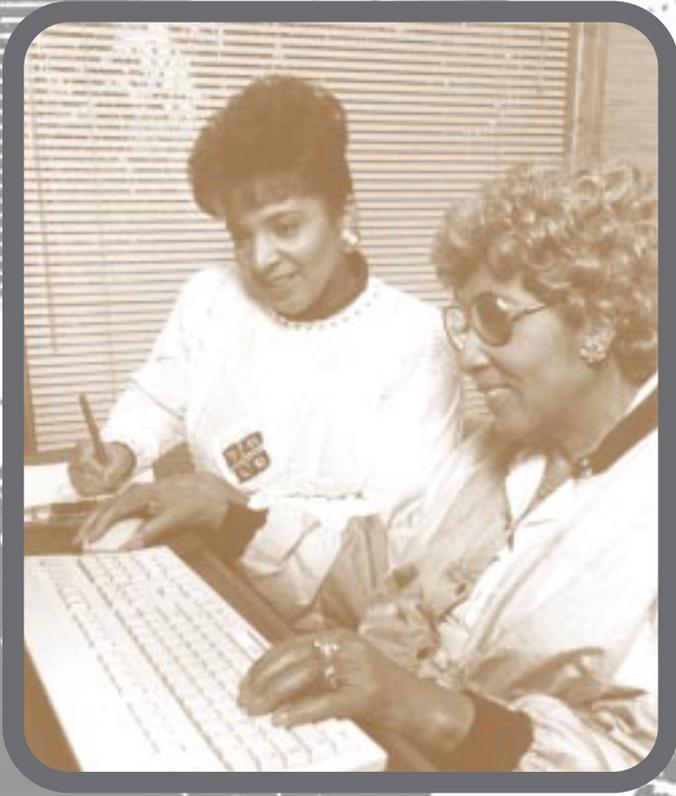


# Older Adults and the World Wide Web



A Guide for Web Site Creators



The following are the SPRY Foundation's Mission and Vision Statements:

### **Mission Statement**

The SPRY Foundation's mission is to be a leader in research and education aimed at identifying ways to achieve *Successful Aging*.

### **Vision Statement**

The SPRY Foundation envisions a social environment in the United States that encourages and provides the information and decision making skills which enable individuals, throughout their life-span, to identify, plan and reach their personal goals for *Successful Aging*. Successful Aging is viewed as the inter-relationship of four (4) major domains in a person's life: financial security; health and wellness; mental health and social environment; and intellectual pursuits.

The SPRY Foundation is the 501(c)3, non-profit research and education arm of the National Committee to Preserve Social Security and Medicare. Both national organizations have offices in Washington, D.C.

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# **Older Adults and the World Wide Web**

## **A Guide for Web Site Creators**

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# Older Adults and the World Wide Web

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# Preface

In just 10 years one-third of the U.S. population will be age 50 or older. This “maturing market” is the fastest growing market segment and the fastest growing group of Internet users today. On March 25-26, 1999, SPRY Foundation hosted a national conference entitled “Older Adults, Health Information and the World Wide Web.” This Conference explored the interrelationship of this portion of the population, which will control an estimated 900 billion dollars in discretionary income, with Internet technology.

As an outcome of the Conference, SPRY Foundation and the Conference donors felt that the development of a guide incorporating research with the practical experience of experts in the field would be a valuable tool, and would represent one of the primary objectives of the Conference - bridging the outcomes of basic research with practical uses. This guide could help site managers and designers better reach the mature audience and avoid some of the common mistakes which make websites inaccessible or problematic for older adults.

I would like to acknowledge Barbara J. Holt, Ph.D. and Melissa Komlos-Weimer, M.S. as primary authors of this guide who, under a grant from SPRY Foundation, carried out the basic research. Much of the information contained in this guide was provided by the Contributors listed on page 29. Representing SPRY Foundation, Emma Cox provided additional research, writing and editing for this guide. I would also like to thank Elysa Darling for her help with the coordination and layout of this guide, and Tom Hoppin for his insight and editorial skills.

