

High-level accessibility review – LAA (Gale Power Search Platform)

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Gale Power Search Platform

Summary

Top 3 problems for the Gale Power Search Platform

This high-level assessment covers limited portions and functionality of the Gale Power Search Platform. The assessment revealed issues with assistive technology compatibility, resulting in some users missing information required to perceive and understand content, and to operate functions. It is important to keep in mind that the findings represent a high-level assessment, and do not reflect the results of a Deque Comprehensive Web Assessment.

1. **Name Role Value** – Throughout the site, there is often a visual indication of a current or selected item, but a programmatic equivalent is not provided in order to benefit users who are unable to visually perceive this.
2. **Lists** – In some instances, unordered lists and description lists are malformed due to the existence of code nested within the same lists that is not allowed to be nested.
3. **Context Changes** – When applying filters to search results, the page often reloads after each filter is applied. This occurs without any warning and without a user specifically triggering a ‘apply filter’ type of control. As a result, a user of Assistive Technology may become disoriented or may abandon any filtering due to the disruptive nature of the context change.

Accessibility findings

Project wide issues

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are still reported on a page per page basis, where applicable.

Automated findings using Axe

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Chrome, Firefox and Edge. Details here: <https://www.deque.com/products/axe/>.

No project-wide issues were found using automated methods

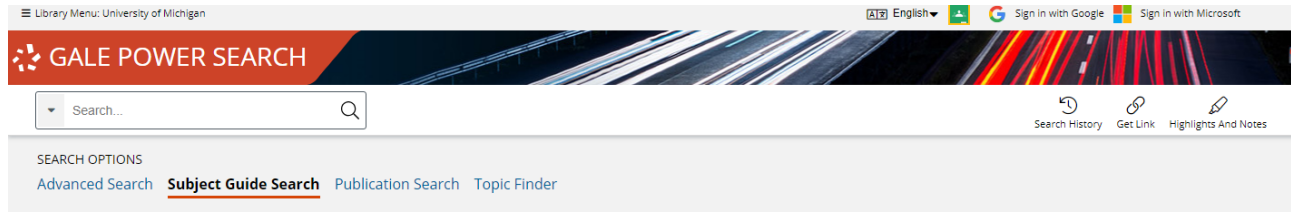
Additional manual findings using NVDA screen reader

1. **SC 1.1.1 A** – The ‘Gale’ logo in the footer area is missing vital information in its alt attribute value. Specifically, the text “A Cengage Company”.

1. Landing Page

Source: <https://go-gale-com.proxy.lib.umich.edu/ps/start.do?p=GPS&u=umuser>

Test case: Test initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible.



Subject Guide Search

SEARCH LIMITERS

- Full Text Documents
- Peer-Reviewed Journals

by publication date(s):

- All Dates
- Before
- On
- After
- Between

by publication title:

Automated findings using Axe

No issues were found using automated methods

Additional manual findings using NVDA screen reader

- SC 4.1.2 A** – The ‘Subject Guide Search’ item is visually distinguished as the ‘current’ item among a grouping of items, but this is not programmatically indicated.
- SC 4.1.3 AA** – When the publication date has been improperly filled out, and a user attempts to submit the form, the ‘Please enter a valid date’ error message is not automatically announced by Assistive Technology.

2. Search Results

Source: https://go-gale-com.proxy.lib.umich.edu/ps/subjectguide.do?method=doLinkDirectedSearch&searchType=SubjectGuideForm&listPosition=1&prodId=GPS&subjectParam=Q1&subjectId=13124&searchId=&searchMethod=subject+click&userGroupName=umuser&typedCharacters=Animal+husbandry&inPS=true&displaySubject=Animal+husbandry&subjectAction=VIEW_SUBDIVISIONS&searchQueryId=Q1

Test case: From the initial landing page, conduct a search for: “Animal husbandry,” then select the first subject term, “Animal husbandry.” Test search results page, including filters/refine search (full text documents, peer-reviewed journals, lexile measure 850L-1050L) and sort by options (relevance, newest, oldest).

The screenshot shows the Gale Power Search interface. At the top, there's a navigation bar with 'Library Menu: University of Michigan', language settings (English), and sign-in options for Google and Microsoft. Below this is a search bar with 'Search...' and a magnifying glass icon. To the right of the search bar are icons for Search Alert, Search History, Get Link, and Highlights And Notes. The main content area shows 'SHOWING RESULTS FOR' with filters for Magazines (1,007), Academic Journals (2,006), Books (239), and News (12,451). The 'Academic Journals (2,006)' filter is selected. Below the filters, there's a 'Sort by:' dropdown set to 'Relevance'. The search terms are 'Subject Guide Search: Animal husbandry'. The first result is titled 'A review of the current status of the water quality in the Nile water basin.' with authors Nathan K. Kipsang, Joshua K. Kibet, and John O. Adongo. It is from the 'Bulletin of the National Research Centre (Vol. 48, Issue 1)' and is peer-reviewed. The date is Dec. 2024, with 15,520 words and a report length of 1230L. The snippet describes background water contamination as a challenging problem. The second result is titled 'In-tube solid phase extraction with graphitic-based polyurethane sponge as a superhydrophobic sorbent and determination of drug residues in foodstuffs using high-performance liquid chromatography.' with authors Sidra Iram, Zahra Nazar, Muhammad Sajid, Thomas William Chamberlain, Muhammad Furqan Nawaz, Muhammad Mahboob Ahmed, et al. It is from 'Food Chemistry (Vol. 448)' and is peer-reviewed.

