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Course: Web Accessibility and Design
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Web Accessibility Evaluation

PART 1: Section 508 Web Accessibility Checklists

Evaluation of First Page: www.whitehouse.gov

Pass/Fail/NA	Guideline	Comments
Fail	(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	While most of the images on the page have appropriate alt.text and most null alt.texts are also appropriate, some images would benefit from <longesc> instead of alt. text. Also Cynthia says that there are INPUT Element at Line: 46, Column: 9 and IMG Elements at Line: 348, Column: 200 and at Line: 390, Column: 200 that do not have alt.text.
Fail	(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	There are links to videos from the page. Videos do not have captions. There are text transcripts but they are not synchronized.
N/A	(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Color is not used to convey meaning on this page.
Pass	(d) Documents shall be organized so they are readable without requiring an associated style sheet.	This page has only a few CSSs. They do not interfere with the readability of the page.
N/A	(e) Redundant text links shall be provided for each active region of a server-side image map.	No "ismap" is found.
N/A	(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	No "ismap" or "area" are found.
N/A	(g) Row and column headers shall be identified for data tables.	Tables are used for layout but there are no data tables.
N/A	(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Same as above
N/A	(i) Frames shall be titled with text that facilitates frame identification and navigation.	The page does not use frames.
N/A	(j) Pages shall be designed to avoid causing the	The page does not have a flickering

	screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	or strobe effect.
Fail	(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	The website offers Text-only for almost all its pages (not for the kids' page though). While the text-only version is updated as often as the web page and contains the equivalent of the original version, I have failed this feature because, I believe, the page could be made accessible without it (but the developers created a text-only version anyway as an addition).
Pass	(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.	The page uses JavaScript (mostly onmouseover and onmouseout) but even when the JavaScript is disabled, it is possible to access the page through tabbing, and the screen reader still recognizes all the functional elements. When tested in Firefox, the only difference was that with enabled JavaScript the links changed color when the mouse was moved over. So it looks like JavaScript is used on this page only for visual effects.
Fail	(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Videos on the website require a plug-in but there is no link to download that plug-in.
Fail	(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	According to WAVE one form element on the page is missing a label.
Pass	(o) A method shall be provided that permits users to skip repetitive navigation links.	Page contains invisible Skip to Content and Text-Only buttons at the top left corner of screen.
N/A	(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	

Evaluation of Second Page: http://www.whitehouse.gov/kids/

Pass/Fail/NA	Guideline	Comments
Fail	(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Once again, all images have appropriate alt.text or null alt.text but there is a flash animation that does not have alt.text as well as INPUT Elements in Lines 171, 177, 183, 189, 195 as Cynthia says. Also some alt.text are too long and probably require <longdesc>.
Fail	(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	There are no movies on this page but a flash animation on the screen does not have captions or an alternative description.
N/A	(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Color is not used to convey meaning on this page.
Pass	(d) Documents shall be organized so they are readable without requiring an associated style sheet.	This page has only a few CSSs. They do not interfere with readability of the page.
N/A	(e) Redundant text links shall be provided for each active region of a server-side image map.	No "ismap" is found.
N/A	(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	No "ismap" or "area" are found.
N/A	(g) Row and column headers shall be identified for data tables.	Tables are used for layout but there are no data tables.
N/A	(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Same as above
N/A	(i) Frames shall be titled with text that facilitates frame identification and navigation.	The page does not use frames.
N/A	(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	The page does not have a flickering or strobe effect.
N/A	(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	The page is already accessible in its native format.
Pass	(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by	The page uses JavaScript and all functionality is accessible through the keyboard and/or screen readers.

	assistive technology.	
Pass	(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Animation on the page uses Flash plug-in. You can find the link to download that plug-in (in Firefox; for some reason that link did not show in Opera). The link is written into the HTML script (I found it viewing the source).
Fail	(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	The radio buttons for voting do not have labels (WAVE).
N/A	(o) A method shall be provided that permits users to skip repetitive navigation links.	The page does no have repetitive navigation links. Links on this page are different from any other page on the website.
N/A	(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	The page does not set any time limits.