*Russell E. Morgan, Jr. Dr. P.H.  
President  
SPRY Foundation  
Washington, DC  
July 1999*

# Why Design Web Pages For Older Adults?

## IMPORTANCE OF CREATING ELDER-FRIENDLY WEB PAGES

The World Wide Web is not just for young people! The Internet is finding increasing acceptance with individuals around the world, and a growing percentage of users are seniors. Exactly how many? That's difficult to determine precisely, given the explosive popularity of the Web - any number becomes obsolete almost as soon as it's recorded. Consider, however, that Internet usage by people of all ages may increase by as much as 10% each month!

Estimates of how many of these users are over 50 range from 16% to 45%, and women now comprise as much as 60% of all users. Older women outnumber older men in the American population at large, and the numbers of seniors are increasing steadily as the "Baby Boom" generation ages and average lifespans lengthen.

Many "Baby Boomers" are already highly computer savvy and will age into retirement fully versed in Internet usage. However, adults who are older than the "Baby Boomers" are going online, drawn by the lure of convenient, inexpensive communication with family and friends, accessible health information and the ability to explore new venues.

## What Attracts Elders to the Internet?

### CONNECTIVITY

Older adults are attracted to the Internet by the same things that attract people of all ages. Reaching retirement age often means an increase in outside interests rather than a reduction. Older people look to chat online with friends and family, express their opinions, feel less socially isolated, start second careers, research health issues and much more.

### AFFORDABLE COMMUNICATION

Many older adults who are just starting to experiment with going online have older equipment that has been passed along to them by family or friends who have outgrown their equipment and decided to upgrade. In addition, most areas around the US have low monthly connection fees. Some individuals can use library or other community equipment. All of these options help make the World Wide Web more affordable to older adults - and the costs are often negligible when compared to the long distance charges necessary to maintain the same level of communication with loved ones.

### SELF-PACED ENVIRONMENT

The Internet is self-paced. This can be very important to someone striving to overcome any sort of impairment and useful to beginners and others.

Web sites may be stored and looked at again, and irrelevant sections may be skipped. 24 hour access is appealing to older adults who may struggle with insomnia or difficult sleep patterns. Companionship and mental stimulation are just a mouse click, key-stroke or voice command away, and there are always hundreds of thousands of people online.

## **DYNAMIC & INTERACTIVE**

The Internet is dynamic and interactive. There are emails to check, chats to participate in, places to shop, and millions of other sites to visit. These can be intriguing or even addictive to anyone, but may be the central focus of the day to an older adult suffering from loneliness, feelings of isolation and depression, or disabilities that result in being homebound. For individuals with these concerns, the Web can become a means of socializing and maintaining contact with the outside world.

## **ANONYMITY**

Finally, the Internet offers anonymity. An older adult facing health, marital, family or financial problems may hesitate to confide in a person or group where he or she might be known. He or she may be more comfortable doing so via the medium of the World Wide Web, and the ability to browse for relevant information may help him or her feel more in control of the situation.

## ISSUES TO BE AWARE OF

It must be mentioned that the Internet is not a panacea. There is always the danger that online involvement may become addictive to some, and that users will choose to socialize via the World Wide Web instead of getting involved in more interactive pursuits. Recent studies indicate that some individuals suffer depression from spending a great deal of time online. In the above example, an individual seeking anonymity for a health related issue may rely too heavily on information obtained from the web instead of pursuing the professional and personal attention necessary to address the problem. And finally, users may be credulous, and not fully aware that information posted on the Internet may be fraudulent, erroneous, or simply out of date. Many of these issues are beyond the control of the designer, obviously, but SPRY Foundation believes that good Web management includes maintaining current information, notifying the user when the information was most recently updated, and when professional assistance should be obtained - especially if the site pertains to health information.

