

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: Media and Cultural Theory

Format of Textbook: PDF

| Assistive Technology (AT) Evaluation Score: Overall | 3.8 (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 | 2.7 (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: | Could not find this information. |
| B. The organization providing the online materials has an accessibility statement. | Fail |
| Additional Information: | Could not find this information. |
| C. An Accessibility Evaluation Report is available from an external organization. | Fail |
| Additional Information: | Could not find this information. |

2. Text Access

| A. The text of the digital resource is available to | Fail |
|-----------------------------------------------------|------------------------------------------------------|
| assistive technology that allows the user to | |
| enable text-to-speech (TTS) functionality. | |
| Additional Information: | NVDA read all the text on pages 8-12. However the |
| | pace was very fast. Additionally, the text was often |
| | interrupted with the word "graphic". |
| | |

3. Text Adjustment

| A. Text is compatible with assistive technology. | Fail |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | Used Adobe Reader XI and the text size did not adjust. Text size would get smaller than 100% but text size would not get larger than 100%. Checked pages 8-12. |
| B. The resource allows the user to adjust the font size and font/background color (or is | Pass |



| rendered by an application such as a browser, media player, or reader) that offers this functionality). | |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Additional Information: | Used Adobe Reader XI to adjust the font and colors on pages 8-12 and it adjusted on all pages. |

4. Reading Layout

| Fail |
|---------------------------------------------------|
| |
| |
| |
| |
| |
| Used Adobe Reader XI and the text did not reflow. |
| Checked pages 8-12. |
| N/A |
| |
| |
| |
| No printed version. |
| |

5. Reading Order

| Pass |
|-------------------------------------------------------|
| |
| |
| |
| Checked pages 9, 17, 21, 23, 31 and the reading order |
| logically corresponded to the page layout. However, |
| the text was often interrupted with the word |
| "graphic". |
| (|

6. Structural Markup/Navigation

| A. The text of the digital resource includes | Fail |
|----------------------------------------------|------|
| 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: | Used NVDA and checked pages 8-14. No headings were found. "No next heading" |
| 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). | Fail |
| Additional Information: | Used NVDA and checked lists on pages 24, 39, 61, and 86. No lists were found. "No next list". No other lists were found in book. |
| 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: | Not using reader application. |

7. Tables

| A. Data tables include markup (e.g. tags or | N/A |
|------------------------------------------------|--------------------|
| 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). | |
| Additional Information: | No tables found. |
| Additional information. | ivo tables louliu. |

8. Hyperlinks

| A. In-book links take you to a location within the | N/A |
|----------------------------------------------------|-----|
| 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: | No in book links found. |
| B. Live hyperlinks take you to any website or webpages external to the book. | Fail |
| Additional Information: | Checked live links on pages 7, and the live links in the footers of pages 8-25. No other live links were found. |
| C. Live links take you to the correct webpage that is functioning properly. | Fail |
| Additional Information: | 8/20 live links were functional. |
| D. Live links are descriptive enough for the users to know where it should take them. | Fail |
| Additional Information: | 0/20 live links had an acceptable description. All other live links used the web URL. |

9. Color and Contrast

| 7. Color and Contrast | |
|-------------------------------------------------|------------------------------------------------------|
| A. All information within the material that is | N/A |
| 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. | |
| Additional Information: | There was no use of color to indicate things such as |
| | links so there was no need for color redundancy. |
| B. Information is conveyed from the sub- | Pass |
| categories for contrast. | |
| Additional Information: | Checked pages 8-14. |
| C. Contrast for headers passed WCAG AA | Pass |
| standards for large texts (contrast ratio 3:1). | |
| Additional Information: | All headers passed color contrast requirements. |
| D. Contrast for text passed WCAG AA standards | Pass |
| for normal texts (contrast ratio of 4.5:1). | |
| Additional Information: | All text passed color contrast requirements. |
| | |



| Additional Information: | No simple images found. |
|----------------------------------------------------------------------|-------------------------|
| images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1). | |
| E. Contrast for simple images (for example, | N/A |

