

California Open Online Library for Education & Accessibility

COOL4Ed (the California Open Online Library for Education) was created so that faculty can easily find, adopt, utilize, review and/or modify free and open etextbooks for little or no cost. The COOL4Ed accessibility open textbook evaluations can inform faculty, staff, and students how the free and open etextbooks meet 15 accessibility "checkpoints" that could impact the learning of learners with a range of disabilities.

SUMMARY OF ACCESSIBILITY EVALUATION:

Textbook:	Art History Resources
Format of Textbook:	HTML

Assistive Technology (AT) Evaluation Score: Overall	5.7 (Maximum score = 10)
Assistive Technologies (AT) Evaluations applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, see list below, are typically not used or available by the general public into the accessibility evaluation process.	
 Accessibility features of desktop operating systems (e.g. high-contrast display themes, settings from the Keyboard and Mouse control panels) Accessibility-related software included with desktop operating systems (e.g. VoiceOver, Microsoft Narrator) Third-party accessibility software and hardware: Screen readers (e.g. JAWS, Window Eyes) Magnification software (e.g. ZoomText Magnifier/Reader, MAGIC Pro with Speech) Reading software for users with learning disabilities (e.g. Read and Write Gold, Kurzweil 3000) Refreshable Braille displays 	
Non-Assistive Technology (NAT) Evaluation Score: Overall	8.3 (Maximum score =10)
Non-Assistive Technologies (NAT) Evaluations applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.	



COOL4Ed Accessibility Evaluation Methods:

The California State University <u>Accessible Technology Initiative</u> and <u>MERLOT</u> (Multimedia Educational Resources for Learning and Online Teaching) developed the rubric or "checkpoints" for the accessibility evaluation. <u>CAST</u>, a nationally recognized organization with expertise in accessibility and UDL, reviewed and affirmed the appropriateness and value of the accessibility evaluation rubric and contributed the references and support resources to help people learn how best to design, evaluate, and remediate the learning materials to maximize the accessibility of the learning resources for all. The "checkpoints" have been built upon the Section 508 technical standards and has been organized and tailored to the typical characteristics of digital resources used in higher education courses.

The accessibility evaluations were performed by the <u>Center for Usability in Design and Accessibility</u> at California State University, Long Beach; faculty and graduate students with expertise in human factors, usability, and accessibility performed the evaluations of over 150 free and open etextbooks. COOL4ed.org has published the accessibility evaluation rubric and provides a detailed description of the methodology used to evaluate the accessibility of the etextbooks in COOL4ed.

LOOKING FOR DETAILED ACCESSIBILITY REPORTS?

See Detailed Accessibility Evaluation Report using Assistive Technologies

See Detailed Accessibility Evaluation Report using Non-Assistive Technologies



DETAILED ACCESSIBILITY EVALUATION REPORT using Assistive Technologies

Assistive Technologies (AT) Evaluations applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, such as Kurzweil and NVDA, are typically not used or available by the general public into the accessibility evaluation process.

1. Accessibility Documentation

 A. The organization providing the online materials has a formal accessibility policy. 	Fail
Additional Information:	Did not find any information about Art History Resources's formal accessibility policy.
 B. The organization providing the online materials has an accessibility statement. 	Fail
Additional Information:	Did not find any information about Art History Resources's accessibility statement.
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	Did not find any information about Art History Resources's accessibility evaluation report.

2. Text Access

A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality.	Fail
Additional Information:	0/5 chapters properly allowed text to speech (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). Pages are not read properly, reads a table even though there is no table present. There are pages that were read aloud that do not correspond with what is on the screen. There is inconsistency in text to speech. There are blank documents and unknown documents throughout the chapters that were evaluated. Some graphics in the photography section are also not read aloud even though it contains text of the textbook.