## Criteria for Evaluating Internet Health Information

- **Credibility:** Includes the source, currency, relevance/utility, and editorial review process for the information
- **Content:** Must be accurate and complete, and an appropriate disclaimer provided
- **Disclosure:** Includes informing the user of the purpose of the site, as well as any profiling or collection of information associated with using the site
- **Links:** Evaluated according to selection, architecture, content and back linkages
- **Design:** Encompasses accessibility, logical organization (navigability), and internal search capability
- **Interactivity:** Includes feedback mechanisms and means for exchange of information among users
- **Caveats:** Clarification of whether site function is to market products and services or is a primary information content provider

*Source: Health Summit Working Group "Criteria for Assessing the Quality of Health Information on the Internet." Mitretek Systems, 1998*

## What Changes With Aging?

### VISION

The most common physiological change with aging is a change in vision. The size of the field of vision may diminish, and fast moving objects may become harder to follow. Many people experience short-sightedness (presbyopia), which requires them to wear reading glasses. The lens of the eye tends to yellow with age, which changes the perception of color. Frequently older adults have difficulty discerning colors in the green-blue-violet range. Often the ability to distinguish between light and dark is dimin-

ished because of a reduction in the transmission of light through the retina. An individual's sensitivity to glare may increase as he or she ages due to increasing density and decreasing transparency of the lens. Finally, the occurrence of certain visual disorders, such as glaucoma and cataracts, is more prevalent in older adults and can impair visual acuity.

## COGNITIVE

Many people experience cognitive changes as they age, or a change in their ability to mentally process information. Some older adults have slower response times, or may have difficulty performing multiple tasks - particularly new ones. There may be a need for extra time to consolidate information from multiple sources or on several subjects. Frequently older adults are less able to ignore irrelevant stimuli (such as distracting banner advertisements), which may make concentrating on a subject difficult. Some older adults require additional time to learn new material, and benefit from having material presented logically, supported by repetition and practice. Clear pointers indicating where the user has been and what the future steps are may be invaluable to someone with concentration or tracking issues - or who is struggling with the steep learning curve that comes with just getting started online.

## HEARING

Hearing loss or diminishment may occur with aging, due to changes in the eardrum and auditory canals. This results in problems hearing high frequencies and in distinguishing speech.

## MOTOR SKILLS

Some motor skills may deteriorate with age. The small movements necessary for typing or finite mouse control can be troublesome, and may be exacerbated by conditions such as arthritis.

# How Can Design Accommodate Impairments?

## TEXT ONLY SITES

One of the first steps in any design project is to identify the audience. A site may be targeted specifically toward seniors, or it may simply include older adults and others with disabilities among the possible demographics. This guide focuses primarily on designing websites that include graphics and possibly audio files, but many people with severe impairments (or very old technology) find the option of a text version of a site extremely helpful. Such a version can be easily translated by a number of assistive devices, such as voice synthesizers or Braille output devices. Text only versions should contain the same information as the graphical version, and the designer should consider the purpose of any graphics or icons. If the graphical version of a site contains an

arrow leading the user to the home page, the text only version should offer a text link with the same purpose. If a picture is displayed, the text only version should describe the purpose of the picture - “high levels of pollen are forecast in the state of Maryland” for example, as opposed to “State of Maryland.”

## **USER’S ABILITY TO FORMAT**

Designers should not interfere any more than absolutely necessary with the user’s ability to adjust the browser and receive information in the format most helpful to him or her. Avoid limiting the presentation of hotlinks, for example - if the designer limits site links to underlined blue text, this may present problems to many older users (see “Elder Friendly Web Design”). If a navigation bar is coded to a certain size, it may get lost if the user has the browser increase the viewing size, and all the other components on the page grow to dwarf it. A helpful addition to a site targeted toward older adults or those with disabilities may be a page with instructions on how to adjust the browser so that the site’s information is most clearly displayed.

## Elder-Friendly Web Design

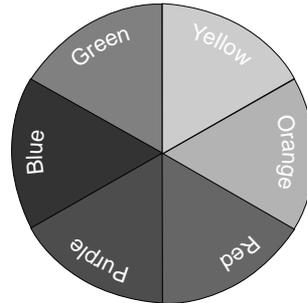
### COLORS

A good background or wallpaper can enhance the content of a page and draw the user's attention to a particular segment or graphic; a bad background can upstage the content and make it impossible to understand. This is true for any viewer, but especially true for those with even mild vision impairments. Contrast is essential between background and content, and the clearest contrast is between black and white. Any lightening of that contrast potentially diminishes readability, although it may be necessary for design purposes.