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. | N/A |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Additional Information: | Cannot check this because do not have Adobe Acrobat Pro. |
| 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: | Cannot check this because do not have Adobe Acrobat Pro. |

11.Images

| A. Non-decorative images have alternative text that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality). | Fail |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | NVDA did not detect non-decorative images, there was no alternative text and the descriptions were not descriptive enough. Checked pages 8-20. |
| B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. | N/A |
| Additional Information: | No decorative images found. |
| C. Complex images, charts, and graphs have longer text descriptions that are compatible | Fail |



| with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality). | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | NVDA did not detect complex images, there was no alternative text and the descriptions were not descriptive enough. Checked pages 8-20. |

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 found. |
| B. A transcript is provided with all audio content. | N/A |
| Additional Information: | No multimedia 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 found. |

13.Flickering

| A. The digital resou | urce content does not contain | Pass |
|-------------------------|--------------------------------|----------------------|
| anything that fla | ashes more than three times in | |
| any one-second | period. | |
| | | |
| Additional Information: | | No flickering found. |
| | | |

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

| A. STEM figures have appropriate markup that | Fail |
|----------------------------------------------|------------------------------------------------------|
| indicates that the image is a figure. | |
| Additional Information: | 0/10 figures had labels. Checked figures on pages 9, |
| | 10, 13, 17, 23, 26, 28, 33, 35, and 38. |
| B. STEM graphs have appropriate markup that | N/A |
| indicates that the image is a graph. | |



| Additional Information: | No graphs found. |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| C. STEM equations have appropriate markup that indicates that the image is an equation. | N/A |
| Additional Information: | No equations found. |
| D. STEM tables have appropriate markup that indicates the image is a table. | N/A |
| Additional Information: | No tables found. |
| E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | Fail |
| Additional Information: | 0/10 figures had acceptable descriptions and the reader skips over the images. Checked figures on pages 9, 10, 13, 17, 23, 26, 28, 33, 35, and 38. |
| 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 graphs 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 equations found. |
| H. Assistive technology used can access the content from the STEM tables. | N/A |
| Additional Information: | No tables 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 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Additional Information: | No interactive elements found. |



| B. Each interactive element conveys information to assistive technology regarding the | N/A |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| element's name, type, and status (e.g. "Play, button, selected"). | |
| Additional 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 |
| Additional 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: | There were no links provided for additional information regarding the formal accessibility policy. The program used to analyze text content was Adobe XI Pro for Windows. |
| B. The organization providing the online materials has an accessibility statement. | Fail |
| Additional Information: | There were no links provided for additional information regarding the accessibility statement. The program used to analyze text content was Adobe XI Pro for Windows. |



| C. An Accessibility Evaluation Report is available | Fail |
|----------------------------------------------------|-------------------------------------------------------|
| from an external organization. | |
| Additional Information: | There were no links provided for additional |
| | information regarding accessibility. The program used |
| | to analyze text content was Adobe XI Pro for |
| | Windows. |

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 pages were analyzed and passed text to speech. Pages 8 through 12 were used for this analysis. Adobe reader XI Pro could not read any of the analyzed pages. All that was identified on each of the analyzed pages was a URL address. The program used to analyze text content was Adobe Reader Pro XI. |

3. Text Adjustment

| A. Text is compatible with assistive technology. | Fail |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | 0/5 pages were analyzed and passed text size compatibility. Pages 8 through 12 were used for this analysis. The text content of the chapter did not allow for adequate text size adjustment between the ranges of 30% to 300% zoom. No text content was displayed when the option "always use zoom setting-reflow" was selcted; the only thing displayed was a single text line informing you to download the free book online. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 pages were analyzed and passed. Pages 8 |
|-------------------------|---------------------------------------------------|
| | through 12 were analyzed and allowed for adequate |
| | adjustment of the font/background color. The |
| | program used to analyze text content was Adobe |
| | Reader Pro XI. |
| | |

