

# High-Level Accessibility Evaluation (WCAG 2.1)

SAGE e-journal Platform

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**Prepared for:**

BTAA-Library Accessibility Alliance

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## SUMMARY

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This report reflects the findings of a high-level assessment of the SAGE e-journal Platform for its conformance with the W3C Web Content Accessibility Guidelines version 2.1 (WCAG 2.1).

There are some WCAG 2.1 compliance issues with SAGE e-journal Platform particularly around screen reader compatibility and keyboard navigation. These can be serious issues that may significantly affect the ability of users with physical and visual impairments to navigate the site successfully. Below are the most critical issues to address to improve system compliance.

There are very few WCAG 2.1 compliance issues with the SAGE platform except for the bug noted below. This bug can negatively impact the user's experience and significantly impact the ability of users with physical and visual impairments to navigate the site successfully. The other top findings noted are minor overall.

## Top Findings

1. **Keyboard Navigation:** There is a major bug that breaks the experience and makes it inaccessible for a keyboard user. When a user tries to tab past the last tile of the pagination on the results page, the focus is lost and will not move forward or back, making the entire page inaccessible without reloading it. This should be a priority to fix, because it stops the user from being able to progress or go back without completely reloading or switching the page.
2. **Compatibility:** There are a few issues surrounding compatibility, in particular with ARIA and unique ID's. These can cause issues with screen reader support, keyboard navigation, and the overall navigability of the site if not addressed. When authoring for ARIA be sure to reference the [WAI-ARIA Best Practices](#) from W3.
3. **Color Contrast:** There are some minor issues with color contrast on the search results page that should be relatively easy to fix.

## Best Practices

Simple corrections can make a sizable difference.

- ◆ Headings should not be empty
- ◆ ARIA role should be appropriate for the element
- ◆ ARIA dialog and alertdialog nodes should have an accessible name

## ACCESSIBILITY FINDINGS

This report was conducted against the SAGE e-journal Platform and covers a selection of pages and features that were to be tested as a representative sample of the database's conformance to the WCAG 2.1 AA standards.

The resource was reviewed using a combination of manual and automatic review tools and assistive technologies, including the WAVE Accessibility Assessment tool, Axe Accessibility Assessment tool, WCAG Color Contrast Checker, and NVDA screen reader. All problems identified by automatic tools were double checked manually. This evaluation was performed using Firefox on Windows 10.

Below are the errors revealed during the accessibility evaluation of the SAGE platform. Each result shows a summary of accessibility issues and the reason it was flagged. Screenshots are included.

### 1. Initial Interface

**Test Case:** Test initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible. <https://journals-sagepub-com.utk.idm.oclc.org/>

The screenshot shows the Sage Journals landing page. At the top, there is a navigation bar with the Sage Journals logo and links for 'LIBRARIES', 'Access/Profile', and 'Cart'. Below this is a search bar with the text 'Your gateway to world-class research journals'. The search bar contains the placeholder text 'Enter search terms...' and a search icon. Below the search bar is a section titled 'Browse journals by discipline' with five buttons: 'Health Sciences', 'Life & Biomedical Sciences', 'Materials Sciences & Engineering', 'Social Sciences & Humanities', and 'All Sage Journals'. Below these buttons is a '- OR -' separator and a button for 'Explore Discipline Hubs'. The next section is 'Sage Open Access', which includes the text 'Sage empowers researchers, librarians and readers through:' followed by three bullet points: 'Gold and Green Open Access publishing options', 'Open access agreements', and 'Author support and information'. A 'LEARN MORE' button is located below the bullet points. To the right of the text is an orange icon of an open padlock with a checkmark inside. At the bottom of the screenshot, there is a small text label 'You might be interested in'.

❖ No Issues Found

## 2. Search Results

**Test Case:** From initial interface, enter a simple search in the searchbox for: Americans with Disabilities Act and select “Search”. Test search results page, including: “sort by” dropdowns, icons next to sort by options, etc. Test “refine your search” options on left-hand side of search results page. Limit to 2018-2023 (under date) and ADA (under Organization).