### HUE

Contrast, to be most effective, needs to occur in three different areas: hue, saturation and lightness. Hue is the color itself, which may be primary (red, blue or yellow), secondary (green, orange or purple) or tertiary (blue-green, or red-violet), et cetera. Most designers are familiar with the color wheel, and make design choices using the concepts of analogous colors (colors next to each other on the color wheel; i.e. blue and green) or complementary colors (colors opposite each other on the color wheel; i.e. yellow and purple). Analogous colors provide the least amount of contrast, while

complimentary colors, diametrically opposed on the color wheel, provide the most.



Color Wheel

## SATURATION

Saturation refers to the intensity of color. A color that is essentially “pure”, or has very little of a grey or complimentary shade mixed in may be said to be highly saturated. An example of this is scarlet red; the red is brilliant and not at all diminished. Colors with a great deal of grey have very little saturation. Dusty rose is an example of this; the red is softened by the grey. Another example is brick red, where the brilliance of the red is diminished by its complimentary color being mixed in (green).

## LIGHTNESS

Lightness refers to the level of light reflected from a color. Colors with a great deal of black mixed in have very little lightness, a very deep dark purple, for example. White reflects more light, and colors mixed with white have much more lightness, such as a pale lavender.

## FLUORESCENT COLORS

Fluorescent colors belong in a slightly different category. These colors are supersaturated, but in addition they reflect both normal light and ultraviolet light. The effect is very intense, but can be exhausting to the eye, especially if there are visual disabilities involved. This effect makes fluorescent colors a less than effective choice for text or background.

## CONTRAST

A good background, therefore, should contrast with the content of a web site in all three areas. Traditional designs typically feature dark text on a light background, but there is some evidence that older adults find a light text on a dark background to be very readable. As long as the contrast is strong, either is acceptable.

## BACKGROUND AND WALLPAPERS

Patterned wallpapers may be very attractive or attention-getting, but they provide an additional distraction that can be difficult to ignore. Text placed over even a light or subtly patterned background may prove troublesome, especially for someone with reduced visual acuity. Even with excellent contrast the figures in the background can give the illusion of distorting the text in the foreground. For older adults it is generally best to avoid patterned wallpapers altogether.

## FONT S

The choice of fonts can dramatically increase or decrease the readability of text. Font choice breaks down into the following categories: size, typeface, type weight or intensity, and physical spacing (leading and kerning).

## SIZE

Type that is too small can be difficult to read, but so can type that's too large. Small type blurs together into a block of grey (or other color, depending on the font color and background), and can be impossible to focus on. Large type requires extra scrolling as well as being hard to follow. Most older adults prefer a font size somewhere between 12pt and 14pt for blocks of text, depending on the typeface involved. Headings should be enough larger than the body text to be distinguishable as well as readable. An 18pt heading would be a good choice to accompany a 14pt block of text.

Helvetica 10pt

Helvetica 12pt

Helvetica 14pt

Helvetica 18pt

Helvetica 24pt

(Examples of Type Size)

## TYPEFACE

Type comes in families, and there are two general categories of typeface, Serif and Sans Serif. The word serif refers to the extra strokes in the letters, and serif letters typically change

in line weight from heavy to light through the shape of the letter.

## **Grouch**

Times New Roman

Palatino

(Examples of Serif fonts)

Sans Serif (literally, without serif) fonts have neither the line weight changes nor the extra strokes. Traditional design wisdom holds that Serif fonts in a mix of upper and lowercase letters (known as sentence case) are the most readable for a block of text. However, there is some evidence that Sans Serif fonts such as Helvetica are the most readable for older adults.

