15

Writing Web Content

"Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts."– William Strunk Jr., in Elements of Style

Content is the most important part of a Web site.

If the content does not provide the information needed by users, the Web site will provide little value no matter how easy it is to use the site.

When preparing prose content for a Web site, use familiar words and avoid the use of jargon. If acronyms and abbreviations must be used, ensure that they are clearly understood by typical users and defined on the page.

Minimize the number of words in a sentence and sentences in a paragraph. Make the first sentence (the topic sentence) of each paragraph descriptive of the remainder of the paragraph. Clearly state the temporal sequence of instructions. Also, use upper- and lowercase letters appropriately, write in an affirmative, active voice, and limit prose text on navigation pages.

15:1 Make Action Sequences Clear

Relative Importance:
❶❷❸❹❺

Strength of Evidence:
❶❷❸❹◯

Guideline: When describing an action or task that has a natural order or sequence (assembly instructions, troubleshooting, etc.), structure the content so that the sequence is obvious and consistent.

Comments: Time-based sequences are easily understood by users. Do not force users to perform or learn tasks in a sequence that is unusual or awkward.

Sources: Czaja and Sharit, 1997; Farkas, 1999; Krull and Watson, 2002; Morkes and Nielsen, 1998; Nielsen, 2000; Smith and Mosier, 1986; Wright, 1977.

Example:

15:2 Avoid Jargon

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Relative Importance:
①②③④○

Strength of Evidence:
①②③④○

Guideline: Do not use words that typical users may not understand.

Comments: Terminology plays a large role in the user's ability to find and understand information. Many terms are familiar to designers and content writers, but not to users. In one study, some users did not understand the term 'cancer screening.' Changing the text to 'testing for cancer' substantially improved users' understanding.

To improve understanding among users who are accustomed to using the jargon term, it may be helpful to put that term in parentheses. A dictionary or glossary may be helpful to users who are new to a topic, but should not be considered a license to frequently use terms typical users do not understand.

Sources: Cockburn and Jones, 1996; Evans, 1998; Horton, 1990; Mayhew, 1992; Morkes and Nielsen, 1997; Morkes and Nielsen, 1998; Nall, Koyani and Lafond, 2001; Schramm, 1973; Spyridakis, 2000; Tullis, 2001; Zimmerman and Prickett, 2000; Zimmerman, et al., 2002.

Example:

These Web pages, often visited by the public, do not use language that is accessible and free of jargon.

15:3 Use Familiar Words

Relative Importance:
❶❷❸❹○

Strength of Evidence:
❶❷❸○○

Guideline: Use words that are frequently seen and heard.

Comments: Use words that are familiar to, and used frequently by, typical users. Words that are more frequently seen and heard are better and more quickly recognized. There are several sources of commonly used words (see Kucera and Francis, 1967 and Leech et al., 2001 in the Sources section).

Familiar words can be collected using open-ended surveys, by viewing search terms entered by users on your site or related sites, and through other forms of market research.

Sources: Furnas, et al., 1987; Kucera and Francis, 1967; Leech, Rayson and Wilson, 2001; Spyridakis, 2000; Whissell, 1998.

