

# Digital Commons Voluntary Product Accessibility Template (VPAT) / Accessibility Conformance Report

## Product Information and Scope

Name of Product	Digital Commons
Date Last Updated	January 26, 2023
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Document Description	This document rates Digital Commons according to the W3C WCAG 2.1 A and AA requirements.
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Testing Tools and Methods	Hands-on keyboard operation Code inspection Firefox Web Developer Toolbar (removing style sheets) Mozilla Firefox 108 and Google Chrome 108 on Windows 10 21H2 JAWS screen reader 18 NVDA screen reader 2022.3 WAVE Extension Color Contrast Analyzer W3C WAI Pages Elsevier Accessibility Checklist: <a href="http://romeo.elsevier.com/accessibility_checklist/">http://romeo.elsevier.com/accessibility_checklist/</a>
Document Sections	The review document below includes all WCAG 2.1 A and AA checkpoints and is organized into 7 logical sections: <ul style="list-style-type: none"><li>• Visuals</li><li>• Keyboard</li><li>• Headings and Structure</li><li>• Labeling</li><li>• Multimedia</li><li>• Usability</li><li>• Mobile User Experience</li></ul>
Pages Covered	This VPAT outlines the compliance of the general, public-facing pages of the Digital Commons (DC) platform: All static pages that comprise the default DC implementation, including: <ul style="list-style-type: none"><li>• Institutional Repository (IR) Homepage</li><li>• Browse Collections</li><li>• Submit Research</li></ul> All static pages generated with the DC template system, including: <ul style="list-style-type: none"><li>• Publication Homepages<ul style="list-style-type: none"><li>○ Series/ETD series Homepage</li></ul></li></ul>

	<ul style="list-style-type: none"> <li>○ Book Gallery/Image Gallery Homepage</li> <li>○ Journal Homepage</li> <li>○ Event Community Homepage</li> <li>● Record pages (within publications)</li> <li>● Community Pages</li> </ul> <p>All public-facing dynamic functionality, including:</p> <ul style="list-style-type: none"> <li>● Simple/Advanced Search (Search Results)</li> <li>● Account Registration</li> <li>● My Account/Login</li> <li>● Edit Profile</li> <li>● Research Alerts</li> </ul> <p>All dynamic author workflows, including:</p> <ul style="list-style-type: none"> <li>● Submission Form (submit.cgi and ir_submit.cgi—also used in revision)</li> <li>● Author’s View of Submission and Author Approval</li> </ul> <p>Help Pages (Support Documentation):</p> <ul style="list-style-type: none"> <li>● FAQ</li> <li>● Search Help</li> <li>● Submission Help</li> </ul>
Page Notes	<p>Non-main content areas generated by the Digital Commons template system that are common to all pages—such as the Header, Footer, and Sidebar—will be noted only for the IR Homepage so as to not repeat information. The Follow button, readership activity map, and Slideshow/Carousel will also be noted only for the IR Homepage. These features may be enabled for individual publications or communities.</p> <p>Record Pages refer to individual article or record metadata pages within publications (series, ETD series, image galleries, book galleries, journals, and event communities).</p> <p>The Book Gallery/Image Gallery Homepage includes toggle-able grid/list index views with thumbnail images, and a View Slideshow option.</p> <p>Journal Pages include journal homepages, volume, issue, and article pages</p> <p>Event Community Pages include conference/event homepages, constituent themes and tracks (schedule pages), and individual event record pages.</p>
Note from W3C on Conformance	<p><a href="https://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html">https://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html</a>      “If there is no content to which a success criterion applies, the success criterion is satisfied.” This VPAT shows such criterion as: “Supports (N/A)”</p>
Notes/Terminology	<p>“AT” stands for Assistive Technology such as screen readers, voice input, etc.</p>

## WCAG 2.1 A and AA Requirements

WCAG 2.1 Success Criterion	Level	Evaluation
1.1.1: Non-text Content	A	Partially supports
1.2.1: Audio-only and Video-only (Prerecorded)	A	Supports (N/A)
1.2.2: Captions (Prerecorded)	A	Supports (N/A)
1.2.3: Audio Description or Media Alternative	A	Supports (N/A)
1.2.4: Captions (Live)	AA	Supports (N/A)
1.2.5: Audio Description	AA	Supports (N/A)
1.3.1: Info and Relationships	A	Partially supports
1.3.2: Meaningful Sequence	A	Partially supports
1.3.3: Sensory Characteristics	A	Supports
1.3.4 Orientation (2.1)	AA	Supports
1.3.5 Identify Input Purpose (2.1)	AA	Does not support
1.4.1: Use of Color	A	Supports
1.4.2: Audio Control	A	Supports (N/A)
1.4.3: Contrast (Minimum)	AA	Partially supports
1.4.4: Resize text	AA	Supports
1.4.5: Images of Text	AA	Partially supports
1.4.10 Reflow (2.1)	AA	Supports
1.4.11 Non-Text Contrast (2.1)	AA	Partially supports
1.4.12 Text Spacing (2.1)	AA	Partially supports
1.4.13 Content on Hover or Focus (2.1)	AA	Partially supports
2.1.1: Keyboard	A	Partially supports
2.1.2: No Keyboard Trap	A	Supports
2.1.4 Character Key Shortcuts (2.1)	A	Supports (N/A)
2.2.1: Timing Adjustable	A	Supports (N/A)
2.2.2: Pause, Stop, Hide	A	Partially supports
2.3.1: Three Flashes or Below Threshold	A	Supports (N/A)
2.4.1: Bypass Blocks	A	Supports
2.4.2: Page Titled	A	Supports
2.4.3: Focus Order	A	Partially supports
2.4.4: Link Purpose (In Context)	A	Partially supports
2.4.5: Multiple Ways	AA	Supports
2.4.6: Headings and Labels	AA	Supports
2.4.7: Focus Visible	AA	Partially supports
2.5.1 Pointer Gestures (2.1)	A	Supports (N/A)
2.5.2 Pointer Cancellation (2.1)	A	Supports (N/A)
2.5.3 Label in Name (2.1)	A	Supports
2.5.4 Motion Actuation (2.1)	A	Supports (N/A)
3.1.1: Language of Page	A	Partially supports
3.1.2: Language of Parts	AA	Supports

