

To: Robert Van Rennes, Big Ten Academic Alliance  
From: Graham L. Pierce, MSU Usability/Accessibility Research and Consulting  
CC: Heidi Schroeder, MSU Libraries  
Subject: Accessible Archives High-Level Accessibility Evaluation  
Date: September 4, 2019

MSU Usability/Accessibility Research and Consulting (MSU UARC) conducted a high-level accessibility evaluation of Accessible Archives to evaluate its conformance with WCAG 2.0 AA Criteria. This evaluation did not include all functionality or content of the site or all WCAG 2.0 AA Success Criteria.

During this evaluation, a number of issues were found that will make the site and its content impossible to use for many individuals with disabilities, and difficult to use for many others.

Critically, no means to pause, stop, or hide the rotators on the Home and Collection pages is provided. Rotators that cannot be stopped create significant issues for individuals with cognitive and visual impairments, as well as for screen reader users.

Keyboard users, including screen reader users and users with dexterity impairments, will be unable to access a variety of site functionality and content. Some critical interactive elements cannot be reached or opened via keyboard. Many interactive elements that can be reached lack a sufficiently visible focus indicator, making it difficult or impossible for many keyboard-only users to effectively use them, as they cannot determine when they have reached the correct element. Focus order is also incorrect in places, further increasing the difficulty of using the site with a keyboard.

Individuals with visual impairments, including those that rely on screen readers, will have additional problems. Some content is read out incorrectly and structural information is not appropriately conveyed to users, making it difficult or impossible to understand content and organization in places. All form inputs are not appropriately labeled, making those inputs difficult or impossible to use for those that rely on screen readers. Custom elements do not correctly announce themselves to screen readers, making them difficult or impossible to understand and use. Some images lack appropriate alternative text, significantly impacting users with visual impairments.

Other issues were found that will make it difficult for users with a variety of disabilities to effectively use the system, including insufficient color contrast, use of color alone to convey information and purpose, inconsistent navigation and identification, no means to bypass repeated navigation on pages, and inappropriate page titles.

To improve access for users with disabilities, UARC recommends a full WCAG 2.0 AA evaluation and that the problems discovered be remediated.

*Note: Results for "Frederick Douglass" were used as an example of a Search Results page; "FREDERICK DOUGLASS' PAPER, January 12, 1855 ("It will be seen by the list of appointments for Mr. DOUGLASS")" was used as an example of a Paper, Email, and Image page; and "African American Newspapers" was used as an example of a Collection page.*

*For reference, a screenshot of the Home Page at the time this evaluation was completed has been included at the end of this memo.*

## High-Level Findings

### Conformance

- On the Home and Collection pages, no means is provided to pause, stop, or hide rotating content. [[WCAG 2.0 CR 5](#), [WCAG 2.0 SC 2.2.2](#)]

### Document Structure

- On the Search Results, Paper, Email, Image, and Subscribed Collections pages, no headings are tagged. [[WCAG 2.0 SC 1.3.1](#)]
- On all pages except Collection, no h1 is present. [[WCAG 2.0 SC 1.3.1](#)]
  - "Search the Archives - Magazines, Newspapers and Books" should be tagged as a heading (h1) on the Search and Search Results pages
  - "Email Document" should be tagged as a heading (h1) on the Email page
  - "Collections in Your Subscription" should be tagged as a heading (h1) on the Subscribed Collections page
- On the Home page, all h3s should be h2s (and should be preceded by an h1). [[WCAG 2.0 SC 1.3.1](#)]
- On the Home and Collection pages, the current tab (e.g., "Latest") should be tagged as a heading (h2). [[WCAG 2.0 SC 1.3.1](#)]
- On the Search page, h4s ("Publication Type:", "Publication Date:", etc.) shouldn't be tagged as headings. [[WCAG 2.0 SC 1.3.1](#)]
- On the Collection page, "Share this:" and "Our Collections" should be h2s, not h3s. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search and Search Results page, "Help..." is incorrectly coded as a one-item list. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search Results page, "Sort..." is incorrectly coded as a one-item list. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search Results page, visual lists should be coded as programmatic lists. [[WCAG 2.0 SC 1.3.1](#)]
- On the Paper, Email, and Image pages, secondary navigation (e.g., "Previous Document | Next Document |" etc. on Paper page) should be coded as programmatic lists. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search Results page, tables are inappropriately used for page layout. [[WCAG 2.0 SC 1.3.1](#)]
- On the Home and Collection pages, content in navigation dropdowns is read out when hidden. [[WCAG 2.0 SC 1.3.2](#)]