PART 2: Evaluation Using Principles: POUR

Perceivable

[Explain any challenges that users with disabilities will have in perceiving the content of this web site (through sight or hearing). Is all of the information still available when colors or styles are turned off? Can you think of other things that would make a site difficult to perceive? Type your answers here.]

This website is somewhat perceivable for users with visual impairments because most of the pictures have alt. text attached to them. There are couple images that are missing alt. text but overall, I believe a great attempt has been made to make this site accessible to users with visual impairments, especially taking into consideration the amount of images and other non-text elements that are updated and added daily. I was truly impressed with the number of null alt. texts and with the fact that all of them seemed to be appropriate. Java Scripting adds visual effects (e.g., underlying or changing color of the focused link), which helps to enhance comprehension of what is going to happed if you click (obviously that does not apply to users with visual impairments). However, some of alt. text attributes are too long and it would be much better if <longdesc> was used rather than alt. text. I can see how that may be annoying to people who access this website with screen readers. The site does not use color or styles to convey meaning so even if colors, images, and/or cascading style sheets are turned off, the website remains accessible and really looks almost the same. That way presentation and web design are not interfering with the content. I was very disappointed to find out that neither videos no web casts (no animations) have captions. Users with hearing impairments can benefit from text transcripts provided for all the speeches on the main page (kids' videos do not have even that) but they are not synchronized.

Operable

[Explain any challenges that users with disabilities will have in operating the interactive elements of this web site. Consider the keyboard and mouse accessibility of links, forms, multimedia, buttons, etc. Are the links large enough to click on easily? Can you think of other things that would make a site difficult to operate? Type your answers here.]

Once again this website portrays some good and not so good examples in terms of operability. First of all, users can easily access this website without a mouse (with a keyboard) tabbing through all the links. Then, there are links that allow users who are tabbing through the website to skip to the main content or to access the text-version of the website. That makes operation easier and faster. However, with that said, the "skip to content" link is available only to those using screen readers because the link is invisible. Also left side navigation on the main page has too many links (from my point of view), which may be challenging for some users if they have missed (or have never seen) the 'skip to content" link or if they need to go through that left side menu. The majority of links are relatively big but there are some places where "click here" and "more" are used within the content. It is important to notice that when using the screen reader, more information is provided when "click here" or "more" are activated. In some cases a description or URL of the page linked to "click here" are provided. However, for those with physical disabilities, it will still be hard to click such a small link. In addition, on the www.whitehouse.gov/kids/ page, a flash animation (constantly moving) contains additional links inside it. Those links are scrolling from left to right and then backwards, so it would be quite difficult for a child with limited mobility to select one of them. For those tabbing, as soon as a user gets to the animation (scrolling links), he/she will find some sort of scanning feature if clicks Enter. A yellow highlighted square appears on the animation. You can move the square along the scroll bar. The links are still moving so when a desired link gets to the yellow square, it is possible to select that link. While it seems like web developers certainly made an effort to make that feature more operable, it still looks quite complicated and not perfect. Also as I mentioned before, animation or links inside it do not contain descriptions (so a user who is blink would not be able to use it).

The website includes a search feature and a structural site index. The page does not set any time limits. Overall, this site is pretty easy to operate and its "clean" structure supports that as well. It is easier for somebody using a keyboard or a switch than to somebody using a head pointer or a touch window (see summary by disability type: motor for explanations).

Understandable

[Explain any challenges that users with disabilities will have in understanding the content of this web site. Is the information organized logically? Is the reading order logical to screen readers? Are the words easy to understand for someone with a low literacy? Are acronyms and abbreviations defined? Does the site require the user to remember large bits of information? Are headings, lists, or other semantic organizers used to organize the content? Can you think of other things that would make a site difficult to understand? Type your answers here.]

