

Angela J. Wilder. Usability of Government Websites. A Master's Paper for the M.S. in L.S degree. April, 2007. 31 pages. Advisor: Michael Van Fossen

This study applies selected criteria from government usability sources to two selected government websites. Twenty usability guidelines were selected from Research-Based Web Design & Usability Guidelines . Two government websites were accessed and evaluated. The first was the Department of Defense (DoD) official website at <http://www.defenselink.mil/> and the second was the Social Security Administration (SSA) official website at <http://www.ssa.gov/>.

The question answered by the study is –Are government websites in compliance with usability guidelines established by government usability resources? The results showed that the government websites were compliant with government usability resources. The Department of Defense website was in compliance with 74% of the chosen guidelines and the Social Security Administration website was in compliance with the 89% of the guidelines.

Headings:

Government Information

User-Centered System Design

Websites-Design-Standards-United States

USABILITY OF GOVERNMENT WEBSITES

by
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A Master's paper submitted to the faculty
of the School of Information and Library Science
of the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements
for the degree of Master of Science in
Library Science.

Chapel Hill, North Carolina

April 2007

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INTRODUCTION

In the past, government websites have had a reputation for being difficult to navigate, cumbersome, repetitive, redundant, slow and complex. But government websites have improved tremendously, moving beyond static web publications to providing e-government services (Garvin, xiv). Government websites continue to improve as a result of government legislation, initiatives, research based guidelines, and web usability resources.

But not all have access or the skill to access these services. Government websites are still complex and can be difficult to navigate and libraries are closing. Budget cuts have already led to the closing of an Environmental Protection Agency (EPA) library in Chicago and researchers rely on EPA libraries for hard-to-find technical information (washingtonpost.com). Yet as more services move online, accessing government websites becomes critical to citizens fulfilling their information needs. Applying what we know about usability to government websites makes sense. And testing the usability of major government websites is the next step.

The purpose of this study is to measure two government websites against selected current government usability guidelines.

LITERATURE REVIEW

Traditional Systems

I looked first at the traditional systems to understand how accessing government information evolved from the Government Printing Office paper based system to the current Internet-based system with portals like USA.gov and GPO Access.

Historically, government information was disseminated by the Government Printing Office (GPO) through the Federal Depository Library Program (FDLP) as well as the National Technical Information Service (NTIS) through its fee-based science and technology information (STI) clearinghouse. They both served as the central sources to government information (Maxymuk, 5).

The Impact of the World Wide Web

As the largest publisher in the world, the United States Government quickly adopted the Internet as a medium to provide information resources to the public. Not only did it save money in substantial printing costs and it had the potential to reach a broader audience.

“In 1994 federal agencies spent nearly 51 million on Internet sources. In 1996, that rose to \$325 million. By 1999 there were 3.8 million web pages from more than 20,000 federal government websites (Maxymuk, 4).”

The United States Congress recognized the potential of the Internet as demonstrated by the launch of The Library of Congress’s THOMAS and by a directive given by the

104th Congress to make federal legislative information freely available to the public (http://thomas.loc.gov/home/abt_thom.html). Soon other government agencies bypassed GPO and put local, state, federal, international government publications directly online (Maxymuk, xvii).

The library community however “referred to federal publication distributed outside the bounds of the depository programs as “fugitive documents.” To secure electronic “fugitive” information within the depository program “the GPO and the library community pressed for broad interpretation of the Title 44 definition of government publication so that all information could be made available through depository libraries regardless of format (Maxymuk, 8).”

In its Circular A-130, the Office of Management and Budget (OMB) mandated that agencies maximize reliance on the public sector to minimize costs in information management (Maxymuk, 9). As a result, agencies were not obligated to the GPO but more directly accountable to the OMB (Maxymuk, 10).

The passing of the Government Printing Office Electronic Information Enhancement Act of 1993 led to the creation of GPO Access and the FDLP Electronic Collection. “The role of the FDLP changed from distributing discrete information resources in depository libraries to a system of remote on-demand access to database and information services centrally maintained and coordinated by the GPO (Maxymuk, 11).”

