

Summary of the evaluation findings

Scope of the evaluation

Website name	www.jstor.org
Scope of the website	
Conformance target	Level AA
Additional evaluation requirements	
Accessibility support baseline	
Relied upon technologies	JAWS, NVDA, VoiceOver, WAVE accessibility tool, Juicy Studio

Detailed audit results

Principle 1 Perceivable

1.1 Text Alternatives

1.1.1 Non-text Content: (Level A)
All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below.
Outcome: JSTOR provides a text alternative for all non-text content that serves the equivalent purpose.
Findings: <i>Supports.</i>

1.2 Time-based Media

1.2.1 Audio-only and Video-only (Prerecorded): (Level A)
For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such.
Outcome: As a publisher of third party academic work, some article multimedia content provided by publishers may not contain equivalent alternatives.
Findings: <i>Supports with exceptions.</i>
1.2.2 Captions (Prerecorded): (Level A)
Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

Outcome: As a publisher of third party academic work, some article multimedia content provided by publishers may not contain equivalent alternatives.
Findings: <i>Supports with exceptions.</i>
1.2.3 Audio Description or Media Alternative (Prerecorded): (Level A)
An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such.
Outcome: As a publisher of third party academic work, some article multimedia content provided by publishers may not contain equivalent alternatives.
Findings: <i>Supports with exceptions.</i>
1.2.4 Captions (Live): (Level AA)
Captions are provided for all live audio content in synchronized media.
Outcome: Video content created by JSTOR is not linked directly to the main website. As a publisher of third party academic work, some article multimedia content provided by publishers may not contain equivalent alternatives.
Findings: <i>Supports with exceptions.</i>
1.2.5 Audio Description (Prerecorded): (Level AA)
Audio description is provided for all prerecorded video content in synchronized media.
Outcome: Most pertinent information for video can be found in the audio track or via captioning. As a publisher of third party academic work, some article multimedia content provided by publishers may not contain equivalent alternatives.
Findings: <i>Supports with exceptions.</i>

1.3 Adaptable

1.3.1 Info and Relationships: (Level A)
Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.
Outcome: Where possible, JSTOR uses semantic markup to add meaning to the page. A substantial portion of our articles and pamphlets are represented by page scans. PDFs are the central means by which this content is available in screen readable text. Some PDFs are easily accessible by screen readers (or converted into readable files by JSTOR's Support team) but some are inaccessible. There has been significant effort to make PDFs more uniformly accessible. The quality of PDFs will continue to vary, depending on the age and OCR quality of the source document. However inaccessible PDFs can be made accessible by the support team and are available to anyone who requests them.
Findings: <i>Supports.</i>
1.3.2 Meaningful Sequence: (Level A)
When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.
Outcome:

PDF: While JSTOR strives to keep content read in a meaningful order this will depend on the quality of each individual PDF. Improperly tagged PDFs can be made accessible by the support team and are available to anyone who requests them.

Navigation: The global navigation is inconsistent. Via screenreader, it proceeds from left to right through JSTOR Home, Search, Browse and MyJSTOR. In some cases, the upper right hand portion of the page (where you can find Login, Help, Contact Us, About, the Provider Designation Statement, etc) is read well after key points on a page. As this is the section of the page that encourages a user to log in/tells them whether they are authenticated, this can cause confusion. If a user is unauthenticated, it may take them time to realize and rectify the situation. **We are actively working on a fix for this.**

Findings: *Supports with exceptions*

1.3.3 Sensory Characteristics: (Level A)

Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound.

Outcome: If sensory characteristics are used to convey meaning, additional information is provided in another form.

Findings: *Supports.*

1.4 Distinguishable

1.4.1 Use of Color: (Level A)

Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Outcome: If color is used to convey meaning, additional information is generally provided in another form.

Findings: *Supports.*

1.4.2 Audio Control: (Level A)

If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.

Outcome: JSTOR does not contain any content that plays automatically.

Findings: *Supports.*

1.4.3 Contrast (Minimum): (Level AA)

- The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following: **Large Text:** Large-scale text and images of large-scale text have a contrast ratio of at least 3:1;
- **Incidental:** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- **Logotypes:** Text that is part of a logo or brand name has no minimum contrast requirement.

