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Denton Public Library

Website Accessibility Report



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Services

Denton Public Library

Executive Summary

The Denton Public Library websites – <http://www.cityofdenton.com/index.aspx?page=284> and <http://library.cityofdenton.com/> -- are quite different. When searching for “Denton Public Library” in a search engine, the site that is found is the one from their online catalog provider -- <http://library.cityofdenton.com/>. The URL itself seems to reaffirm the fact that this is the library’s website. This, however, is not the library’s primary website; it is <http://www.cityofdenton.com/index.aspx?page=284>.

The confusion is partially due to the content within the <title> elements. The online catalog provider uses “Denton Public Library;” the city uses “City of Denton, TX.” Although more of a usability issue than an accessibility issue, it was discussed during the on-site visit. The librarians would prefer to have the search engines find the city’s site rather than the online catalog provider’s. During the meeting, multiple options were discussed that would alleviate this problem.

For this report, however, the bulk of the accessibility issues were from the online catalog provider’s website; the city’s website was highly accessible. One of the options discussed was to discard the provider’s website and use just the online catalog functionality. If this is done, it will negate most of the issues found during the consultation.

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.

In addition, the third-party site, Overdrive, was very inaccessible with over 300 hundred HTML errors before dealing with accessibility. Because it was assumed that the library has little or no control over the creation of these pages, this report does not include them.

Denton 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 11th and May 20th, 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

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 can include 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

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.

- Alternative text attributes were found most of the images, but not all.
 - Images such as the arrow for the search logo and the image for Overdrive have empty alternative text attributes, but should be filled.
 - On the Research page, the search button for the Library of Texas near the top and the Library of Texas logo at the bottom are also empty.
 - The alternative text for the three photos in the bottom left of the home page is “Logo Image,” when in fact this isn’t the logo of the library.
 - The Denton Public Library logo on the Iliad page has no alternative text and the HTML isn’t correct - ``
- Throughout the site there are images used as bullets and, as they should, have empty alternative text attributes. However, instead of using images this way, it would be better to use `list-style-image` from Cascading Style Sheets (CSS). Currently, a user with a screen reader will hear “image” each time they come to one of the bullet images. When using CSS, the user will hear each of the items in the list and not be bothered with the “image” the rest of us see.
- On the Overdrive page, there are many images that have no alternative text. These are spacer images, but still require an empty attribute, e.g.,
``
- Audio and video files should have the ability to be understood by those who cannot see and/or cannot hear. Audio files should have an accompanying transcript. Video files should have either a transcript or include captioning and audio captioning.
- The attribute “longdesc” is used to provide additional information about linked images. Instead of text, however, this attribute can only contain a URL, which contains the more detailed information. So, instead of:

```

```

It should be something like this:

```

```

Time-Based Media

Provide alternatives for time-based media.

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

- No issues were found pertaining to this guideline.

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.

- The form for searching the catalog, Quick Search and the Library of Texas should have “label” element that allows a screen reader to determine which line of text goes with which form element, e.g.,

```
<span class="searchToolHeader"><label for="target">Search the
catalog</label></span>
<input name="target" value="" id="target" size="45" type="text">
```

- Site should separate the structure of the page from the formatting. Use of Cascading Style Sheets is the preferred way to accomplish this.

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.

- No issues were found pertaining to this guideline.

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 hover events; hovers can only be accomplished using a mouse. To be accessible, these functions must also be available through the keyboard. In addition to the a:hover styles, a:focus styles should be defined. For example, instead of just this style:

```
a:hover { color: #993399; }
```

Also include a:focus:

```
a:hover, a:focus { color: #993399; }
```

- On the city library side, there is use of onmouseover and onmouseout which can only be accomplished by a mouse. To be accessible, all functions should be device-independent. In this case, just copying the HTML to add additional statements is enough. For onmouseover, also use onfocus; for onmouseout, also use onblur. Instead of:

```
<li><a onmouseover="mopen1('ddmtoR2L1P2','');"
onmouseout="mclose1('ddmtoR2L1P2','');" id="dropdownrootitem2"
class="dropdownrootitem2" href="index.aspx?page=2">About the
City</a>
```

Use this:

```
<li><a onmouseover="mopen1('ddmtoR2L1P2','');"
onfocus=="mopen1('ddmtoR2L1P2','');"
onmouseout="mclose1('ddmtoR2L1P2','');"
onblur="mclose1('ddmtoR2L1P2','');" id="dropdownrootitem2"
class="dropdownrootitem2" href="index.aspx?page=2">About the
City</a>
```

Other mouse-dependent events and their keyboard alternatives are:

mousedown	keydown
mouseup	keyup
mouseout	blur
mouseover/hover	focus

Many event handlers have no keyboard or device-independent equivalent

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.

- No issues were found pertaining to 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.

- No issues were found pertaining to 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.

- There are links with no displayable text or image with alternative text. Screen readers have no text to read, so they will read the URL instead. For example:

```
<a href="http://library.cityofdenton.com/"></a>
```

Will be read something like: “linked image http://library.cityofdenton.com/.” Adding alternative text to the image or a title attribute to the link will help those listening to the page understand where the link is headed more easily, e.g.,

```
<a href="http://library.cityofdenton.com/"></a>
```

- 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.
- There is no global navigation on the catalog provider's site and the global navigation changes when a user moves to the city's site. To be sure that users can get back to the major sections of the website, there should be a set of links on each page, e.g., What's New, Research Tools, ILL, My Library, About Us.
- The calendar page includes 2 drop down menus, one each for categories and departments. So that those using screen readers can understand what information is being asked of them, for each drop down box, a label element is required. The label element surrounds the text before the box. In this case, there is no introductory text to use, so the label element has no information to provide the user. Instead of this:

```
<label id="_ctl0_CategoryDropDown1_categoryDropDownListLabel"
for="_ctl0_CategoryDropDown1_categoryDropDownList"></label>
```

```
<label id="_ctl0_DepartmentDropDown1_departmentDropDownListLabel"
for="_ctl0_DepartmentDropDown1_departmentDropDownList">
</label>
```

Possibly add text so the drop down information is understandable for those that cannot see the page:

```
<label id="_ctl0_CategoryDropDown1_categoryDropDownListLabel"
for="_ctl0_CategoryDropDown1_categoryDropDownList">Search Library
Events</label>
```

```
<label id="_ctl0_DepartmentDropDown1_departmentDropDownListLabel"
for="_ctl0_DepartmentDropDown1_departmentDropDownList">Search by
Department</label>
```

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. This web page does not have a language encoded on the site, but it is possible it is encoded on the web server. If not, this should be added to the top of each page for HTML 4.01 Transitional:

```
<html lang="en">
```
- Using the home page as an example, the web page has a 9th 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.

- Users expect the same global navigation to be present on each page. There are two sets of global navigation – one for each site. One of the sites should include the global navigation of the other.

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.

- No issues were found pertaining to this guideline.

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).

- Neither of the sites entirely validate to their stated grammars, e.g., XHTML for the catalog provider's site and HTML 4.01 Transitional on the city's site, which is stated at the top of the documents. The catalog provider's site is much more problematic than the city's site. There are many closing tags that do not have a corresponding opening tag and mismatched tags. Unclosed and unmatched tags can cause problems with screen readers understanding the structure of the web page. Checking pages using a validator is an easy way to find and fix these problems -- <http://validator.w3.org/>.
 - 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. It looks as if the site was created using CSS, but modifications were done within the HTML instead of within the CSS. This will cause problems in the future when updating or revising this site.