WCAG 2.1 Success Criterion	Level	Evaluation
3.2.1: On Focus	A	Supports
3.2.2: On Input	A	Partially supports
3.2.3: Consistent Navigation	AA	Supports
3.2.4: Consistent Identification	AA	Supports
3.3.1: Error Identification	A	Partially supports
3.3.2: Labels or Instructions	A	Partially supports
3.3.3: Error Suggestion	AA	Supports
3.3.4: Error Prevention (Legal, Financial, Data)	AA	Supports
4.1.1: Parsing	A	Supports
4.1.2: Name, Role, Value	A	Partially supports
4.1.3 Status Messages (2.1)	AA	Supports (N/A)

Visuals		
WCAG 2.1 Checkpoint	Supporting Features	Remarks
<a href="#">1.1.1: Non-Text Content</a> (A) Provide text alternatives for non-text content (e.g. images)	Partially supports	Some images and icons have appropriate text equivalents. Image galleries support alternative text of images uploaded by faculty/staff through the Description field.  <b>Exceptions:</b> Search Results: File type (e.g. PDF) is indicated by an image without alt text.  IR Homepage: The DC Discipline Wheel sunburst graphic does not have alt text. Within the readership activity map, national flag and control icons do not have text alternatives.  Submission Form: The step-by-step background image does not have proper alternative text.
<a href="#">1.3.3: Sensory Characteristics</a> (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound	Supports	There are no instructions or areas of content which rely solely on sensory characteristics.
<a href="#">1.4.1: Use of Color</a> (A) Color is not used as the only visual	Supports	Color is not used as the only means of conveying information for content.

means of conveying info		
<a href="#">1.4.3: Color Contrast (Minimum)</a> (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text)	Partially supports	Text has enough contrast with its corresponding background in almost all areas.  Note: The Digital Commons design team customizes the visual and color elements of IR, journal, and event community pages according to the preferences expressed by institutions and administrators. Sufficient color contrast is implemented as far as possible.  <b>Exceptions:</b> Search Results: The light gray on white background in the individual search results does not have enough contrast at 3.54:1.  Submission Form: The green successful submission text does not have enough contrast at 4.01:1. The red text (e.g. “Author Added”) does not have enough contrast at 4.0:1.  Series Homepage, Book/Image Gallery Homepage: Current page indicator (greyed) on paginated publications does not have enough contrast at 2.61:1  Account registration: Password criteria check indicators do not have enough contrast when inert at 4.47:1  Edit Profile: The red error text does not have enough contrast at 3.8:1.  Record Pages: Section titles within the PlumX Metrics popup do not have enough contrast.
<a href="#">1.4.4: Resize Text</a> (AA) Text can be enlarged up to 200% without loss of functionality.	Supports	Text can be enlarged to 200% and content remains functional.
<a href="#">1.4.5: Images of Text</a> (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos	Partially supports	No images of text are used other than for logos or essential presentation for almost all content.  <b>Exceptions:</b> Submission Form: The “Required” text is an image of text. The “Revise Submission” and “Make Another Submission” buttons use background images of text.
<a href="#">1.4.10 Reflow</a> (AA) Content can be presented without loss of information or functionality, and without requiring	Supports	A mobile-specific stylesheet supporting the reflow of content is activated on smaller mobile devices with limited screen width.  Note: Digital Commons is not otherwise reflow-responsive and may require horizontal scrolling for higher browser zoom levels.

<p>scrolling in two dimensions for: Vertical scrolling content at a width equivalent to 320 CSS pixels; Horizontal scrolling content at a height equivalent to 256 CSS pixels.</p>		
<p><a href="#">1.4.11 Non-Text Contrast (AA)</a> User interface components and graphical objects have a contrast ratio of at least 3:1 against adjacent color(s).</p>	Partially supports	<p>Most non-text UI components and graphical objects have at least a 3:1 contrast ratio.</p> <p><b>Exceptions:</b> IR Homepage: The previous and next arrows have a light gray that is insufficient on most common white background for the Slideshow/Carousel (1.98:1). The Follow button's pop up (while user is not logged in) has a close/'X' button with insufficient contrast at 2.84:1.</p> <p>Browse Collections: The '+' and '-' icons for expanding/collapsing the tree do not have enough contrast at 2.17:1.</p> <p>Submission Form: The add '+' button for the Authors field does not have enough contrast at 2.43:1.</p>
<p><a href="#">1.4.12 Text Spacing (AA)</a> In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all the following and by changing no other style property:</p> <ul style="list-style-type: none"> <li>• Line height (line spacing) to at least 1.5 times the font size;</li> <li>• Spacing following paragraphs to at least 2 times the font size;</li> <li>• Letter spacing (tracking) to at</li> </ul>	Partially supports	<p>The site allows users to adjust the text spacing without causing loss of content or functionality in most areas.</p> <p><b>Exceptions:</b> IR Homepage: When minimum text spacing styles are applied to the readership activity map, record and collection information may be cut off.</p>

