



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: Foundations of Business Law and Legal Environment
Format of Textbook: PDF

Assistive Technology (AT) Evaluation Score: Overall	6.7 (Maximum score = 10)
<p>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.</p> <ul style="list-style-type: none"> • 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	5.9 (Maximum score =10)
<p>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.</p>	



COOL4Ed Accessibility Evaluation Methods:

The California State University [Accessible Technology Initiative](#) and [MERLOT](#) (Multimedia Educational Resources for Learning and Online Teaching) developed the rubric or “checkpoints” for the accessibility evaluation. [CAST](#), 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 [Center for Usability in Design and Accessibility](#) 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:	No accessibility documentation was found.
B. The organization providing the online materials has an accessibility statement.	Fail
Additional Information:	No accessibility documentation was found.
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	No accessibility documentation was 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:	5/5. Pages 58-62 were evaluated. The text allows to TTS compatibility.

3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	5/5. Pages 1-5 were evaluated. The text allows the user to adjust the font.
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,	Fail



media player, or reader) that offers this functionality).	
Additional Information:	0/5. Pages 7-11 were evaluated. The text does not allow for the adjustment of color of the text.

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).	Fail
Additional Information:	5/5. Pages 1-5 were evaluated. The text does not allow the user to reflow the text.
B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	N/A
Additional Information:	N/A. This checkpoint could not be evaluated as no printed material was available.

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.	Pass
Additional Information:	5/5. Pages 53-57 were evaluated. The content rendered by the AT is compatible with the visual layout of the text.

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	
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such as a browser, media player, or reader that offers this functionality).	
Additional Information:	10/10. Pages 513-522 were evaluated. All pages had structural markup that allowed for navigation with AT.
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:	10/10. Ten lists found on pages 174, 175 (two lists), 199, 203, 341, 433, 491, and 513 were evaluated. All lists were found to be compatible with AT.
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:	This checkpoint cannot be evaluated as no e-reader application is used with this text.

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:	0/6. Six tables were evaluated (Table 1.1 - page 14, Table 2.1 - page 61, Table 3.1 - page 86, Table 20.1 - page 695, Table 22.1 - page 802, and an unmarked table on page 295). All six tables were not found to be compatible with AT.



8. Hyperlinks

<p>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.</p>	<p>N/A</p>
<p>Additional Information:</p>	<p>N/A. No in-book links were found throughout the text.</p>
<p>B. Live hyperlinks take you to any website or webpages external to the book.</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>1/1. The entire text was scanned for links. Only one hyperlink was found (i.e., the link featured at the bottom of each page. This link is detected by AT.</p>
<p>C. Live links take you to the correct webpage that is functioning properly.</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>1/1. The entire text was scanned for links. Only one hyperlink was found (i.e., the link featured at the bottom of each page. This link is detected by AT. This link is functional.</p>
<p>D. Live links are descriptive enough for the users to know where it should take them.</p>	<p>Fail</p>
<p>Additional Information:</p>	<p>0/1. The entire text was scanned for links. Only one hyperlink was found (i.e., the link featured at the bottom of each page. This link is detected by AT. This link is not descriptive and would be confusing for a reader relying solely on AT.</p>

9. Color and Contrast

<p>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.</p>	<p>Fail</p>
<p>Additional Information:</p>	<p>0/10. Pages 9-18 were evaluated. The text uses color to reference other chapters (e.g., page 9, "Chapter 2...", but only uses color to highlight this information.</p>



B. Information is conveyed from the sub-categories for contrast.	Pass
Additional Information:	2/2 subsections. Pages 7-66 were evaluated. All text was found to have sufficient contrast.
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	Pass
Additional Information:	60/60. Pages 7-66 were evaluated. All headers were black text (#242339) on white background (FFFFFF) and provided sufficient contrast.
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	Pass
Additional Information:	60/60. Pages 7-66 were evaluated. The text is, for the most part, black (#272424) against a white background (FFFFFF). This provides sufficient contrast. Text referencing other chapters also includes blue text (#2574BF) against a white background (FFFFFF). This latter case also provides sufficient 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:	Pages 7-66 were evaluated. No images were found.

