WCAG 2.0 A and AA Requirements

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| **Name of Product** | **Evolve** |
| **Date Last Updated** | **11 April, 2017** |
| Completed by | Ted Gies, Jay Nemchik (Elsevier Labs) |
| **Document Description** | This document rates Evolve according to the W3C WCAG 2.0 A and AA requirements. |
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| **Product Version Number** | **Evolve 2** |
| **Product Release Date** | **April 2017** |
| **Testing Tools and Methods** | **Hands-on keyboard operation Firebug/Code inspection JAWS 16 on Mozilla Firefox 52 and MS IE 11 on Windows 7 NVDA screen reader Open Ajax Alliance (OAA) side bar ColorZilla Wave toolbar**  **Color Contrast Analyzer W3C WAI Pages**  [W3C Markup Validation Service](http://validator.w3.org)Elsevier Accessibility Checklist: <http://romeo.elsevier.com/accessibility_checklist/> |
| **Document Sections** | The review document below includes all WCAG 2 A and AA checkpoints and is organized into 6 logical sections:   * Visuals * Keyboard * Headings and Structure * Labeling * Multimedia * Usability |
| **Pages Covered** | Landing Page, Sign In, Faculty Home page, Student Home page, Search results, Product page, My Evolve, My Cart, Create an account, Forgot Password, Account Settings/Update Account, Change Password, Cardholder details |

| **WCAG 2.0 Success Criterion** | **Level** | **Evaluation** |
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| 1.1.1: Non-text Content | A | Pass with exceptions |
| 1.2.1: Audio-only and Video-only (Prerecorded) | A | N/A |
| 1.2.2: Captions (Prerecorded) | A | N/A |
| 1.2.3: Audio Description or Full Text Alternative | A | N/A |
| 1.2.4: Captions (Live) | AA | N/A |
| 1.2.5: Audio Description | AA | N/A |
| 1.3.1: Info and Relationships | A | Pass with exceptions |
| 1.3.2: Meaningful Sequence | A | Pass |
| 1.3.3: Sensory Characteristics | A | Pass with exceptions |
| 1.4.1: Use of Color | A | Pass with exceptions |
| 1.4.2: Audio Control | A | N/A |
| 1.4.3: Contrast (Minimum) | AA | Pass with exceptions |
| 1.4.4: Resize text | AA | Pass |
| 1.4.5: Images of Text | AA | Pass |
| 2.1.1: Keyboard | A | Pass with exceptions |
| 2.1.2: No Keyboard Trap | A | Pass |
| 2.2.1: Timing Adjustable | A | Fail |
| 2.2.2: Pause, Stop, Hide | A | N/A |
| 2.3.1: Three Flashes or Below Threshold | A | N/A |
| 2.4.1: Bypass Blocks | A | Pass |
| 2.4.2: Page Titled | A | Fail |
| 2.4.3: Focus Order | A | Pass with exceptions |
| 2.4.4: Link Purpose (In Context) | A | Pass with exceptions |
| 2.4.5: Multiple Ways | AA | Pass |
| 2.4.6: Headings and Labels | AA | Pass |
| 2.4.7: Focus Visible | AA | Pass with exceptions |
| 3.1.1: Language of Page | A | Fail |
| 3.1.2: Language of Parts | AA | Pass |
| 3.2.1: On Focus | A | Pass |
| 3.2.2: On Input | A | Pass with exceptions |
| 3.2.3: Consistent Navigation | AA | Pass |
| 3.2.4: Consistent Identification | AA | Pass |
| 3.3.1: Error Identification | A | Pass with exceptions |
| 3.3.2: Labels or Instructions | A | Pass with exceptions |
| 3.3.3: Error Suggestion | AA | Pass |
| 3.3.4: Error Prevention (Legal, Financial, Data) | AA | Pass |
| 4.1.1: Parsing | A | Pass |
| 4.1.2: Name, Role, Value | A | Pass with exceptions |

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| **Visuals** | | |
| **WCAG 2.0**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [1.1.1: Non-Text Content](http://www.w3.org/TR/WCAG20/#text-equiv-all) (A) Provide text alternatives for non-text content (e.g. images) | Pass  with exceptions | Most images and icons include text equivalents.  **Exceptions:**  Both Homepages: The Elsevier and RELX Group images in the footer need alt text (alt="Elsevier and alt="RELX Group"). The 'X' SVG icon needs either hidden text or aria labelled title within the SVG itself to be considered an accessible name (applies to all SVGs). Social media icons in the footer are missing alt text.  Search Results: The book image thumbnails should be given alt="". The VitalSource image should be given alt="Vital Source".  Product Page: The book image should be given alt text similar to alt="[Book title] cover". The ad images need alt text.  Cardholder Details: The Card images should be given alt text (at least alt="").  My Evolve  – Folder actions links lack an accessible name. Need to have <a aria-label=”folder actions”>  -Starred button lacks an accessible name. Need to have <a aria-label=”Save in starred folder” or “Remove from starred folder”. |
| [1.3.3: Sensory Characteristics](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding) (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound | Pass  with exceptions | Most content does not rely on sensory characteristics.  **Exceptions:**  Both Homepages: The Search input in the main content refers to a search "below", which refers to spatial location on a page. Consider rewording this (possibly just remove "below"). |
| [1.4.1: Use of Color](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) (A) Color is not used as the only visual means of conveying info | Pass  with exceptions | Color is usually not used as the only means of conveying information.  **Exceptions:**  My Evolve: The Favorite icon only changes color to denote which titles are favorited. The My Cart page denotes the selected step only using orange color text. |
| [1.4.3: Color Contrast (Minimum)](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast) (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text) | Pass  with exceptions | Most text has enough contrast with its corresponding background.  **Exceptions:**  Nearly all pages: There are several instances of insufficient color contrast, such as the orange text on white background, white text on orange background, light gray text on white background in the footer, gray text on white background in the header (barely fails).  Product page: Green text on white background (In Stock) does not have sufficient contrast.  Cardholder Details: The light gray text on white background (describing name on card) does not have sufficient contrast.  Change Password: the placeholder text being used as the form label has insufficient contrast. |
