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Subject: OCLC FirstSearch ERIC High-Level Accessibility Evaluation
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MSU Usability/Accessibility Research and Consulting (MSU UARC) conducted a high-level accessibility evaluation of the OCLC FirstSearch ERIC platform 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 may make the site and its content impossible to use for some individuals with disabilities and difficult to use for many others.

Keyboard users, including screen reader users and users with dexterity impairments, will find it difficult to use some site content. Focus order is incorrect in some places, increasing the difficulty of using the site with a keyboard. Some interactive elements lack a sufficiently visible focus indicator, making it difficult for many keyboard-only users to effectively use them, as they cannot determine when they have reached the correct element.

Individuals with visual impairments, including those that rely on screen readers, will have significant problems using the site. Some content is not read out correctly and structural information (including headings and lists) is not appropriately conveyed to users, making it difficult or impossible to understand content and organization in places. Tables are inappropriately used for layout throughout the site, resulting in confusing and misleading information being read out to screen reader users. Many 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 to understand and use. Many 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 non-adjustable time limits, insufficient color contrast, use of color alone to convey information, insufficient link context, missing labels, 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 "kw: disability AND kw: classroom" were used as examples of List of Records, Sort Results, and Limit Results pages and "The Social Networks of Children with and without Disabilities in Early Childhood Special Education Classrooms" was used as an example of Detailed Record and Help pages.

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

High-Level Findings

Document Structure

- Throughout the site, tables are inappropriately used to structure non-tabular content. [[WCAG 2.0 SC 1.3.1](#)]
- On the Advanced Search, List of Records, Sort Results, Limit Results, and Detailed Record pages, "FirstSearch" should not be the page's h1. [[WCAG 2.0 SC 1.3.1](#)]
- Throughout the site, visual headings are not tagged as programmatic headings (e.g., "Searching", "Advanced Search", etc. on Advanced Search page; "Help", "Detailed Record", "Ownership" on Help page). [[WCAG 2.0 SC 1.3.1](#)]
- Throughout the site, most visual lists are not coded as programmatic lists (e.g., list of languages in page footer, "External References" list on Detailed Record page, "Detailed Record" list on Help page). [[WCAG 2.0 SC 1.3.1](#)]
- On the Sort Results page, there is no programmatically determinable relationship between "Sort by" dropdowns and associated "Ascending"/"Descending" radio buttons. [[WCAG 2.0 SC 1.3.1](#)]

Keyboard Support

- Throughout the site, focus goes to invisible elements (e.g., "Skip to content" and "Skip navigation", "Keyboard-accessible database selection" on Advanced Search and Home pages, "Limit Your Results by..." on Limit Results page). [[WCAG 2.0 SC 2.4.3](#)]
- On the List of Records and Limit Results pages, expanders (e.g., "Show me how"/"Hide suggestions" and "Limit Your Results by Author") reload page and inappropriately reset focus to start of page. [[WCAG 2.0 SC 2.4.3](#)]
- On the Limit Results page, checkboxes and labels (e.g., years) receive focus separately. [[WCAG 2.0 SC 2.4.3](#)]
- On all pages except Help, focus is not sufficiently visible on "Skip to content" and "Skip navigation" links (no text/content is visible on screen). [[WCAG 2.0 SC 2.4.7](#)]
- On all pages except Help, focus is not sufficiently visible on footer links (languages, "Options", "Comments", "Exit"). [[WCAG 2.0 SC 2.4.7](#)]
- Throughout the site, focus is not sufficiently visible on checkboxes. [[WCAG 2.0 SC 2.4.7](#)]
- On the List of Records and Detailed Result pages, focus is not sufficiently visible on previous and next page/record icons. [[WCAG 2.0 SC 2.4.7](#)]
- On the Help page, focus is not sufficiently visible on the "Contents of Help", "Glossary", "News", "Documentation", "FAQ", "Training", and "Tips" links. [[WCAG 2.0 SC 2.4.7](#)]

Navigation

- On the Detailed Record and Help pages, page titles are not sufficiently descriptive. [[WCAG 2.0 SC 2.4.2](#)]
- Throughout site, the targets of invisible graphic links are not apparent to non-screen-reader users (e.g., "Skip navigation", "Keyboard-accessible database selection", etc.). [[WCAG 2.0 SC 2.4.4](#)]
- On the Home page, "Keyboard-accessible database selection" (alternative text on invisible graphic link) does not appropriately describe the link target (it is unclear what the target page has to do with keyboard accessibility, or why a separate page should be necessary). [[WCAG 2.0 SC 2.4.4](#)]

