High–level accessibility review – LAA
(BTAA GeoPortal Platform)

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March 30, 2023

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BTAA GeoPortal Platform

Summary

Top 3 problems for the BTAA GeoPortal Platform

This high-level assessment covers limited portions and functionality of the BTAA GeoPortal Platform. The assessment revealed issues with assistive technology compatibility, resulting in some users missing information required to understand content, states and 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 –** Many elements are using inappropriate aria attributes and many of the form fields are missing accessible names.
2. **Keyboard –** Many of the map data components are not accessible with the keyboard
3. **Non-text Contrast –** All pages contain focus indicator contrast issues

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/.

1. **SC 4.1.1 A** – Unique IDs - Document has multiple static elements with the same id attribute: footer-app
2. **SC 1.4.3 AA** – Contrast – "Help us improve our site" has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)
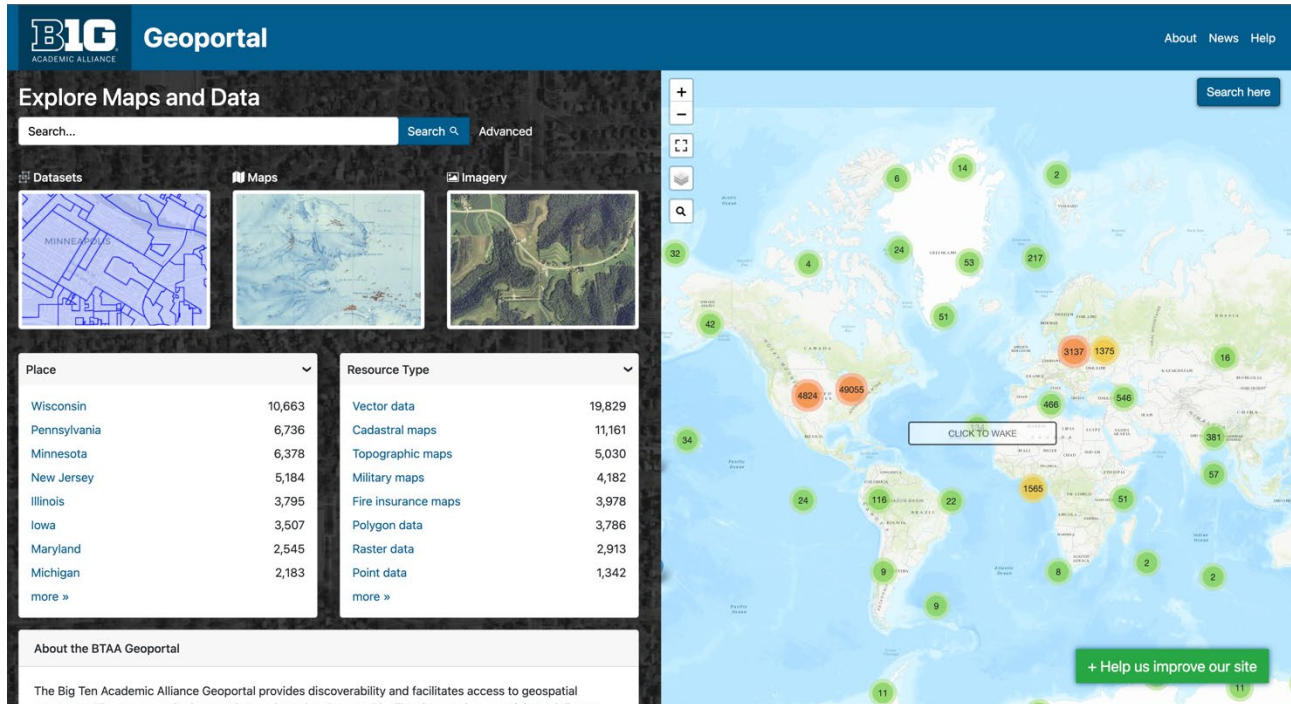
Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non text contrast - Help us improve our site button focus indicator lacks 3:1 contrast width adjacent background (Contrast Ratio: 2:1, focus border: #98BCD1, background: #ffffff)

1. **Landing Page**

Source: https://geo.btaa.org/

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

Automated findings using Axe

1. **SC 1.4.1 A** – Link color contrast – Big Ten Academic Alliance link and learn more link are only distinguished from surrounding text by color
2. **SC 1.4.3 AA** – Contrast – "Click to Wake" link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)
3. **SC 4.1.1 A** – Unique IDs – Document has multiple static elements with the same id attribute: progress
4. **SC 4.1.1 A** – Unique IDs – Document has multiple static elements with the same id attribute: progress-bar
5. **SC 4.1.2 A** – Name, Role, Value – Search field is missing an accessible label.
6. **SC 4.1.2 A** – Name, Role, Value – Elements must only use allowed ARIA attributes. There are aria-labels on several span and div tags that do not have a role set. These include Current Page, Place List, Resource Type List, and Map container

Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non Text Contrast – "Search Button" – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #016EA7, Adjacent Background: #023C5A, contrast ratio: 2.1:1)
2. **SC 1.4.11 AA** – Non Text Contrast – "Advanced Link, search field" – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #203558, Adjacent Background: #393939, contrast ratio: 1.1:1)
3. **SC 2.1.1 A** – Keyboard – "Number Dots" on map can be reached with the keyboard but not activated.
4. **SC 2.1.1 A** – Keyboard – "Click here to wake" on map cannot be reached with the keyboard
5. **SC 2.4.3 A** – Focus Order – "Map Markers Pop up – When the map marker is activated a popup opens but the focus is not moved to the popup
6. **SC 2.4.3 A** – Focus Order – "Map Markers Pop up Close button – When the map marker popup is closed

focus does not return to the map marker

7. **SC 2.4.6 AA** –Descriptive Label – "Map Markers"– All the map marker buttons have the same accessible name but represent different locations.

2. Search Results – Springfield, Illinois

Source: https://geo.btaa.org/?search_field=all_fields&q=Springfield%2C+Illinois
Test case: From the initial interface, perform a search for: "Springfield, Illinois"

Automated findings using Axe

1. **SC 1.1.1 A** – Alternative Text (Informative Images) – Image associated with each search result (10) are missing alternative text
2. **SC 1.4.3 AA** – Contrast – "Maps" and "21" under Resource Class section has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)
3. **SC 1.4.3 AA** – Contrast – "Leaflet" link on the bottom corner of the map has insufficient color contrast of 4 (foreground color: #1D85B0, background color: #FCFBF8)
4. **SC 1.4.3 AA** – Contrast – "Click to Wake" link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)
5. **SC 1.4.3 AA** – Contrast – "Selected Page of the search results (1)" link has insufficient color contrast of 4 (foreground color: #ffffff, background color: #027BFF)
6. **SC 4.1.2 A** – Name, Role, Value – Elements must only use allowed ARIA attributes. There are aria-labels on several span and div tags that do not have a role set. These include Current Page, Place List, Resource Class Map, Resource Type List, Year fields, and Time Period List
7. **SC 4.1.2 A** – Name, Role, Value – Search field is missing an accessible label.

Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non Text Contrast – "Search Button" – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #016EA7, Adjacent Background: #023C5A, contrast ratio: 2.1:1)
2. **SC 1.4.11 AA** – Non Text Contrast – "Advanced Link, search field" – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #203558, Adjacent Background: #393939, contrast ratio: 1.1:1)
3. **SC 1.4.11 AA** – Non Text Contrast – "Remove (X) links" – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #B6BABD, Adjacent Background: #6C757C, contrast ratio: 2.4:1)

4. **SC 2.4.3 A** – Focus Order – "Map Markers – When the map marker is activated the visual focus moves to the correlating search result but the screen reader focus does not.

3. Search Results Details

Source: https://geo.btaa.org/catalog/7d261a51-e695-44a0-a50c-b0616f2b9132

Test case: Select "Map of Home Owners' Loan Corporation [Springfield, Illinois] {1937}". Test the individual landing page.

Automated findings using Axe

1. **SC 1.4.3 AA** – Contrast – "Help us improve our site" has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)

Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

4. ArcGIS Feature Layer Map

Source: https://geo.btaa.org/catalog/a25931f9-c2ba-48b7-8c3f-8c017f7050b6

Test case: Under the Has derivative box, click "Polygons and area descriptions of Home Owners' Loan Corporation [Springfield, Illinois] {1937}". Test the ArcGIS Feature Layer Map, including zooming in and out, toggling full screen and switching from Default to OpenStreetMaps and to World Imagery. Also test the the download options on the right.

Automated findings using Axe

1. **SC 1.4.3 AA** – Contrast – "Click to Wake" link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)

Additional manual findings using NVDA screen reader
Not completed due to insufficient time.

5. Advanced Search

Source: https://geo.btaa.org/advanced
Test case: Test advanced search: https://geo.btaa.org/advanced

Automated findings using Axe

1. **SC 4.1.2 A** – Name, Role, Value – Form elements must have labels. Majority of the form fields are missing an accessible label (9 fields)
2. **SC 4.1.2 A** – Name, Role, Value – Select element must have an accessible name(4 fields)

Additional manual findings using NVDA screen reader

Not completed due to insufficient time.