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# Alvarado Public Library

*Website Accessibility Report*



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Services

# Alvarado Public Library

## *Executive Summary*

The Alvarado Public Library website – <http://www.alvaradopubliclibrary.org/> -- could be an accessible site, but many basic techniques should be incorporated. Considering it is the work of a single person that is learning HTML as they go, it is a good start.

During the on-site visit, many of the changes listed in the draft report were corrected. For those items that required time because the same change had to be made many places in the website, changes were made to the first few so that a satisfactory understanding was reached.

In addition to the changes listed in the report, additional questions were asked, focusing primarily on how to make future services accessible for the website. These answers have been incorporated into the report:

- How to embed audio and/or video
- How to create accessible drop-down menus
- How to create and maintain a site index

Library online catalogs were not checked for accessibility for any of the libraries in this project. In general, libraries have limited or no ability to modify the HTML for online catalogs, so they were not included.

# Alvarado Public Library

## *Website Accessibility Report*

In fiscal year 2010, the North Texas Regional Library System moved into the second year of their *Expanding Accessibility in Libraries* pilot program. In 2009, eight libraries voluntarily studied the accessibility needs of their communities and used funding available in the program to purchase items that would extend library services and programs to this population.

In 2010, each of the original eight libraries hosted an accessibility fair for their communities and eight libraries (two which were part of the original group) had their websites analyzed for accessibility issues. This report deals with this last project.

Between May 11<sup>th</sup> and May 20<sup>th</sup>, each library was visited to discuss the draft accessibility report for their website. After this discussion, each report was finalized and emailed both to the library contact and to the North Texas Regional Library System. Questions concerning the content of this report should be directed to:

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Christine Peterson is a Continuing Education Librarian for Amigos Library Services, a member-based non-profit organization that helps its members obtain affordable services and share library resources and knowledge. In her capacity as a Continuing Education Librarian, Peterson trains and consults in the area of library technology, which includes website accessibility, website authoring and design, technology planning, and web-based social software. She has trained and consulted in the area of library technology for eighteen years, working for both Amigos Library Services and the Texas State Library and Archives Commission. Before that, she was the system administrator for two academic libraries, e.g., San Antonio College of the Alamo Colleges, Florida Institute of Technology.

## Accessibility Defined

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An accessible website is one in which any person can perceive, understand, navigate and interact with that site. Disabilities are categorized in the following ways:

- Visual – those that are blind, partially blind, have low vision or color blindness.
- Hearing – those that are deaf or hard of hearing.
- Physical – those that have muscle weakness, missing limbs, joint problems, limitations of sensation, or cannot control muscles.
- Speech – those that have difficulty in producing speech that is recognizable.
- Cognitive/neurological – this includes learning disabilities such as dyslexia, attention deficit disorder, memory impairments, and seizures.

It is possible and, as we age, normal to have multiple disabilities. One of the largest generations is now starting to retire – the Baby Boomer generation. As the first generation to retire that has used the Internet both at work and at home, they can be expected to continue using the Internet through retirement.

## Accessibility Guidelines

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To help web authors create websites that are as accessible as possible, the World Wide Web Consortium (home of an international community that creates standards to ensure the long-term growth of the Web) created an effort called the Web Accessibility Initiative. Within this initiative, they have provided twelve guidelines, called the Web Accessibility Content Guidelines, which include conformance levels of website accessibility – A, AA, and AAA.

For example, one guideline deals with the ability for users to distinguish foreground and background elements, both visually and auditorially. There are three levels of compliance, starting from a basic level of accessibility at Level A to a higher level of accessibility at Level AAA. This report for the library's website is based on Level A.

In this report, each of the twelve guidelines is listed with a discussion of changes to be considered for the library's website to come into conformance at Level A. Requirements for Levels AA and AAA can be found at <http://www.w3.org/WAI/WCAG20/quickref/> by submitting the form with the desired levels checked.

## Text Alternatives

Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, Braille, speech, symbols or simpler language. The purpose of this guideline is to ensure that all non-text content is also available in text.

- Missing alternative text was found for any image.
  - No alternative text was found for form elements, e.g., textarea and input elements in Guestbook
  - Applets, since they are image-based, but have alternative text. They are used on three pages as navigation:
    - [http://www.alvaradopubliclibrary.org/alvarado\\_career\\_center.htm](http://www.alvaradopubliclibrary.org/alvarado_career_center.htm)
    - [http://www.alvaradopubliclibrary.org/alvarado\\_education\\_center.htm](http://www.alvaradopubliclibrary.org/alvarado_education_center.htm)
    - [http://www.alvaradopubliclibrary.org/alvarado\\_teen\\_scene.htm](http://www.alvaradopubliclibrary.org/alvarado_teen_scene.htm)
- Navigation throughout should be consistent, so either the rest of the site should use applets for navigation (with alternative text) or these three pages should use event handlers for their navigation.