<p>Outcome: JSTOR maintains a generally high contrast ratio. However, there are some points for improvement:</p> <ul style="list-style-type: none"> • It is worth noting that our informational pages (covering privacy and accessibility policies, Terms and Conditions, etc) are not written in a font with high enough contrast. They are, however, accessible via screen reader.
<p>Findings: <i>Supports with exceptions</i></p>
<p>1.4.4 Resize text: (Level AA)</p>
<p>Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.</p>
<p>Outcome: The JSTOR website is responsive and fully supports zoom text.</p>
<p>Findings: <i>Supports.</i></p>
<p>1.4.5 Images of Text: (Level AA)</p>
<p>If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:</p> <ul style="list-style-type: none"> • Customizable: The image of text can be visually customized to the user's requirements; • Essential: A particular presentation of text is essential to the information being conveyed.
<p>Outcome: In the case of journals and pamphlets, JSTOR occasionally supplies page scans of articles in lieu of plain text. This is due to an important part of our mission: the preservation of content in its original context. Users are able to request fully accessible PDFs from the support team.</p>
<p>Findings: <i>Supports.</i></p>

Principle 2 Operable

2.1 Keyboard Accessible

<p>2.1.1 Keyboard: (Level A)</p>
<p>All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.</p>
<p>Outcome:</p> <p>Although we strive to maintain full keyboard accessibility, we are working on solutions for the below issues:</p> <ul style="list-style-type: none"> • In our informational JSTOR About pages (which includes the footer navigation links found on every JSTOR page for Terms and Conditions, our policies on privacy and cookies, etc) Users cannot tab to the sub-navigation within each page's prominent "For Librarians", "For Publishers" and "For Individuals". These lists only appear when a user hovers a mouse over the navigation.
<p>Findings: <i>Supports with exceptions.</i></p>
<p>2.1.2 No Keyboard Trap: (Level A)</p>

If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.

Outcome: JSTOR strives to ensure that all elements can be entered and exited via the use of a keyboard. However the footer navigation links (About, Contact Us, Terms & Conditions, Privacy Policy, Cookies and Accessibility) open to a separate website with a different scheme of global navigation. There is, however messaging that explains that these links go to a different website.

Findings: *Supports.*

2.2 Enough Time

2.2.1 Timing Adjustable: (Level A)

For each time limit that is set by the content, at least one of the following is true:

- **Turn off:** The user is allowed to turn off the time limit before encountering it; or
- **Adjust:** The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or
- **Extend:** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or
- **Real-time Exception:** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or
- **Essential Exception:** The time limit is essential and extending it would invalidate the activity; or
- **20 Hour Exception:** The time limit is longer than 20 hours.

Outcome: JSTOR strives for clarity with users and, generally speaking, does not employ any means of timing that would cause the loss of entered data. The user can check 'stay logged in' and bypass any time limit that may result in loss of data.

Findings: *Supports.*

2.2.2 Pause, Stop, Hide: (Level A)

For moving, blinking, scrolling, or auto-updating information, all of the following are true:

- **Moving, blinking, scrolling:** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and
- **Auto-updating:** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.

Outcome: JSTOR has no areas utilizing blinking or scrolling information.

Findings: *Supports.*

2.3 Seizures

2.3.1 Three Flashes or Below Threshold: (Level A)

Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.

Outcome: JSTOR has no blinking or flashing content.
Findings: <i>Supports.</i>

2.4 Navigable

2.4.1 Bypass Blocks: (Level A)
A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.
Outcome: JSTOR allows users to tab through navigation links and swathes of content with the exception of two informational About pages (the Terms and Conditions and policy for cookies). There are also “Skip to main content” links available on every page.
Findings: <i>Supports with exceptions.</i>
2.4.2 Page Titled: (Level A)
Web pages have titles that describe topic or purpose.
Outcome: The titles of web pages in JSTOR are generally meaningful and relevant to location within the website. The title of a PDF window (whether it is the document’s actual title or a numeric title based on the PDF’s stable URL) opened online will depend on the quality of the individual PDF.
Findings: <i>Supports.</i>
2.4.3 Focus Order: (Level A)
If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.
Outcome: JSTOR strives to ensure that the tab order of all web pages is intuitive and logical. However, there are a few exceptions to this rule: <ul style="list-style-type: none"> • Navigation order is not consistent. On certain pages, the navigation elements on the top right (login, help contact us, about) do not show up until after a user has gone through the content of the entire page. It is also worth noting that in these cases, indication of a user’s authentication status (part of this upper right hand corner portion of the page) often comes at the end of the page if the user is using a keyboard. If a user is not logged in, their ability to access content will significantly diminish but they will not know this until after they encounter “you don’t have access” messaging. We are actively working on a fix for this.
Findings: <i>Supports with exceptions.</i>
2.4.4 Link Purpose (In Context): (Level A)
The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general.
Outcome: JSTOR strives to give all links a label which is meaningful, even when read out of context.
Findings: <i>Supports.</i>
2.4.5 Multiple Ways: (Level AA)
More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process.