<p>least 0.12 times the font size;</p> <ul style="list-style-type: none"> <li>• Word spacing to at least 0.16 times the font size.</li> </ul>		
<p><a href="#">1.4.13 Content on Hover or Focus</a> (AA) Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:</p> <ul style="list-style-type: none"> <li>• Dismissable</li> <li>• Hoverable</li> <li>• Persistent</li> </ul>	Partially supports	<p>There is no content that appears on hover or focus on most pages.</p> <p><b>Exceptions:</b> Record Pages: The PlumX Metrics popup on pointer hover cannot be dismissed by keyboard.  IR Homepage: The popup for the Digital Commons Network on pointer hover cannot be dismissed by keyboard.</p>
<p><a href="#">2.3.1: Three Flashes or Below Threshold</a> (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds</p>	Supports (N/A)	No flashing content exists.
<b>Keyboard</b>		
<b>WCAG 2.1 Checkpoint</b>	<b>Supporting Features</b>	<b>Remarks</b>
<p><a href="#">1.3.2: Meaningful Sequence</a> (A) The correct reading sequence can be programmatically determined</p>	Partially supports	<p>The correct reading sequence is usually logical with the DOM order matching the visual order.</p> <p><b>Exceptions:</b> IR Homepage: The Follow button, when activated while a user is not logged in, creates a popup that does not directly come after the button in the DOM.  Book Gallery Record Page: “Download Full Text” is after the Download buttons in the DOM, then repositioned using CSS.</p>
<p><a href="#">2.1.1: Keyboard</a> (A) All functionality is available from a keyboard, except for tasks such as drawing</p>	Partially supports	<p>Most content is keyboard operable.</p> <p><b>Exceptions:</b> IR Homepage: Users cannot pan the readership activity map using the keyboard. The controls for moving between recent readers/downloads next to the map are not keyboard operable. The popup for the Digital Commons Network cannot be activated by keyboard. Slideshow/Carousel</p>

		<p>controls (previous, next) cannot be reached by keyboard, as they only appear on mouse hover.</p> <p>Record Pages: The PlumX Metrics popup cannot be activated by keyboard (it only appears on pointer hover).</p> <p>Submission Form: The Add Author icon cannot be reached by keyboard. Users cannot add items to the selected list through the Discipline tree when using a keyboard.</p> <p>Cookies notification: Cannot be dismissed with a keyboard.</p>
<p><a href="#">2.1.2: No Keyboard Trap</a> (A)</p> <p>The user can use the keyboard to move through page elements and is not trapped on a particular element</p>	Supports	<p>Pages do not have a keyboard trap.</p> <p>Note: On the Submission Form, users cannot Shift+Tab to go back to a previous field when focus is on a WYSIWYG Rich Text editor field.</p>
<p><a href="#">2.1.4 Character Key Shortcuts</a> (A)</p> <p>If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:</p> <ul style="list-style-type: none"> <li>• Turn off</li> <li>• Remap</li> <li>• Active only on focus</li> </ul>	Supports (N/A)	
<p><a href="#">2.4.3: Focus Order</a> (A)</p> <p>Users can tab through the elements of a page in a logical order</p>	Partially supports	<p>Tab order is logical on the site for the most part.</p> <p><b>Exceptions:</b></p> <p>IR Homepage: Users may reach visually hidden parts of the Slideshow/Carousel. The readership activity map’s map-specific functions should be reached after its link to the record.</p> <p>Search Results: Users can reach visually hidden content and controls with the keyboard (hidden facets, first ‘-’ search field button while Advanced Search is expanded). “My Saved Searches” and “Save This Search” options are tabbed to in reverse order.</p> <p>Browse Collections: Each link in the hierarchical list of collections receives a tab stop for an expand/collapse element, regardless of its existence.</p>



		<p>Record Pages: Users reach the Previous and Next buttons before the breadcrumb.</p> <p>Image/Book Gallery Homepage: Users can reach the list of linked preview images presented in the gallery's Slideshow view without first activating the View Slideshow link. In the Slideshow view, there are redundant Previous and Next links. The Slideshow modal should restrict focus so that user focus does not go to the browser address bar.</p> <p>Research Alerts: The focus order of the objects on the main part of the page does not match their visual placement. The "Save Changes" is reached before the Saved Searches content, and "Update" "Cancel" are tabbed to in reverse order.</p> <p>Submission Form: The "Remove Author" and "Show/Hide" Author buttons are tabbed to in reverse order.</p> <p>SelectedWorks Author gallery: Focus does not shift to the search facet selection menu upon activation, so users have to tab through every profile link in order to select a search facet.</p>
<p><a href="#">2.4.7: Focus Visible (AA)</a> The page element with the current keyboard focus has a visible focus indicator</p>	<p>Partially supports</p>	<p>Many elements use a very good visible focus.</p> <p><b>Exceptions:</b></p> <p>IR Homepage: The images of the Slideshow/Carousel do not have visible focus indicators.</p> <p>Browse Collections: The expand/collapse elements do not have visible focus indicators.</p> <p>Series/ETD series homepages: The optional jumplist (year/document type) element does not have a visible focus indicator.</p> <p>Record Pages: The PlumX Metrics element does not have a visible focus indicator.</p> <p>Image/Book Gallery Homepage: The thumbnails for records on the index have insufficient contrasting visible focus. The Slideshow views' controls do not have any visible focus indicators.</p> <p>Research Alerts: The checkboxes and buttons on the page lack visible focus indicators.</p> <p>Submission Form: The '?' help icon does not have a visible focus.</p> <p>Cookies notification: The "use of cookies" link does not have a visible focus indicator.</p> <p>Search: The Search button and context drop-down selection in the sidebar search section may not provide visual focus in certain web browsers.</p>

