Molly Maher

ACCESSIBILITY REVIEW: MOLLY MAHER PORTFOLIO

1. Executive Summary

This report describes the conformance of the Molly Maher Portfolio Web site with W3C's Web Content Accessibility Guidelines (WCAG) 1.0. The review process is described in Section 5 below and is based on the W3C's Conformance Evaluation method as described in Evaluating Web Sites for Accessibility.

Based on this evaluation, the Molly Maher Portfolio Web site meets WCAG 1.0, Conformance Level Double A. Detailed review results are available in Section 6 below. Resources for follow-up study are listed in Section 7 below. Feedback on this evaluation is welcome.

2. Background about Evaluation

Conformance evaluation of Web accessibility requires a combination of semi-automated evaluation tools and manual evaluation by an experienced reviewer. The evaluation results in this report are based on evaluation conducted on the following date(s): April 4, 2016. The Web site may have changed since that time. Additional information on the evaluation process is available in Evaluating Web Sites for Accessibility.

3. Web Site Reviewed

**Reviewed site:** Molly Maher Portfolio

**Site purpose:** Personal website displaying work experience and contact information

**Main url:** Mcmaherport.appspot.com

**Evaluated pages:** “/contact.html, /index.html, /projects.html and all pages of projects (dl.html, df.html, aadd.html, bmt.html, Dakar.html, compass.html, ap.html, cui.html, chop.html)

**Review form:** All above pages reviewed manually by sight using the WCAG 1.0 checklist and with the WAVE tool

**Review conducted**: April 4, 2016

4. Reviewer(s)

**Reviewed by**: Molly Maher

**Organization**: University of Michigan School of Information, School of Public Health

**Contact:** [mmarymol@umich.edu](mailto:mmarymol@umich.edu), 248 396 8622; Ann Arbor, MI

5. Review Process

Reviewed with checklist and WAVE tool.

All pages were cleared with no errors on WAVE webaim tool.

The site is accessible to the WCAG 1.0 Level using WCAG 1.0 guidelines and priority checklist. All section 1 priority items were met or n/a. Section 2 priority items were met 12/16 applicable times. Section 3 priority items were met 4/10 applicable times.

6. Results and Recommended Actions

This Web site appears to meet WCAG 1.0 checklist requirements and successfully cleared WAVE evaluation. Accessibility features in which this site is strong include alt tags and other meta data for all modes of navigation and use of site. The site, however, did fail to meet several items in sections 2 and 3 of the checklist and raised warnings on WAVE’s tool. The majority of this warnings and lost checklist items came from styling choices. In particular, the choice to have a collapsing navbar led to redundant links in certain views. Also, light font on a white background is not as high of contrast as desired. Finally, css styling in the multiple screen adjustments for responsiveness leads to redundant content when viewed without styling, that is to say certain divs that are hidden when viewed on a cellphone, for example, are presented redundantly when viewed without the style sheet.

Please view priority table below for results of checklist.

The website would become fully accessible given the checklist if:

Section 1

2.2 - Change all font colors to an acceptable contrast level

3.2 - Add a formal grammar directive in the doctype tag and ensure it complies

13.1 Add target="\_self" for any links currently missing target attribute

13.3 Add sitemap or table of contents

Section 2

4.3 Add primary natural language to head of document

9.5 Add keyboard shortcuts for navigation and sub links on the project page

10.5 Add spacing between adjacent links in project page

11.3 Add to html an editable area for preference input on language or content type

13.6 Add div or list wraps to related links and title in such a way that it may be identified and bypassed as a group if desired

13.8 Add id attribute to each semantic item to make it distinguishable

Additionally, I recommend changing mode of responsiveness to include more javascript, editing the innerhtml of semantic items instead of presenting or not presenting content based on viewport, which will alienate users who view by removing styling.