Helvetica

Arial

GillSans

(Examples of Sans Serif fonts)

Stylized, novelty or fancy type faces should be avoided for blocks of text. Their very fanciness diminishes their readability, although some of them may be quite effective as headers or accents if used judiciously.

*Zapf Chancery*

**Old English**

Caslon Open Face

(Examples of Fancy fonts)

## TYPE WEIGHT

Type weight refers to the thickness of the letters, which may range in a typeface family from light to extra bold. Type needs to be intense enough to be clearly read, but not so bold as to be hard to distinguish. Medium weight types frequently provide a good contrast with the background without becoming too intense.

GillSans Light      GillSans Regular  
**GillSans Bold**      **GillSans Ultra**

(Examples of Type Weights)

Other choices within a typeface family include italics and underlined text. However, many older adults or others with vision problems have difficulties with these varieties. Italic text can often appear wobbly, while underlined text may appear to blur.

*Helvetica Oblique*      Helvetica Underlined

(Type variations)

## PHYSICAL SPACING

Physical spacing refers to the white space between two lines of text (leading) or between letters and words (kerning). Blocks of text with insufficient leading may appear crowded. The user's peripheral vision is what allows his or her eyes to easily wrap from line to line, and individuals with limited peripheral vision will have difficulty doing just that. Even average or default leading may not be sufficient

for those with this problem, which occurs frequently in older adults. This is easily remedied, however, by increasing the leading by even a small amount (1 or 2 points). Designers should avoid condensed typefaces and reducing the kerning (space between letters), as this can also make text harder to read.

## JUSTIFICATION

Justification refers to the arrangement of type within page margins. Justification may be right, full, centered or left-justified. Since English is read from left to right, right-justification, where the text forms a straight line on the right, is uncomfortable for most people. Full justification means that the text lines up evenly on both margins. In order for text to full-justify, space must be added or reduced between letters and words, and the amount of additional space will vary from line to line. Not only can this be difficult to read, especially on shorter width text, but larger blocks of text will have unattractive “wiggling” white lines traveling up and down through the text. Center justified text, text which extends equidistant on the right and left from a center line, can be quite effective for headings, but distracting in a block of text. Most older adults prefer left justified text, where the text lines up along the left margin, and find it easiest to read.

## *Examples of justification*

Justification refers to the arrangement of type within page margins. Justification may be right, full, centered or left-justified.

(example of left-justified text)

Justification refers to the arrangement of type within page margins. Justification may be right, full, centered or left-justified.

(example of full-justified text)

Justification refers to the arrangement of type within page margins.

Justification may be right, full, centered or left-justified.

(example of center-justified text)

Justification refers to the arrangement of type within page margins.

Justification may be right, full, centered or left-justified.

(example of right-justified text)

## **AUTOMATICALLY SCROLLING TEXT**

Because older adults frequently have slower reading and word recognition rates, avoid using automatically scrolling text. If it must be used, offer a static text alternative as well.

## **PAGE LENGTH**

Try to keep pages short, both in terms of memory requirements and what the viewer sees. Pages containing more than two or three screens of information or with complex graphics are difficult to load for viewers with older technology, slower modems, or who are

using shared equipment (such as at libraries or senior centers). Longer pages also require more scrolling to view, which can be tedious or difficult for new users, those with concentration problems, or who have difficulty using a mouse or cursor.

## COMPLEXITY

The more complex a page or site is, the harder it is for a user to search out a particular object or section, especially if that user is a beginner or has age-related disabilities. Therefore keep the design clear, logical and simple. Be aware that a mouse or other pointing device can be problematic for people with arthritis or unsteady hands, and precise movements may be difficult. If walking menus (menus which lead from one pull-down menu to the next) are necessary, design the items on them to be large enough to provide an easy target. Keep the number of navigational “clicks” necessary to travel through the site to a minimum as well.

## LABELING

On multi-page sites, label each page with the site name as well as the name of the individual page to help provide memory cues. A consistent toolbar placed on each page (especially near the top where it will be highly visible) can be invaluable in aiding with the usage and navigation of the site. Site maps are very effective in helping even inexperienced users understand

where they are in relationship to the other pages and how to quickly move to them. Each section, preferably with a menu at the top, so that the user can quickly locate the items of interest. Older adults do better if they can finish one task before starting another.