The screenshot shows the Sage Journals search results page for the query 'climate change'. The page features a search bar at the top with the text 'climate change' and a 'Search' button. Below the search bar, there are options for 'Browse by discipline' and 'Information for'. The main content area is titled 'Search results' and displays a list of articles. The left sidebar contains several facets: 'Article type' (Research article: 128111, Other: 14272, Review article: 7943, Book review: 6198, Editorial: 2758), 'Publication date' (range from 1853 to 2023), 'Subjects' (Social Sciences & Humanities: 37692, Environmental Studies: 15344, Health Sciences: 11927, Education: 6651, Environmental Science: 5890), and 'Access' (Only Content I Have Full Access To, Open Access). The main content area shows three search results, each with a title, author information, and a 'Preview abstract' button. The first result is 'Climate Change: Challenging Business, Transforming Politics' by Chikwumerie Okenye, Bettina Wittneben, and Frances Bowen, published Nov 30, 2011. The second result is 'Could climate change precipitate peace?' by Erik Gartzke, published Jan 31, 2012. The third result is 'Climate Change and Simulation/Gaming' by Klaus Eberack and Diana Reichen, published Jun 5, 2013. Each result also includes a 'PDF / ePub' button and a 'Preview abstract' button.

**SC 1.4.3:** Elements must have sufficient color contrast.

**Location(s):**

- `<span class="facet__counter">128111</span>`
- `<span class="facet__counter">14272</span>`
- `<span class="facet__counter">7943</span>`
- `<span class="facet__counter">6198</span>`
- `<span class="facet__counter">2758</span>`
- `<span class="facet__counter">37692</span>`
- `<span class="facet__counter">15344</span>`
- `<span class="facet__counter">11927</span>`
- `<span class="facet__counter">6651</span>`
- `<span class="facet__counter">5890</span>`

**Reason flagged:**

- Element has insufficient color contrast of 3.54 (foreground color: #888888, background color: #ffffff, font size: 9.0pt (12px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 2.4.2:** Focus order is interrupted after the pagination element.**Location(s):**

- This occurs when trying to tab to the next element after the last tile of the pager.

**Reason flagged:**

- The user can't progress forward or move backward after tabbing past the last tile of the pager, so neither the footer content or the previous content are available.

**SC 4.1.2:** Elements must use only allowed ARIA attributes.**Location(s):**

- `<a rel="nofollow" title="back" aria-label="back" class="back hvr-backward pagination__link" disabled="true"><i class="icon-arrow_1"></i></a>`

**Reason flagged:**

- "aria-label" attribute cannot be used on an `<a>` with no valid role attribute.

## 3. Individual Results

**Test Case:** Select an individual search result by clicking on one record from the search results page. Please test: Result landing page/reader view, Buttons/options at top of reader & contents panel on left, and PDF download.

The screenshot shows the Sage Journals website interface. At the top, there is a search bar and navigation links for 'LIBRARIES', 'Account Profile', and 'Cart'. Below the search bar, there are tabs for 'Business & Society' and 'iabs'. The main content area displays the article title 'Climate Change: Challenging Business, Transforming Politics' by Chakwernerle Okereke, Bettina Wittnebes, and Frances Bowen. The article is available in full text and has a PDF download option. The abstract discusses the challenges of climate change on contemporary management practices and ways of organizing. The article is part of a collection 'Climate Change: Challenging Business, Transforming Politics, March 2012'. There are also related content and similar articles sections on the right side of the page.

**SC 1.1.1:** `<svg>` elements with an "img" role must have alternative text.**Instances:** 6**Location(s):**

- `<svg viewBox="0 0 32 32" xmlns="http://www.w3.org/2000/svg" role="img">`

**Reason flagged:**

- Element has no child that is a title
- aria-label attribute does not exist or is empty
- aria-labelledby attribute does not exist, references elements that do not exist or references elements that are empty
- Element has no title attribute

**SC 4.1.1: IDs in ARIA attributes must be unique.****Location(s):**

- `<input id="login" class="form-control login textInput" aria-describedby="login-empty-error" aria-invalid="false" aria-required="true" type="text" name="login" value="" size="15" autocomplete="email" placeholder="Enter email address">`
- `<input id="password" class="form-control" aria-invalid="false" aria-required="true" type="password" name="password" value="" autocomplete="off" placeholder="Enter password" aria-describedby="new-password-rules" showarearequired="true">`
- `<button type="button" id="main1-2" data-id="global-header-info-menu" data-toggle="dropdown" aria-controls="main1-modal-2" aria-haspopup="true" aria-expanded="false" class="dropdown-toggle"><span>Information for</span><i aria-hidden="true" class="icon-arrow_down pull-right"></i></button>`

