

# High-Level Accessibility Evaluation (WCAG 2.1)

Web of Science (Clarivate)

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**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

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## SUMMARY

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This report reflects the findings of a high-level assessment of the Web of Science (Clarivate) 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 Web of Science, and they are very minor overall with the most pressing issue being around focusable elements and the use of color. The following issues are the most important to address to improve system compliance.

### Top Findings

1. **Informational Buttons:** The prevalent problem with the accessibility of Web of Science resources involves the informational buttons in the filter panel of the search results page and the citation report. These buttons are not keyboard accessible but contain important information about the filters and dashboard information that does not seem to read out for screen readers. This information needs to be made accessible to all users either by making the info button keyboard accessible within the logical flow of content, or by surfacing the information so it can be picked up by the screen reader.
2. **Use of Color:** Another major issue involves the use of color. Currently many of the buttons and components across the platform use color as the primary means of conveying the change of state in the component, including the focus state. The color change is not significant and does not meet a minimum 3:1 difference between the states and does not have another indicator for identifying the element being focused. This can make it very difficult for users with visual impairments to identify which component is currently focused. The simplest solution for this is to add a focus ring to all elements that is a minimum of 2 CSS pixels and a minimum of 3:1 contrast with the background and the edge of the focused element. This can be achieved easily by adding padding between the focus ring and the focused element.
3. **PDF Content:** The PDF that was tested as a part of this analysis did not meet Section 508 compliance rules. It is understood that the PDF was retrieved from a different resource and Web of Science likely does not have the ability or responsibility to ensure that the PDF meets this requirement. However, any PDF content that is hosted by the platform should pass the [Section 508 PDF Checklist](#).

## ACCESSIBILITY FINDINGS

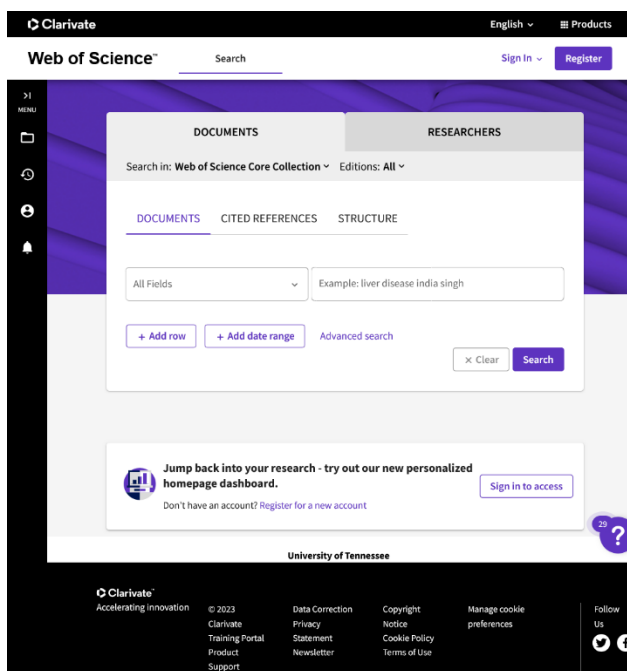
This report was conducted against the Web of Science Platform and covers a selection of pages and features that were to be tested as a representative sample of the database's conformance to the WCAG 2.1 AA standards.

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 Web of Science 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://www-webofscience-com.utk.idm.oclc.org/wos/woscc/basic-search>



