizens, for Businesses and Nonprofits, for Federal Employees, and Government-to-Government. The main content area is organized into several sections:

- By Organization »**: A-Z Agency Index, Federal Government, State Government, Local Government, Tribal Government.
- Contact Your Government »**: E-mail, Phone, In-Person, Frequently Asked Questions, [more](#).
- Reference Center »**: Data & Statistics, Forms, Graphics and Photos, Laws & Regulations, Libraries, [more](#).
- FREE Subscribe Now**: FirstGov E-mail Updates, [XML](#) FirstGov RSS Feeds, Government E-Newsletters, Podcast & RSS Libraries.
- for Citizens**: Citizens: **Get It Done Online!**
 - Shop Government Auctions
 - Apply for Government Jobs
 - Find Government Benefits
 - Contact Elected Officials
 - Find Cheapest Gas Prices
 - Get or Renew a Passport
 - Renew Your Driver's License
 - Replace Vital Records
 - Find Local Farmers Markets
 - Zip Code Lookup
 - [100 More Online Services](#)
- Information by Topic »**:
 - Benefits and Grants**: Loans, money, funding, financial aid...
 - Consumer Guides**: Consumer credit, better business, recalls, fraud, debt, scams...
 - Defense and International**: Military, international affairs, trade, embassies, visas, immigration...
 - Environment, Energy and Agriculture**: Farms, food production, natural resources, conservation, weather...
 - Jobs and Education**: Employment, career, workplace, labor, school, students, teachers...
 - Money and Taxes**: Unclaimed government money, credit, saving, retirement...
 - Public Safety and Law**: Crime, prison, law enforcement, disasters, emergencies...
 - Reference and General Government**: Libraries, forms, laws, photos, maps, research...
- Veterans Information**: Latest Information on Veterans Affairs Data Security.
- News and Features**: Identity Theft Information, Popular Baby Names, Memorial Day, May 29, Pandemic Flu – Implementation Plan for National Strategy, Comment to Improve the Health Care System in the U.S., Facts About the United States, News and Media, Past News and Features.
- By Audience**

16:5 Minimize the Number of Clicks or Pages

Guideline: To allow users to efficiently find what they want, design so that the most common tasks can be successfully completed in the fewest number of clicks.

Relative Importance:
1234○

Strength of Evidence:
123○○

Comments: Critical information should be provided as close to the homepage as possible. This reduces the need for users to click deep into the site and make additional decisions on intervening pages. The more steps (or clicks) users must take to find the desired information, the greater the likelihood they will make an incorrect choice. Important information should be available within two or three clicks of the homepage.

One study found that the time to complete a task was closely related to the number of clicks made by users. It appears that users will keep clicking as long as they feel like they are getting closer to their goal. Another study showed that when users were trying to find a target, they were no more likely to quit after three clicks than after 12 clicks.

Sources: Evans, 1998; Levine, 1996; Nall, Koyani and Lafond, 2001; Nielsen and Tahir, 2002; Porter, 2003; Spyridakis, 2000; Zimmerman, et al., 2002; Zimmerman, et al., 1996.

Example: A topic such as Lung Cancer, one of the most common cancer

types, is one click off of the homepage of this cancer site.

The screenshot shows the National Cancer Institute homepage. The navigation menu includes: NCI Home, Cancer Topics, Clinical Trials, Cancer Statistics, Research & Funding, News, and About NCI. The 'Types of Cancer' section lists various cancer types, with 'Lung Cancer' circled in red. A red arrow points from this link to the 'Lung Cancer' page, which is also highlighted in the main content area. The 'Lung Cancer' page includes sections for 'Treatment' and 'Clinical Trials'.

See page xxii for detailed descriptions of the rating scales

1234○

Guideline: Design quantitative information to reduce the time required to understand it.

Relative Importance:

1 2 3 0 0

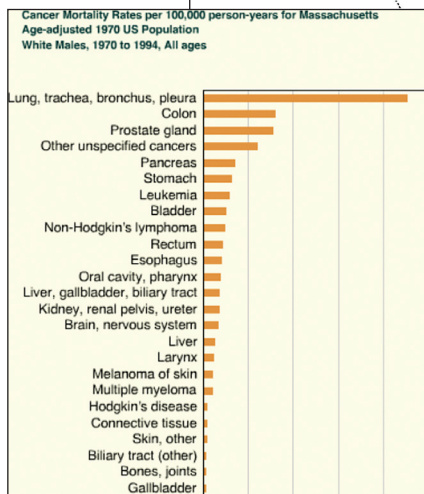
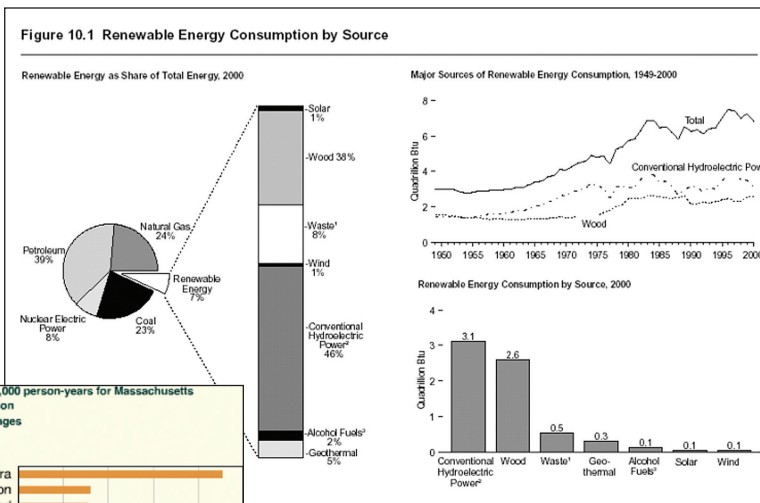
Strength of Evidence:

1 2 3 0 0

Comments: Make appropriate use of tables, graphics, and visualization techniques to hasten the understanding of information. Presenting quantitative information in a table (rather than a graph) generally elicits the best performance; however, there are situations where visualizations will elicit even better performance. Usability testing can help to determine when users will benefit from using tabular data, graphics, tables, or visualizations.

Sources: Chen and Yu, 2000; Galitz, 2002; Gerhardt-Powals, 1996; Kosslyn, 1994; Meyer, 1997; Meyer, Shamo and Gopher, 1999; Meyer, Shinar and Leiser, 1997; Tufte, 1983.

Example:



This is a case where displaying information using graphs and bars allows users to discern the importance of data much more quickly than when it is presented in a table format.

Presenting numerical data as bar charts may speed up the user's understanding of data.

16:7 Display Only Necessary Information

Guideline: Limit page information only to that which is needed by users while on that page.

Relative Importance:



Strength of Evidence:




Comments: Do not overload pages or interactions with extraneous information. Displaying too much information may confuse users and hinder assimilation of needed information. Allow users to remain focused on the desired task by excluding information that task analysis and usability testing indicates is not relevant to their current task. When user information requirements cannot be precisely anticipated by the designer, allow users to tailor displays online.

Sources: Ahlstrom and Longo, 2001; Engel and Granda, 1975; Gerhardt-Powals, 1996; Mayhew, 1992; Morkes and Nielsen, 1998; Powers, et al., 1961; Smith and Mosier, 1986; Spyridakis, 2000; Stewart, 1980; Tullis, 1981; Tullis, 2001; Zhang and Seo, 2001.

Example: An example of extraneous information. In this case, the user is looking for a weather forecast for Manchester, United Kingdom. The site provides this information, but also indicates tonight's vacation weather for Prague—this information is extraneous to the user's original task.

Current Conditions ?











Manchester, United Kingdom

 **UV Index:** 0 Low
Wind: From the Northwest at 13 mph
Dew Point: 5°C
Humidity: 87%
Visibility: 6 miles
Barometer: 999.0 mb
[Climate Statistics](#)
[Round the Clock Details](#)

Light Rain
7°C
Feels Like 3°C

Updated 22 May 2006 19:50 Local Time (Monday, 18:50 GMT)

10-Day Forecast | Hour-by-Hour Forecast | 10-Day Details

Tonight	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
22 May	23 May	24 May	25 May	26 May	27 May	28 May	29 May	30 May	31 May
									
Light Rain	Few Showers	Light Rain	Showers	Showers	Partly Cloudy	Partly Cloudy	Scattered Showers	Partly Cloudy	Mostly Cloudy
6°C	13°C 7°C	12°C 6°C	12°C 6°C	14°C 9°C	14°C 7°C	14°C 7°C	14°C 8°C	16°C 7°C	16°C 7°C

Holiday Forecast for:
[Prague, Czech Republic](#)
Tonight: Showers Early 13°C
[Check forecast for holiday destinations.](#)

Show this page in: Imperial Units Metric Units ?

16:8 Format Information for Multiple Audiences

Guideline: Provide information in multiple formats if the Web site has distinct audiences who will be interested in the same information.

Relative Importance:



Strength of Evidence:



Comments: Information can be provided in varying formats and at different levels of detail on the same site. For example, information about cancer can be presented in differing ways for physicians and patients.