Due to its nature, www.whitehouse.gov has a fairly high readability level. The main page would probably not be accessible for users with low literacy or cognitive disabilities. Most of the text includes direct speeches so the use of words depends on the speaker (in most cases the President or somebody else from his office). However, users are provided with abstracts of a majority of speeches and events. The site also includes appropriate pictures and other non-text elements to somewhat increase readability. The kids' page is designed for children but it still has some "difficult" words. The content of the website is organized

in a logical way. Headings and other semantic elements (more on the main page than on the kids' page) are used to organize the content. However, it seems like none of acronyms and abbreviations are defined. Obviously navigation is different on the kids' page but overall, throughout the site navigation is consistent

Robust

[Is the content of the site available in both old and new browsers? (Note: Even if the content is not as attractive in older browsers, it is still "available" if it displays the content and the content can still be understood). What happens when things are turned off such as Flash, JavaScript, Java, Images, CSS, etc.? Can you view the site in a variety of browsers, including Opera, Firefox, Safari (if you have a Mac available to you), and Internet Explorer? Can you think of other things that would make a site less robust? Type your answers here.]

This website is quite robust. I have tried it in Netscape, Opera, Firefox, and Internet Explorer. The site looks almost identical in all of them. However, in Opera, I was not able to tab through the website. Only form elements allowed me to tab through them. It's important to mention that other websites (e.g., www.yahoo.com) behaved the same way in Opera. That allowed me to suggest that it was an issue with Opera rather than with the evaluated website. Couple minor elements (visuals) were slightly different in different browsers but they did not interfere with the site's content. Also when JavaScript and Cascading Style Sheets were turned off, the content was still displayed the same way. That was also true when turning off colors. Besides couple background colors, all other elements stayed the same. Unfortunately I had no opportunity to try it in older versions. Since I have newer ones on my computer, it wouldn't allow me to install the older ones.

PART 3: Summary by Disability Type

Visual: Blindness

[What challenges will people who are blind face on this site? Have these challenges been addressed? If so, how? Would you recommend this site to your friends who are blind? Why or why not? Type your answers here.]

With some minor issues, I find this website quite accessible for people who are blind. As mentioned above, almost all images and other non-text elements include alt. text attributes. Again it is very impressive because the page content is updated several times a day. I have tried to listen to this site with a screen reader and it was pretty easy to do. The content is organized in a logical order, "skip to content" link allows to avoid long lists of links, and the site is generally accessible through tabbing. Couple things that may still confuse users who are blind include long descriptions of images using alt. text instead of longdesc and fairly long list of links on the left side. In addition the animated scrolling bar with links on kids' page will be inaccessible for users; thus preventing them from selecting one of those links. Lastly, some links may not make sense when taken out of content (e.g., click here, more). However, as I mentioned before, screen readers (I used Window Eyes) read more that just "click here". They either provide a short description of the link's destination or its URL. Another challenge that people who are blind may face when using this website is that form elements are missing labels on both pages. Thus, kids' would not be able to vote on their page. Overall, with all mentioned flaws, I would still recommend this site to a friend who is blind because it has

many more accessible features than inaccessible. Also, this website is much better in terms of accessibility than other sites (www.whitehouse.org or www.whitehouse.com. I have opened those by mistake and they are just terrible).

Visual: Low vision

[What challenges will people with low vision face on this site? Have these challenges been addressed? If so, how? Would you recommend this site to your friends with low vision? Why or why not? Type your answers here.]