**SC 1.4.1:** Color must not be the only means for conveying information.

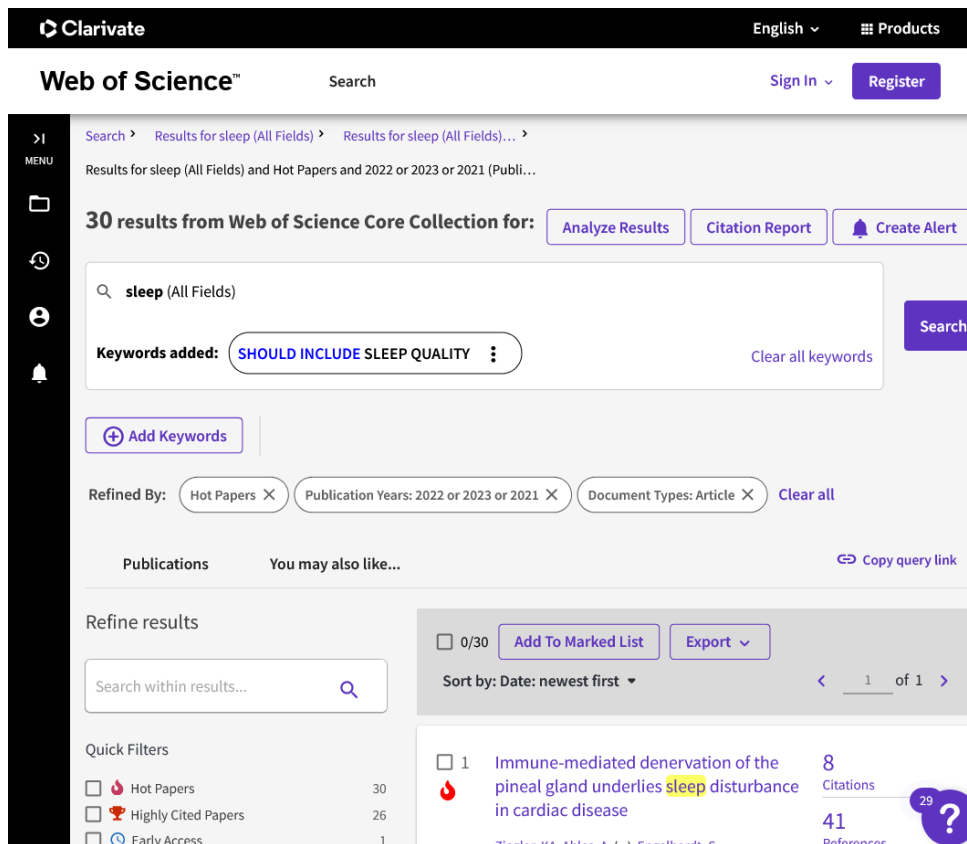
- Currently, focus is primarily conveyed by color changes of the focused element. State changes of interactive elements should not be conveyed using only color. Ensure there is a focus indicator ring of at least 2 CSS pixels around the interactive element which should have at least 3:1 contrast with the background and the edge of the interactive element.

**Reason flagged:**

- Several interactive elements on this page use color change as the primary way of conveying a change of state.

## 2. Search Results

**Test Case:** From the initial landing page, conduct a search for: sleep. Test search results page, including filters/refine search: Add Keywords Quick add keywords such as: sleep quality; Refine results by filtering for Hot Papers (e.g.); Filter for publication years e.g. 2023, 2022, and 2021; Filter for document type Article; Sort by date: newest first.



**SC 1.4.1:** Color must not be the only means for conveying information.

- Currently, focus is primarily conveyed by color changes of the focused element. State changes of interactive elements should not be conveyed using only color. Ensure there is a focus indicator ring of at least 2 CSS pixels around the interactive element which should have at least 3:1 contrast with the background and the edge of the interactive element.

**Reason flagged:**

- Several interactive elements on this page use color change as the primary way of conveying a change of state.

**SC 2.1.1:** Interactive elements should be keyboard focusable.

**Location(s):**

- `<button type="button" id="_pendo-badge_pCb5mtY5SkAwDyCDNtY0N7YvJKw" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1688px; left: 377px;" class="_pendo-badge _pendo-badge_">`
- `<button type="button" id="_pendo-badge_XdfMmyWG_FMaKQvm1ibjVBUwMew" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1749px; left: 377px;" class="_pendo-badge _pendo-badge_">`
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**Reason flagged:**

- The informational popovers in the filters panel are not accessible through keyboard navigation and are not available to keyboard users, leaving important information behind a non-focusable element.

**SC 4.1.2:** Buttons must have discernible text.

**Location(s):**

- `<button type="button" id="_pendo-badge_pCb5mtY5SkAwDyCDNtY0N7YvJKw" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1688px; left: 377px;" class="_pendo-badge _pendo-badge_">`
- `<button type="button" id="_pendo-badge_XdfMmyWG_FMaKQvm1ibjVBUwMew" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1749px; left: 377px;" class="_pendo-badge _pendo-badge_">`
- `<button type="button" id="_pendo-badge_XdfMmyWG_FMaKQvm1ibjVBUwMew" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1749px; left: 377px;" class="_pendo-badge _pendo-badge_">`
- `<button type="button" id="_pendo-badge_XdfMmyWG_FMaKQvm1ibjVBUwMew" data-layout="badgeBlank" style="z-index: 19000; margin: 18px 0px 0px -107px; height: 14px; width: 14px; font-size: 0px; background: rgba(255, 255, 255, 0); padding: 0px; line-height: 1; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; border: 0px; float: none; vertical-align: baseline; cursor: pointer; position: absolute; top: 1749px; left: 377px;" class="_pendo-badge _pendo-badge_">`