### Keyboard Support

- Throughout the site, title attributes are used to display additional information about images on mouse hover, and cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Home and Collection pages, navigation dropdowns cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Search and Search Results pages, "Help..." dropdown cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Search Results page, "Sort..." dropdown cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]

- On the Search page, "Next 20", "Email URLs", title links (e.g., "It will be seen by the list of appointments for Mr. DOUGLASS,"), and "Keywords in Context" links cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Image page, zoom in and zoom out buttons cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Home and Collection pages, navigation dropdown items receive focus when not open/visible. [[WCAG 2.0 SC 2.4.3](#)]
- On the Home page, links under "Latest" and "Popular" incorrectly receive focus twice (image and text receive separate focus). [[WCAG 2.0 SC 2.4.3](#)]
- On the Search Results page, focus moves through Publication Dates incorrectly (should go top-bottom, then left-right [in order of dates], not left-right, then top-bottom). [[WCAG 2.0 SC 2.4.3](#)]
- Focus is not sufficiently visible for a variety of interactive content. [[WCAG 2.0 SC 2.4.7](#)]
  - All interactive elements on the Home and Collection pages, with the exception of text inputs
  - Dropdowns and checkboxes on Search and Search Databases page
  - "Help..." button on Search and Search Databases pages
  - "Sort..." button on Search Databases pages
- On the Home and Collection pages, items in top rotator disappear while focused. [[WCAG 2.0 SC 2.4.7](#)]

## Navigation

- On all pages except Home and Collection, page titles are not sufficiently descriptive ("Accessible Archives | Search" is used for all pages). [[WCAG 2.0 SC 2.4.2](#)]
- On the Collection page, title is not sufficiently descriptive (no mention of site, "Accessible Archives"). [[WCAG 2.0 SC 2.4.2](#)]
- On all pages except Collection, no means to bypass repeated navigation exists (no h1 at the start of unique page content and no "Skip to Main" link provided). [[WCAG 2.0 SC 2.4.1](#)]
- The main site navigation changes between pages (different items are present on the Home and Collection pages compared with all other pages, and navigation items have dropdowns on the Home and Collection pages, but not other pages). [[WCAG 2.0 SC 3.2.3](#)]
- On the Search Results and Publication pages, zoom in and out buttons do not cause the mouse cursor to change to the appropriate indicator, inconsistent with other interactive elements throughout the site. [[WCAG 2.0 SC 3.2.4](#)]

## Forms and Data Submission

- Throughout the site, all inputs (e.g., text inputs, checkboxes, dropdowns) are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]

## Images

- Appropriate alternative text is not provided for some images. [[WCAG 2.0 SC 1.1.1](#)]
  - Images in rotator on Home page
  - Rotator controls (left and right arrows, navigation dots) on Home page
  - "Go" is not appropriate alternative text for search button on Home and Collection pages

- Images in "Latest" and "Popular" tabs should have null alt attributes on Home and Collection pages
- Page image on Image page ("usr/accessible/images/FREDERICKDOUGLASSPAPER/18550112/18550112\_001.jpg.jpg" is not acceptable alternative text)