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.	Fail
Additional Information:	The document does not contain any language markup.
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.	Fail



Additional Information:	The document does not contain any language markup.
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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).	N/A
Additional Information:	Pages 7-66 were evaluated. No images were found. This checkpoint cannot be evaluated.
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:	Pages 7-66 were evaluated. No images were found. This checkpoint cannot be evaluated.
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:	Pages 7-66 were evaluated. No images were found. This checkpoint cannot be evaluated.

12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	N/A
Additional Information:	Pages 1-100 were evaluated. No multimedia was found in the text.
B. A transcript is provided with all audio content.	N/A
Additional Information:	Pages 1-100 were evaluated. No multimedia was found in the text.



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:	Pages 1-100 were evaluated. No multimedia was found in the text.

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:	Pages 1-100 were evaluated. No flickering was found in the text.

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:	Pages 1-100 were evaluated. No STEM content was found in the text.
B. STEM graphs have appropriate markup that indicates that the image is a graph.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
D. STEM tables have appropriate markup that indicates the image is a table.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
E. STEM figures have appropriate notation markup that conveys both the notation	N/A



(presentation) and meaning (semantics) of the STEM content.	
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	Pages 1-100 were evaluated. No STEM content was found in the text.

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:	Pages 1-100 were evaluated. No interactive elements were found in the text.
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:	Pages 1-100 were evaluated. No interactive elements were found in the text.



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:	Pages 1-100 were evaluated. No interactive elements were found in the text.

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 accessibility policy found.
B. The organization providing the online materials has an accessibility statement.	Fail
Additional Information:	No accessibility policy found.
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	No accessibility policy 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
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Additional Information:	5/5 pages allowed text-to-speech functionality. Pages 1-5 checked. Adobe Acrobat Pro XI was used.
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3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	5/5 pages allowed text size adjustment. Pages 1-5 checked. Adobe Acrobat Pro XI was used.
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).	Fail
Additional Information:	0/5 pages allowed color adjustment. Text did not show, only black blank pages. Pages 30-35 checked. Adobe Acrobat Pro XI was used.

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).	Fail
Additional Information:	0/5 pages allowed reflow layout. When zooming in, the horizontal scroll bar appears. Pages 1-5 checked. Adobe Acrobat Pro XI was used.
B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	Pass
Additional Information:	5/5 page numbers correspond to printed material. Pages 1-5 checked. Adobe Acrobat Pro XI was used.



5. Reading Order

<p>A. The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology.</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>5/5 pages read in the correct order. Pages 777-781. Adobe Acrobat Pro XI was used.</p>

6. Structural Markup/Navigation

<p>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).</p>	<p>Fail</p>
<p>Additional Information:</p>	<p>2/4 criteria passed. Title and Headings check failed. Adobe Acrobat Pro XI was used.</p>
<p>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).</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>List criteria passed check. Adobe Acrobat Pro XI was used.</p>
<p>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.</p>	<p>N/A</p>
<p>Additional Information:</p>	<p>No E-Reader application found.</p>



7. Tables

<p>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).</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>0/5 tables passed markup check. Pages 61, 86, 222, 802, 803 checked, none of these tables had markup information. Accessibility checker failed table check. Adobe Acrobat Pro XI was used.</p>