The National Technical Information Act of 1988 (NTIA) secured the existence of the NTIS but its role was changed by the American Technology Preeminence Act (ATPA) which mandated that the “head of each federal executive department or agency transfer to NTIS unclassified scientific, technical, and engineering information resulting from

federally funded research and development (Maxymuk, 17).” Information within the NTIS repository and outside of the NTIS became accessible through FedWorld, an online locator service launched in 1992 (<http://www.fedworld.gov/about.html>).

The donation of a powerful search engine to the government by Internet Entrepreneur Eric Brewer accelerated government efforts to create a government wide portal. First.gov went online on September 22, 2000. President Clinton stated that “the FirstGov.gov database will give our citizens a single, customer-focused website where they can find every on-line resource offered by the federal government (Maxymuk, 29).” In January 2007, FirstGov.gov changed its name to USA.gov. <http://www.usa.gov/About.shtml>.”

A division under the Office of Management and Budget, Electronic Government, is responsible for the utilization of electronic technology to streamline or otherwise improve the business of government online. This site contains the background, legislation and current initiatives (<http://www.whitehouse.gov/omb/egov/>).

President Clinton’s “Memorandum on Electronic Government” mandated that government services would become available on line. He set December 2000 as the deadline for federal agencies to make forms for the top 500 government services available on the Internet and he anticipated that citizens would be able to submit forms online by October 2000. In fact, President Clinton encouraged agencies to identify and adopt best online practices developed by both the public and private entities (Herman, vi) a first step in applying usability to government websites.

Usability and Government

Usability focuses on the needs of the user by promoting a user-centered approach to website development which makes the task easier for the user. Usability guidelines provide measures that improve access to information, decrease frustration and confusion for the user, thus increasing speed of access to resources (<http://usability.gov/government/makingcase.html>).

Usability became more relevant to federal websites when the federal government passed the E-Government Act of 2002, H.R. 2458 (Public Law 107-347), Dec 17, 2002. It created measures that require the use of information technology to improve public access to government information and services (<http://www.whitehouse.gov/omb/egov/>).

Today, there are several ways in which citizens use e-government and the numbers are increasing. A study by the PEW Research Center found that e-government use increased by 50% in 2002 to 97 million Americans (<http://www.usability.gov/government/makingcase.html>).

Citizens can obtain tax forms online from the Internal Revenue Service (Herman, vi). Students apply for money in federal grants, loans, and work-study opportunities through the Department of Education website (Herman, vii). Citizens seeking benefits can apply online through the Social Security Administration.

Government Usability Sources

The government provides resources to managers of federal websites to help agencies implement performance-based measures and a user-centered approach to federal websites.

Usability.gov is a collaborative effort of many federal agencies and “it is the primary government source for information on usability and user-centered design. The site publishes meetings and events, newsletters, and the Research-Based Web Design and Usability Guidelines Book. (<http://usability.gov/>).

Research-Based Web Design & Usability Guidelines contains an exhaustive set of web usability guidelines developed by the Department of Health and Human Services in partnership with the U.S. General Services Division. This source stands out among others because each guideline is based on the latest research from government agencies, and usability experts in the private sector.

Webcontent.gov is a website managed by the Web Managers Advisory Council, an inter-agency group of about 40 web managers from every cabinet-level agency and many independent agencies and contains resources to make U.S. government websites the most citizen-focused and visitor-friendly (<http://www.firstgov.gov/webcontent/index.shtml>).

The Interagency Committee on Government Information (ICGI) was created by the E-Government Act of 2002 to implement section 207 which is the accessibility, usability, and preservation of government information. This site includes links to the two reports to the Office of Management and Budget: Recommended Policies and Guidelines for Federal Public Websites and Recommendations for the Effective Management of

Government Information on the Internet and Other Electronic Records and one report to Congress: Improving Access to the Internet (<http://www.cio.gov/documents/icgi.html>).