| [1.4.4: Resize Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale) (AA)  Text can be enlarged up to 200% without loss of functionality. | Pass | Text can be enlarged to 200% without loss of functionality. |
| [1.4.5: Images of Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation) (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos | Pass | No images of text are used other than for Logos or essential presentation. |
| [2.3.1: Three Flashes or Below Threshold](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds | N/A | No flashing content exists. |
| **Keyboard** | | |
| **WCAG 2**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [1.3.2: Meaningful Sequence](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) (A)  The correct reading sequence can be programmatically determined | Pass | The correct reading sequence is logical with the DOM order matching the visual order. |
| [2.1.1: Keyboard](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) (A)  All functionality is available from a keyboard, except for tasks such as drawing | Pass  with exceptions | Most content is keyboard operable.  **Exceptions**: **NOTE:** these exceptions also relate to WCAG 2.4.3 Logical Tab Order. When elements are skipped in the tab order they also impact the ability to track focus through the page.  Both Homepages: Several of the blue links are missing href attributes, which causes them to be absent from the tab order ("Want to know more", "Click Here" to stay up-to-date…, "Elsevier Advantage").  Student Homepage: The three links under HESI Secured Exams do not receive keyboard focus.  Search Results: Product name blue links, Show more, Show fewer filters.  Log in: Get Help Logging In link is not keyboard operable. The Create Account, Get Help logging in, and Forgot Username or Password links can receive focus, but cannot be activated by keyboard (missing href attribute).  Product Page: Users can tab to the chevron icons, but cannot activate them with keyboard alone.  My Evolve: "To add more content, visit the catalog" and "View your back-ordered items" links are not keyboard operable. The Book titles are not keyboard operable. |
| [2.1.2: No Keyboard Trap](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) (A)  The user can use the keyboard to move through page elements and is not trapped on a particular element | Pass | No keyboard traps exist on any page. |
| [2.4.3: Focus Order](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order) (A)  Users can tab through the elements of a page in a logical order | Pass  with exceptions | Tab order is logical on the site for the most part.  The keyboard trapping done in dialogue windows like New Folder on My Evolve is great.  **Exceptions**:  Global Nav: In order to maintain proper ordering for the header and its content, tabindex > 0 has been used for links. Optimally, tabindex would not be needed, and the proper order would be the natural DOM order. Currently if using a screen reader arrowing through results in different order of elements than if tabbing through which is odd. Selecting My Evolve does not place the focus in the Sign in button which means there is no feedback to AT users and cognitive users what the next action is.  Search in the banner – focus goes from edit box to the cart. Should go from edit box to the clear search, then search button.  Create Account: The dialog box restricts forward tabbing correctly, but does not restrict backward tabbing (shift-tab).  Update Account: Verifying Address dialog should automatically move focus within the dialog when it appears.  **Note:**  Search Results: It is redundant for there to be three different tab stops that all lead to the same destination for each book title. Consider removing the tabindex="0" on the book thumbnail image and the book type link (hardcover, paperback , etc.) |
| [2.4.7: Focus Visible](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible) (AA)  The page element with the current keyboard focus has a visible focus indicator | Pass  with exceptions | Many elements such as the global navigation links use an excellent visible focus. A few exceptions exist.  **Exceptions:**  Cardholder Details: The "Next" input button does not receive a visible focus.  My Evolve: The "Archived" folder option's focus outline is too big, which causes confusion for what element the user is focused on.  **Note:**  A few links use the browser default focus. While this is not an exception, a custom-styled focus like the rest of the site uses would benefit these links greatly. |
| [3.2.1: On Focus](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus) (A)  When a UI component receives focus, this does not trigger unexpected actions. | Pass | Focusable elements do not cause unexpected actions when receiving focus. |
| **Headers and Structure** | | |