When segmenting content for two or more distinct groups of users, allow users from each audience to easily access information intended for other audiences. One study showed that users want to see information that is intended for a health professional audience, as well as for a patient or consumer audience. Users want access to all versions of the information without first having to declare themselves as a health professional, a patient, a caregiver, etc. To accommodate these users, audiences were not segmented until they reached a page where links to multiple versions of a document (i.e., technical, non-technical) were provided.

Sources: Evans, 1998; Gerhardt-Powals, 1996; Nall, Koyani and Lafond, 2001; Williams, 2000; Zimmerman and Prickett, 2000; Zimmerman, et al., 2002.

Example: These are examples of ways to provide different audiences access to information.

- N
- Paranasal Sinus and Nasal Cavity Cancer (PDQ®): [patients] [health professionals]
- Nasopharyngeal Cancer (PDQ®): Treatment [patients] [health professionals]
- Neuroblastoma (PDQ®): Treatment [patients] [health professionals]
- Adult Non-Hodgkin's Lymphoma (PDQ®): Treatment [patients] [health professionals]



Paranasal Sinus and Nasal Cavity Cancer (PDQ®): Treatment



Two versions of this document are available. Select a tab below to switch between versions. Date Last Modified: 08/23/2002

patient health professional

See page xxii for detailed descriptions of the rating scales



16:9 Use Color for Grouping

Guideline: Use color to help users understand what does and does not go together.

Relative Importance:



Strength of Evidence:



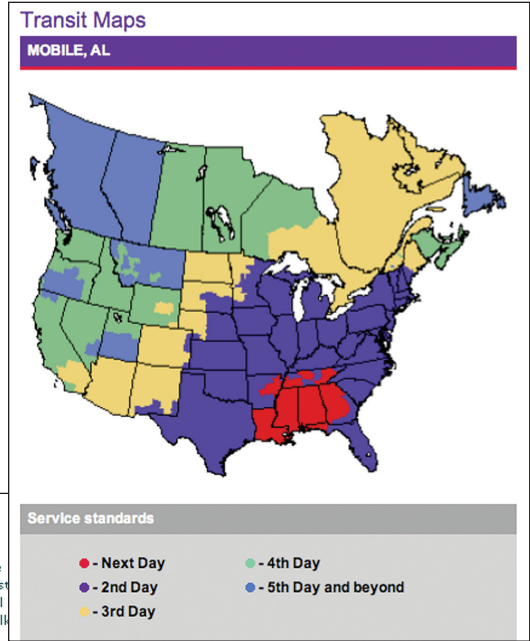
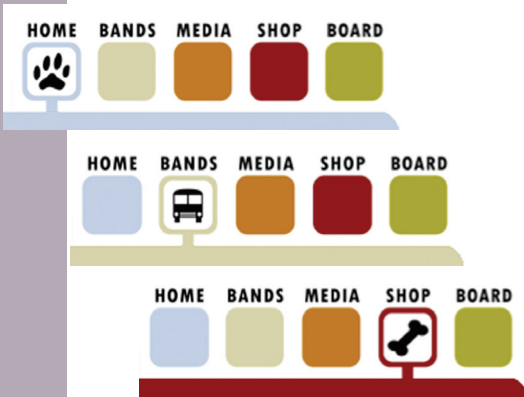
Comments: Color coding permits users to rapidly scan and quickly perceive patterns and relationships among items. Items that share the same color will be considered as being related to each other, while items with prominent color differences will seem to be different.

People can distinguish up to ten different colors that are assigned to different categories, but it may be safer to use no more than five different colors for category coding. If more than ten different colors are used, the effects of any particular relationship will be lost.

Do not use color alone to convey information.

Sources: Carter, 1982; Christ, 1975; Engel and Granda, 1975; Haubner and Neumann, 1986; Murch, 1985; Nygren and Allard, 1996; Smith, 1962; Smith, 1963; Smith, Farquhar and Thomas, 1965.

Example:



<p>Inside</p> <ul style="list-style-type: none"> WETA News Production Svcs. Our History Work With Us! Volunteer Internships Careers at WETA Officers & Board Directions 	<p>Television</p> <ul style="list-style-type: none"> What's On Daily Schedule Search Listings Cooks Kids Digital Schedule About DTV FAQ Glossary Productions Around Town Hometown Heroes Washington Week UPCOMING 	<p>Radio</p> <ul style="list-style-type: none"> What's On Schedule Music List Classical News/Talk Variety Listen Live Who's Who Online Features Desert Island Picks Audio Archives Staff Articles Contests Virtual Studio Tour Composer Bios 	<p>Service standards</p> <ul style="list-style-type: none"> Next Day 2nd Day 3rd Day 4th Day 5th Day and beyond
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See page xxii for detailed descriptions of the rating scales