Human Factors Design Guide Update: Revision to Computer Human Interface Guidelines is a reference tool for the development of human factors policy in multiple environments. Its purpose is to that meet the needs of FAA missions and systems but has been heavily utilized by multiple disciplines outside of the FAA including those is web usability because it is able to make sense of military standards and guidelines. (<http://www.tc.faa.gov/its/worldpac/techrpt/ct01-8.pdf>).

Section 508 (the 1998 Amendment to the Rehabilitation Act of 1973) requires the federal government to make all goods and services fully accessible. It identifies specific standards for Internet and Web accessibility. This site encompasses all aspects of the law and other relevant laws and regulations. Subsection 1194.22 of the Section 508 guidelines provides information regarding accessibility in Web site design (<http://www.section508.gov/>).

Government Usability Forums

The National Institutes of Health, Web Authors Group website is a forum for NIH web developers. It includes quarterly meetings, electronic newsletters, and listserv announcements, and guidance on policy and best practices. The resources link leads to a list of usability publications produced by the NIH. Under the meeting dates are links to meeting notes that contain valuable usability information sources. There is also a link to the Wag Rag which is the quarterly newsletter (<http://www.nih.gov/od/ocpl/wag/>).

The Chief Information Officers Council was also created by the E-Government Act of 2002. It is an interagency forum composed of representatives of 28 federal agencies. Its purpose is to improve practices in the design, modernization, use, sharing, and performance of Federal Government agency information sources (<http://www.cio.gov/>).

Related Government Studies

In his study, McClure (2000) identified performance measures for federal agency websites. The performance measures allow the government who is accountable to taxpayers, to objectively determine which websites are of use and which are not.

PURPOSE OF THE STUDY

The purpose of this study is to analyze two government websites using selected government usability guidelines. The question to be answered by the study is –Are government websites in compliance with usability guidelines established by government usability resources?

METHODOLOGY

For this study I first chose twenty usability guidelines from Research-Based Web Design & Usability Guidelines based on their potential to improve public access to the information and services available on government websites. The guidelines that I chose are shown in Table 1.

1.	5.3	Create a Positive First Impression of Your Site
2.	5.4	Communicate the Web Site's Value and Purpose
3.	6.1	Avoid Cluttered Displays
4.	6.3	Place Important Items at Top Center
5.	7.1	Provide Navigational Options
6.	7.7	Present Tabs Effectively
7.	7.10	Use Site Maps
8.	10.2	Link to Related Content
9.	10.7	Designate Used Links
10.	15.4	Define Acronyms and Abbreviations
11.	10.14	Link to supportive information
12.	16.2	Facilitate Scanning
13.	9.4	Use Unique and Descriptive Headings
14.	9.7	Use Headings in Appropriate HTML Order
15.	12.2	Place Important Items at the Top of the List
16.	12.3	Format List to Ease Scanning
17.	12.5	Introduce Each List
18.	12.9	Capitalize First Letter of First Word in Lists
19.	11.6	Use Attention-Attracting Features when Appropriate
20.	11.8	Use at Least 12-Point Font

Table 1. Twenty chosen usability guidelines

Then I selected two websites to evaluate based on the value of information and services provided to citizens on a regular basis.

The first is the Department of Defense (DOD) official website at <http://www.defenselink.mil/>.

Mission: "To support the overall mission of the Department of Defense by providing official, timely and accurate information about defense policies, organizations, functions and operations. Also, DefenseLINK is the single, unified starting point for finding military information on-line."

The War in Iraq has made the Department of Defense website a vital source for citizens and the press to obtain timely and accurate information about the war. As we have an all volunteer military, potential service members may access to find more info

about the military before joining. It is also an information source for current civilian and military personnel seeking information about benefits or citizens with loved ones currently serving in Iraq.

The second is the Social Security Administration (SSA) official website at <http://www.ssa.gov/>.

Mission: “To advance the economic security of the nation's people through compassionate and vigilant leadership in shaping and managing America's Social Security programs.”

