

# High-Level Accessibility Evaluation (WCAG 2.1)

Oxford Academic

November 4, 2023

**Prepared for:**

BTAA-Library Accessibility Alliance

**Prepared by:**

Emily Mason, UX Researcher  
User-Experience Lab  
CCI Research & Innovation Center (RIC)  
University of Tennessee  
uxlab@utk.edu

**Primary Point of Contact:**

Amy Forrester, RIC Assistant Director  
aforres4@utk.edu

## TABLE OF CONTENTS

---

<b>SUMMARY</b>	3
Top Findings	3
<b>ACCESSIBILITY FINDINGS</b>	4
1. Initial Interface	5
2. Search Results	6
3. Individual Results	9
4. Advanced Search	12

## SUMMARY

---

This report reflects the findings of a high-level assessment of the Oxford Academic platform for its conformance with the W3C Web Content Accessibility Guidelines version 2.1 (WCAG 2.1).

There are very few WCAG 2.1 compliance issues with Oxford Academic, and they are very minor overall with the most pressing issue being around color contrast with links. Below are the most critical issues to address to improve system compliance.

### Top Findings

1. **Link Contrast:** The foremost problem with accessibility is the issues with link contrast, particularly on the individual results page. The links do not meet the 3:1 contrast ratio with surrounding text nor do they have any text decoration to call attention to the link. This is easily addressed by either increasing the contrast with surrounding text or adding an underline to the link. Ideally, both solutions should be put into place.
2. **Compatibility:** There is an issue with compatibility, particularly in the use of unique ids. To correct, ensure that ids across each page are unique. Additionally, elements are not contained by the proper parent.
3. **ARIA Implementation:** This is a serious issue that can be easily fixed by ensuring that all ARIA elements are correctly used. For reference, please consult the [WAI-ARIA Authoring Best Practices](#).

## ACCESSIBILITY FINDINGS

---

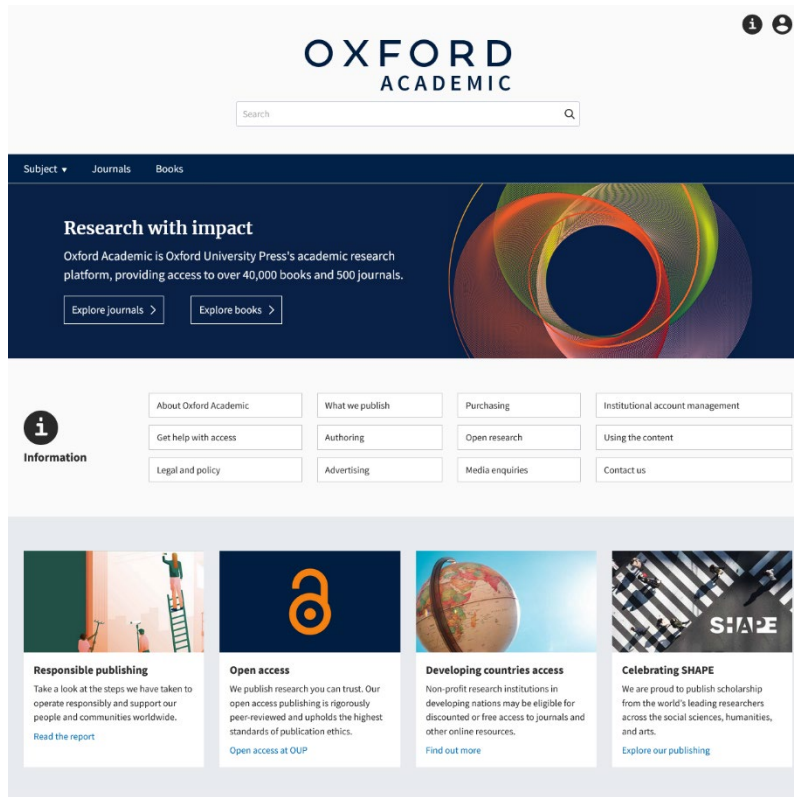
This report was conducted against the Oxford Academic Platform and covers a selection of pages and features that were to be tested as a representative sample of the database's conformance to the WCAG 2.1 AA standards.

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. PDF content was tested against Section 508 requirements using Adobe Acrobat's accessibility tools and manual analysis. All problems identified by automatic tools were verified manually. This evaluation was performed using Firefox on Windows 11.