## FRAMES

The use of frames - separate smaller boxes within a page that can be changed independently - are a new Internet technology which can create problems for many individuals. Some access technologies cannot read information in frames or tables. Older technology, hardware and software, may have problems as well, leading to lost information or frozen screens. If frames or tables are necessary, provide a text or non-frame alternatives, and clearly label the means by which to access it.

## Elder-Friendly Page Content

Sites that are simply, clearly and logically laid out are easier for all users to navigate. This is especially true of older adults, many of whom are new to the World Wide Web, limited by older equipment, or hampered by physical or cognitive impairments.

## SITE ORGANIZATION

Site organization needs to be straightforward and explicit. If the site offers a variety of information, clearly label each section and provide a menu or navigation bar at the top of each page so that users can quickly locate items of interest. Web pages need to be organized so that each item is displayed or discussed before moving on to the next. Most older adults function better if they can finish one task before starting another, particularly those new to the Internet. Present material in discreet sections. If a lengthy document is being presented, it should be split into smaller, clearly labeled sections. If possible, provide a secondary menu to aid in navigating the document. This makes searching and retrieval easier since the user does not have to wait for the entire document to load. It is also helpful to provide a summary of a long document at the top of the page so that the user can quickly determine if this is what he or she is looking for. Finally, eliminate irrelevant material or offer it as an aside if the user chooses to explore it.

## LINGO

Since many older adults are relatively new to the World Wide Web and computer technology, techno-language and lingo can provide a major stumbling block. Avoid terms that are obscure or require a strong knowledge of particular hardware or software.

## ILLUSTRATIONS

Illustrations can be extremely helpful supplements if your site provides any type of step by step instructions, such as filling out a form, finding information, cooking a pot roast, repairing a leaky faucet and so on. The more realistic the illustration, the easier it is for a user to understand and follow. Animated illustrations provide an even greater means of retaining information. Any animated graphics, however, should always be accompanied by text or a text only option should be provided for those whose equipment cannot handle animations.

## ERROR MESSAGES

When errors occur, offer advice and suggestions. A screen that continually pops up stating that an error has happened without pinpointing the cause or offering a solution can be frustrating or discouraging, especially to beginners. Users will find constructive advice helpful. If the site requires an entry activity such as completing an address, a screen notifying the user that the input is incomplete should also identify exactly which fields are incorrectly filled out (i.e. “state” must be completed,” or “no such state as ‘MX.’”). If the site contains a search engine and the user’s search for information yields too few or too many results, offer hints on how to improve the search.

## HELP

The site should feature a help menu with several means of obtaining assistance. Context-sensitive help prevents the user from having to search through a long list of items. Provide an alternative means to online help if at all possible, particularly if online forms are used. Telephone numbers are preferable (toll-free especially) and help older users feel that the organization is responsive to their needs if they cannot manage alone. An email option is a good secondary or supplementary choice, especially if a telephone number is not an option.

## FAQ's

Having a Frequently Asked Questions (FAQ) page is an excellent idea. This page should not only cover the technical problems that a user might encounter on the site, but should also address questions on site content. Make sure this page stays current and accurately reflects visitor feedback. Graphics, drawings and photos are excellent ways to make a site or page more attractive and even more navigationally clear. There are some very important guidelines, however, for creating a graphical website beneficial to older adults and those with disabilities.

## Using Graphics Effectively

### ALTERNATIVE TEXT

Always provide alternative text that accurately describes what the images or graphics are trying to convey. Visually impaired individuals may have speech synthesizers to read text which will not be able to describe a picture. Owners of older, slower computers or modems may not be able to download images or may have set their browsers to ignore large graphic files. These users therefore would not be able to access any logos, names, site menus or other essential materials embedded within a graphic. This also applies to the use of graphics with links as a means of navigation. If a graphic or graphical text is used as a link, offer a clearly visible plain text alternative.