| **WCAG 2.0**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [1.3.1: Information and Relationships](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) (A)  Info, structure, and relationships can be programmatically determined | Pass  with exceptions | Good use of headings to appropriately structure content for the most part. HTML5 tags are used in several areas to create landmarks.  Appropriate use of unordered lists to create groups of related links like in the global navigation.  **Exceptions:**  My Cart:  The overall design pattern and semantics of the Quantity, Price, and ability to remove is lost with the current table structure and lack of e.g. aria-labelling.  Both Homepages: "Search below to find and access Elsevier Products" should be an h2.  Search Results: Each search result option should be an element within an unordered list. Some kind of programmatic information needs to be given for discounted prices, as screen readers do not read out strikethroughs. Consider making "# results for \_\_\_\_" an h2 and the book titles h3s.  Product Page: Make the Book title an h1. Change the current h3s (Key Features, New to this edition, Authors, Related Products) to h2s.  My Evolve: Items in the My Evolve list are in a Table, but there are no table headers or context given for table cells (Consider recasting this section as just an unordered list). |
| [2.4.1: Bypass Blocks](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (A)  Users can bypass repeated blocks of content. | Pass  with exceptions | Headings, ARIA landmark roles, and unordered lists exist, which allow users using Assistive Technology to jump to the different areas of content quickly.  **Exceptions:**  No "skip to main content" links are used on the site. |
| [2.4.6: Headings and Labels](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (AA)  Headings and labels are clear and consistent. | Pass | Headings and labels used are clear and descriptive. |
| [3.1.1: Language of Page](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id) (A)  The language of the page is specified | Fail | The language is not defined on the site. (Except on the cardholder details page). |
| [3.1.2: Language of Parts](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id) (AA)  Specify the language of text passages that are in a different language than the default language of the page. | Pass | None of the site-wide UI or functionality uses a different language than the default. |
| [4.1.1: Parsing](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (A)  Use valid, error-free HTML | Pass | HTML and CSS passes concerning these 4 specific criteria:  (i) elements have complete start and end tags,  (ii) elements are nested according to their specifications  (iii) elements do not contain duplicate attributes  (iv) any IDs are unique, except where the specifications allow these features.  Note: There are other HTML validation errors outside the scope of this criterion. |
| **Labeling** | | |
| **WCAG 2.0**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [2.4.2: Page Titled](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title) (A)  The page has a title describing its topic or purpose | Fail | Only one title ("Elsevier Education Portal") is used across all pages.  Cardholder Details page uses title="Elsevier Secure Payment" which is sufficient. My Cart Checkout Process has 3 stages but only uses the orange color to denote the step the user is on. The step / page name should be part of the page title. |
| [2.4.4: Link Purpose (In Context)](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs) (A)  The purpose of each link can be determined from the link text or surrounding context. | Pass  with exceptions | Most links used have an identifiable purpose from the link text or surrounding context.  **Exceptions:**  Search Results: There is no reason to have the product type text (Hardcover, Paperback, etc.) be a link.  My Evolve: The "more options" links for folders on the left side needs link text (More options), and also needs to be linked programmatically with its corresponding folder. The "more options" and "favorite" links for the book titles need link text, as well as being programmatically connected to their corresponding book title. The "Favorite" icon should make its current state known (link text should indicate that activating it will unfavorite or favorite). |
| [3.2.4: Consistent Identification](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality) (AA)  UI components used across the web site are identified consistently on every page. | Pass | UI Components that have the same functionality are identified consistently across the site. |
| [3.3.1: Error Identification](http://www.w3.org/TR/WCAG20/#minimize-error-identified) (A)  Input errors are clearly marked and described to the user. | Pass  with exceptions | Input errors are clearly marked and described. They should be announced to screen readers.  **Exceptions:**  Log in: The login error message should use a role="alert" and focus should move to the problem input field.  Create Account, Account Settings, Forgot Password, Change Password: The error messages should reside within the label element, so the errors are read out every time a user enters the field.  Error messages currently are being displayed and checked while the input field has focus. Consider changing the error messages to only appear once the user leaves the field, so the alert isn't popping up immediately upon typing anything (Other option would be to only show the errors upon submission and validation).  Redeem access code error is not identified to assistive technology.  Cardholder Details: Hidden text is used well for the 'X' marked for input errors, but the text needs to be connected to the field programmatically in some way (aria-describedby, within the label, etc.). |