Example:
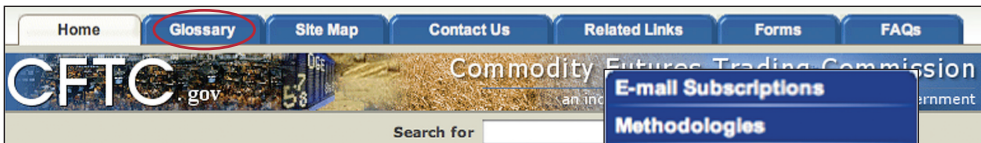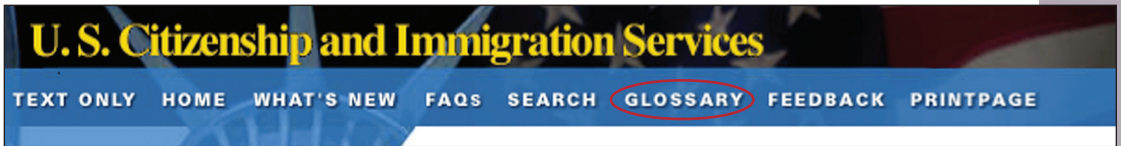
Studies have shown that using "Dictionary" instead of "Glossary" provides much more positive feedback for your typical user.
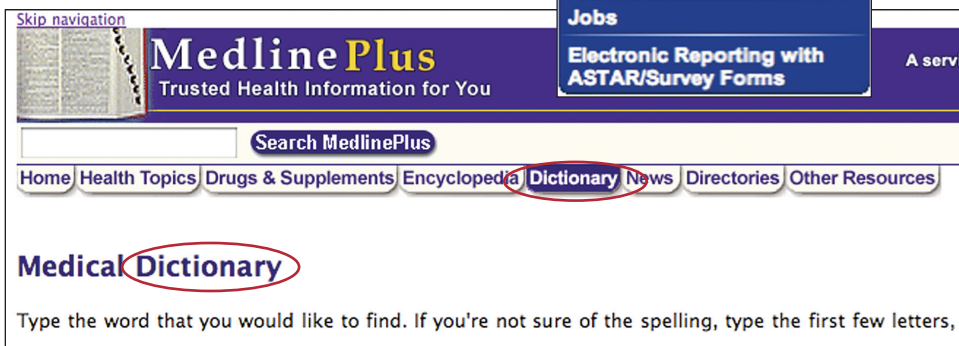
15:4 Define Acronyms and Abbreviations

Guideline: Do not use unfamiliar or undefined acronyms or abbreviations on Web sites.

Comments: Acronyms and abbreviations should be used sparingly and must be defined in order to be understood by all users. It is important to remember that users who are new to a topic are likely to be unfamiliar with the topic's related acronyms and abbreviations. Use the following format when defining acronyms or abbreviations: Physician Data Query (PDQ). Acronyms and abbreviations are typically defined on first mention, but remember that users may easily miss the definition if they scroll past it or enter the page below where the acronym or abbreviation is defined.

Sources: Ahlstrom and Longo, 2001; Evans, 1998; Morrell, et al., 2002; Nall, Koyani and Lafond, 2001; Nielsen and Tahir, 2002; Tullis, 2001.

Example:

Undefined acronyms on a homepage may leave users confused regarding the site's contents or purpose.

This detailed, highly-technical content page is designed for experts and not novice users. However, the designer has still defined each acronym and abbreviation on the page.

15:5 Use Abbreviations Sparingly

Relative Importance:
❶❷❸❹○

Strength of Evidence:
❶❷○○○

Guideline: Show complete words rather than abbreviations whenever possible.

Comments: The only times to use abbreviations are when they are significantly shorter, save needed space, and will be readily understood by typical users. If users must read abbreviations, choose only common abbreviations.

Sources: Ahlstrom and Longo, 2001; Engel and Granda, 1975; Evans, 1998; Smith and Mosier, 1986.

Example:

If abbreviations are in common usage (DoD) then it is acceptable to use them. However, if an abbreviation is not in common usage (DARS, DFARS, AKSS), the complete title should be used.

Site Menu
About DPAP

DPAP Directorates
DARS
PAIC
Policy
PDI

Resources
DFARS
PGI
DoD 5000 Series
Policy Vault
Business Transformatio
Common Supplier Engn
DPAP Archives

Items of Interest
DFARS Transformation
Interagency Acquisition
Purchase Card
Unique Identification
Outreach and Comm
AcqDemo
International Contracting
Doing Business w/ DoD
Ethics

Education
AcqDemo Training
Defense Acq. University

Systems
AKSS
ACC
Defense Acq. Guidebook

15:6 Use Mixed Case with Prose

Relative Importance:
①②③④○

Strength of Evidence:
①②③④⑤

Guideline: Display continuous (prose) text using mixed upper- and lowercase letters.

Comments: Reading text is easier when capitalization is used conventionally to start sentences and to indicate proper nouns and acronyms. If an item is intended to attract the user's attention, display the item in all uppercase, bold, or italics. Do not use these methods for showing emphasis for more than one or two words or a short phrase because they slow reading performance when used for extended prose.