All U.S. citizens are impacted by the Social Security Administration. Working adults make payments, disabled Americans seek benefits and older citizens seek retirement or Medicare benefits. The variety of services provided by SSA made their offices synonymous with long lines and longer waits. The SSA now offers many of these services online and encourages citizens to use them, even phone operators direct users to their website.

RESULTS

		Guideline	Department of Defense	Social Security Administration
1	5.3	Create a Positive First Impression of Your Site	Yes	Yes
2	5.4	Communicate the Web Site's Value and Purpose	Yes	Yes
3	6.1	Avoid Cluttered Displays	No	Yes
4	6.3	Place Important Items at Top Center	Yes	Yes
5	7.1	Provide Navigational Options	No	Yes
6	7.7	Present Tabs Effectively	N/A	Yes
7	7.1	Use Site Maps	Yes	Yes
8	10.2	Link to Related Content	Yes	N/A
9	10.7	Designate Used Links	No	Yes
10	15.4	Define Acronyms and Abbreviations	Yes	Yes
11	10.1	Link to Supportive Information	No	Yes
12	16.2	Facilitate Scanning	Yes	Yes
13	9.4	Use Unique and Descriptive Headings	Yes	Yes
14	9.7	Use Headings in Appropriate HTML Order	Yes	Yes
15	12.2	Place Important Items at the Top of the List	Yes	Yes
16	12.3	Format List to Ease Scanning	Yes	No
17	12.5	Introduce Each List	Yes	Yes
18	12.9	Capitalize First Letter of First Word in Lists	Yes	Yes
19	11.6	Use Attention-Attracting Features when Appropriate	Yes	Yes
20	11.8	Use at Least 12-Point Font	Yes	Yes

Table 2. Results of website analysis

The Homepage

Creating a positive first impression is important for a government agency because users judge the quality of the website from the homepage. (Research-Based Web Design, 37). The DoD website is very lively. The title banner contains an interesting graphic of the DoD seal and the top of the site has clickable colorful banners of the top news stories and features. At center is a constant rotation of photos subtitled with teasers to other news stories. These features give the webpage a professional appearance but they also impart upon the user the complex and fast paced nature of the organization. The dark blue color and the threat level graphic at the top right lends to an austere appearance that is in keeping with its current wartime mission.



Figure 1. Top half of the Department of Defense homepage



Figure 2. Social Security Administration homepage

The SSA homepage is more service-oriented. It has a simpler and more functional appearance than that of the DoD. The title banner contains a picture of the SSA seal and title is in a solid color with a simple font type. At the center is a listing of services offered on line and the majority of the elements on the page provide additional access points to those services. The colors are muted with the exception of red used only to highlight important services or information. I was surprised to find that SSA homepage offered no “qualify and apply” options for Medicare, just information. Yet, when I clicked through and the destination page included a place to qualify and apply.

Communicating the web site’s value and purpose provides immediate feedback to the user that they are in the right place for the particular information or services they need (Research-Based Web Design, 38). According to the “About Defenselink” page, a mission of the website is to serve as the starting point for finding U.S. military

information online” to “military members, DoD civilians, military family members, the American public, the Congress, and the news media. The website does just that. The display is similar to that of a news site like CNN.com because the news articles and associated images take up the majority of the page. Upon further exploration, the site also has news releases for the press, photos, reports, and links to branch websites, benefits, and more. The mission of the SSA website is to provide information on SSA programs and conduct online services. The site is very user-focused. All the category labels and directions are from the user’s perspective. The features include a listing labeled “What you can do online,” and useful links, news, and a frequently asked questions (FAQ) section arranged in a drop down box by topic.

Page Layout

A good page layout does not confuse but assists the user so that they may quickly eliminate options and get what they need. An uncluttered page makes information targets clearly visible (Research-Based Web Design, 45). The DoD has an abundance of information and all information on the page is relevant including the left and right navigation options. It seems that the cluttered appearance is due to the unnecessary teaser introductions to each news headline. The headline when written properly will inform the user about the article and pique their interest.