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| **In General (Priority 1)** | **Yes** | **No** | **N/A** |
| [1.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-text-equivalent) Provide a text equivalent for every non-text element (e.g., via "alt", "longdesc", or in element content). *This includes*: images, graphical representations of text (including symbols), image map regions, animations (e.g., animated GIFs), applets and programmatic objects, ascii art, frames, scripts, images used as list bullets, spacers, graphical buttons, sounds (played with or without user interaction), stand-alone audio files, audio tracks of video, and video. | X |  |  |
| [2.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-color-convey) Ensure that all information conveyed with color is also available without color, for example from context or markup. | X |  |  |
| [4.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-identify-changes) Clearly identify changes in the natural language of a document's text and any text equivalents (e.g., captions). |  |  | X |
| [6.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-order-style-sheets) Organize documents so they may be read without style sheets. For example, when an HTML document is rendered without associated style sheets, it must still be possible to read the document. | X |  |  |
| [6.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-dynamic-source) Ensure that equivalents for dynamic content are updated when the dynamic content changes. | X |  |  |
| [7.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-flicker) Until user agents allow users to control flickering, avoid causing the screen to flicker. | X |  |  |
| [14.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-simple-and-straightforward) Use the clearest and simplest language appropriate for a site's content. | X |  |  |
| **And if you use images and image maps (Priority 1)** | **Yes** | **No** | **N/A** |
| [1.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-redundant-server-links) Provide redundant text links for each active region of a server-side image map. |  |  | X |
| [9.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-client-side-maps) Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape. |  |  | X |
| **And if you use tables (Priority 1)** | **Yes** | **No** | **N/A** |
| [5.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-table-headers) For data tables, identify row and column headers. |  |  | X |
| [5.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-table-structure) For data tables that have two or more logical levels of row or column headers, use markup to associate data cells and header cells. |  |  | X |
| **And if you use frames (Priority 1)** | **Yes** | **No** | **N/A** |
| [12.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-frame-titles) Title each frame to facilitate frame identification and navigation. |  |  | X |
| **And if you use applets and scripts (Priority 1)** | **Yes** | **No** | **N/A** |
| [6.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-scripts) Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. If this is not possible, provide equivalent information on an alternative accessible page. | X |  |  |
| **And if you use multimedia (Priority 1)** | **Yes** | **No** | **N/A** |
| [1.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-auditory-descriptions) Until user agents can automatically read aloud the text equivalent of a visual track, provide an auditory description of the important information of the visual track of a multimedia presentation. | X |  |  |
| [1.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-synchronize-equivalents) For any time-based multimedia presentation (e.g., a movie or animation), synchronize equivalent alternatives (e.g., captions or auditory descriptions of the visual track) with the presentation. |  |  | X |
| **And if all else fails (Priority 1)** | **Yes** | **No** | **N/A** |
| [11.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-alt-pages) If, after best efforts, you cannot create an accessible page, provide a link to an alternative page that uses W3C technologies, is accessible, has equivalent information (or functionality), and is updated as often as the inaccessible (original) page. |  |  | X |

Priority 2 checkpoints

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| **In General (Priority 2)** | **Yes** | **No** | **N/A** |
| [2.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-color-contrast) Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen. [Priority 2 for images, Priority 3 for text]. |  | X |  |
| [3.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-use-markup) When an appropriate markup language exists, use markup rather than images to convey information. | X |  |  |
| [3.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-identify-grammar) Create documents that validate to published formal grammars. |  | X |  |
| [3.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-style-sheets) Use style sheets to control layout and presentation. | X |  |  |
| [3.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-relative-units) Use relative rather than absolute units in markup language attribute values and style sheet property values. | X |  |  |
| [3.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-logical-headings) Use header elements to convey document structure and use them according to specification. | X |  |  |
| [3.6](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-list-structure) Mark up lists and list items properly. | X |  |  |
| [3.7](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-quotes) Mark up quotations. Do not use quotation markup for formatting effects such as indentation. |  |  | X |
| [6.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-fallback-page) Ensure that dynamic content is accessible or provide an alternative presentation or page. | X |  |  |
| [7.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-blinking) Until user agents allow users to control blinking, avoid causing content to blink (i.e., change presentation at a regular rate, such as turning on and off). | X |  |  |
| [7.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-no-periodic-refresh) Until user agents provide the ability to stop the refresh, do not create periodically auto-refreshing pages. | X |  |  |
| [7.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-no-auto-forward) Until user agents provide the ability to stop auto-redirect, do not use markup to redirect pages automatically. Instead, configure the server to perform redirects. |  |  | X |
| [10.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-pop-ups) Until user agents allow users to turn off spawned windows, do not cause pop-ups or other windows to appear and do not change the current window without informing the user. |  |  | X |
| [11.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-latest-w3c-specs) Use W3C technologies when they are available and appropriate for a task and use the latest versions when supported. |  |  | X |
| [11.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-deprecated) Avoid deprecated features of W3C technologies. | X |  |  |
| [12.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-group-information) Divide large blocks of information into more manageable groups where natural and appropriate. | X |  |  |
| [13.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-meaningful-links) Clearly identify the target of each link. |  | X |  |
| [13.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-use-metadata) Provide metadata to add semantic information to pages and sites. | X |  |  |
| [13.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-site-description) Provide information about the general layout of a site (e.g., a site map or table of contents). |  | X |  |
| [13.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-clear-nav-mechanism) Use navigation mechanisms in a consistent manner. | X |  |  |
| **And if you use tables (Priority 2)** | **Yes** | **No** | **N/A** |
| [5.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-table-for-layout) Do not use tables for layout unless the table makes sense when linearized. Otherwise, if the table does not make sense, provide an alternative equivalent (which may be a linearized version). |  |  | X |
| [5.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-table-layout) If a table is used for layout, do not use any structural markup for the purpose of visual formatting. |  |  | X |
| **And if you use frames (Priority 2)** | **Yes** | **No** | **N/A** |
| [12.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-frame-longdesc) Describe the purpose of frames and how frames relate to each other if it is not obvious by frame titles alone. |  |  | X |
| **And if you use forms (Priority 2)** | **Yes** | **No** | **N/A** |
| [10.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-unassociated-labels) Until user agents support explicit associations between labels and form controls, for all form controls with implicitly associated labels, ensure that the label is properly positioned. |  |  | X |
| [12.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-associate-labels) Associate labels explicitly with their controls. |  |  | X |
| **And if you use applets and scripts (Priority 2)** | **Yes** | **No** | **N/A** |
| [6.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-keyboard-operable-scripts) For scripts and applets, ensure that event handlers are input device-independent. |  |  | X |
| [7.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-avoid-movement) Until user agents allow users to freeze moving content, avoid movement in pages. |  |  | X |
| [8.1](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-directly-accessible) Make programmatic elements such as scripts and applets directly accessible or compatible with assistive technologies [Priority 1 if functionality is important and not presented elsewhere, otherwise Priority 2.] |  |  | X |
| [9.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-keyboard-operable) Ensure that any element that has its own interface can be operated in a device-independent manner. |  |  | X |
| [9.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-device-independent-events) For scripts, specify logical event handlers rather than device-dependent event handlers. |  |  | X |