### ANIMATIONS

Visual problems and older technology can also interfere with a user's appreciation of animations on a web page. Slower modems, browsers and processors may not be able to access these files. The biggest problem, however, is that blinking text or repetitive motion can be so distracting to someone with visual or concentration issues that the page's content may not be located or understood.

## ICONS AND BUTTONS

Buttons and icons should be large, not only to provide easier targets for mouse functions, but also to ensure that any text on the button or icon is easy to identify. If the site design includes a set of icons for various operations, vary the color as well as the shape to offer several ways for the user to distinguish among them.

## Using Audio Effectively

Audio has high potential on web pages for older adults, particularly for those with vision problems. Designers should be aware, however, that users with older technology not only have trouble with graphics, they may also have problems playing sound files. Users may not have a sound card installed at all, and some will not have sufficient RAM to handle the additional operation. Additionally, some older adults suffer from diminished hearing. Sound, therefore, should only be used if it is important to the subject of the web page, and alternative text or a description of the audio file should always be supplied. Provide clarity in all audio files. Do not stack sounds on top of each other, or enable multiple audio files to launch at the same time. Speech over music can be difficult to distinguish, for example.

Distorted speech or computer generated voices can be hard to understand, especially for older adults. If the audio file is used to highlight a section, make sure it only plays once. A section of music or an event sound that endlessly repeats can be distracting to the user in a manner similar to blinking text animations.

## Setting Up The Navigation System

Create hyperlinks from icons as well as text to provide alternatives for the user. Underlined text can appear blurry to some users, while assistive devices may have trouble with icons. Links need to be clearly labeled, not only to identify that they are links, but to give the user an accurate idea of where they lead.

### SPACING URLS

Because some access software for the visually impaired may read two separate URLs that are placed close together as one, provide adequate distance between them. Just as sites should be checked for accuracy using a number of different browsers, try to acquire access software and check the site for clarity using it - especially if the site's target audience is comprised mainly of older adults or those with disabilities.

## MOUSE CONTROL

Avoid links requiring precise mouse control. Larger buttons, icons or linked text make better targets for the mouse pointer. If possible, use features that allow movement with a keyboard in addition to a mouse or pointing device.

## Putting the Site to the Test

Once the design of the site is finished, ask some older adults to judge the pages on these characteristics:

### Design

- ✓ Is the background attractive without interfering with the information?
- ✓ Are the colors easy to see and distinguish?
- ✓ Is the text a good color, size, and font?

### Layout

- ✓ Do the pages load quickly enough?
- ✓ Are the pages on the site the same style throughout?
- ✓ Are the buttons large and clear enough?
- ✓ Are the pages and the information clearly labeled?
- ✓ Does each page have easy-to-use menus?

### Content

- ✓ Is the information easy to find and understand?
- ✓ Are the words common to everyday language?
- ✓ Is there plenty of help available in accessible ways?
- ✓ Can the user tell who is sponsoring the page?
- ✓ Do searches result in enough (but not too many) hits?
- ✓ Are instructions understandable? Do they have illustrations?

### Multi-media

- ✓ Are graphics useful, pleasant, and easy to recognize?
- ✓ Is audio clear, useful, and non-intrusive?

## Putting It All Together

Elder-friendly web design does not need to be boring or dull. Older adults, as much as anyone, enjoy visual, audio, and intellectual creativity. Many web designers have developed sites that incorporate thoughtful design with interesting and entertaining content.

Examples of sites winning accessibility awards:

### **On-line Shopping**

Eddie Bauer

<http://www.eddiebauer.com>

### **Professional**

Counsel Connect (practicing attorneys)

<http://www.counsel.com>

### **Volunteer**

Literacy Volunteers of America -

Washington, D.C. chapter

<http://www.songline.com/lva/home.html>

### **Sports**

The Whitbread Round The World Race for the Volvo Trophy

<http://www.whitbread.org>

### **Government**

San Jose Police Department

<http://www.sjpd.org>

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