3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	5/5 chapters are able to zoom in and zoom out properly (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). However, when zoomed in, the reader has to horizontally zoom.
B. The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality).	Pass
Additional Information:	5/5 chapters are able to adjust font and colors properly using Care Your Eyes (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography).

4. Reading Layout

A. Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Pass
Additional Information:	30/30 webpages allow proper reflow of text (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). However, the proper reflow occurs because the text zooms in but does not adjust the reflow of text. The flow of the text remains the same.
 B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material. 	N/A
Additional Information:	No PDF available to compage page numbers.



5. Reading Order

 A. The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology. 	Fail
Additional Information:	0/5 pages had proper reading order (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). There were pages that were read as blank or unknown documents. There were also pages in which the text that was read aloud did not correspond with what was written on the screen.

6. Structural Markup/Navigation

0. <i>Su ucui ui mui kup/ nuviyuuon</i>	
A. The text of the digital resource includes markup (e.g. tags or styles) that allows for navigation by key structural elements (chapters, headings, pages) using assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	2/5 chapters had text that was easily navigable using the NVDA hotkeys (Prehistoric Art, Photography). The remaining 3 chapters had text in which headings, lists, and tables were not found (Chinese Art, Art in Early Europe, Renaissance Art in Italy).
B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Pass
Additional Information:	9/10 lists were navigable using the NVDA hotkey (Prehistoric Art). However, the chapter lists were described as tables rather than lists even though they were listed as bulltpoints.
C. If the text of the digital resource is delivered within an ebook reader application, a method	N/A



technology. Additional Information:	Not using reader application
content that is compatible with assistive	
reader interface and move directly to the text	
is provided that allows users to bypass the	

7. Tables

A. Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).	Pass
Additional Information:	9/10 tables were navigable using the NVDA hotkeys (Prehistoric Art). However, in the Chapter contents pages, tables were used to make lists making it difficult to figure out where the reader was in the list/table.

8. Hyperlinks

 A. In-book links take you to a location within the textbook. For example, the table of contents would be considered in-book links and embedded links take you to the correct location in the book. 	N/A
Additional Information:	N/A
 B. Live hyperlinks take you to any website or webpages external to the book. 	Pass
Additional Information:	43/50 live hyperlinks functioned properly (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). The remaining 7 hypelinks were links that were broken or not found (Art in Early Europe, Chinese Art). 50/50 live hyperlinks had proper descriptions that described where the links would lead to (Prehistoric Art, Art in



	Early Europe, Renaissance Art in Italy, Chinese Art, Photography).
C. Live links take you to the correct webpage that is functioning properly.	Pass
Additional Information:	43/50 live hyperlinks functioned properly (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). The remaining 7 hypelinks were links that were broken or not found (Art in Early Europe, Chinese Art).
D. Live links are descriptive enough for the users to know where it should take them.	Pass
Additional Information:	50/50 live hyperlinks had proper descriptions that described where the links would lead to (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography).

9. Color and Contrast

A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways.	Fail
Additional Information:	0/5 chapters had proper color redundancy (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography). There was inconsistency in the redundancy of colors for headings and text because the content of the textbook come from many different webpages.
 B. Information is conveyed from the sub- categories for contrast. 	Pass
Additional Information:	Majority of the textbook had headers that were of proper contrast ratio. Majority of textbook had normal text that were of proper contrast ratio because the text was black against a white background.



C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	Pass
Additional Information:	Majority of the textbook had headers that were of proper contrast ratio.
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	Pass
Additional Information:	Majority of textbook had normal text that were of proper contrast ratio because the text was black against a white background.
 E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1). 	N/A
Additional Information:	Mostly complex art images found.

10.Language

m cc	ne text of the digital resource includes Parkup that declares the language of the Pontent in a manner that is compatible with Essistive technology.	Fail
Additiona	I Information:	No language markup found.
fo m m te	the digital resource includes passages in a preign language, these passages include arkup that declares the language in a anner that is compatible with assistive echnology.	N/A
Additiona	I Information:	No passage markup.

