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Research and Consulting

To: Robert Van Rennes, Big Ten Academic Alliance From: Graham L. Pierce, MSU Usability/Accessibility Research and Consulting Subject: Films on Demand High-Level Accessibility Evaluation Date: July 11, 2018

MSU Usability/Accessibility Research and Consulting (MSU UARC) conducted a high-level accessibility evaluation of Films on Demand 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 some others.

Keyboard users, including screen reader users and users with dexterity impairments, will not be able to use significant site content. Most importantly, some content (including the primary site navigation and a variety of links and interactive elements) cannot be reached or operated via keyboard. Most interactive elements 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 some places, further increasing the difficulty of using the site with a keyboard.

Individuals with visual impairments that rely on screen readers will have additional problems. Many form inputs are not appropriately labeled, making those inputs impossible to use for those that rely on screen readers. Custom elements throughout the site do not correctly announce themselves or provide appropriate feedback to screen readers, making them difficult or impossible to understand and use. Structural information is not appropriately conveyed to users, making it difficult to understand content organization. Some images have missing or inappropriate 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, color being used as the only means to distinguish some content, no means to bypass repeated navigation, and missing audio descriptions for videos.

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

Note: For the purposes of this high-level review, search results for "global warming" were used as an example of a Search Results page, and "One-Degree Factor: Strange Days on Planet Earth" was used as an example of a Video page.

High-Level Findings

Document Structure

- Headings are not correctly used to organize content. [WCAG 2.0 SC 1.3.1]
 - The Home page lacks an h1 to organize content ("Films on Demand" should be the page's h1)
 - On the Home page, categories (e.g., "Most Popular", "Recently Added") should be h2s
 - $\circ~$ On the Search Results page, "Search Results For: global warming" should be an h1, not an h2
 - On the Search Results page, result titles should be h2s, not h4s
 - On the Search Results page, copyright information should not be tagged as a heading
 - On the Search Results page, "Filters" should be an h2
 - On the Search Results page, Filter categories (e.g., "Source", "Format") should be h3s
 - On the Video page, "Full Program" and "Segments" in the Video tab and "Tags" and "Related Subjects" in the Details tab should be tagged as headings
 - On the Video page, "You might also like..." should be tagged as a heading
 - On the Video page, series/topic titles under "You might also like..." should be tagged as headings (e.g., "Strange Days on Planet Earth")
 - On the Advanced Search page, "Advanced Search" should be an h1, not an h3
 - On the Advanced Search page, "Search Options should be an h2, not an h3
 - On the Advanced Search page, "Steps" and "Advanced Filters" under "Search Options" should be h3s, not h4s
- On the Home and Video pages, pagination links shouldn't be coded into a list (e.g., "5–8 of 20" and "View All"). [WCAG 2.0 SC 1.3.1]
- On the Home and Video pages, videos should be coded into lists (e.g., items under "Most Popular" on Home page). [WCAG 2.0 SC 1.3.1]
- An invisible and non-functional button is read out at the start of all pages. [WCAG 2.0 SC 1.3.2]

Keyboard Support

- Menu cannot be reached via keyboard. [WCAG 2.0 SC 2.1.1]
- The "My Films" dropdown/lightbox cannot be closed via keyboard. [WCAG 2.0 SC 2.1.1]
- On the Search Results and Video pages, the "Clear All Fields" link (in the "Email" tab under "Share to") cannot be reached via keyboard. [WCAG 2.0 SC 2.1.1]
- On the Search Results page, the "Collapse All" link, Subject links (e.g., "Allied Health"), and "Dramatic Production" link (under "Video Type") cannot be reached via keyboard. [WCAG 2.0 SC 2.1.1]
- On the Video page, the "Read More" link, "Previous Segment" and "Next Segment" links (in Video Player), transcript text links (in Transcript tab), search results (in Transcript tab), and clear search button (in Transcript tab) cannot be reached via keyboard. [WCAG 2.0 SC 2.1.1]

- On the Video page, the "Print Transcript" and "Disable Transcript Auto-Scrolling" tooltips in the Transcripts tab don't appear on keyboard focus (only on mouse hover).
 [WCAG 2.0 SC 2.1.1]
- On the Advanced Search page, the "Add Row" and "Clear / Reset" links cannot be reached via keyboard. [WCAG 2.0 SC 2.1.1]
- The video player time seek slider cannot be controlled via keyboard when a screen reader is in use. [WCAG 2.0 SC 2.1.1]
- An invisible and non-functional button receives focus at the start of all pages. [WCAG 2.0 SC 2.4.3]
- The search button incorrectly receives focus before the search input. [WCAG 2.0 SC 2.4.3]
- On the Home, Search Results, and Video pages, video thumbnails and titles incorrectly receive focus separately. [WCAG 2.0 SC 2.4.3]
- On the Search Results page, changing the value of the "Sorted by" dropdown incorrectly resets focus to the start of the Filters section. [WCAG 2.0 SC 2.4.3]
- Throughout the site, focus is not sufficiently visible on nearly all content (the search button, text inputs, and certain dropdowns are the only elements on which focus is visible). [WCAG 2.0 SC 2.4.7]