		<p>Search Results: While Advanced Search is expanded, Add '+' search field button and "Sort By" Boolean options do not have visible focus indicators.</p> <p>My Account: On legacy login screens, "Login" and "Sign Up" buttons have no visible focus indicator.</p>
<p><a href="#">3.2.1: On Focus</a> (A) When a UI component receives focus, this does not trigger unexpected actions.</p>	Supports	Focusable elements do not cause unexpected actions when receiving focus.
Headings and Structure		
WCAG 2.1 Checkpoint	Supporting Features	Remarks
<p><a href="#">1.3.1: Information and Relationships</a> (A) Info, structure, and relationships can be programmatically determined</p>	Partially supports	<p>Headings are used in some places to help distinguish content. Lists are sometimes used to group related links or text.</p> <p><b>Exceptions:</b> All Pages: Many pages lack an appropriate h1; the highest heading section level present may be h2.</p> <p>IR Homepage: The Follow button occurs inaccurately within the preceding h2.</p> <p>Browse by Discipline: The year heading (h4) on Browse Works by Discipline page is out of sequence (should be h3).</p> <p>Search Results: Search results lack list markup (results should be list items within an unordered list). In Advanced Search options, "Sort By" Boolean options are not encapsulated within a fieldset.</p> <p>Browse Collections: Tables are used for page structure, although content appears to be a hierarchical list/tree.</p> <p>Series/ETD Series Homepage: Lists of records lack unordered list markup. The year/document type heading (h4) is out of sequence (should be h3).</p> <p>Community Page: The "Browse..." h4 is out of sequence (should be h3). A community's list of grouped structures should be in an unordered list.</p> <p>Journal Pages: Lists of articles lack unordered list markup.</p> <p>Event Community Pages: The collections list for a conference/event lacks unordered list markup. Pages may have headings out of sequence (skipped level). Track schedule tables lack scope attributes for table headers (scope="col/row"). Track schedule tables may have row headers that lack labels, as event time text is hidden via CSS when the start time for an event record is the same as the one that precedes it within a track.</p> <p>Record Pages: Record title lacks heading markup in appropriate sequence.</p>

		<p>My Account: Table headers lack scope attributes. The left column lacks row headers with scope="row" attributes.</p> <p>Edit Profile: Tables are used for page structure; "About You" is a table caption rather than a heading.</p> <p>Submission Form: The headings for each form input section (e.g. "Title", "Authors", etc.) lack heading markup (h3). The left column of row headers for the submission metadata summary lacks scope="row" attributes.</p> <p>Author's View of Submission: "Current File(s)" is out of sequence (or should not be a heading).</p>
<p><a href="#">2.4.1: Bypass Blocks</a> (A) Users can bypass repeated blocks of content.</p>	Supports	Headings exist, which allow users using Assistive Technology to jump to the different areas of content quickly. Various ARIA landmarks are used to identify page regions. Every page has a "Skip to Main Content" skip link.
<p><a href="#">2.4.6: Headings and Labels</a> (AA) Headings and labels are clear and consistent.</p>	Supports	Headings and labels used are clear and descriptive. For example, each of the h2s on the homepage describes clearly what content will follow.
<p><a href="#">3.1.1: Language of Page</a> (A) The language of the page is specified</p>	Partially supports	<p>The language of most pages is specified as lang="en".</p> <p><b>Exceptions:</b> Submission Form, Account Registration, My Account, Research Alerts: no language specified for these pages.</p>
<p><a href="#">3.1.2: Language of Parts</a> (AA) Specify the language of text passages that are in a different language than the default language of the page.</p>	Supports	<p>There are no sections of content that are in a different language than the default.</p> <p>Note: Some sections of pages may contain content generated by authors/administrators that is not in English (the default specified language for most pages). Many editable sections allow administrators to mark changes in language. However, it is not possible to specify the language of non-English text in metadata fields on record pages.</p>
<p><a href="#">4.1.1: Parsing</a> (A) Use valid, error-free HTML</p>	Supports	<p>Most HTML and CSS passes concerning these 4 specific criteria: (i) elements have complete start and end tags, (ii) elements are nested according to their specifications (iii) elements do not contain duplicate attributes (iv) any IDs are unique, except where the specifications allow these features.</p> <p>Note: There are other general HTML validation errors outside the scope of this criterion.</p>
<b>Labeling</b>		
WCAG 2.1 Checkpoint	Supporting Features	Remarks

<p><a href="#">1.3.5 Identify Input Purpose (AA)</a> The purpose of each input field collecting information about the user can be programmatically determined when: The input field serves a purpose identified in the Input Purposes for User Interface Components section; and the content is implemented using technologies with support for identifying the expected meaning for form input data.</p>	Does not support	<p>The only pages with personal input fields are Edit Profile, Account Registration, and Submission Form. These fields lack autocomplete attributes.</p> <p>Edit Profile: Personal information fields do not have autocomplete attributes.</p> <p>Account Registration: Personal information fields do not have autocomplete attributes.</p> <p>Submission Form: The “About you...” input fields do not have autocomplete attributes.</p>
<p><a href="#">2.4.2: Page Titled (A)</a> The page has a title describing its topic or purpose</p>	Supports	All pages use unique and descriptive page titles.
<p><a href="#">2.4.4: Link Purpose (In Context) (A)</a> The purpose of each link can be determined from the link text or surrounding context.</p>	Partially supports	<p>Most links used have an identifiable purpose from the link text or surrounding context.</p> <p><b>Exceptions:</b> IR Homepage: The “View Larger” and “&lt;/&gt; Embed” links for the readership activity map are not specific about their purpose.</p>
<p><a href="#">2.5.3 Label in Name (A)</a> For user interface components with labels that include text or images of text, the name contains the text that is presented visually.</p>	Supports	User interface components that have visible text contain that text consistently within the accessible name.
<p><a href="#">3.2.4: Consistent Identification (AA)</a> UI components used across the web site are identified</p>	Supports	UI components within each resource are labelled consistently.