11.Images

A. Non-decorative images have alternative text	Fail
that is compatible with assistive technology	
(or is rendered by an application such as a	
browser, media player, or reader that offers	
this functionality).	



Additional Information:	0/5 chapters had images that were properly described. The images found in the textbook were described, however there was not enough information to understand what was in it if the reader was visually impaired. There was also no captions to describe the images (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography).
 B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. 	Pass
Additional Information:	5/5 chapters had decorative images that were properly skipped (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography).
C. Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality).	Fail
Additional Information:	0/5 chapters had images that were properly described. The images found in the textbook were described, however there was not enough information to understand what was in it if the reader was visually impaired. There was also no captions to describe the images (Prehistoric Art, Art in Early Europe, Renaissance Art in Italy, Chinese Art, Photography).

12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	N/A
Additional Information:	No multimedia content found.
B. A transcript is provided with all audio content.	N/A
Additional Information:	No multimedia content found.



C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all	N/A
criteria listed in Section 15 below. Additional Information:	No multimedia content found.

13.Flickering

A. The digital resource content does not contain anything that flashes more than three times in any one-second period.	Pass
Additional Information:	No flickering content.

14.Science, Technology, Engineering, and Math (STEM)

A. STEM figures have appropriate markup that indicates that the image is a figure.	N/A
Additional Information:	No STEM content found.
 B. STEM graphs have appropriate markup that indicates that the image is a graph. 	N/A
Additional Information:	No STEM content found.
C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	No STEM content found.
D. STEM tables have appropriate markup that indicates the image is a table.	N/A
Additional Information:	No STEM content found.
 E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. 	N/A
Additional Information:	No STEM content found.
F. STEM graphs have appropriate notation markup that conveys both the notation	N/A



(presentation) and meaning (semantics) of the STEM content.	
Additional Information:	No STEM content found.
 G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. 	N/A
Additional Information:	No STEM content found.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	No STEM content found.

15.Interactive Elements

A.	Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology.	N/A
Additio	nal Information:	No interactive elements found.
B.	Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected").	N/A
Additio	nal Information:	No interactive elements found.
C.	All instructions, prompts, and error messages necessary to complete forms are conveyed as text to assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).	N/A
Additio	nal Information:	No interactive elements found.



DETAILED ACCESSIBILITY EVALUATION REPORT using Non-Assistive Technologies

Non-Assistive Technologies (NAT) Evaluations applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.

1. Accessibility Documentation

 A. The organization providing the online materials has a formal accessibility policy. 	Fail
Additional Information:	No content found
B. The organization providing the online materials has an accessibility statement.	Fail
Additional Information:	No content found
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	No content found

2. Text Access

A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality.	Pass
Additional Information:	Text is read when highlighted. Google Select and Speak free version used. Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.

3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	Horizontal Scroll needed to view side ads and extra links. Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.



B. The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality).	Pass
Additional Information:	Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art. Google "care your eyes" used.

4. Reading Layout

Α.	Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	N/A
Additio	onal Information:	No printed material or PDF available to compare.
B.	If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	N/A
Additio	onal Information:	No printed material or PDF available to compare.

5. Reading Order

A. The reading order for digital resource content	N/A
logically corresponds to the visual layout of	
the page when rendered by assistive	
technology.	
Additional Information:	Needs assistive technologies.
	Accus assistive technologies.

6. Structural Markup/Navigation

A. The text of the digital resource includes	N/A
markup (e.g. tags or styles) that allows for	
navigation by key structural elements	
(chapters, headings, pages) using assistive	
technology (or is rendered by an application	



such as a browser, media player, or reader that offers this functionality).	
Additional Information:	Needs assistive technologies.
 B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality). 	N/A
Additional Information:	Needs assistive technologies.
C. If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology.	N/A
Additional Information:	Needs assistive technologies.