4. Reading Layout

| 4. Redaing 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). | Fail |
| Additional Information: | 0/5 pages were analyzed and passed text size compatibility. Pages 8 through 12 were used for this analysis. The text content of the chapter did not allow for adequate reflow of the text between the ranges of 30% to 300% zoom. No text content was displayed when the option "always use zoom setting-reflow" was selcted; the only thing displayed was a single text line informing you to download the free book online. The program used to analyze text content was Adobe Reader Pro XI. |
| B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material. | N/A |
| Additional Information: | 0/0 pages were analyzed and passed. We do not have access to the printed versions of the text content. The program used to analyze text content was Adobe Reader Pro XI. |

5. Reading Order

| A. The reading order for digital resource content | Fail |
|---------------------------------------------------|------|
| logically corresponds to the visual layout of | |
| the page when rendered by assistive | |
| technology. | |



| Additional Information: | 0/5 pages were analyzed and passed for digital |
|-------------------------|-------------------------------------------------------|
| | resource layout. Pages 8 through 12 were used for |
| | this analysis. The reading order for digital resource |
| | content could not be determined to logically |
| | correspond to the visual layout of the page due to |
| | the fact that Adobe Reader XI Pro could not read the |
| | text content. The program used to analyze the digital |
| | resource layout was Adobe Reader Pro XI. |
| | |

| 6. Structural Markup/Navigation | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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: | 0/4 navigation text content (tagged PDF, title, bookmarks, headings) was analyzed and passed markup for navigational text. No content passed analysis. Adobe Reader XI Pro was used to analyze navigational text. The text of the digital resource did not include markup that allowed for adequate navigation of the document. All standard headings were black text on a white background. The program used to analyze the digital resource layout was Adobe Reader Pro XI. |
| 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). | Fail |
| Additional Information: | 0/10 lists were analyzed and passed. The lists were found on pages 23, 24, 33, 38, 39, 55, 61, 86, 121, and 122. The lists failed for both accessibilty criteria, list items, and Lbl and Lbody. A manual check of the lists indicated that the reader could not access the |



| | information. Adobe Reader XI Pro was used to analyze the lists in the text document. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. 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: | 0/0 content analyzed and passed. We are not using any additional e-reader apllications at this time. Adobe Reader XI Pro was used to analyze the content of the text document. |

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). | Fail |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | o/4 document content factors for tables (rows, TH and TD, headers, and regularity) checked by the accessibility tools provided in Adobe XI Pro were analyzed and passed analysis. A manual check of the tables could not be conducted because no tables were located. The tables were not accessible to the reader in Adobe XI Pro. Adobe Reader XI Pro was used for this analysis. The text of the digital resource did not include adequate markup for tables within the text document. |

8. Hyperlinks

| A. In-book links take you to a location within the | N/A |
|----------------------------------------------------|-----|
| 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: | 0/0 within book links were analyzed and passed. No within book links could be located for the document. The accessibility tool for Adobe XI Pro indicated that navigational links failed. Adobe Reader XI Pro was used to analyze the content of the text document. |
| B. Live hyperlinks take you to any website or webpages external to the book. | Fail |
| Additional Information: | This is a combined average of the following two subsections of the links description and functionality. The program used to analyze text content was Adobe Reader Pro XI. |
| C. Live links take you to the correct webpage that is functioning properly. | Pass |
| Additional Information: | 19/20 live links were analyzed and passed. The single failing link was found on page 32 and resulted in a "page not found" error. The program used to analyze text content was Adobe Reader Pro XI. Google chrome was used to access the links online. |
| D. Live links are descriptive enough for the users to know where it should take them. | Fail |
| Additional Information: | 0/20 links were analyzed and passed for adequate descriptions. Links were found on pages 4 through 53. Links failed for adequate description due to that fact that the reader could not access text content and when manually checked no information regarding where the link would take you was provided. The program used to analyze text content was Adobe Reader Pro XI. Google chrome was used to access the links online. |