<p>es</p> <p>BS</p> <p>Passes</p> <p>st</p> <p>f Alleged nduct by ory</p> <p>death of man</p> <p>ts</p> <p>s Card</p> <p>s</p> <p>t</p> <p>mance & eport</p> <p>ormation</p> <p>d</p> <p>es</p> <p>-</p> <p>ops</p> <p>es Lead</p> <p>inance</p> <p>age</p> <p>ont</p> <p>enefits</p>	<p>Gates: Still 'So Far, So Good' in Iraq Strategy</p> <p>WASHINGTON, April 4, 2007 - Security in Baghdad has improved even though only part of the planned increase of U.S. troops is in place, Defense Secretary Robert M. Gates said today on a nationally syndicated radio program. Story</p> <p>Baghdad 'Surge' Produces Early Successes</p> <p>WASHINGTON, April 4, 2007 - Murders and kidnappings, the hallmarks of sectarian violence, have decreased in Baghdad since reinforcements of U.S. and Iraqi security forces began to flow into the city in mid-February as part of Operation Fahrd al-Qanoon, a senior U.S. military official said in Baghdad today. Story</p> <p>Regiment Focuses on Wounded Marines, Sailors</p> <p>WASHINGTON, April 4, 2007 - The U.S. Marine Corps has created a new regiment focused on tracking and assisting wounded Marines and sailors across the nation, the regiment's first commander announced at a Pentagon news conference today. Story</p> <p>Program Connects Troops in Iraq to U.S. Public</p> <p>WASHINGTON, April 4, 2007 - American troops serving in Iraq have an additional opportunity to share their experiences with the U.S. public, thanks to a new public outreach initiative, a senior U.S. military officer said today in Baghdad. Story</p> <p>Iraqis Show Confidence in Security Forces</p> <p>WASHINGTON, April 4, 2007 - The Iraqi people are starting to show more confidence in their security forces, and this is paying off with better security in Baghdad, coalition officials said today. Story</p> <p>Firm Political Will Necessary for Victory</p> <p>WASHINGTON, April 4, 2007 - Without delay, the United States needs to provide American men and women in uniform with the funds, supplies and weapons they need to get the job done, the deputy secretary of defense said here today. Story</p>	<p>captured 14 weapons ar in various o reported. S</p> <p>> Soldier, M</p> <p>> CENTCOM</p> <p>> Nine Soldie</p> <p>America S</p> <p>AT&T Help</p> <p>WASHINGTON Brittany and respectively pleasant su telecommur responded f and agreed Soldiers, th organizatio</p> <p>> Group Puts</p> <p>> Franchise I</p> <p>> Sports Clin</p> <p>.....</p> <p>Transform</p> <p>Walter Re</p> <p>WASHINGTON reality mad operating r Army docto first three-c invasive su Army Medic</p> <p>> Soldiers Te</p> <p>> TV Show Fi</p> <p>> Air Force to</p> <p>> Army Test:</p> <p>.....</p>
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Figure 3. Article summaries.

The SSA website takes into account the primary age group of its users. The image links are large enough to click. The background has a muted pattern that does not distract from the contents. It also has lots of white space and all information is presented in neat clusters according to topic.

Placing important items at top center is important because this is where users generally look first (Research-Based Web Design, 47). The SSA website has their customer service options right below the title (About Us, Questions, Contact Us) followed by their major options starting with social service, records and retirement. The DoD homepage uses pictures news captions in this top center to effectively draw attention to news articles of great importance.

Navigation

Navigation is important to for all government websites that are dense and complex (Research-Based Web Design, 59). Sending users to pages that do not have navigational options is very frustrating for experienced users and confusing for novice users especially when the user is multitasking with several open windows on the desktop. When clicking on a news article on the DoD homepage the user is sent to a new page in which the back button is disabled. The user must manually search for the page on the desktop or click the title banner to return to the homepage. The SSA also has a link at top left to return users to the homepage and it does not have links that send users to pages without navigation options.