consistently on every page.		
<p><a href="#">3.3.1: Error Identification</a> (A)</p> <p>Input errors are clearly marked and described to the user.</p>	Partially supports	<p>Errors are displayed to the user and presented with a summary.</p> <p>Note: On the Submission Form, Edit Profile, and legacy Account Registration form, error summaries are presented in text toward the beginning of the page after form submission—and visually distinguished via different text and/or background colors. On Account Registration, error messages are presented in text below each associated input (except for password fields). Error states are not programmatically announced to AT, nor is focus management used for convenient error indication.</p> <p><b>Exceptions:</b></p> <p>Account Registration: Password criteria check indicators are visible, but are hidden from AT via <code>aria-hidden="true"</code>. Entering a password with too few characters may lead to incorrect error message on the legacy account registration form.</p> <p>Search: Performing a search from the sidebar with no value leads to an empty search results page, without any indication that a search term is required.</p>
<p><a href="#">3.3.2: Labels and Instructions</a> (A)</p> <p>Items requiring user input are clearly labeled or have clear instructions.</p>	Partially supports	<p>Most input areas have clear labels which are programmatically assigned.</p> <p><b>Exceptions:</b></p> <p>Search: The label for the context drop-down selection in the sidebar search section is hidden with CSS, which also hides it from AT.</p> <p>Search Results: The search input label is hidden with CSS, which also hides it from AT.</p> <p>Account Registration: Form fields lack labels on the legacy account registration form.</p> <p>Edit Profile: Current Password and New Password lack labels for their respective inputs.</p> <p>My Account: The Upload Document drop-down menu lacks labels.</p> <p>Research Alerts: The checkboxes in the My Saved Searches have hidden labels (via CSS). The Alerts checkbox lacks a sufficiently descriptive label.</p> <p>Submission Form: The Submission Agreement checkbox is not labelled. Required inputs lack the <code>required</code> or <code>aria-required="true"</code> attributes. Several inputs have labels hidden via CSS, which makes them inaccessible to AT, such as the author search and author details inputs. The author ordering inputs do not have any labels. The keywords field lacks an <code>aria-describedby</code> by description of how to add keywords (the instructions appear only as text before the input). The <code>for</code> attribute for the “Import file from remote site” label does not reference the proper input ID. Radio inputs (e.g. Publication Status) may lack a group label. Checkbox inputs (e.g.</p>

		Additional Files) may lack a proper label: adjacent label text may not reference the proper input ID.
<a href="#">3.3.3: Error Suggestion</a> (AA) When the user makes an input error, give suggestions for valid input.	Supports	There is no content that would give error suggestions.
<a href="#">4.1.2: Name, Role, Value</a> (A) For all UI components, the name, value, and role can be programmatically determined.	Partially supports	<p>Most UI components communicate their state programmatically.</p> <p><b>Exceptions:</b></p> <p>IR Homepage: The Previous and Next buttons for the slideshow are not &lt;button&gt; elements (or lack role="button").</p> <p>Search Results: Links that cause same-page content changes are not &lt;button&gt; elements (or lack role="button"), such as the More/Fewer toggles, and search facet selection and removal. The search facet removal 'X' button does not include "remove" in the button label.</p> <p>Browse Collections: The Expand/Collapse elements are not implemented as buttons, and lack accessible names.</p> <p>Image/Book Gallery Homepage: The Slideshow modal lacks role="dialog" and aria-modal="true". View Slideshow and its controls are not implemented as &lt;button&gt; elements (or lack role="button").</p> <p>Submission Form: The "Add author", "Remove author" and "Show/hide details" buttons are not &lt;button&gt; elements (or lack role="button"). The "Show/Hide details" button label lacks an appropriate label (which should be "Edit author"), and the aria-expanded="true/false" attribute. The Disciplines taxonomy is not clearly communicated to AT; the Discipline tree does not use ARIA 1.1 Authoring Practices for Treeviews. While toolbar buttons within the Rich Text editor have aria-labelledby attributes, the attributes reference &lt;span&gt; elements that are hidden with CSS, potentially causing them to not be interpreted by AT. On the submission confirmation screen, the "Revise Submission" and "Make Another Submission" button labels use hidden text with CSS, which makes them inaccessible to AT.</p> <p>SelectedWorks Author Gallery: "View more" links within the search facet selection menu do not contain href attributes.</p>
<a href="#">4.1.3 Status Messages</a> (AA) In content implemented using markup languages, status messages can be programmatically	Supports (N/A)	There are no status messages of the kind described by this criterion on Digital Commons.

determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.		
<b>Multimedia</b>		
<b>WCAG 2.1 Checkpoint</b>	<b>Supporting Features</b>	<b>Remarks</b>
<a href="#">1.2.1: Audio-only or Video-only (Prerecorded)</a> (A) Provide alternatives for pre-recorded audio-only or video-only content.	Supports (N/A)	<p>Digital Commons utilizes JW Player, which supports multiple audio tracks, for its native streaming capability. (Embedded multimedia hosted on external sources may also utilize JW Player.) For instance, one track may contain an audio description to accompany video content. Other alternatives, such as transcripts, may be uploaded as supplemental files on the same record, and/or included within the record metadata.</p> <p>Commonly embedded third-party streaming content platforms (e.g. YouTube) may provide similar alternatives.</p> <p>Note: Audio and Video content is generated by authors and not by Digital Commons. Authors/administrators may provide, and are responsible for, alternatives to Audio and Video content.</p>
<a href="#">1.2.2: Captions (Prerecorded)</a> (A) Provide captions for pre-recorded audio	Supports (N/A)	<p>Digital Commons utilizes JW Player, which supports closed captioning, for its native streaming capability. (Embedded multimedia hosted on external sources may also utilize JW Player.)</p> <p>Commonly embedded third-party streaming content platforms (e.g. YouTube) may provide closed captioning or other alternatives.</p> <p>Note: Audio and Video content is generated by authors and not by Digital Commons. Authors/administrators may provide, and are responsible for, alternatives (e.g. closed captioning) to Audio and Video content.</p>
<a href="#">1.2.3: Audio Description or Media Alternative (Prerecorded)</a> (A) Provide alternatives for pre-recorded synchronized audio/video	Supports (N/A)	<p>Digital Commons utilizes JW Player, which supports multiple audio tracks, for its native streaming capability. (Embedded multimedia hosted on external sources may also utilize JW Player.) Digital Commons also supports uploading a separate video including an audio description (e.g. an extended audio-described video) as a supplemental file on the same record. Other alternatives, such as transcripts, may be uploaded as supplemental files on the same record, and/or included within the record metadata.</p> <p>Digital Commons allows linking to external sources on third-party content platforms (e.g. YouTube) that may provide audio-described tracks or other alternatives.</p> <p>Note: Audio and Video content is generated by authors and not by Digital Commons. Authors/administrators may provide, and are responsible for, audio descriptions or media alternatives to Audio and Video content.</p>

<a href="#">1.2.4: Captions (Live)</a> (AA) Provide captions for live audio in synchronized audio/video.	Supports (N/A)	There is no live audio in synchronized audio/video.
<a href="#">1.2.5: Audio Description (Prerecorded)</a> (AA) Provide an audio description of pre-recorded video.	Supports (N/A)	Digital Commons utilizes JW Player, which supports multiple audio tracks, for its native streaming capability. (Embedded multimedia hosted on external sources may also utilize JW Player.) Digital Commons also supports uploading a separate video including an audio description (e.g. an extended audio-described video) as a supplemental file on the same record.  Digital Commons allows linking to external sources on third-party content platforms (e.g. YouTube) that may provide audio-described tracks.  Note: Audio and Video content is generated by authors and not by Digital Commons. Authors/administrators may provide, and are responsible for, audio descriptions or media alternatives to Audio and Video content.
<a href="#">1.4.2: Audio Control</a> (A) Audio can be paused and stopped, or the audio volume can be changed.	Supports (N/A)	There is no audio that plays automatically on the site.
<a href="#">2.2.2: Pause, Stop, Hide</a> (A) Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information.	Partially supports	Most pages do not use any moving, blinking, scrolling or auto-updating information.  <b>Exceptions:</b> IR Homepage: The Slideshow/Carousel does not have controls to allow it to stop, pause, or hide. The readership activity map, which auto-updates, does not have pause control until the first reader is presented.
<b>Usability</b>		
<b>WCAG 2.1 Checkpoint</b>	<b>Supporting Features</b>	<b>Remarks</b>
<a href="#">2.2.1: Timing Adjustable</a> (A) Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended	Supports (N/A)	There is no session timeout.
<a href="#">2.4.5: Multiple Ways</a> (AA) More than one way is available to	Supports	All pages can be accessed in multiple ways. For example, main navigation links appear on both the navigation tab and footer. There is also search functionality for finding specific pages.



navigate to other web pages.		
<a href="#">3.2.2: On Input</a> (A) Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context.	Partially supports	Most user inputs do not cause unexpected actions.  <b>Exceptions:</b> Submission Form: Pressing Enter after keyboard selection of a saved form value will cause the entire form to be submitted, instead of selecting the value within the field.  Series Homepage: Arrow key navigation of jumplists (year/document type) brings a user to an anchor heading as soon as an option is selected.
<a href="#">3.2.3: Consistent Navigation</a> (AA) Navigation menus are in the same location and order on every web page.	Supports	Navigation menus are consistent across most pages. Main navigation links in the header, navigation tab, and footer are consistent across pages.  Note: Navigation links may be customized for individual journals and event communities, and may appear in a different order than the IR homepage's defaults. Links in the Author Corner sidebar section may depend on options configured for each publication.
<a href="#">3.3.4: Error Prevention (Legal, Financial, Data)</a> (AA) For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted.	Supports	There are no submissions which require legal or financial commitments.

### Mobile User Experience

WCAG 2.1 Checkpoint	Supporting Features	Remarks
<a href="#">1.3.4 Orientation</a> (AA) Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.	Supports	Digital Commons does not restrict its view to a single orientation.
<a href="#">2.5.1 Pointer Gestures</a> (A) All functionality that uses multipoint or path-based gestures for operation can be operated with a	Supports (N/A)	Digital Commons does not use any multipoint or path-based gestures.