| [3.3.2: Labels and Instructions](http://www.w3.org/TR/WCAG20/#minimize-error-cues) (A)  Items requiring user input are clearly labeled or have clear instructions. | Pass  with exceptions | Most input areas have clear labels which are programmatically assigned.  **Exceptions:**  All pages: The search input in the header does not have a label.  Both Homepages: Both form inputs (Search to find Elsevier Products, Redeem an Access Code) are missing labels. Additionally the smaller instructions such as the instructions to search by ISBN, author, title, or keyword should be programmatically associated with the form fields.  Search Results: The Sort By dropdown should use "Sort by" as a label instead of using the current hidden text (this allows clicking of the text itself to select the input). Wrap the filter checkboxes and heading in a <fieldset> and wrap the Filter by Product Type heading in a <legend>.  My Cart: Qty spinbox/input, Promotion code both are unlabeled.stru |
| [3.3.3: Error Suggestion](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions) (AA)  When the user makes an input error, give suggestions for valid input. | Pass | The error identifications that appear are sufficient suggestions for valid input. For example on Change Password users see an instruction that password and confirm password entries do not match. |
| [4.1.2: Name, Role, Value](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv) (A)  For all UI components, the name, value, and role can be programmatically determined. | Pass  with exceptions | Most UI components communicate their state programmatically.  **Exceptions:**  All Pages: The Search, Alerts, and Sign In links in the header should be given aria-expanded="true/false".  My Cart: Successful or unsuccessful error messages for promotion codes should be given a role="alert".  My Evolve: the Folder structure needs a landmark region describing its purpose and the elements should not be link roles as they are now.  My Evolve: The "New Folder" dialog already has aria-labelledby, but should reference the id of the h1 within the dialog, "New Folder".  The left side folder area is devoid of semantics that would allow non-sighted users understand the purpose of the area (folder views) and hierarchical nature of the folders. Currently color alone is used to display which folder is active. We would want to utilize a role=”region” and aria-label=”Folder views” to encompass the left site area. Unordered list could be used to create the hierarchical relationship of the folders to the parent. Role=”button” and aria-pressed could be used to provide the selected semantics or use an aria-tab panel.  And consider adding a dynamic heading to the page that will update based on which section the user is in within their content (Starred, Archived, etc.). |
| **Multimedia** | | |
| **WCAG 2.0**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [1.2.1: Audio-only or Video-only (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) (A)  Provide alternatives for pre-recorded audio-only or video-only content. | N/A | There is no pre-recorded audio-only or video-only content. |
| [1.2.2: Captions (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-captions) (A)  Provide captions for pre-recorded audio | N/A | There is no pre-recorded audio. |
| [1.2.3: Audio Description or Media Alternative (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) (A)  Provide alternatives for pre-recorded synchronized audio/video | N/A | There is no pre-recorded synchronized media. |
| [1.2.4: Captions (Live)](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions) (AA)  Provide captions for live audio in synchronized audio/video. | N/A | There is no live audio in synchronized audio/video. |
| [1.2.5: Audio Description (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only) (AA)  Provide an audio description of pre-recorded video. | N/A | There are no pre-recorded videos. |
| [1.4.2: Audio Control](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) (A)  Audio can be paused and stopped, or the audio volume can be changed. | N/A | There is no audio on the site. |
| [2.2.2: Pause, Stop, Hide](http://www.w3.org/TR/WCAG20/#time-limits-pause) (A)  Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information. | N/A | There is no moving, blinking, scrolling, or auto-updating information. |
| **Usability** | | |
| **WCAG 2.0**  **Checkpoint** | **Pass/Fail** | **Notes** |
| [2.2.1: Timing Adjustable](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) (A)  Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended | Fail | There is a session time limit shorter than 20 hours, and the system does not give a warning other than in the title for users to extend. |
| [2.4.5: Multiple Ways](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) (AA)  More than one way is available to navigate to other web pages. | Pass | Users can reach all pages in the system using the global navigation or through the footer.  Content pages can be reached through search or through browse. |
| [3.2.2: On Input](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change) (A)  Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context. | Pass  with exceptions | Overall user inputs do not cause unexpected actions for most content.  **Exceptions:**  Search Results: Making any change in the filtering options automatically refreshes the page with the filtered results (users need to be given warning that this will happen and more ideally a delay of a couple of seconds before onsubmit). |
| [3.2.3: Consistent Navigation](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations) (AA)  Navigation menus are in the same location and order on every web page. | Pass | Navigation menus are consistently in the same place and in same order. |
| [3.3.4: Error Prevention (Legal, Financial, Data)](http://www.w3.org/TR/WCAG20/#minimize-error-reversible) (AA)  For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted. | Pass | Within the Checkout process:  There are several review processes before submission is fully sent as well as many opportunities to modify and/or cancel orders.  Error identification is noted in the Cardholder Details page. |