I have enlarged this website in Firefox and the major content remained accessible. However, the banner on the top and top navigation buttons (which are the most important links) turn to be really pixilated because they include text in graphic. On the kids' page not only top buttons but also buttons on the right side include text in graphic. So kids' page is even less accessible to somebody with low vision than the main page. Pictures look pixilated when enlarged as well. So the users with low vision can change the size of almost all text, except those banners, top buttons and right buttons on the kids' page. I was quite disappointed to find out that they used pixels rather than percents for layout table widths. That will increase horizontal scrolling for users. While a lot of content may be accessed when the website is enlarged, this is probably not the most accessible site for somebody with low vision.

Visual: Color blindness

[What challenges will people with color-blindness face on this site? Have these challenges been addressed? If so, how? Would you recommend this site to your friends with color-blindness? Why or why not? Type your answers here.]

There are no challenges that people with color-blindness may face on this site. When colors and/or images are turned off, the content of the website is not altered. People with color-blindness will perceive this site in absolutely the same way.

Auditory: Deafness
[What challenges will people who are deaf face on this site? Have these challenges been addressed? If so, how? Would you recommend this site to your friends who are deaf? Why or why not?]

I would not recommend this website to anybody who is deaf. It is absolutely inaccessible for somebody who cannot hear. The site is full of videos but none of them have captions. The main page contains videos of events and speeches. Speeches have text descriptions that come on a separate page and obviously are not synchronized. The kids' page has a link to a database of videos on many different topics but none of them are captioned or have descriptions. I am quite disappointed with that because it feels like videos include important information and they are a big part of this website. That has to be changed.

Motor: Inability or difficulty using a mouse

www.whitehouse.gov is designed so that all the functions are still available when tabbing through the links. A user will be able to go from link to link using a keyboard or a switch. Even the animated scrolling bar on the kids' page can be accessed with a keyboard imitating scanning. Although the scanning is not perfect and will require a lot of cognitive load, it is still possible to access it. For somebody using a head pointer, hand/mouth stick, or a touch window, this website is partially accessible. Some links are large enough to be selected with one of those devices, while others (e.g., click here, more, etc.) are too small for that. The scrolling links on the kids' page may also be quite a challenge for such a user. The main page contains "Skip to Content" link but it is invisible. So it wouldn't do any good for anybody unless they are using a screen reader. There is a Text-Only invisible link on the top and also another one (this one is visible) at the bottom. The list of links on the left side of the main page is somewhat long. Overall, I think this website has more accessible features for somebody with motor disabilities than inaccessible ones. So I would probably recommend somebody with movement limitations. I have enjoyed tabbing through the links myself besides those moments that I have discussed above.

Cognitive: Memory, Attention, Perception, Processing

The nature of this website prevents reducing the readability level and making it more accessible for somebody with cognitive disabilities. The main challenge for such a person would be to perceive and understand the content. However, some elements are used to address this issue. First of all, stories and events described on the site presented on the main page as abstracts. In addition, a majority of stories and events are accompanied with videos or pictures. Those supplementary materials make the content somewhat easier to understand. Structural elements (e.g., heading, titles) are used as well. Each page I evaluated, obviously, had a different navigation but within each section/part (main part or kids' part) it was consistent. It looks like the developers have created and used a template for each of the sections. As far as attention and memory, there was really nothing that could distract the users. The animated link bar on the kids' page may be annoying but it can be stopped by clicking on it. I would probably still recommend kids' page to students with cognitive disabilities. It has some interesting and easy activities (e.g., presidents coloring pages, math and other activities and quizzes) as well as virtual video tours of White House (they do not have captions as well as other videos, so they wouldn't work for students with hearing impairments. However, they may be good for students with learning disabilities). As for the main page, I would definitely think twice before recommending it to an adult with cognitive challenges. The readability level is quite high; the text does not have a lot of spacing in between the lines, so my recommendation would depend on person's abilities and needs.

Seizure: Photo-epilepsy

There are no strobing or flickering images on www.whitehouse.gov, it seems pretty harmless to somebody with photo-epilepsy. I would definitely recommend this site to somebody with such a disorder because even after going though dozens of pages, I did not find anything that would cause a problem.