<p>single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.</p>		
<p><a href="#">2.5.2 Pointer Cancellation</a> (A)  For functionality that can be operated using a single pointer, at least one of the following is true:</p> <ul style="list-style-type: none"> <li>• No Down-Event</li> <li>• Abort or Undo</li> <li>• Up Reversal</li> <li>• Essential</li> </ul>	<p>Supports (N/A)</p>	<p>All interactive content functions through the Up-Event, allowing users to potentially move their pointer off the component to cancel.</p>
<p><a href="#">2.5.4 Motion Actuation</a> (A)  Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:</p> <ul style="list-style-type: none"> <li>• Supported Interface</li> <li>• Essential</li> </ul>	<p>Supports (N/A)</p>	<p>There is no content on Digital Commons that utilizes device or user motion.</p>

## US 508 Chapter 3: Functional Performance Criteria

Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Partially supports	Digital Commons' user interface and content is mostly accessible with screen readers. There are a few instances of missing alt text and incomplete keyboard support. PDFs may have Digital Commons cover pages that are properly tagged; authors/administrators are responsible for tagging PDF content. Authors/administrators are responsible for including alternative text within the description field for content figures. Authors/administrators are responsible for providing downloadable media alternative as text equivalents for video content.
302.2 With Limited Vision	Supports	Style sheets separate presentation from content. Personal style sheets and Operating System contrast can be applied. Browser Zoom and Screen magnification applications are supported. Digital Commons does not have a responsive design and may require horizontal scrolling for higher browser zoom levels. A mobile-specific stylesheet is activated on smaller mobile devices with limited screen width.
302.3 Without Perception of Color	Partially supports	Digital Commons does not require perception of color to use almost all content. Some exceptions exist in a few instances, such as link color not sufficiently contrasting with surrounding text.
302.4 Without Hearing	Supports	<p>There is no content in Digital Commons that requires hearing. Audio and Video content is generated by authors. Authors/administrators may provide alternatives (e.g. closed captioning or supplemental transcripts) to Audio-only and Video-only content.</p> <p>Digital Commons utilizes JW Player, which supports closed captioning, for its native streaming capability. Commonly embedded third-party streaming content platforms (e.g. YouTube) may provide closed captioning or other alternatives.</p>
302.5 With Limited Hearing	Supports	<p>There is no content in Digital Commons that requires hearing. Audio and Video content is generated by authors. Authors/administrators may provide alternatives (e.g. closed captioning or supplemental transcripts) to Audio-only and Video-only content.</p> <p>Independent volume control is provided in the JW media player and on commonly embedded 3rd party streaming platforms.</p>
302.6 Without Speech	Supports	There is no content in Digital Commons that requires speech input.
302.7 With Limited Manipulation	Partially supports	Digital Commons provides labels to make form controls easier to select. Most elements have accessible names and can be operated using speech input.
302.8 With Limited Reach and Strength	Supports (N/A)	Does not apply.
302.9 With Limited Language, Cognitive, and Learning Abilities	Supports	Digital Commons offers compatibility with text to speech literacy programs (e.g. Read and Write Gold).

## US 508 Chapter 6: Support Documentation and Services

Criteria	Conformance Level	Remarks and Explanations
<b>601.1 Scope</b>	Heading cell – no response required	Heading cell – no response required
<b><u><a href="#">602 Support Documentation</a></u></b>	Heading cell – no response required	Heading cell – no response required
602.2 Accessibility and Compatibility Features	Supports	Details on Digital Commons accessibility and compatibility features are found on the Accessibility Statement page: <a href="https://bepress.com/accessibility-statement/">https://bepress.com/accessibility-statement/</a> . The Accessibility Statement is linked to from the footer of Digital Commons sites. This document (VPAT) provides additional details on the accessibility and compatibility features of Digital Commons.
602.3 Electronic Support Documentation	Partially supports	See information in <a href="#">next section</a> .
602.4 Alternate Formats for Non-Electronic Support Documentation	Supports	All forms of support documentation are electronic. Please contact Digital Commons Consulting Services ( <a href="mailto:dc-support@elsevier.com">dc-support@elsevier.com</a> ) to request alternate formats for documentation or for any additional questions on accessibility and assistive technology compatibility features.
<b><u><a href="#">603 Support Services</a></u></b>	Heading cell – no response required	Heading cell – no response required
603.2 Information on Accessibility and Compatibility Features	Supports	This document (VPAT) describes information on the accessibility and compatibility features. The Digital Commons Accessibility Statement, with a description of accessibility features, is available at: <a href="https://bepress.com/accessibility-statement/">https://bepress.com/accessibility-statement/</a> . The Accessibility Statement is linked to from the footer of Digital Commons sites.
603.3 Accommodation of Communication Needs	Supports	Users may contact Digital Commons Consulting Services for support via <ul style="list-style-type: none"> <li>• Email: <a href="mailto:dc-support@elsevier.com">dc-support@elsevier.com</a></li> <li>• Phone: +1 (510) 665-1200 ext. 2.</li> </ul>