Below are the errors revealed during the accessibility evaluation of the Oxford Academic 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://academic.oup.com/>



**SC 4.1.1:** ID attribute value must be unique.

**Locations(s):**

- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(3)`

**Reason flagged:**

- Document has multiple static elements with the same id attribute: `site-menu-item-1554360`
- Document has multiple static elements with the same id attribute: `site-menu-item-1554361`
- Document has multiple static elements with the same id attribute: `site-menu-item-1554362`

## 2. Search Results

**Test Case:** From the initial landing page, conduct a search for: refugees. Test search results page, including filters/refine search: limit Availability to "Purchased" and set Format to "Journal Article". Test the sort by options/dropdown menu and select "Date - Newest First".

The screenshot shows the Oxford Academic search results page for the query 'refugees'. The page is filtered to show 'Purchased' availability and 'Journal Article' format. The results are sorted by 'Date - Newest First'. The first three results are:

- Cartography of Afro-Asian relations in America: co-racialization and nanohealing** by Hsin-I Cheng. Published: 03 November 2023. Abstract: ...' imaginaries of themselves and the refugees in London as "the Other." Individuals experience racism through mediated images, institutions, narratives, and actions in "space of appearance" ( Silverstone, 2007 ). During these encounters, people restructure and negotiate their self-other identity in relation...
- Room for Improvement: A Critical Assessment of 20 Years of the Code of Crimes Against International Law in Germany from an NGO Perspective** by Wolfgang Kaleck and Andreas Schüller. Published: 02 November 2023. Abstract: ... perpetrators with the aim of collecting general evidence that could later be used in person-specific investigations — beginning with Syria in 2011 and Sri Lanka in 2012. In particular, the structural investigation on Syria benefitted immensely from the arrival of a large number of refugees from Syria...
- The Administrative Burden Framework: A New Horizon for Research and Practice in Social Work?** by Noam Tarshish. Published: 02 November 2023.

The left sidebar contains filters for Modify your search, Availability, Format, Subject, and Type.

**SC 1.3.1:** Certain ARIA roles must contain particular children.

**Location(s):**

- `<ul class="sf-facet-list" aria-multiselectable="true" role="tree" tabindex="0">`

**Reason flagged:**

- Element has children which are not allowed: ul[tabindex]
- Element uses aria-busy="true" while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<li class="sf-facet sf-facet-child facet-access_unlocked" role="treeitem" aria-selected="false" tabindex="-1">`
- `<li class="sf-facet sf-facet-child facet-access_openaccess" role="treeitem" aria-selected="false" tabindex="-1">`
- `<li class="sf-facet sf-facet-child facet-access_free" role="treeitem" aria-selected="false" tabindex="-1">`

**Reason flagged:**

- Required ARIA parents role not present: group, tree

**SC 1.3.1:** `<ul>` and `<ol>` must only directly contain `<li>`, `<script>`, or `<template>` elements.

**Location(s):**

- `<ul class="sf-facet-list">`

**Reason flagged:**

- List element has direct children that are not allowed: [role=treeitem]

**SC 1.4.1:** Links must be distinguishable without relying on color.

**Location(s):**

- `<a href="https://doi.org/10.1093/cid/ciad555" data-google-  
interstitial="false">https://doi.org/10.1093/cid/ciad555</a>`
- `<a href="https://doi.org/10.1093/ijpor/edad035" data-google-  
interstitial="false">https://doi.org/10.1093/ijpor/edad035</a>`
- `<a href="https://doi.org/10.1093/mj/kjad013" data-google-  
interstitial="false">https://doi.org/10.1093/mj/kjad013</a>`
- `<a href="https://doi.org/10.1093/cjip/poad014" data-google-  
interstitial="false">https://doi.org/10.1093/cjip/poad014</a>`
- `<a href="https://doi.org/10.1093/cdj/bsad016" data-google-  
interstitial="false">https://doi.org/10.1093/cdj/bsad016</a>`
- `<a href="https://doi.org/10.1093/heapro/daad141" data-google-  
interstitial="false">https://doi.org/10.1093/heapro/daad141</a>`
- `<a href="https://doi.org/10.1093/cb/cbad022" data-google-  
interstitial="false">https://doi.org/10.1093/cb/cbad022</a>`

**Reason flagged:**

- The link has insufficient color contrast of 2.7:1 with the surrounding text. (Minimum contrast is 3:1, link text: #006fb7, surrounding text: #2a2a2a)

- The link has no styling (such as underline) to distinguish it from the surrounding text

**SC 1.4.3:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<button id="queryBuilderSubmit" class="querybuilder-submit js-custom-queryBuilder at-querybuilder-submit btn-green" data-current-url="q=refugees&sort=Date+%e2%80%93+Newest+First&f_ContentType=Journal+Article&fl_SiteID=191&access_unlocked=true&page=1" type="submit">Update</button>`

**Reason flagged:**

- Element has insufficient color contrast of 4.29 (foreground color: #ffffff, background color: #2880ba, font size: 11.3pt (15px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 4.1.1:** ID attribute value must be unique.