Priority 3 checkpoints

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| **In General (Priority 3)** | **Yes** | **No** | **N/A** |
| [4.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-expand-abbr) Specify the expansion of each abbreviation or acronym in a document where it first occurs. |  |  | X |
| [4.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-identify-lang) Identify the primary natural language of a document. |  | X |  |
| [9.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-tab-order) Create a logical tab order through links, form controls, and objects. | X |  |  |
| [9.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-keyboard-shortcuts) Provide keyboard shortcuts to important links (including those in client-side image maps), form controls, and groups of form controls. |  | X |  |
| [10.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-divide-links) Until user agents (including assistive technologies) render adjacent links distinctly, include non-link, printable characters (surrounded by spaces) between adjacent links. |  | X |  |
| [11.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-content-preferences) Provide information so that users may receive documents according to their preferences (e.g., language, content type, etc.) |  | X |  |
| [13.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-nav-bar) Provide navigation bars to highlight and give access to the navigation mechanism. | X |  |  |
| [13.6](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-group-links) Group related links, identify the group (for user agents), and, until user agents do so, provide a way to bypass the group. |  | X |  |
| [13.7](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-searches) If search functions are provided, enable different types of searches for different skill levels and preferences. |  |  | X |
| [13.8](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-front-loading) Place distinguishing information at the beginning of headings, paragraphs, lists, etc. |  | X |  |
| [13.9](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-bundled-version) Provide information about document collections (i.e., documents comprising multiple pages.). |  |  | X |
| [13.10](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-skip-over-ascii) Provide a means to skip over multi-line ASCII art. |  |  | X |
| [14.2](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-icons) Supplement text with graphic or auditory presentations where they will facilitate comprehension of the page. | X |  |  |
| [14.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-consistent-style) Create a style of presentation that is consistent across pages. | X |  |  |
| **And if you use images and image maps (Priority 3)** | **Yes** | **No** | **N/A** |
| [1.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-redundant-client-links) Until user agents render text equivalents for client-side image map links, provide redundant text links for each active region of a client-side image map. |  |  | X |
| **And if you use tables (Priority 3)** | **Yes** | **No** | **N/A** |
| [5.5](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-table-summaries) Provide summaries for tables. |  |  | X |
| [5.6](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-abbreviate-labels) Provide abbreviations for header labels. |  |  | X |
| [10.3](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-linear-tables) Until user agents (including assistive technologies) render side-by-side text correctly, provide a linear text alternative (on the current page or some other) for *all* tables that lay out text in parallel, word-wrapped columns. |  |  | X |
| **And if you use forms (Priority 3)** | **Yes** | **No** | **N/A** |
| [10.4](https://www.w3.org/TR/WCAG10/wai-pageauth.html#tech-place-holders) Until user agents handle empty controls correctly, include default, place-holding characters in edit boxes and text areas. |  |  | X |