**Reason flagged:**

- Element does not have inner 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's default semantics were not overridden with role="none" or role="presentation"

### 3. Individual Results

**Test Case:** Select the first article in the search results to test the individual search result landing page. Test menu functions, including Citation Network and Cited References. Access full text and download PDF and test PDF.





xLjA1NwoJCQljMC45NzYsMC43MDYsMS40NjQsMS43NSwxLjQ2NCwzLjEzNWMwLDAuO  
 DQ5LTAuMjExLDEuNTYzLTAuNjM1LDIuMTQ1Yy0wLjI0OCwwLjM1Mi0wLjcyNCwwLjgwM  
 y0xLjQyNiwxLjM1MwwtMC42OTQsMC41NAoJCQljLTAuMzc5LDAuMjk0LTAuNjl4LDAuNj  
 M3LTAuNzUyLDEuMDI3Yy0wLjA3OCwwLjI0OC0wLjEyLDAuNjM1LTAuMTI3LDEuMTU2aC  
 0yLjY1NGMwLjAzOS0xLjEwNCwwLjE0NC0xLjg2NSwwLjMxMi0yLjI4OAoJCQljMC4xNjktM  
 C40MiwwLjYwNS0wLjkwNSwxLjMwOC0xLjQ1NGwwLjcxMy0wLjU1OGMwLjIzNC0wLjE3N  
 ywwLjQyMy0wLjM3LDAuNTY2LTAuNTc4YzAuMjYtMC4zNTksMC4zOTEtMC43NTQsMC4z  
 OTEtMS4xODUKCQkJYzAtMC40OTctMC4xNDUtMC45NDktMC40MzYtMS4zNTdjLTAuMjg  
 5LTAuNDA3LTAuODE4LTAuNjEyLDEuNTg3LTAuNjEyYy0wLjc1NiwwLDEuMjkyLDAuMjUyL  
 TEuNjA4LDAuNzU0CgkJCWMtMC4zMTUsMC41MDMtMC40NzMsMS4wMjYtMC40NzMs  
 MS41NjdIOC4wMzRDOC4xMTMsOC40MDEsOC43NjEsNy4wODIsOS45ODMsNi4zMDUgT  
 TEuLjYwOSwxNy4zMTVoMi45MjI2Mi44MzFoLTlUOTI5VjE3LjMxNXoiLz4KCTwwZz4KPC9n  
 Pgo8L3N2Zz4K" data-\_pendo-image-1="" class="\_pendo-image \_pendo-badge-image">

**Reason flagged:**

- Element does not have an alt attribute
- 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's default semantics were not overridden with role="none" or role="presentation"

**SC 1.4.1:** Color must not be the only means for conveying information.

- Currently, focus is primarily conveyed by color changes of the focused element. State changes of interactive elements should not be conveyed using only color. Ensure there is a focus indicator ring of at least 2 CSS pixels around the interactive element which should have at least 3:1 contrast with the background and the edge of the interactive element.

**Reason flagged:**

- Several interactive elements on this page use color change as the primary way of conveying a change of state.

**PDF Document Analysis:**

PDF Area Assessed	Failed Issues
Document	Tagged PDF Primary Language Title
Page Content	Tagged Content Tagged Annotations Tab Order

<b>Forms</b>	<i>None</i>
<b>Alternate Text</b>	Figures Alt Text Nested Alt Text Associated with Content Hides Annotation Other Elements Alt Text
<b>Tables</b>	Rows TH and TD Headers Regularity Summary (skipped)
<b>Lists</b>	List Items Lbl and Lbody
<b>Headings</b>	Appropriate Nesting

## 4. Advanced Search

Test Case: Test Analyze Results and Citation Report advanced search page.

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**Reason flagged:**

- Several interactive elements on this page use color change as the primary way of conveying a change of state.