Outcome: Generally, JSTOR supports breadcrumb and contextual navigation to help users orient themselves. The exception is our usage statistics page. It is worth noting that going from the drop-down 'Usage Statistics' in the MyJSTOR navigation menu on jstor.org takes you to the informational About website, where the user must find (within the text of the page) the link to the new analytics gateway.
Findings: <i>Supports with exceptions.</i>
2.4.6 Headings and Labels: (Level AA)
Headings and labels describe topic or purpose.
Outcome: JSTOR strives to make all headings and labels meaningful, even when read out of context. Notable exceptions include: <ul style="list-style-type: none"> • Checkboxes on some pages lack clear definition. For example, the bulk citation upload checkboxes on the Search Results page are labelled as simply as checkboxes. We are actively working on a fix for this.
Findings: <i>Supports with exceptions.</i>
2.4.7 Focus Visible: (Level AA)
Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.
Outcome: In general, on the JSTOR site, the focus indicator is visible and contrasts well with the surrounding content.
Findings: <i>Supports with exceptions.</i>

Principle 3 Understandable

3.1 Readable

3.1.1 Language of Page: (Level A)
The default human language of each Web page can be programmatically determined.
Outcome: The default language is set on the HTML tag of all pages.
Findings: <i>Supports.</i>
3.1.2 Language of Parts: (Level AA)
The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.
Outcome: Given that JSTOR is a third party provider of content, is not always feasible for every article to have been tagged correctly. The quality of these tags will depend on what publishers provide.
Findings: <i>Supports with exceptions.</i>

3.2 Predictable

3.2.1 On Focus: (Level A)
When any component receives focus, it does not initiate a change of context.
Outcome: In general, the JSTOR website does not trigger context changes when elements are focused.
Findings: <i>Supports.</i>

3.2.2 On Input: (Level A)
Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.
Outcome: In general, the JSTOR website does not automatically cause a change of context when a user adjusts settings in the interface. Any change is highlighted.
Findings: <i>Supports.</i>
3.2.3 Consistent Navigation: (Level AA)
Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user
Outcome: Per 2.4.3 <ul style="list-style-type: none"> Navigation order is not consistent. On certain pages, the navigation elements on the top right (login, help contact us, about) do not show up until after a user has gone through the entire page. It is also worth noting that the piece of information telling you whether or not you are authenticated (part of this upper right hand corner portion of the page) often comes at the end of the page if you're using a keyboard. If a user is not logged in, their ability to access content will significantly diminish. We are actively working on a fix for this.
Findings: <i>Supports with exceptions.</i>
3.2.4 Consistent Identification: (Level AA)
Components that have the same functionality within a set of Web pages are identified consistently.
Outcome: JSTOR is consistent with the functionality on its Web pages.
Findings: <i>Supports.</i>

3.3 Input Assistance

3.3.1 Error Identification: (Level A)
If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.
Outcome: JSTOR strives to make errors clear and easily actionable. Notable exceptions are below: <ul style="list-style-type: none"> On our "Contact Us" form, when input errors are detected, the alert does not receive focus and suggestions to fix errors are provided below the form field in question. However, in certain operating systems and browsers, form validation errors are not presented audibly until after the screen reader goes through the entire global navigation.
Findings: <i>Supports with exceptions.</i>
3.3.2 Labels or Instructions: (Level A)
Labels or instructions are provided when content requires user input.
Outcome: JSTOR strives to make input requirements clear.
Findings: <i>Supports.</i>
3.3.3 Error Suggestion: (Level AA)
If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content.

Outcome: When possible, errors are automatically detected, and users informed of these errors in an accessible manner. Although the alert does not always receive focus, instructions for fixing errors are provided below the form field in question. Please see 3.3.2 for specific details.
Findings: <i>Supports.</i>
3.3.4 Error Prevention (Legal, Financial, Data): (Level AA)
For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: <ol style="list-style-type: none"> 1. Reversible: Submissions are reversible. 2. Checked: Data entered by the user is checked for <u>input errors</u> and the user is provided an opportunity to correct them. 3. Confirmed: A <u>mechanism</u> is available for reviewing, confirming, and correcting information before finalizing the submission.
Outcome: With the exception of JPASS, JSTOR does not have pages that cause legal commitments or financial transactions. When purchasing a JPASS, commerce is transacted via PayPal.
Findings: <i>Supports.</i>

Principle 4 Robust

4.1 Compatible

4.1.1 Parsing: (Level A)
In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.
Outcome: JSTOR strives to ensure that all markup is valid, and follows best practices whenever possible.
Findings: <i>Supports.</i>
4.1.2 Name, Role, Value: (Level A)
Name, Role, Value: For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.
Outcome: JSTOR strives to use markup in a way that facilitates accessibility. Exceptions are noted in sections: 1.2, 1.3, 1.4, 2.1, 2.4, 3.1, 3.2 and 3.3
Findings: <i>Supports with exceptions.</i>

- [Web Content Accessibility Guidelines \(WCAG\) 2.0](#)
Overview: www.w3.org/WAI/intro/wcag
- [How to Meet WCAG 2.0 Quick Reference](#)
www.w3.org/WAI/WCAG20/quickref/
- [WCAG 2.0 Evaluation Methodology \(WCAG-EM\)](#)
Overview: www.w3.org/WAI/eval/conformance