- On the Advanced Search page, the target of arrow icon links (next to "Search for" inputs) is not apparent. [[WCAG 2.0 SC 2.4.4](#)]
- Throughout the site, no means to bypass repeated navigation exists (no h1 at the start of unique page content and "Skip to content" link is not available to non-screen-reader users). [[WCAG 2.0 SC 2.4.1](#)]

Forms and Data Submission

- On the Advanced Search page, dropdowns and checkboxes are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Advanced Search page, "Year" and "Library Code" text inputs are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the List of Records page, checkboxes are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the List of Records page, record number text input is not visually labeled, and its purpose is inconsistent with the surrounding buttons (which are used for page navigation, not record navigation), also making page navigation labels ("Prev" and "Next") unclear to users. [[WCAG 2.0 SC 3.3.2](#)]
- On the Sort Results page, radio buttons are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Sort Results page, "Sort by" dropdowns (excluding the first one) are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Sort Results page, "Sort by" groupings are not programmatically identified (i.e., no way to associate dropdowns with connected "Ascending"/"Descending" radio buttons). [[WCAG 2.0 SC 3.3.2](#)]
- On the Limit Results page, checkboxes and text inputs are not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Home page, "In:" dropdown is not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Advanced Search and Limit Results pages, instructions are not programmatically associated with inputs (e.g., "(format: YYYY-YYYY)" and "Year"/"Date range:" inputs). [[WCAG 2.0 SC 3.3.2](#)]

Images

- "© 1992-2020 OCLC Visit the OCLC home page (use your browser Back button to return)" is not appropriate alternative text for "OCLC" logo in footer. [[WCAG 2.0 SC 1.1.1](#)]
- Throughout site, invisible graphics should not have alternative text (e.g., "Skip navigation", "Keyboard-accessible database selection", etc.). [[WCAG 2.0 SC 1.1.1](#)]
- Icons with associated visual text present on page are decorative, and should have null alt attributes (e.g., icons for "Subjects", "News", "and "Help" on Advanced Search page; icons for "Related Subjects", "Limit", etc. on List of Records page; icons for "Return" and "Help" on Sort Results page; icon for "Help" on Limit Results page; icons for "Subjects", "Libraries", etc. on Detailed Record page). [[WCAG 2.0 SC 1.1.1](#)]

Color and Visual Characteristics

- Light grey text on white background (e.g., "match any of the following" on Advanced Search page) and green text on light green (e.g., "Michigan State University

Libraries" on List of Records and Detailed Result pages) have insufficient contrast. [[WCAG 2.0 SC 1.4.3](#)]

- On the Detailed Record page, color alone is used to highlight search terms. [[WCAG 2.0 SC 1.4.1](#)]

Custom Elements and Dynamic Content

- On the List of Records page, role and value (i.e., that it expands and whether it is expanded or collapsed) are not provided for the "Show me how"/"Hide suggestions" expander, and screen readers are not notified when they are opened or closed. [[WCAG 2.0 SC 4.1.2](#)]
- On the Limit Results page, roles and values (i.e., that they expand/collapse and whether they are expanded or collapsed) are not provided for the expanders ("Limit Your Results...", and screen readers are not notified when they are opened or closed. [[WCAG 2.0 SC 4.1.2](#)]
- Session times out without warning and without the opportunity for users to disable, extend, or adjust session length. [[WCAG 2.0 SC 2.2.1](#)]

Usability Observations

- On the List of Records page, the "Sort" button does not appear until after the user has used the Limit Results function (i.e., users cannot sort results by default, and have no way to know how to enable the functionality).

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.

Advanced Search Page Screenshot

FirstSearch

Michigan State University

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ERIC Advanced Search

• Enter search terms in one or more boxes and click on Search.

Home | Databases | **Searching** | Results | [Staff View](#) | [My Account](#) | [Options](#) | [Comments](#) | [Exit](#) | [Hide tips](#)

Basic Search | **Advanced Search** | Expert Search | Previous Searches | Go to page

Subjects | News | Help | Current database: ERIC

Search **Clear**

Search in database: ERIC (Updated: 2019-09-24)
Journal articles and reports in education

Search for: Keyword

and Keyword

and Keyword

Limit to: Year (format: YYYY-YYYY)
Language Phrase No Limit
Document Type Phrase No Limit
Peer Reviewed No Limit

Limit to: Full text

Limit availability to: Subscriptions held by my library (EEM, Michigan State University Libraries)
Library Code [Find codes...](#)

Rank by: No ranking

Search **Clear**

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