## Color and Visual Characteristics

- Grey text on light grey/white background (e.g., "Latest", "Popular", "Tags" on Home and Collection pages; dates in "Latest" and "Popular" tabs on Home and Collection page), light grey text on white ("Enter search keywords..." on Home and Collection pages), brown on tan (top rotator navigation dots on Home page), red text on white (error text, e.g., "No query terms submitted.", on Search page; highlighted search terms on Paper page), and maroon text on multicolored backgrounds (first letter of each collection name on Subscribed Collections page) have insufficient contrast. [[WCAG 2.0 SC 1.4.3](#)]
- Color alone is used to differentiate link text from non-link text (e.g., grey vs. white "Contact Us" in footer, maroon vs. grey/black text throughout site). [[WCAG 2.0 SC 1.4.1](#)]
- On the Home and Collection pages, color alone is used to differentiate selected tabs (e.g., "Latest", "Popular", "Tags"). [[WCAG 2.0 SC 1.4.1](#)]
- On the Home page, color alone is used to differentiate selected top rotator navigation dot. [[WCAG 2.0 SC 1.4.1](#)]

## Custom Elements and Dynamic Content


- On the Home and Collection pages, no means is provided to pause, stop, or hide rotating content. [[WCAG 2.0 SC 2.2.2](#), [WCAG 2.0 CR 5](#)]
- On the Home and Collection pages, roles and values (i.e., that they are menus/dropdowns and whether they are open) are not provided for navigation items (e.g., "Collections", "News", "Blog"). [[WCAG 2.0 SC 4.1.2](#)]
- On the Home and Collection pages, roles and values (i.e., that they are tabs and whether they are selected) are not provided for tabs ("Latest", "Popular", "Tags"), and screen readers are not notified when they are changed. [[WCAG 2.0 SC 4.1.2](#)]
- On the Search and Search Results pages, role and value (i.e., that it is a menu/dropdown and whether it is open) are not provided for "Help...". [[WCAG 2.0 SC 4.1.2](#)]
- On the Search Results page, role and value (i.e., that it is a menu/dropdown and whether it is open) are not provided for "Sort...". [[WCAG 2.0 SC 4.1.2](#)]
- On the Search page, screen readers are not notified when additional search fields are added (via "Show more search boxes"). [[WCAG 2.0 SC 4.1.2](#)]

## Usability

- On the Search Results page, content display differs between Firefox and Chrome (elements are missing and misaligned in Firefox).
- Fonts used on the Image page do not match other pages.
- On the Collection page, the "More" link (under "Share this:") is broken.

Disclaimer: This high-level evaluation was conducted for the Big Ten Academic Alliance, and represents a good faith effort conducted within a limited time frame. It should not be assumed to be complete or free from error. No warranties or guarantees are implied. UARC is not responsible for direct, indirect, or incidental damages based on this work; its use or interpretation by any individual, group, or organization; or on conditions beyond our control.

# Home Page Screenshot



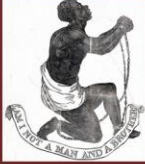
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## National Anti-Slavery Standard


The *National Anti-Slavery Standard* was the official weekly newspaper of the American Anti-Slavery Society, an abolitionist society founded in 1833 by William Lloyd Garrison and Arthur Tappan to spread their movement across the nation with printed materials.

The *National Anti-Slavery Standard* was established in 1840 by the husband and wife team of Lydia and David Child, who both were affirmed abolitionists as well as recognized successful writers. Using the motto "*Without Concealment—Without Compromise*" the *Standard* sought to extend the rights of slaves across the country. It implied not only suffrage rights for colored males, but also advocated suffrage for women.

NATIONAL ANTI-SLAVERY STANDARD
OTHER COLLECTIONS



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- America & World War I - Part II
- American County Histories
- The Civil War Collection
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- Godey's Lady's Book
- The Liberator
- National Anti-Slavery Standard
- The Pennsylvania Gazette
- The Pennsylvania Genealogical Catalogue
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- Scenes in the Life of Harriet Tubman
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Accessible Archives High-Level Accessibility Evaluation

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# Search Page Screenshot

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### Search the Archives - Magazines, Newspapers and Books

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Please enter your search:

in

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Searches are run against all documents in your subscription unless you restrict to particular titles or dates.  
You may choose multiple titles from the drop-down list.

**Publication Type:**  Newspapers and Magazines

**Publication Date:**

**Publication Title:**

- African American Newspapers
- African American Newspapers Part I
- African American Newspapers Part II
- African American Newspapers Part III
- African American Newspapers Part IV

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