

# APS Journal Platform Accessibility Roadmap

(version 1.1 - January 2025)

## Overview

APS is committed to meeting the accessibility requirements expected for all websites within the constraints of the type of content published in our journals. We do this not only because compliance is a requirement of many of our subscribers, but because we are committed to fostering an inclusive community and providing a superior experience for all of our website visitors.

We completed a major redesign and accessibility issue remediation in 2024 with WCAG AA accessibility being the highest priority. Specifically, this means meeting the requirements of the W3C Web Content Accessibility Guidelines, version 2.2, at the AA Level and related requirements contained in EN 301 549 Harmonised European Standard covering *Accessibility requirements for ICT products and services*, and US Federal Section 508.

The content on the journal platform primarily comprises scientific research articles produced by researchers around the world. The content is predominantly textual in nature with the following characteristics:

- Extensive use of complex mathematical formulas. These are presented in our Full text HTML using MathJax which has extensive accessibility features.
- Author-supplied figures that include often complex line drawings, plots, photographs, and graphs, often with one or more of these elements combined together
- A small amount of video figures/animations (<200 in entire corpus of >750,000 articles), all without audio
- Supplemental material that may include datasets, computer code, additional text, videos (almost always w/o audio), and, very rarely, audio recordings. This material is presented “as is” from the authors.

The non-scientific content on the journal platform comprises informational pages for authors, referees, and readers, content items aimed at highlighting noteworthy research articles with key images and teasers, announcements, calls to action (e.g., for submitting an article), and a small amount of advertisements.

General features of the website include browsing via tables contents and other entry points, searching, articles downloads (PDF), full text HTML articles, and authentication mechanisms for accessing subscription-based content. The PDFs and full text HTML display of scientific articles both are derived from the same underlying XML. While we strive to improve the accessibility of the PDF versions, the HTML version, when available, meets WCAG AA accessibility standards

for the scientific content available on the journal platform. Full text HTML is available for about 50% of our corpus (articles published since 2005). We previously had PDF remediations on our roadmap, but after evaluating the challenges of making a fully accessible PDF, we decided directing our efforts to our website and HTML representation of articles would have a higher impact.

At the end of 2024, we engaged with a third-party, Straive, to conduct an accessibility audit for the journals platform after our extensive overhaul to achieve WCAG AA compliance. The accompanying completed Voluntary Product Accessibility Template (VPAT) documents the current state of the website. While we were able to make our sites compliant for the large majority of usage and content, there are two third party embedded widgets that we use (YouTube and Crossmark) which we were unable to make compliant. We filed an issue with Crossref - the creator of the Crossmark widget and will assess the feasibility of embedding YouTube videos in a compliant manner.

Our current objective is to have AA compliance on the journals platform. While WCAG AAA compliance represents an even more rigorous set of accessibility standards, we recognize that achieving full AAA compliance may not be feasible for all types of content. However, we would like to implement as many AAA standards as possible in areas where it is practical and beneficial to our users.

We will do periodic accessibility audits to ensure our websites and content continue to conform to best practices. We welcome feedback from all our readers, especially those utilizing assistive technologies.

## Roadmap

This roadmap is organized by major areas of accessibility.

### Website Presentation

Issue Description	Status (Open or Closed)	Disposition (Planned, Deferred, Under Investigation)	Remediation Timeline	Remediation Plan	Comments	Scale	Content Type (Scientific or Informational)
YouTube embedded player color, contrast, and control accessibility issues	Open	Planned	2025Q2	Evaluate the feasibility of embedding YouTube videos in a fully compliant manner		Minor	Informational

## Research Articles

Issue Description	Status (Open or Closed)	Disposition (Planned, Deferred, Under Investigation)	Remediation Timeline	Remediation Plan	Comments	Scale	Content Type (Scientific or Informational)
Crossmark widget - Textual image and inability to focus	Open	Under Investigation	TBD	Ensure full keyboard navigation and screen reader accessibility.  Ensure the modal spawned by Crossmark meets requirements	We are unable to alter this ourselves as it loads from a third party (Crossref). Crossref is aware of the issues regarding accessibility but has not provided a timeframe for remediation.	Major	Both
PDF: Accessibility tagging	Open	Deferred		Add accessibility tagging	Will fix going forward; backfile not fixable.	Major	Scientific
PDF: Title metadata field not set properly	Open	Deferred		Set an appropriate title	Will fix going forward; backfile not fixable.	Minor	Scientific
PDF: Language not set	Open	Deferred		Set the language attribute	100% of our content is in English	Minor	Scientific
PDF: Poor contrast for Crossmark icon	Closed	Deferred		Improve icon	This is a grayscale version of the standard icon to avoid unnecessarily taking black and white articles to color; contrast could be improved	Minor	Scientific
PDF: Insufficient link text	Open	Deferred		Add link text where possible	Will fix going forward; backfile not fixable.	Minor	Scientific
PDF: Link contrast	Open	Deferred		Some journals are using too dark of a blue with insufficient contrast with black text	Will fix going forward; backfile not fixable.	Minor	Scientific
PDF: Links only distinguished by color	Closed	Deferred			This would make the PDFs quite cluttered and as PDF isn't our main	Minor	Scientific

					accessible format, we should defer this.		
PDF: Words split between lines	Closed	Deferred		Use span tags to enable screen readers to read entire word that is hyphenated and split between two lines	Not sure if composition vendors are able to actually do this or what effect it may have on the XML.	Minor	Scientific
PDF: Abbreviated journal titles in bibliography	Closed	Deferred			This is universal practice.	Minor	Scientific
PDF: Add link text for links to cited journal articles	Closed	Deferred		Provide link text to make it clear link goes to specific cited article (or resource)	Linking to specific articles in references is universally expected behavior, so unclear about level of need.	Minor	Scientific
PDF: Insufficient alt text for math	Closed	Deferred		Use MathML to provide alt text for math	Math description is one of the biggest challenges that publishers face when producing accessible PDF-format STEM content.	Major	Scientific

## Change Log

- Version 1.0 - May 2024 - Initial version
- Version 1.1 - January 2025 - update after website accessibility overhaul and re-audit