## 5. Citation Report

**Test Case:** Test Analyze Results and Citation Report advanced search page.

The screenshot displays the 'Citation Report' interface for the search term 'sleep'. At the top, there's a navigation bar with 'Clarivate', 'English', and 'Products'. Below it, the 'Web of Science' logo and search options are visible. The main content area shows the search term 'sleep (All Fields)' and buttons for 'Analyze Results' and 'Create Alert'. Underneath, there are refined filters: 'Hot Papers', 'Publication Years: 2022 or 2023 or 2021', and 'Document Types: Article'. The summary section includes four cards: 'Publications' (30 Total), 'Citing Articles' (6,525 Total, 6,525 Without self-citations), 'Times Cited' (6,592 Total, 6,592 Without self-citations), and 'H-Index' (24). Below this is a chart titled 'Times Cited and Publications Over Time' with a 'DOWNLOAD' button. The chart shows a purple bar and a blue line graph. A question mark icon is present in the bottom right corner of the chart area.

**SC 1.1.1:** Images must have alternate text.

**Location(s):**

- `<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1="" id="pendo-image-badge-05685387" src="https://pendo-static-`

```
5725664798965760.storage.googleapis.com/wDhxZPcg8O2G5PyyjUUiwxU8k9M/guide-  
media-b67d51f1-8beb-41c8-9074-c2e7be560430" style="box-shadow: rgb(136, 136,  
136) 0px 0px 0px 0px; display: block; float: none; height: 18px; vertical-align: baseline;  
width: 18px;" type="image">
```

- ```
<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1=""  
id="pendo-image-badge-3d7515c6" src="https://pendo-static-  
5725664798965760.storage.googleapis.com/fLYKYNecrgDpJFFAM1nS1ewDzis/guide-  
media-f9fd3594-ede5-46c7-8b99-d421ed89b03c" style="border: medium; box-shadow:  
rgb(136, 136, 136) 0px 0px 0px 0px; display: block; float: none; height: 18px; line-height:  
1; margin: 0px; padding: 0px; vertical-align: baseline; width: 18px;" type="image">
```
- ```
<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1=""  
id="pendo-image-badge-8becb03c" src="https://pendo-static-  
5725664798965760.storage.googleapis.com/wxXGkfpqWWXx1LCCZ3Fq4gUiWus/guide-  
media-f083b732-7ccb-4536-bec6-533c0eb7c062" style="border: medium; box-shadow:  
rgb(136, 136, 136) 0px 0px 0px 0px; display: block; float: none; height: 18px; line-height:  
1; margin: 0px; padding: 0px; vertical-align: baseline; width: 18px;" type="image">
```

**Reason flagged:**

- Element has no alt attribute
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**Location(s):**

- ```
<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1=""  
id="pendo-image-badge-05685387" src="https://pendo-static-  
5725664798965760.storage.googleapis.com/wDhxZPcg8O2G5PyyjUUiwxU8k9M/guide-  
media-b67d51f1-8beb-41c8-9074-c2e7be560430" style="box-shadow: rgb(136, 136,  
136) 0px 0px 0px 0px; display: block; float: none; height: 18px; vertical-align: baseline;  
width: 18px;" type="image">
```

- `<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1="" id="pendo-image-badge-3d7515c6" src="https://pendo-static-5725664798965760.storage.googleapis.com/fLYKYNecrgDpJFFAM1nS1ewDzis/guide-media-f9fd3594-ede5-46c7-8b99-d421ed89b03c" style="border: medium; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; display: block; float: none; height: 18px; line-height: 1; margin: 0px; padding: 0px; vertical-align: baseline; width: 18px;" type="image">`
- `<input class="_pendo-image _pendo-badge-image" data-_pendo-image-1="" id="pendo-image-badge-8becb03c" src="https://pendo-static-5725664798965760.storage.googleapis.com/wxXGkfpqWWXx1LCCZ3Fq4gUiWus/guide-media-f083b732-7ccb-4536-bec6-533c0eb7c062" style="border: medium; box-shadow: rgb(136, 136, 136) 0px 0px 0px 0px; display: block; float: none; height: 18px; line-height: 1; margin: 0px; padding: 0px; vertical-align: baseline; width: 18px;" type="image">`

**Reason flagged:**

- The informational popovers in the filters panel are not accessible through keyboard navigation and are not available to keyboard users, leaving important information behind a non-focusable element.

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.