Automated findings using Axe

1. **SC 4.1.2 A** – Some search results contain a `` element with no defined role that also makes use of an ARIA attribute (`aria-label`) that is not supported on a generic element with no defined role.
2. **SC 1.3.1 A** – The `.top-tools__container` unordered list contains `<div>` elements that are not allowed to be nested within the unordered list.
3. **SC 1.3.1 A** – The `.filters_list` description list contains `<dt>` elements whose roles have been modified by ARIA to be a semantic button. As a result, the description list is malformed.

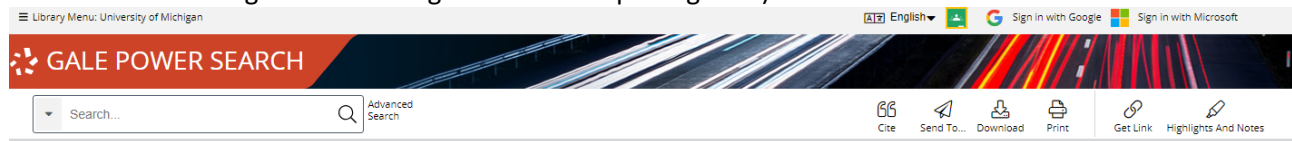
Additional manual findings using NVDA screen reader

1. **SC 4.1.2 A** – The ‘Academic Journals (2,006)’ item is visually distinguished as the ‘current’ item among a grouping of items, but this is not programmatically indicated.
2. **SC 3.2.2 A** – When applying any filter to the results, a change in context is triggered as there is no warning ahead of time and there is no ‘apply filters’ control to allow the user to determine when filters should be applied.
3. **SC 4.1.2 A** – The “1” in the pagination is visually distinguished as the ‘current’ item among a grouping of items, but this is not programmatically indicated.
4. **SC 1.3.1 A** – When the Lexile Measure filter group is expanded, the checkbox options are not programmatically associated with their group label.

3. Individual Search Result 1

Source: <https://go-gale-com.proxy.lib.umich.edu/ps/i.do?p=GPS&u=umuser&id=GALE|A788881273&v=2.1&it=r&sid=bookmark-GPS&asid=8fd4cca2>

Test case: Test individual search result landing page (“Enhanced antibacterial activity of bovine milk exosome-based drug formulation against bacterial pathogens.”)



Enhanced antibacterial activity of bovine milk exosome-based drug formulation against bacterial pathogens.

Authors: Qingjun Xu, Shuo Yang, Kai Zhang, Ying Liu, Lin Li and Shaoqi Qu
Date: July 30, 2024

From: Food Chemistry (Vol. 447)
Publisher: Elsevier B.V.

Document Type: Report: Brief article
Length: 306 words
DOI: <http://dx.doi.org.proxy.lib.umich.edu/10.1016/j.foodchem.2024.139034>

Accessibility icons: AT, A, A, A, and a speaker icon. Other icons include a globe, a cloud, an envelope, a person, and a printer.

Abstract:

Keywords

Milk exosome; Bacteria; Antibiotics; Flavonoids; Combination therapy

Highlights

* Milk exosomes was used to co-delivery of isobavachalcone and polymyxin.

EXPLORE

More Like This

[Antibacterial Effect of Bovine Lactoferrin Against Udder Pathogens.](#)
Acta Veterinaria Scandinavica, Mar. 31, 2003.

[Improved non-redundant species screening panels for benchmarking the performance of ne...](#)
JAC-Antimicrobial Resistance, Apr. 2022.

Automated findings using Axe

No issues were found using automated methods

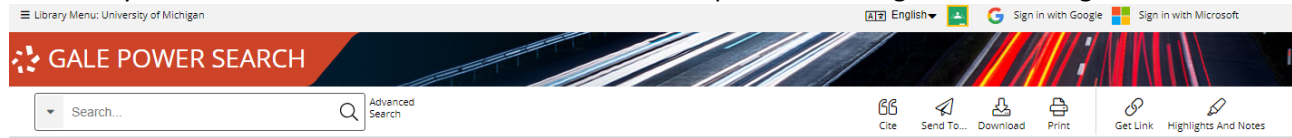
Additional manual findings using NVDA screen reader

- SC 1.3.1 A** – Several section headings exist in the main article but they are not semantically marked up as headings.
- SC 4.1.2 A** – The “MLA 9th Edition” in the ‘Source Citation’ section is visually distinguished as the ‘selected’ item among a grouping of items, but this is not programmatically indicated.

