

Thank you to the Big Ten Academic Alliance Library and Deque Systems to champion the accessibility evaluation of [ScienceDirect](#). Elsevier is proud to be part of the recent [Big 10 accessibility evaluation](#) of library electronic resources. We have a [strong policy commitment](#) to web accessibility, and we continually develop our ScienceDirect product toward Level AA compliance of the [Web Content Accessibility Guidelines](#).

Since the Big 10 review was shared, we have taken several internal action points:

1. Reviewed the newly designed search results page top-to-bottom for WCAG 2.0 Level AA compliance. Our new design will include WCAG 2.0 AA features and will resolve any of the reviewers' identified issues, such as the missing headings under refine filters.
2. Scheduled a complete WCAG 2.0 Level AA audit of ScienceDirect, which will uncover additional opportunities for accessibility improvements. We will utilize Deque's findings as part of this larger scale audit.
3. Verified, tested and socialized the Deque report with the ScienceDirect Product Management and Engineering teams.
4. Contacted the reviewer, Denis Boudreau, to clarify a difference that he perceived as a Windows-versus-Mac issue but was in fact a difference caused by our A/B testing regiment.

As for future Big 10 Academic Alliance vendor evaluations, we would like some focus on validation of any best practices that are already being followed by librarian e-resource vendors. This could include best practices or accessibility features that the Alliance would like to see consistently implemented across all librarian e-resource websites. For example, our commitment to accessibility is summarized in detail on our [web accessibility solutions page](#) and includes best practice features such as:

- Keyboard operability of user interface controls – All controls can be operated with keyboard only. We have noted a reviewer's issues with "Relevance" and "All access types" dropdown menus Export features tabbing through the radio button options launching the export feature. Our team was not able to recreate these issues.
- Keyboard focus state – Sighted users can visually track focus as they tab through the pages.
- Logical keyboard focus management – With dialog windows and other panels, keyboard users can tab around and not get lost or trapped within a given element.
- Semantic structure (headings, lists, landmark roles) – There are many ways for AT users to skip around the page. The headings and landmark roles provide a way for non-sighted users to conceptualize the overall structure of web pages.
- Labelled form controls – Controls and forms have descriptive labels. When links are repeated (e.g., Abstract), they are programmatically connected to parent article titles through ARIA.
- Unique page titles – Provide immediate context to screen reader users about orientation within the system.
- Visible skip navigation – Allows sighted keyboard-only users to bypass repeated blocks of information such as the banner.
- MathML for math equations – Elsevier was one of the first publishers to provide MathML, which allows someone who is blind to hear the math. We have tested our MathML with people who are blind to confirm that the math is readable by a screen reader.
- HTML content – HTML book chapters and journal articles have structural markup (headings) that allow assistive technology users to browse through the content in different ways (e.g., by line, by paragraph, by article section).

To support our policy commitments, Elsevier is active in several accessibility working groups, including BISG Accessible Publishing, American Association of Publishers, Accessible Books Consortium, DIAGRAM Center and W3C AccessLearn Community Group. We participate in many accessibility conferences such as CSUN, ATIA, Better Together and Take Part. Our [company accessibility policy](#) outlines our commitment to developing our electronic products to standards, including [US Section 508](#) and WCAG 2.0.

Additionally, we have collaborated with numerous organizations to help further accessible content on the web. For example, we have worked with HighCharts on their SVG chart library and with ChemAxon on their Marvin.js chemical structure application. Our software development process includes accessibility testing in very early stages, and involves several rounds of internal and external testing with our Accessibility Collaboration Group.

Finally, we are proud of the Elsevier Accessibility Collaboration Group, which was formed in 2011 as part of the ATHEN (Access Technology Higher Education Network) Collaboration. Anyone in higher education is invited to join our Collaboration Group, which currently includes leaders in the web accessibility field as well as a range of people who experience different disability types. We have presented the progress of our accessibility work multiple times at the annual [CSUN Assistive Technology Conference](#).

Additional comments or communications are appreciated and can be initiated through accessibility@elsevier.com. Thank you.