## Time-Based Media

Provide alternatives for time-based media.

The purpose of this guideline is to provide access to audio and video files.

- No audio or video files were found on the site.
- Moving images should have a mechanism to pause, stop, or hide it. One example is on the home page which includes an image of a rooster crowing, but has no way to stop or pause it.
- During the on-site discussion, the question of how to embed audio and video files was asked. Creating the HTML for embedding multimedia is not an easy task, but there are sites that explain how to generate the HTML that can then be copied directly to the website:
  - Embedded Media HTML Generator - <http://cit.ucsf.edu/embedmedia/step1.php>
  - Embedding a Sound in a Web Page - <http://www.cortland.edu/flteach/mm-course/sound-embedding.html>
  - How to Embed Sound on a Web Page - <http://webdesign.about.com/od/sound/ht/htsound.htm>
  - Objects - <http://www.robinlionheart.com/stds/html4/objects.html>

## Adaptable

Create content that can be presented in different ways (for example simpler layout) without losing information or structure.

The purpose of this guideline is to ensure that all information is available in a form that can be perceived by all users, for example, spoken aloud, or presented in a simpler visual layout.

- Site should separate the structure of the page from the formatting. Use of Cascading Style Sheets is the preferred way to accomplish this.
- ID attributes must be unique within the document; if used more than once, this can cause problems with screen readers as well as readers on mobile devices. This only happens once on the website and can be easily fixed:

[http://www.alvaradopubliclibrary.org/summer\\_reading\\_program.htm](http://www.alvaradopubliclibrary.org/summer_reading_program.htm)

`<span id="text_1">` on lines 365 and 373

- There are 6 levels of headings, `<h1>` being the most important heading on the page and `<h6>` being the least important. These should be used in order from `<h1>` to `<h6>`. On four pages, the `<h5>` is the only heading used on the page and is used in the footer area:
  - <http://www.alvaradopubliclibrary.org/>
  - [http://www.alvaradopubliclibrary.org/calendar\\_of\\_events.htm](http://www.alvaradopubliclibrary.org/calendar_of_events.htm)
  - [http://www.alvaradopubliclibrary.org/general\\_library\\_information.htm](http://www.alvaradopubliclibrary.org/general_library_information.htm)
  - [http://www.alvaradopubliclibrary.org/media\\_corner.htm](http://www.alvaradopubliclibrary.org/media_corner.htm)
- Tables that display tabular information should use the `<th>` element as the first line in the table instead of bolding the first line of text. This allows users hearing the web page to understand the structure of the table, e.g., the column headings. For example:
  - [http://alvaradopubliclibrary.org/alvarado\\_education\\_center.htm](http://alvaradopubliclibrary.org/alvarado_education_center.htm) – the list of GED locations should be in a table with a header row
  - [http://www.alvaradopubliclibrary.org/places\\_of\\_meditation\\_and\\_worship.htm](http://www.alvaradopubliclibrary.org/places_of_meditation_and_worship.htm) - places of meditation and worship
- The form for the Guestbook should have “label” element that allows a screen reader to determine which line of text – “Add Your Comments” – goes with which form element - `<textarea>`.

```
<h2><label for="comments">Add Your Comments</label></h2>
<p><textarea name="Comments" rows="8" cols="52"
id="comments"></textarea></p>
```

## Distinguishable

Make it easier for users to see and hear content including separating foreground from background.

The purpose of this guideline is to ensure that the default presentation is as easy to perceive as possible to people with disabilities.

- Two audio files were found in the reading club pages:
  - [http://www.alvaradopubliclibrary.org/summer\\_reading\\_program.htm](http://www.alvaradopubliclibrary.org/summer_reading_program.htm)
  - [http://www.alvaradopubliclibrary.org/summer\\_reading\\_clubs.htm](http://www.alvaradopubliclibrary.org/summer_reading_clubs.htm)

In order to be accessible, users must have a way to turn the sound off. As it is, neither audio file plays because, although the sound file is ready to play, the code states that it not be played:

```
<bgsound src="Sounds/Midis/Summer/sumrtime.mid" loop="-1">
```

- Background and foreground colors should work together so the content is easy to see and understand. On the Chess Club page - [http://www.alvaradopubliclibrary.org/chess\\_club.htm](http://www.alvaradopubliclibrary.org/chess_club.htm) - the font colors and background color are particularly problematic. The teen scene page also has contrast issues between the colors, e.g., [http://www.alvaradopubliclibrary.org/alvarado\\_teen\\_scene.htm](http://www.alvaradopubliclibrary.org/alvarado_teen_scene.htm)

## Keyboard Accessible

Make all functionality available from a keyboard.

The purpose of this guideline is to ensure that all functionality can be achieved using the keyboard.