## 602.3 Electronic Support Documentation

WCAG 2.1 Success Criterion	Level	Evaluation	Remarks
1.1.1: Non-text Content	A	Supports	No non-text content on support pages.
1.2.1: Audio-only and Video-only (Prerecorded)	A	Supports (N/A)	No multimedia on support pages.
1.2.2: Captions (Prerecorded)	A	Supports (N/A)	No multimedia on support pages.
1.2.3: Audio Description or Media Alternative	A	Supports (N/A)	No multimedia on support pages.
1.2.4: Captions (Live)	AA	Supports (N/A)	No multimedia on support pages.
1.2.5: Audio Description	AA	Supports (N/A)	No multimedia on support pages.
1.3.1: Info and Relationships	A	Partially supports	Support pages are missing h1s.
1.3.2: Meaningful Sequence	A	Supports	Screen reader reading sequence is logical.
1.3.3: Sensory Characteristics	A	Supports	Content does not rely on sensory characteristics.
1.3.4: Orientation (2.1)	AA	Supports	Display orientation is not fixed.
1.3.5: Identify Input Purpose (2.1)	AA	Supports (N/A)	No input fields on support pages.
1.4.1: Use of Color	A	Supports	No elements rely on color alone to convey information.
1.4.2: Audio Control	A	Supports (N/A)	No auto-playing audio exists.
1.4.3: Contrast (Minimum)	AA	Supports	All text passes minimum 4.5:1 ratio.
1.4.4: Resize text	AA	Supports	Text can be enlarged to 200% without loss of functionality.
1.4.5: Images of Text	AA	Supports	No images of text are on support pages.
1.4.10: Reflow (2.1)	AA	Supports	Digital Commons has an adaptive view for small screens.
1.4.11: Non-Text Contrast (2.1)	AA	Supports (N/A)	There are no icons or elements that are non-text.
1.4.12: Text Spacing (2.1)	AA	Supports	Minimum text spacing styles can be applied without error.
1.4.13: Content on Hover or Focus (2.1)	AA	Supports (N/A)	No content has hover or focus popups.
2.1.1: Keyboard	A	Supports	All elements can be reached and activated by keyboard.
2.1.2: No Keyboard Trap	A	Supports	No keyboard traps exist.
2.1.4: Character Key Shortcuts (2.1)	A	Supports (N/A)	There are no custom key shortcuts using one character key.
2.2.1: Timing Adjustable	A	Supports	There is no session timeout.
2.2.2: Pause, Stop, Hide	A	Supports (N/A)	No elements on supports pages are moving or changing.
2.3.1: Three Flashes or Below Threshold	A	Supports (N/A)	There is no flashing content.
2.4.1: Bypass Blocks	A	Supports	Several means of skipping content exist.
2.4.2: Page Titled	A	Supports	All support pages have descriptive and unique titles.
2.4.3: Focus Order	A	Supports	Tab order on support pages is logical.
2.4.4: Link Purpose (In Context)	A	Supports	Link text is clear and descriptive.
2.4.5: Multiple Ways	AA	Supports	There are multiple ways to reach all content.
2.4.6: Headings and Labels	AA	Supports	All headings and labels are descriptive and consistent.
2.4.7: Focus Visible	AA	Supports	All elements have a visible focus.
2.5.1: Pointer Gestures (2.1)	A	Supports (N/A)	No content requires pointer gestures.
2.5.2: Pointer Cancellation (2.1)	A	Supports	All actions can be cancelled properly.

WCAG 2.1 Success Criterion	Level	Evaluation	Remarks
2.5.3: Label in Name (2.1)	A	Supports	Visible labels appear in the accessible names for elements.
2.5.4: Motion Actuation (2.1)	A	Supports (N/A)	Nothing requires device motion.
3.1.1: Language of Page	A	Supports	All support pages have a defined page language.
3.1.2: Language of Parts	AA	Supports (N/A)	No areas use a language different from the default.
3.2.1: On Focus	A	Supports	No unexpected changes happen when receiving focus.
3.2.2: On Input	A	Supports	No unexpected changes when changing input settings.
3.2.3: Consistent Navigation	AA	Supports	All navigation menus are consistent across the site.
3.2.4: Consistent Identification	AA	Supports	All UI elements are labelled and used consistently.
3.3.1: Error Identification	A	Supports (N/A)	Support pages do not have input fields or errors.
3.3.2: Labels or Instructions	A	Supports (N/A)	Support pages do not have input fields.
3.3.3: Error Suggestion	AA	Supports (N/A)	Error text that appears are sufficient suggestions.
3.3.4: Error Prevention (Legal, Financial, Data)	AA	Supports (N/A)	No submission requires legal or financial commitments.
4.1.1: Parsing	A	Supports	No duplicate IDs or other parsing errors occur.
4.1.2: Name, Role, Value	A	Supports	Native HTML is always used, labels and roles are accurate.
4.1.3: Status Messages (2.1)	AA	Supports (N/A)	No status messages are on the site.

## Version History

- 1/26/2023
  - Notes: Updated evaluation and various noted exceptions based on remediation efforts, particularly for 2.4.4.
- 6/30/2021
  - Authors: Jay Nemchik, Nicholas Seow, Benedek Nyikos
  - Notes: Added 12 WCAG 2.1 A/AA criteria evaluations. Added sections for Chapter 3: Functional Performance Criteria, Chapter 6: Support Documentation and Services, 602.3 Electronic Support Documentation. Updated evaluation and various noted exceptions based on remediation efforts. Revised 2.1.2 to “Supports” as in the noted instance, focus may still be moved away from the element. Revised 3.1.2 to “Supports” to reflect the default state of compliance, and users’ responsibility for specifying language of user-editable sections as appropriate.
- 8/29/2019
  - Authors: Jay Nemchik, Nicholas Seow, Benedek Nyikos
  - Notes: Digital Commons ceased release numbering; this document assessed the current production release at the time of publication according to 38 WCAG 2.0 A/AA criteria. Clarified scope of pages and functionality covered by evaluation. Updated evaluation and various noted exceptions based on remediation efforts.
- 2/14/2014
  - Authors: William Wong, Allen Sprague
  - Notes: Assessed Digital Commons version 7.10
- 6/24/2011, 5/28/2010, 1/15/2010, 4/2/2008
  - Author: Samira Vijghen
  - Notes: Assessed Digital Commons versions 6.11, 6.8, 6.7, 5.9