7. Tables

A. Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).	N/A
Additional Information:	Needs assistive technologies.

8. Hyperlinks

A. In-book links take you to a location within the	
textbook. For example, the table of contents	
would be considered in-book links and	
embedded links take you to the correct	
location in the book.	
Additional Information:	Within book links work well.



 B. Live hyperlinks take you to any website or webpages external to the book. 	Pass
Additional Information:	Links open in same tab (would be better if they opened in a new tab). All links from Renaissance Art in Italy Chapter used.
C. Live links take you to the correct webpage that is functioning properly.	Pass
Additional Information:	19/20. The "European Art in the Seventeenth and Eighteenth Centuries" link does not work. All links from Renaissance Art in Italy Chapter used.
D. Live links are descriptive enough for the users to know where it should take them.	Pass
Additional Information:	20/20. All links are described well. All links from Renaissance Art in Italy Chapter used.

9. Color and Contrast

A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways.	Pass
Additional Information:	Bigger font size and bold are used for headers. Caps Locks are used for current chapter. Underline is used on links.Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
B. Information is conveyed from the sub- categories for contrast.	Pass
Additional Information:	Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	Pass
Additional Information:	Red headers pass (top center of pages). Smaller black headers pass as well. Chapters Checked: Ancient



	Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	Pass
Additional Information:	All text (in all colors: black, blue, purple, red) pass. Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	N/A
Additional Information:	No simple images found on the Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.

10.Language

A. The text of the digital resource includes markup that declares the language of the content in a manner that is compatible with assistive technology.	Pass
Additional Information:	Coding includes lang="en"
B. If the digital resource includes passages in a foreign language, these passages include markup that declares the language in a manner that is compatible with assistive technology.	N/A
Additional Information:	No passages in foreign language but some names in Greek, Italian, other foreign languages.

11.Images

Α.	Non-decorative images have alternative text	N/A
	that is compatible with assistive technology	
	(or is rendered by an application such as a	
	browser, media player, or reader that offers	
	this functionality).	



Additional Information:	No non-decorative images found on the website (only found on other websites linked in the text) Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
 B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. 	Pass
Additional Information:	Advertisements are ignored; null alt text. Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.
C. Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality).	N/A
Additional Information:	No complex images found on the website (only found on other websites linked in the text).Chapters Checked: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.

12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	N/A
Additional Information:	No multimedia content found.
B. A transcript is provided with all audio content.	N/A
Additional Information:	No multimedia content found.
C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all criteria listed in Section 15 below.	N/A
Additional Information:	No multimedia content found.



13.Flickering

 A. The digital resource content does not contain anything that flashes more than three times in any one-second period. 	Pass
Additional Information:	Chapters Checked and passed: Ancient Greek Art, Etruscan Art, Ancient Roman Art, Early Christian Art, Byzantine Art.

14.Science, Technology, Engineering, and Math (STEM)

A. STEM figures have appropriate markup that indicates that the image is a figure.	N/A
Additional Information:	No STEM content found.
B. STEM graphs have appropriate markup that indicates that the image is a graph.	N/A
Additional Information:	No STEM content found.
C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	No STEM content found.
 D. STEM tables have appropriate markup that indicates the image is a table. 	N/A
Additional Information:	No STEM content found.
 E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. 	N/A
Additional Information:	No STEM content found.
 F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. 	N/A
Additional Information:	No STEM content found.
G. STEM equations have appropriate notation markup that conveys both the notation	N/A



(presentation) and meaning (semantics) of the STEM content.	
Additional Information:	No STEM content found.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	No STEM content found.

15.Interactive Elements

A.	Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology.	Pass
Addition	nal Information:	Tab through links, enter key works.
	Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected").	N/A
Addition	nal Information:	No interactive elements found.
	All instructions, prompts, and error messages necessary to complete forms are conveyed as text to assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).	N/A
Addition	nal Information:	No interactive elements found.

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