- Throughout the site, there are event handlers that can only be seen by those that use a mouse, e.g., onmousedown (press the mouse button down), onmouseup (let the mouse button up), onmouseout (mouse leaves the code), onmouseover (mouse hovers over the code). To be accessible, these functions must also be available through the keyboard.
- To correct this, either these functions should be deleted from the site, or equivalent keyboard-based functions should be inserted beside the mouse-based functions. For example:
  - When using “onmousedown,” “onkeydown” should also be used.
  - When using “onmouseup,” “onkeyup” should also be used.
  - When using “onmouseout,” “onblur” should also be used.
  - When using “onmouseover,” “onfocus” should also be used.

As an example, here is the code for the image “About Us” with the correct functionality highlighted. Note that the functionality (FP\_swapImg) is the same for each set of two event handlers.

```

```

- During the on-site meeting, a question was asked about drop-down menus. Many times this type of navigation is not accessible because it will work only for those that can use a mouse; to be accessible, it must be available to any type of navigation or pointing device. There are drop-down menus that are accessible. A few of them are noted here:
  - Accessible Drop Down Menu - <http://www.udm4.com/>
  - Yet Another Drop Down Menu - <http://www.onlinetools.org/tools/yadm/>
  - Son of Suckerfish Dropdowns - <http://www.htmldog.com/articles/suckerfish/dropdowns/>

## Enough Time

Provide users enough time to read and use content.

This guideline focuses on ensuring that users are able to complete the tasks required by the content with their own individual response times.

- There are no issues with this guideline.

## Seizures

Do not design content in a way that is known to cause seizures.

The objective of this guideline is to ensure that content that is marked as conforming to WCAG 2.0 avoids the types of flash that are most likely to cause seizure when viewed even for a second or two.

- There are no issues with this guideline.

## Navigable

Provide ways to help users navigate, find content and determine where they are.

The intent of this guideline is to help users find the content they need and allow them to keep track of their location.

- Links that surround images must have alternative text or screen readers will speak the URL, e.g., “Link <http://www.ntrls.org/>” instead of “Link North Texas Regional Library System.” Most of the pages have no link text.
- Provide a way for non-sighted users to skip repetitive navigation links on each page. Users using screen readers must read the page as it looks in the HTML. By providing them a way to skip these links, they are able to more quickly move to the information they need. These links can be created in one of two ways: by providing a link near the top of the page that is visible, or by providing an invisible link that only those reading the HTML can see.
- All links should have text that describes what the user will see if they click on it. On the site index page - [http://www.alvaradopubliclibrary.org/site\\_ind\\_dir.htm](http://www.alvaradopubliclibrary.org/site_ind_dir.htm) - there is a link with the text “Click Here.” A screen reader would hear this as “Link click here,” which provides no information to the user. A better way to create the link would be to use replace “click here” with text that gives a non-sighted user an idea of where they will go or what they will see if they click the link.
- Keeping a site index up to date is a time-consuming task. During the on-site visit, a question was asked about how to more easily maintain a site index. Some options include:
  - XML Sitemaps - <http://www.xml-sitemaps.com/>
  - FreeFind - <http://www.freefind.com/create-sitemap.html>

## Readable

Make text content readable and understandable.

The intent of this guideline is to allow text content to be read by users and by assistive technology, and to ensure that information necessary for understanding it is available.

- The language used on a website should be identified either at the site level, the page level, or the element level so that screen readers can pronounce words correctly. For example, if the entire page is in English, then it should state so at the top of the page. None of the pages of this website have a language encoded.
- Using the home page as an example, the web page has a 5<sup>th</sup> grade reading level.

## Predictable

Make Web pages appear and operate in predictable ways.

The intent of this Success Criterion is to help users with disabilities by presenting content in a predictable order from Web page to Web page and by making the behavior of functional and interactive components predictable.

- Navigation changes from page to page. The placement of the navigation changes, as do the links contained in the navigation. This makes it difficult for someone who cannot see the page understand how the site is laid out and be able to efficiently use the site.
- Within the navigation, there seem to be multiple links to the same page, e.g., “About Us” and “General Information.” They are both on the main navigation and both go to the same page.

## Input Assistance

Help users avoid and correct mistakes.

This guideline seeks to reduce the number of serious or irreversible errors that are made, increase the likelihood that all errors will be noticed by the user, and help users understand what they should do to correct an error.

- The navigation within the site is not consistent. When a user moves to a page and finds it is not what they wanted, the navigation they are used to seeing may not be there. This is particularly true within the teen pages. However, many pages do not have navigation.

## Compatible

Maximize compatibility with current and future user agents, including assistive technologies.

The purpose of this guideline is to support compatibility with current and future user agents, especially assistive technologies (AT).

- HTML markup errors make it difficult – and sometimes impossible – for a screen reader to decipher web pages. Web pages can be validated to be sure the HTML has been created correctly. None of the pages on this website are valid.

- Use of both HTML and Cascading Style Sheets is considered the best way to future-proof your website. When created to these standards, changes to come into compliance with future standards should be less demanding.