Navigation

 No means to bypass repeated navigation exists on pages (no h1 at the start of unique page content and no "Skip to Main" links provided). While an h1 is present on the Video page, it is placed after the start of unique page content. [WCAG 2.0 SC 2.4.1]

Forms and Data Submission

- On the Search Results and Video pages, text inputs under "Share To" and "Embed/Link" are not programmatically labeled. [WCAG 2.0 SC 3.3.2]
- On the Search Results and Video pages, the grouping label for radio buttons under "Embed/Link" (i.e., "Embed Size:") is not programmatically associated with inputs. [WCAG 2.0 SC 3.3.2]
- On the Advanced Search page, all text inputs and dropdowns are not programmatically labeled. [WCAG 2.0 SC 3.3.2]
- On the Advanced Search page, the grouping label for checkboxes (i.e., "Advanced Filters") is not programmatically associated with inputs. [WCAG 2.0 SC 3.3.2]
- In the Video Player, the volume control slider is not programmatically labeled. [WCAG 2.0 SC 3.3.2]

Images

- Appropriate alternative text is not provided for visual content. [WCAG 2.0 SC 1.1.1]
 - Previous and next buttons in video selectors on Home and Video pages
 - Close buttons in expanders on Search Results and Video pages (e.g., under "Share", "Add to", "Embed/Link", etc.)
 - CC and HD icons on Advanced Filters page
 - Video thumbnails are decorative, and should have null alternative text

Color and Visual Characteristics

- Light grey text on white background (search placeholder text), white on light grey (next and back buttons on Home and Video pages, e.g., under "Browse Featured Producers"), dark grey text on blue (e.g., "Send Email" button when focused, under "Share to" on Search Results and Video pages), light blue on white (e.g., "Share", "Add to", "Embed/Link" links on Search Results and Video pages), and light blue on grey (search, print, and disable transcript auto-scrolling icons in Transcript tab on Video page) have insufficient contrast. [WCAG 2.0 SC 1.4.3]
- Semi-transparent light blue "Back To Top" text/icon on all backgrounds has insufficient contrast. [WCAG 2.0 SC 1.4.3]
- Color is the only means to distinguish focus on footer links (blue vs. grey text).
 [WCAG 2.0 SC 1.4.1]
- On the Search Results page, color is the only means to distinguish focus on page number links (grey vs. white background). [WCAG 2.0 SC 1.4.1]

Custom Elements and Dynamic Content

- Role and value (i.e., that it expands whether it is expanded or collapsed) are not provided for "My Films", and screen readers are not notified when it is opened or closed. [WCAG 2.0 SC 4.1.2]
- Incorrect names are provided for search autocomplete dropdown results; they are all read out by screen readers as the user-entered search term, instead of the actual text (e.g., "global" instead of "Global Cities: Immigration and the World Economy (Series)". [WCAG 2.0 SC 4.1.2]
- Screen readers are not notified when search autocomplete dropdown appears.
 [WCAG 2.0 SC 4.1.2]
- On the Search Results page, role and value (i.e., that it expands whether it is expanded or collapsed) are not provided for "Preview" buttons, and screen readers are not notified when it is opened or closed. [WCAG 2.0 SC 4.1.2]
- On the Search Results page, value (i.e., whether it is expanded or collapsed) is not provided for expand/collapse buttons in Filters section. [WCAG 2.0 SC 4.1.2]
- On the Search Results page, incorrect values are provided for expand/collapse buttons in Filters section; they are initially identified as "collapsed" until the user manually collapses and then expands them. [WCAG 2.0 SC 4.1.2]
- On the Search Results page, name, role, and value (i.e., "Segments in this video" and option names, that it is a dropdown, and whether it is expanded or collapsed) are not provided for "Segments in this video" dropdowns. [WCAG 2.0 SC 4.1.2]
- On the Advanced Search page, names, roles, and values (i.e., field labels and option names, that they are dropdowns, and whether they are expanded or collapsed) are not provided for dropdowns. [WCAG 2.0 SC 4.1.2]
- On the Search Results and Video pages, roles and values (i.e., that they expand and whether they are expanded or collapsed) are not provided for "Share", "Add to", and "Embed/Link", and screen readers are not notified when they are opened or closed. [WCAG 2.0 SC 4.1.2]
- On the Video page, roles and values (i.e., that they expand and whether they are expanded or collapsed) are not provided for "Citation" and "Segment", and screen readers are not notified when they are opened or closed. [WCAG 2.0 SC 4.1.2]
- On the Search Results and Video pages, roles and values (i.e., that they are tabs and whether they are selected) are not provided for tabs under "Share" and "Add to"

(e.g., "Tools", "Email", etc.), and screen reader users are not notified when the user switches tabs. [WCAG 2.0 SC 4.1.2]

- On the Video page, roles and values (i.e., that they are tabs and whether they are selected) are not provided for tabs under "Citation" (e.g., "MLA", "Chicago Manual of Style", etc.), and screen reader users are not notified when the user switches tabs.
 [WCAG 2.0 SC 4.1.2]
- On the Video page, incorrect values are provided for "Video", "Details", and "Transcript" tabs; they are identified as "selected" regardless of whether or not they are selected. [WCAG 2.0 SC 4.1.2]

Audio and Video Media

• Audio descriptions of visual content in videos are not provided. [WCAG 2.0 SC 1.2.5]

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