**Reason flagged:**

- Document has multiple elements referenced with ARIA with the same id attribute: login
- Document has multiple elements referenced with ARIA with the same id attribute: password
- Document has multiple elements referenced with ARIA with the same id attribute: main1-2

**SC 4.1.1: id attribute value must be unique.****Location(s):**

- `<form action="/action/doLogin" id="frmLogin" name="sageDoLogin" method="post">`
- `<a tabindex="0" id="spw-author-1" class="entryAuthor" href="/authored-by/Haigh/Nardia">Nardia Haigh</a>`
- `<div id="crossmark-widget" style="display: none;">`

**Reason flagged:**

- Document has multiple static elements with the same id attribute: frmLogin
- Document has multiple static elements with the same id attribute: spw-author-1
- Document has multiple static elements with the same id attribute: crossmark-widget

**SC 4.1.2: ARIA attributes must conform to valid names.****Location(s):**

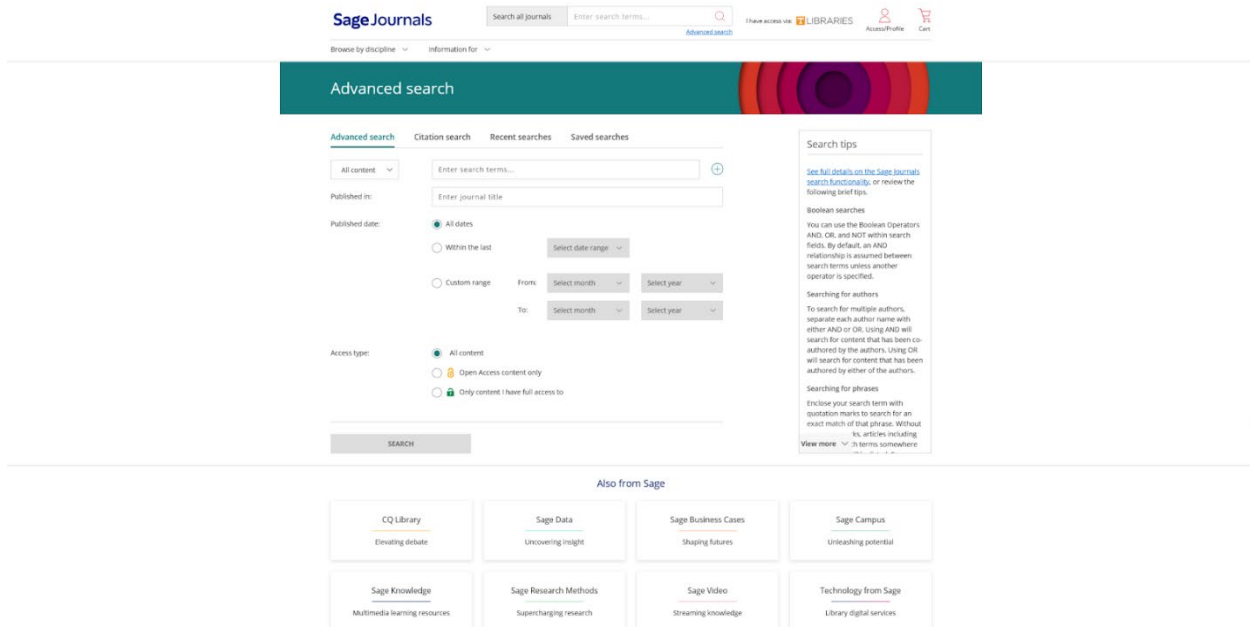
- `<div id="collapse-related-content" aria-labelledby="heading-related-content" class="collapse bs-accordion__content show">`

**Reason flagged:**

- Invalid ARIA attribute name: aria-labeledby

## 4. Advanced Search

**Test Case:** Test Advanced Search page and dropdown.



**SC 4.1.2:** ARIA attributes must conform to valid names.

**Location(s):**

- `<i aria-hoidden="true"></i>`
- `<i aria-hoidden="true" class="icon-open_access"></i>`
- `<i aria-hoidden="true" class="icon-lock_open"></i>`

**Reason flagged:**

- Invalid ARIA attribute name: aria-hoidden

Disclaimer: This high-level evaluation was conducted for the Library Accessibility 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. UT 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.