**Location(s):**

- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(3)`

**Reason flagged:**

- Document has multiple static elements with the same id attribute: site-menu-item-1554360
- Document has multiple static elements with the same id attribute: site-menu-item-1554361
- Document has multiple static elements with the same id attribute: site-menu-item-1554362



### 3. Individual Results

**Test Case:** Select the first article in the search results to test the individual search result landing page. Test the Article Contents in the left pane and test the article's top menu bar functions (Split View, Cite, etc.).

The screenshot shows the Oxford Academic interface for a journal article. At the top, there's a navigation bar with 'OXFORD ACADEMIC', 'Journals', and 'Books'. The main header is 'Communication, Culture & Critique' with the International Communication Association logo. Below this is a secondary navigation bar with options like 'Issues', 'Advance Articles', 'Submit', 'Purchase', 'Alerts', and 'About'. A search bar is also present.

The article details include:
 

- Article Contents:** A sidebar menu with links for Abstract, Method, Nanohealing as resistance in co-racialization, Data availability, Funding, Acknowledgments, Notes, and References.
- Article Title:** 'Cartography of Afro-Asian relations in America: co-racialization and nanohealing' by Hsin-I Cheng.
- Journal:** 'Communication, Culture and Critique', issue tcad035, with a DOI link.
- Published:** 03 November 2023.
- Abstract:** A paragraph discussing public discourse, racial project, hydraulic and nanoracism, and nanohealing.
- Issue Section:** Original Article.
- Utility Buttons:** PDF, Split View, Cite, Permissions, and Share.
- Metrics:** Citations, Views, and Altmetric sections with circular progress indicators.
- Email Alerts:** A section for article activity, advance article alerts, and new issue alerts.
- Citing articles via:** A section listing related articles like 'Cartography of Afro-Asian relations in America: co-racialization and nanohealing' and 'Not just platform, nor cooperatives: worker-owned technologies from below'.

**SC 4.1.1:** IDs of active elements must be unique.

**Location(s):**

- <li class="toolbar-item item-pdf js-item-pdf">
- <li class="toolbar-item item-link item-split-view">
- <li class="toolbar-item item-cite js-item-cite">
- <li class="toolbar-item item-tools">
- <li class="toolbar-item item-with-dropdown item-share">
- <li class="toolbar-item item-pdf js-item-pdf">
- <li class="toolbar-item item-link item-split-view">
- <li class="toolbar-item item-cite js-item-cite">

- `<li class="toolbar-item item-tools">`
- `<li class="toolbar-item item-with-dropdown item-share">`

**Reason flagged:**

- List item does not have a `<ul>`, `<ol>` parent element without a role, or a role="list"

**SC 1.4.1:** Links must be distinguishable without relying on color.

**Instance(s):** 143

**Reason flagged:**

- The link has insufficient color contrast of 2.7:1 with the surrounding text. (Minimum contrast is 3:1, link text: #006fb7, surrounding text: #2a2a2a)
- The link has no styling (such as underline) to distinguish it from the surrounding text

**SC 4.1.1:** IDs of active elements must be unique.

**Location(s):**

- `<a href="https://s100.copyright.com/AppDispatchServlet?publisherName=OUP&publication=1753-9137&title=Cartography%20of%20Afro-Asian%20relations%20in%20America%3A%20co-racialization%20and%20nanohealing&publicationDate=2023-11-03&volumeNum=&issueNum=&author=Cheng%2C%20Hsin-I&startPage=1&endPage=9&contentId=10.1093%2Fccc%2Fftcad035&oa=&copyright=%C2%A9%20The%20Author%28s%29%202023.%20Published%20by%20Oxford%20University%20Press%20on%20behalf%20of%20International%20Communication%20Association.%20All%20rights%20reserved.%20For%20permissions%2C%20please%20email%3A%20journals.permissions%40oup.com&orderBeanReset=True" id="PermissionsLink" class="" target="" data-google-interstitial="false">`

**Reason flagged:**

- Document has active elements with the same id attribute: PermissionsLink

**SC 4.1.1:** ID attribute value must be unique.

**Instance(s):** 37

**Reason flagged:**

- Document has multiple static elements with the same id attribute: site-menu-item-1457030