Sources: Breland and Breland, 1944; Engel and Granda, 1975; Mills and Weldon, 1987; Moskel, Erno and Shneiderman, 1984; Poulton and Brown, 1968; Smith and Mosier, 1986; Spyridakis, 2000; Tinker and Paterson, 1928; Tinker, 1955; Tinker, 1963; Vartabedian, 1971; Wright, 1977.

Example:

Reading text is easier when capitalization is used conventionally to start sentences and to indicate proper nouns and acronyms. If an item is intended to attract the user's attention, display the item in all UPPERCASE, **bold**, or *italics*. Do not use these methods for showing emphasis for more than one or two words or a short phrase because they slow reading performance when used for extended prose.

READING TEXT IS EASIER WHEN CAPITALIZATION IS USED CONVENTIONALLY TO START SENTENCES AND TO INDICATE PROPER NOUNS AND ACRONYMS. IF AN ITEM IS INTENDED TO ATTRACT THE USER'S ATTENTION, DISPLAY THE ITEM IN ALL UPPERCASE, **BOLD**, OR *ITALICS*. DO NOT USE THESE METHODS FOR SHOWING EMPHASIS FOR MORE THAN ONE OR TWO WORDS OR A SHORT PHRASE BECAUSE THEY SLOW READING PERFORMANCE WHEN USED FOR EXTENDED PROSE.

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Guideline: To optimize reading comprehension, minimize the number of words in sentences, and the number of sentences in paragraphs.

Relative Importance:
①②③④○

Strength of Evidence:
①②③④○

Comments: To enhance the readability of prose text, a sentence should not contain more than twenty words. A paragraph should not contain more than six sentences.

Sources: Bailey, 1996; Bailey, Koyani and Nall, 2000; Bouma, 1980; Chervak, Drury and Ouellette, 1996; Evans, 1998; Kincaid, et al., 1990; Marcus, 1992; Mills and Caldwell, 1997; Nielsen, 1997c; Palmquist and Zimmerman, 1999; Rehe, 1979; Spyridakis, 2000; Zimmerman and Clark, 1987.

Example: This example shows how to optimize reading comprehension. The number of words in a sentence is minimized, and there are few sentences in each paragraph.

What's Happening Now?

A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity, and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time.

It is difficult to predict when the next influenza pandemic will occur or how severe it will be. Wherever and whenever a pandemic starts, everyone around the world is at risk. Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

Health professionals are concerned that the continued spread of a highly pathogenic avian H5N1 virus across eastern Asia and other countries represents a significant threat to human health. The H5N1 virus has raised concerns about a potential human pandemic because:

- It is especially virulent
- It is being spread by migratory birds
- It can be transmitted from birds to mammals and in some limited circumstances to humans, and
- Like other influenza viruses, it continues to evolve.

Since 2003, a growing number of human H5N1 cases have been reported in Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey, and Vietnam. More than half of the people infected with the H5N1 virus have died. Most of these cases are all believed to have been caused by exposure to infected poultry. There has been no sustained human-to-human transmission of the disease, but the concern is that H5N1 will evolve into a virus capable of human-to-human transmission.

▲ top of page

Avian Influenza Viruses

Avian (bird) flu is caused by influenza A viruses that occur naturally among birds. There are different subtypes of these viruses because of changes in certain proteins (hemagglutinin [HA] and neuraminidase [NA]) on the surface of the influenza A virus and the way the proteins combine.

Each combination represents a different subtype. All known subtypes of influenza A viruses can be found in birds. The avian flu currently of concern is the H5N1 subtype.

▲ top of page

Guideline: Do not put a lot of prose text on navigation pages.

Comments: When there are many words on navigation pages, users tend to rapidly scan for specific words or begin clicking on many different links, rather than reading the text associated with the links.

Relative Importance:
❶❷❸◯◯

Strength of Evidence:
❶❷❸◯◯

Sources: Bailey, Koyani and Nall, 2000; Evans, 1998; Morkes and Nielsen, 1998; Nielsen, 2000; Spyridakis, 2000.

Example: The lack of prose text allows navigation elements to take center stage on this navigation page.

The large volume of prose text forces navigation links (the primary purpose of the page) into the left panel.