9. Color and Contrast

| A. All information within the material that is | Pass |
|------------------------------------------------|------|
| 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. | |
| Additional Information: | 10/10 pages were analyzed and passed for color redundancy. Pages 8 through 17 were used for this analysis. The text content was color redundant in that it provided adequate means of distinguishing the content aside from color. The program used to analyze text content was Adobe Reader Pro XI. |
| B. Information is conveyed from the sub- categories for contrast. | Pass |
| Additional Information: | This is an average score taken from the combined sub sections of the color and contrast field. The content was analyzed using the color contrast analyzer tool. |
| C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1). | Pass |
| Additional Information: | 6/6 headers were analyzed and passed for adequate color contrast. Text content from pages 8 through 17 were used for this analysis. All standard headings were black text on a white background. The content was analyzed using the color contrast analyzer tool. The program used to analyze text content was Adobe Reader Pro XI. |
| D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1). | Pass |
| Additional Information: | 30/30 text samples were analyzed and passed for adequate color contrast. Text content from pages 8 through 17 were used for this analysis. The content was analyzed using the color contrast analyzer tool. The program used to analyze text content was Adobe Reader Pro XI. |
| E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1). | Fail |
| Additional Information: | 6/10 text samples from simple images were analyzed and passed for adequate color contrast. Text content from pages 8 through 17 were used for |



| this analysis. The failing samples were taken from pages 13 and 16-17. The failing sample on page 13 was of a greenish blue color on a white background with a ratio of 2.01:1; the sample from page 16 was of white texte on a green background with a ratio of 3.53:1; the failing samples on page 17 were of orang text on an orange background and a black background with ratios of 1.88:1 and 1.67:1 respectively. The content was analyzed using the color contrast analyzer tool. The program used to |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| analyze text content was Adobe Reader Pro XI. |

10.Language

| 0 0 | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. | Fail |
| Additional Information: | The text of the digital resource did not include markup that declares the primary language of the text document content. The program used to analyze text content was Adobe Reader Pro XI. |
| 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: | The accessibility tools for this program only analyze the primary language of the text document. The program used to analyze text content was Adobe Reader Pro XI. |

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: | 0/10 non-decorative images were analyzed and passed. Images were located on pages 9 through 42. The accessibility tool provided by Adobe reader XI Pro indicated that the figures alternate text Failed, the images do not have alternative text that is adequate in providing a description. The image cannot be manually checked because the reader cannot access the text content of the PDF. The program used to analyze text content was Adobe Reader Pro XI. |
| B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. | Fail |
| Additional Information: | O/10 decorative images were analyzed and passed. Images were located on pages 13 through 40. The accessibility tool provided by Adobe reader XI Pro indicated that the figures alternate text Failed, the images do not have alternative text that is adequate in providing a description. The image cannot be manually checked because the reader cannot access the text content of the PDF. The program used to analyze text content was Adobe Reader Pro XI. |
| 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: | 0/0 complex images were analyzed and passed. There were no complex images located within the text content. The program used to analyze text content was Adobe Reader Pro XI. |



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 were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| B. A transcript is provided with all audio content. | N/A |
| Additional Information: | No multimedia were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |

13.Flickering

| Pass |
|-----------------------------------------------------|
| |
| |
| While analyzing book material there was no |
| flickering on any of the pages. The program used to |
| analyze text content was Adobe Reader Pro XI. |
| |

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 was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| B. STEM graphs have appropriate markup that indicates that the image is a graph. | N/A |



| Additional Information: | No STEM content was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| C. STEM equations have appropriate markup that indicates that the image is an equation. | N/A |
| Additional Information: | No STEM content was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| D. STEM tables have appropriate markup that indicates the image is a table. | N/A |
| Additional Information: | No STEM content was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 was found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| H. Assistive technology used can access the content from the STEM tables. | N/A |



| Additional Information: | No STEM content was found within the text |
|-------------------------|----------------------------------------------------|
| | resource. The program used to analyze text content |
| | was Adobe Reader Pro XI. |

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 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Additional Information: | No interactive elements were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| B. Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected"). | N/A |
| Additional Information: | No interactive elements were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |
| 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 |
| Additional Information: | No interactive elements were found within the text resource. The program used to analyze text content was Adobe Reader Pro XI. |

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