**SC 4.1.1:** Links must have discernible text.

**Location(s):**

- `<a style="cursor: pointer; display: inline-block; background-image: url(&quot;https://badges.altmetric.com/?size=64&score=?&types=???????)&`

amp;style=donut&quot;); background-repeat: no-repeat; width: 64px; height: 64px;" href="https://www.altmetric.com/details.php?domain=academic.oup.com&doi=10.1093%2Fccc%2Fcad035" target="" data-google-interstitial="false">

**Reason flagged:**

- Element does not have text that is visible to screen readers
- 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
- Element is in tab order and does not have accessible text

**Test Case:** Also test the PDF by selecting the PDF button located at the top.

PDF Area Assessed	Failed Issues
Document	<i>None</i>
Page Content	Tagged Content
Forms	<i>None</i>
Alternate Text	<i>None</i>
Tables	<i>None</i> Summary (skipped)
Lists	<i>None</i>
Headings	<i>None</i>

## 4. Advanced Search

**Test Case:** Test advanced search page.

**OXFORD ACADEMIC**

Subject Journals Books Oxford Academic Search Advanced Search

**Advanced search**

1-20 of 9602132  
[Save search](#)

Sort by: Relevance 1 2 3 4 5 Next

**Pathogens and Disease**  
 An official journal of the Federation of European Microbiological Societies. Publishes hypothesis- and discovery-driven studies on pathogens, host-pathogen interactions, host response to infection and their molecular and cellular correlates.

**American Literary History**  
 Publishes original research on US literature. The journal provides a forum for the various, often competing voices of contemporary literary inquiry, and welcomes articles on historical and theoretical problems as well as writers and works.

**Biostatistics**  
 Publishes papers with the objective of advancing statistical science and its application to problems of human health and disease, with the ultimate goal of advancing the public's health.

**Briefings in Functional Genomics**  
 An international forum for researchers and educators in the life sciences, which reviews the techniques, protocols and approaches in genome research.

**Carcinogenesis**  
 Publishes original contributions on all aspects of cancer research. Subjects covered include biology, genetics and epigenetics, cancer biomarkers and molecular epidemiology, inflammation, microenvironment and prevention, and carcinogenesis.

**Contemporary Women's Writing**  
 Publishes contributions that critically assess writing by contemporary women authors. Aims to reflect on developments throughout the period, to

**Availability**

All content I have access to

Purchased

Open Access

Free

**Book editions**

Latest edition only

**Format**

Collection (43)

Journal (543)

Journal Article (3611995)

Book (54157)

Book Part (69775)

Chapter (685303)

[Show more](#)

**Subject**

- ▶ Medicine and Health (1456093)
- ▶ Science and Mathematics (1400569)
- ▶ Arts and Humanities (1352727)
- ▶ Social Sciences (593303)
- ▶ Law (135894)

**Type**

Research Article (1934131)

Book Review (463988)

**SC 1.3.1:** Certain ARIA roles must contain particular children.

**Location(s):**

- `<ul class="sf-facet-list" aria-multiselectable="true" role="tree" tabindex="0">`

**Reason flagged:**

- Element has children which are not allowed: `ul[tabindex]`
- Element uses `aria-busy="true"` while showing a loader

**SC 1.3.1:** Certain ARIA roles must be contained by particular parents.

**Location(s):**

- `<li class="sf-facet sf-facet-child facet-access_unlocked" role="treeitem" aria-selected="false" tabindex="-1">`
- `<li class="sf-facet sf-facet-child facet-access_openaccess" role="treeitem" aria-selected="false" tabindex="-1">`
- `<li class="sf-facet sf-facet-child facet-access_free" role="treeitem" aria-selected="false" tabindex="-1">`

**Reason flagged:**

- Required ARIA parents role not present: group, tree

**SC 1.3.1:** `<ul>` and `<ol>` must only directly contain `<li>`, `<script>`, or `<template>` elements.

**Location(s):**

- `<ul class="sf-facet-list">`

**Reason flagged:**

- List element has direct children that are not allowed: [role=treeitem]

**SC 4.1.1:** ID attribute value must be unique.

**Location(s):**

- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(1)`
- `.mobile-nav-dropdown > .at-site-menu.site-menu-lvl-0.site-menu > .at-site-menu-item.site-menu-lvl-0.site-menu-item:nth-child(3)`

**Reason flagged:**

- Document has multiple static elements with the same id attribute: site-menu-item-1554360
- Document has multiple static elements with the same id attribute: site-menu-item-1554361
- Document has multiple static elements with the same id attribute: site-menu-item-1554362

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.