15:9 Use Active Voice

Relative Importance:
①②③○○

Strength of Evidence:
①②③④○

Guideline: Compose sentences in active rather than passive voice.

Comments: Users benefit from simple, direct language. Sentences in active voice are typically more concise than sentences in passive voice. Strong verbs help the user know who is acting and what is being acted upon. In one study, people who had to interpret federal regulation language spontaneously translated passive sentences into active sentences in order to form an understanding of the passages.

Sources: Flower, Hayes and Swarts, 1983; Horton, 1990; Palermo and Bourne, 1978; Palmquist and Zimmerman, 1999; Redish, Felker and Rose, 1981; Smith and Mosier, 1986; Spinillo and Dyson, 2000/2001; Spyridakis, 2000; Wright, 1977; Zimmerman and Clark, 1987.

Example: Active voice example   Passive voice example

John hit the baseball.   The baseball was hit by John.

15:10 Write Instructions in the Affirmative

Relative Importance:
①②③○○

Strength of Evidence:
①②○○○

Guideline: As a general rule, write instructions in affirmative statements rather than negative statements.

Comments: When giving instructions, strive to tell users what to do (see a dentist if you have a toothache), rather than what to avoid doing (avoid skipping your dentist appointment if you have a toothache). If the likelihood of making a wrong step is high or the consequences are dire, negative voice may be clearer to the user.

Sources: Greene, 1972; Herriot, 1970; Krull and Watson, 2002; Palmquist and Zimmerman, 1999; Smith and Mosier, 1986; Wright, 1977; Zimmerman and Clark, 1987.

Example: An example of negative voice pointing out consequences to the user.

Message successfully posted by: **156.40.129.142** (Logged!).

IMPORTANT: Do **NOT** press BACK - If you come back to this page, your message will be posted a second time!

Guideline: Include the primary theme of a paragraph, and the scope of what it covers, in the first sentence of each paragraph.

Relative Importance:
①②③○○

Strength of Evidence:
①②③④○

Comments: Users tend to skim the first one or two sentences of each paragraph when scanning text.

Sources: Bailey, Koyani and Nall, 2000; Lynch and Horton, 2002; Morkes and Nielsen, 1997; Morkes and Nielsen, 1998; Spyridakis, 2000.

Example: Descriptive first sentences set the tone for each of these paragraphs, and provide users with an understanding of the topic of each section of text.

A U.S. Government
Information Technology Web Site

ealthIT

An initiative of the U.S. Department of Health & Human Services

Home
nformation
fforts
r Awareness
eas

Consumer Awareness

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Ending the Document Game, Full Report from The Commission on Systemic Interoperability

Addressing Healthcare Connectivity as a Matter of Life and Death

Executive Summary
Americans need a connected system of electronic healthcare information available to all doctors and patients whenever and wherever necessary.

In 2000, the Institute of Medicine (IoM) estimated that between 44,000 and 98,000 Americans die each year from preventable medical errors. Subsequent studies have estimated that the number may be twice as high. Medical errors are killing more people per year, in America, than breast cancer, AIDS, or motor vehicle accidents. This pain and suffering is compounded by the knowledge that many of these errors could have been avoided.

The lack of immediate access to patient healthcare information is the source of one-fifth of these errors.

One of every seven primary care visits is affected by missing medical information. In a recent study, 80 percent of errors were initiated by miscommunication, including missed communication between physicians, misinformation in medical records, mishandling of patient requests and messages, inaccessible records, mislabeled specimens, misfiled or missing charts, and inadequate reminder systems.

Under the current paper-based system, patients and their doctors lack instant, constant access to medical information. As a result,

Mission S

"We will make wid records and other technology to help reduce dangerous

-- President Bush

"..to link all health an interoperable s privacy as it conne providers and pay fewer medical mis lower costs and be

-- HHS Sec

Ne

05/17/2006 - Ar
Information Comm
First Set of Recom

01/17/2006 - HH
Project Launched t
Electronic Prescrib

11/17/2005 - CM
Enters Into Agreen
Digital Health Reco
Case

Spee

See page xxii for detailed descriptions of the rating scales
①②③④○