Present Tabs Effectively by placing them at the top of the page and making them look realistic otherwise the user will be confused about their use (Research-Based Web Design, 65). The SSA website has tabs that are made realistic by the use of red which is very effective but may not be clear to users with impaired vision. Older citizens that use the SSA site may also have difficulty clicking the small tabs making them larger may be more helpful.

Social Security Online
www.socialsecurity.gov

Questions?

Search SocialSecurity.Gov

GO

Find An Answer to Your Question

Are you an employer? See [answers to your W-2 Reporting questions](#).

Answers | Ask a Question | My FAQ Update Notifications | Help

Category: All

Search Text (optional):

Search

Search By: Phrases

Answer ID: 1265

Category: Government Pension Rules, Government Pension Offset

Last Updated: 01/31/2007 05:42 AM

Print Answer

Email Answer

How does enactment of the Social Security Protection Act of 2004 (Public Law 108-203) change the GPO Provision?

Question
How does enactment of the Social Security Protection Act of 2004 (Public Law 108-203) change the GPO Provision?

Answer
H.R. 743, the "Social Security Protection Act of 2004," was passed by Congress on February 11, 2004 and signed into law by the President on March 2, 2004. (P.L. 108-203)

The law contains a provision that eliminates the "last day covered employment exemption" to the government pension offset (GPO). The GPO provision reduces the amount of a spouse's or surviving spouse's benefit by two-thirds of the amount of that person's government pension if the person was employed by the government and the employment was not covered by Social Security. Previously, an individual was exempt from the GPO if his or her last day of government employment was in a job covered by both Social Security and the government pension system.

The law requires that the last 60 months of a person's government employment before retirement be covered by Social Security and the pension system in order to avoid reduction under the GPO. [\[1\]](#)

Changes to the GPO Provision in P.L. 108-203

- Requires that State and local government workers be covered by Social Security throughout their last 60 months (5 years) of employment with the pension-paying government entity in order to be exempt from the GPO provision, instead of just their last day of employment.

Figure 4. Tabs

Site Maps are navigation aids to the user when the web sites that has many pages (Research-Based Web Design, 68). It provides an overview of the information available like a menu in a restaurant that lets the diner see what meals are available.

Links

Linking to other pages with similar content (Research-Based Web Design, 87) is like a referral because it allows users to find similar information within the websites. Both the DoD and the SSA website contains a section that links the user to more information. The SSA website includes a dropdown box with yet more options.



Figure 5. Links to related content

Designate used links by using color changes to signal to users that a link had been visited because it improves users speed in finding information (Research-Based Web Design, 92). The DoD website does not have this feature. On the SSA website used links turn to a darker shade of blue.

Writing Web Content

Use acronyms and abbreviations sparingly and define them so less knowledgeable users can successfully use the site (Research-Based Web Design, 99). On the SSA website the entire word is written followed by the acronym in parenthesis on each page even if it has already been defined on another page. The DoD website does not define acronyms and abbreviations as often. The culture of the Department of Defense encourages the wide use of acronyms and abbreviations. Spelling out and defining each term could delay its mission of providing news to the public in a timely manner. A link to supportive information such as a definition or description could provide less knowledgeable users with the information to understand technical terms while allowing

the organization to use the preferred terminology in its organic state (Research-Based Web Design, 99). The DoD website currently uses ALT tags to assist users with acronyms and abbreviations.



Figure 6. ALT tags

Content Organization

Structure each content page to facilitate scanning on pages with dense content (Research-Based Web Design, 171). Most users don't read but scan the text to find the item they need to complete their task. The use of descriptive headings, lists, and text appearance improve the scannability of web pages.

Headings, Titles, and Labels

Unique and descriptive headings, including links, should reflect the information and items contained within the category (Research-Based Web Design, 77). Not only do category labels facilitate scanning on the web, but descriptive headings allow users to grasp the hierarchical structure of the information. In fact, headings used in proper HTML order improve accessibility for users with disabilities who need assistive technology such as screen readers (Research-Based Web Design, 83). The category labels on the SSA homepage are brief, descriptive, and in HTML order (Figure 7.).