8. Hyperlinks

<p>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.</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>0/30 links passed. Pages 5-6, 9, 11(3), 14(2), 18, 19, 20, 21, 25, 385, 386, 390, 395, 398, 414, 417, 960, 989, 995, 996, 1018, 1021(2), 1028, 1046, 1049 checked. None of the references were links but they were colored differently as though they should be links. No within-text links found. Adobe Acrobat Pro XI was used.</p>
<p>B. Live hyperlinks take you to any website or webpages external to the book.</p>	<p>Fail</p>
<p>Additional Information:</p>	<p>Average of functionality and description.</p>
<p>C. Live links take you to the correct webpage that is functioning properly.</p>	<p>Pass</p>
<p>Additional Information:</p>	<p>14/20 links passed. Pages 19, 20, 27, 67(3), 79, 117, 135, 776, 781, 792 (2), 858, 862, 866, 868, 904, 906, 930 checked. Links on Pg 27, first link on page 67, 117, 135, 781, the second link on page 792 are error pages. There is a specific URL link at the bottom of each page. Adobe Acrobat Pro XI.</p>



D. Live links are descriptive enough for the users to know where it should take them.	Fail
Additional Information:	1/20 links passed. Pages 19, 20, 27, 67(3), 79, 117, 135, 776, 781, 792 (2), 858, 862, 866, 868, 904, 906, 930 checked. All links checked were URLs except for links on pages 117 and 135.

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:	45/60 pages passed. Pages 1-20, 645-665, and 1070-1090 checked. The pages that did not pass were 5, 6, 9, 11, 14, 18, 658, 659, 662, 1075, 1076, 1081, and 1082. These pages included different color text with no other redundancy for within book links; however, there is also no indication that they are actual links, they are simply a light blue color and refer to a different part of the text. Adobe Acrobat Pro XI was used.
B. Information is conveyed from the sub-categories for contrast.	Pass
Additional Information:	Average of Header, Text, and Simple image color contrast.
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	Pass
Additional Information:	9/10 pages passed header contrast. Pages 645-665 checked. Page 663 header titled "Key Takeaway" failed color contrast test. Used Adobe Acrobat Pro XI and Colour Contrast Analyzer Tool.
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	Pass



Additional Information:	10/10 pages passed text contrast check. Pages 1-20 checked. Adobe Acrobat Pro XI and Colour Contrast Analyzer Tool were used.
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	Pass
Additional Information:	10/10 simple images passed color contrast check. Pages 660, 814, 817, 1006-1010, 1045, 1074 checked. Adobe Acrobat Pro XI and Colour Contrast Analyzer Tool used.

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.	Fail
Additional Information:	Primary language markup check failed. Adobe Acrobat Pro XI was used.
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 foreign language passages found within the document.

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:	0/10 non decorative images had a description. All of the images found in the text were figures. Pages 56,



	660, 666, 814, 817, 1006-1010 were checked. Adobe Acrobat Pro XI was used.
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 were found within the text.
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:	0/10 complex images had a description. All of the images found in the text were figures. Pages 77, 249, 295, 441, 572, 591, 733, 777, 1045, 1074 were checked. Adobe Acrobat Pro XI was used.

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 within the entire text.
B. A transcript is provided with all audio content.	N/A
Additional Information:	No Multimedia found within the entire text.
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 within the entire text.

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 found within the text.



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 within entire book.
B. STEM graphs have appropriate markup that indicates that the image is a graph.	N/A
Additional Information:	No STEM content found within entire book.
C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	No STEM content found within entire book.
D. STEM tables have appropriate markup that indicates the image is a table.	N/A
Additional Information:	No STEM content found within entire book.
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 within entire book.
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 within entire book.
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 within entire book.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	No STEM content found within entire book.



15. Interactive Elements

<p>A. Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology.</p>	<p>N/A</p>
<p>Additional Information:</p>	<p>No interactive elements found within entire text.</p>
<p>B. Each interactive element conveys information to assistive technology regarding the element’s name, type, and status (e.g. “Play, button, selected”).</p>	<p>N/A</p>
<p>Additional Information:</p>	<p>No interactive elements found within entire text.</p>
<p>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).</p>	<p>N/A</p>
<p>Additional Information:</p>	<p>No interactive elements found within entire text.</p>

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