4. Individual Search Result 2

Source: <https://go-gale-com.proxy.lib.umich.edu/ps/i.do?p=GPS&u=umuser&id=GALE|A788838555&v=2.1&it=r&sid=bookmark-GPS&asid=96e14256>

Test case: test actual document (HTML full-text article with PDF download option: “A practical guide for the husbandry of cave and surface invertebrates as the first step in establishing new model organisms.”



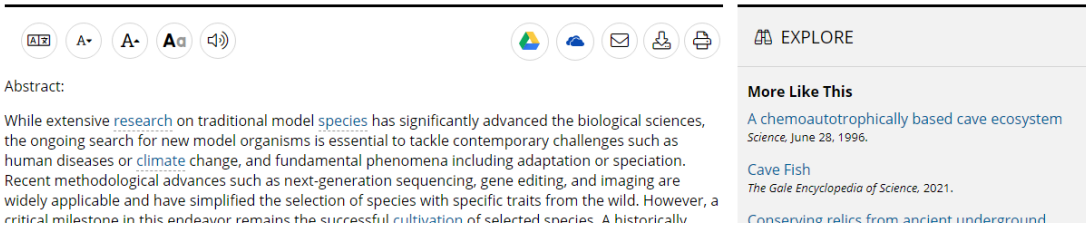
The screenshot shows the Gale Power Search interface. At the top, there is a navigation bar with the University of Michigan logo, language settings (English), and login options for Google and Microsoft. Below this is a prominent red banner with the text "GALE POWER SEARCH". Underneath the banner is a search bar with a magnifying glass icon and the text "Advanced Search". To the right of the search bar are several utility icons: Cite, Send To..., Download, Print, Get Link, and Highlights And Notes.

A practical guide for the husbandry of cave and surface invertebrates as the first step in establishing new model organisms.

Authors: Marko Lukic, Lada Jovicic, Jana Bedek, Magdalena Grgic, Nikolina Kuharic and Tin Rozman
Date: Apr. 4, 2024

From: PLoS ONE (Vol. 19, Issue 4)
Publisher: Public Library of Science

Document Type: Report
Length: 8,475 words
Lexile Measure: 1220L
DOI:
<http://dx.doi.org.proxy.lib.umich.edu/10.1371/journal.pone.0300962>



The screenshot shows the article content area. At the top, there are accessibility icons (A, A+, A-) and a speaker icon. Below these is the "Abstract:" section. The abstract text reads: "While extensive research on traditional model species has significantly advanced the biological sciences, the ongoing search for new model organisms is essential to tackle contemporary challenges such as human diseases or climate change, and fundamental phenomena including adaptation or speciation. Recent methodological advances such as next-generation sequencing, gene editing, and imaging are widely applicable and have simplified the selection of species with specific traits from the wild. However, a critical milestone in this endeavor remains the successful cultivation of selected species. A historically". To the right of the abstract is an "EXPLORE" section with a "More Like This" heading. Below this heading are three related articles: "A chemoautotrophically based cave ecosystem Science, June 28, 1996.", "Cave Fish The Gale Encyclopedia of Science, 2021.", and "Conserving relics from ancient underground".

Automated findings using Axe

No issues were found using automated methods

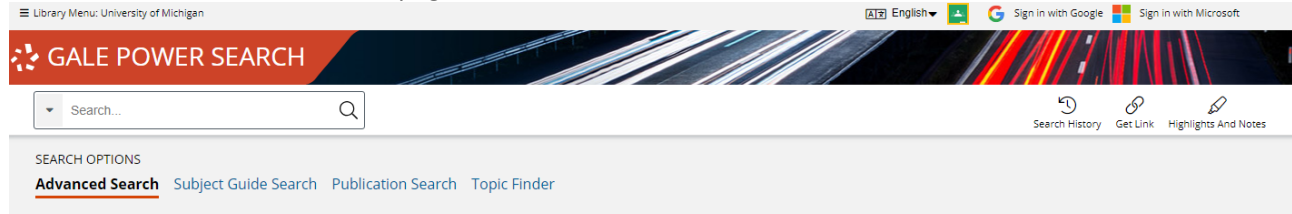
Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

5. Advanced Search

Source: <https://go-gale-com.proxy.lib.umich.edu/ps/dispAdvSearch.do?userGroupName=umuser&prodId=GPS>

Test case: Test advanced search page



Advanced Search

Search Terms

Terms	Field	Finds results that...
Search for <input type="text"/>	In <input type="text" value="Keyword"/>	contain these terms in key fields; does not search entire document
And <input type="text"/>	In <input type="text" value="Keyword"/>	contain these terms in key fields; does not search entire document
And <input type="text"/>	In <input type="text" value="Keyword"/>	contain these terms in key fields; does not search entire document

Search Tips

[Operators](#)

[Special Characters](#)

[AND, OR, NOT](#) [Proximity](#) [Nesting](#) [Quotation Marks](#) [Wildcards](#) [Inverted](#)

Automated findings using Axe

- SC 1.3.1 A** – The .top-tools__container unordered list contains <div> elements that are not allowed to be nested within the unordered list.
- SC 4.1.2 A** – The page contains duplicated IDs. Affected IDs include: LX_dynamicLimiterField

Additional manual findings using NVDA screen reader

Not completed due to insufficient time.