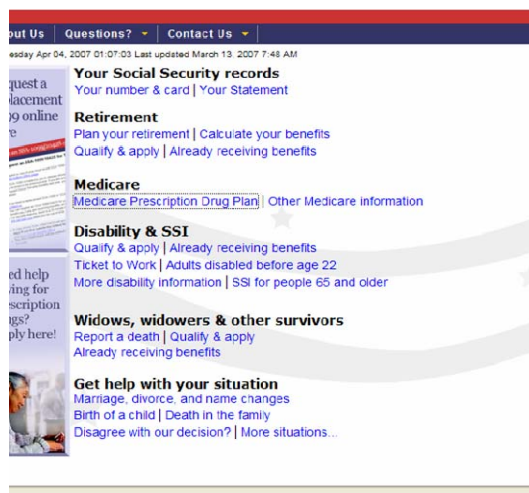


Figure 7. Descriptive headings

Lists

Format lists can also assist in scanning (Research-Based Web Design, 114). Lists formatted in bulleted form are the most effective because they appear vertically and are

easily scanned. Introduce each list to reveal the information to follow (Research-Based Web Design, 116). The navigation bar in Figure 8, is introduced the press resources listed below it. The most of the important information should appear at the top of each list to give users the quickest access to information and news releases, the most important link, appears first in the list (Research-Based Web Design, 113) The first letter of first word in the lists is also capitalized to facilitate scanning (Research-Based Web Design, 119).



Fig 8. Bulleted list

Text Appearance

Using color, bold, and other font characteristics are very effective methods for improving the scannability of your text but must be used sparingly (Research-Based Web Design, 104). The use of red on the SSA website draws the user's attention to both the new rules for getting a social security number and card and Spanish as another language option.

Use at least 12-point font on all web pages and users over 65 may need 14 point to avoid eye strain and fatigue. At top right, the SSA website has large picture labeled "Need BIG Text?" to assist its older users while DoD reserves larger font for news

headlines to attract the user's attention. In contrast, the navigation lists on the DoD homepage contains much smaller font that is difficult to read.



Fig 9. Font characteristics

DISCUSSION

Both the Department of Defense webpage and the Social Security Administration webpage were in compliance with the majority of the guidelines (Table 3.).

Website	Number of Guidelines	Percentage of Guidelines
Department of Defense	15/19	74%
Social Security Administration	18/19	89%

Table 3. Compliance results

There are some limitations in this study's methodology. Only a select portion of the guidelines were studied and different set of guidelines may have yielded completely different results. The selected guidelines did not represent all usability areas, see Table 4.

Guideline Area	Number of Guidelines Sampled
Design Process and Evaluation	0
Optimizing the User Experience	0
Accessibility	0
Hardware Software	0
The Homepage	2
Page Layout	2
Navigation	3
Scrolling and Paging	0
Headings, Titles, and Labels	2
Links	3
Text Appearance	2
Lists	4
Screen-Based Controls	0
Graphics, Images, and Multimedia	0
Writing Web Content	1
Content Organization	1
Search	0
Usability Testing	0
TOTAL	20

Table 4. Usability areas

The majority of the selected guidelines were in the area of navigation, links, and lists.

Not all aspects of the websites were studied. In some cases, I only analyzed the homepage and in other cases I looked deeper into the websites and some guidelines required a more subjective rather than objective analysis. However, it is clear that legislation, user-centered design, and the availability of usability resources to web managers have had a positive effect on the usability of government websites.

CONCLUSION

The purpose of this study is to measure two government websites against selected government usability guidelines. By analyzing the usability of government websites we can help alleviate a few of the many issues that result from government reliance on the Internet to disseminate information. The conclusion is that government websites are meeting the majority of the guidelines established by the government resources. Further research could be done using resources outside of the Federal Government.

The users of government websites include undergraduate and graduate students, academics, teachers in public and private schools, high school students, parents, librarians, young children, persons with disabilities, the blind, those who do not speak English, and more. Usability ensures that the public will continue to have access to valuable information that is often only available from the government.

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