

# VOLUNTARY PRODUCT ACCESSIBILITY TEMPLATE (VPAT)

#### **BERKELEY ELECTRONIC PRESS**

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Name of Product: Digital Commons

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#### INTRODUCTION

At bepress we understand that a library is an institution's portal to information. And if that information is not available to everyone, the library isn't serving its purpose fully. Bepress recognizes the importance of this purpose. As an organization, we are committed to developing a repository platform that aims to serve the needs of all of our customers, *and our customer's customers*.

Accessibility is not an after-thought, or a quick fix but, rather, an integral part of our development lifecycle: from product planning, feature development and QA to educating our Consulting Services, Sales & Marketing teams. We take accessibility seriously here at bepress.

The Voluntary Product Accessibility Template (VPAT) is an industry standard template for recording how a service or product conforms to Section 508 standards. Digital Commons includes a variety of features designed to ensure that the digital IR environment is usable and accessible to all potential users, including those users with slow Internet connections, older Web browsers, and people with disabilities using assistive technologies to access the Web. This VPAT outlines the compliance of the general, public, facing pages of the bepress Digital Commons platform, which includes:

All static pages that comprise the default DC installation.

All static pages generated with the DC template system.

All public-facing dynamic functionality:

- Simple/Advanced Search
- Saved Search
- Login
- Account Registration

All dynamic author workflows:

- Journal and series article submission forms (submit.cgi and ir submit.cgi)
- Submission previews and author approval
- User Info forms (Author Info, Co-Author Info)

# **Summary Table**

Criteria	Supporting Features	Remarks and explanations
Section 1194.21 <u>Software Applications and</u> <u>Operating Systems</u>		
Section 1194.22 <u>Web-based internet</u> <u>information and applications</u>		
Section 1194.23 <u>Telecommunications</u> <u>Products</u>	N/A	Digital Commons is not a Telecommunications Product.
Section 1194.24 <u>Video and Multi-media</u> <u>Products</u>		
Section 1194.25 <u>Self-Contained, Closed</u> <u>Products</u>	N/A	Digital Commons is not a Self-Contained, Closed Product.
Section 1194.26 <u>Desktop and Portable</u> <u>Computers</u>	N/A	Digital Commons is not a Desktop and Portable Computer Product.
Section 1194.31 <u>Functional Performance</u> <u>Criteria</u>		
Section 1194.41 <u>Information</u> , <u>documentation</u> , <u>and support</u> .		

# Section 1194.21 Software Applications and Operating Systems

\* Refer to ( http://www.access-board.gov/sec508/guide/1194.21.htm ) for details on the guidelines listed below.

Criteria	Supporting Features	Remarks and explanations
(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supports	<b>NOTE:</b> Digital Commons is entirely webbased, so the most applicable Section 508 accessibility criteria are those in 1194.22 dealing with web-based information.
(b) Applications shall not disrupt or disable	Supports	To the best of our knowledge, Digital

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activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.		Commons does not interfere with Mouse Keys, Sticky Keys, Filter Keys or Toggle Keys.
(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.	Supports	A visual focus indicator that moves among interactive objects as in the input focus changes is provided.
(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	Semantic information about user interface objects is provided: Text labels are associated with all form controls, objects, icons and significant images in the Digital Commons user interface.  Text instructions are provided at the beginning of forms to describe the necessary input.  Text labels are positioned to maximize predictability of relationships.  Forms are designed in a linear format, and similar form items are grouped.
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supports	Labels associated with controls, objects, icons and images are used consistently throughout the site.
(f) Textual information shall be provided through operating system functions for	Supports	Digital Commons is a web-based application that is subject to the web-browser's built-in

displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.		functions.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	Digital Commons does not override user- selected settings for contrast, color and other individual display attributes.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supports	Digital Commons does not use animation in the UI.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Supports	Color is used only as an enhancement, not as the only way to convey information or indicate an action.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Supports	Digital Commons supports the operating system color.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	Supports	Digital Commons avoids use of blink elements in the user interface.
(I) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	Form controls have text labels.

## Section 1194.22 Web-based Internet information and applications

<sup>\*</sup> Refer to ( http://www.access-board.gov/sec508/guide/1194.22.htm) for details on the guidelines listed below.

Criteria	Supporting Features	Remarks and explanations
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Supports	All system <img/> elements have appropriate text equivalents (alt attributes). Real text is used instead of images where possible.

Digital Commons uses cascading stylesheets for visual layout. Whenever images are used solely for decoration, or enhancement of the site's "look and feel," they are called from the CSS.  Content is usable/accessible with images disabled.  (b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.  Supports  Digital Commons allows users to reference multi-media files that are hosted on a remote server. Please note that users are responsible for providing audio captions, audio descriptions, and transcripts with their video and audio presentations. Links are provided to any special readers or plug-ins that required for interpreting user-contributed page content.  (c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.  Supports  Color is used to supplement non-color methods of conveying information, but the same information is available whether or not the user can see the colors. The meaning of the content would not change if the colors were removed, through use of *strong> and <em> tags, as well as CSS selectors.  Foreground and background color combinations provide sufficient contrast when viewed by someon having color deficits or when viewed on a black and white screen.  (d) Documents shall be organized so they are readable without requiring an associated style sheet.  Supports  Supports  Digital Commons does not use server side image maps.  Supports Digital Commons does not use client-side image maps.  Pata tables have the column and row.</em>		T	T
multimedia presentation shall be synchronized with the presentation.  multimedia files that are hosted on a remote server. Please note that users are responsible for providing audio captions, audio descriptions, and transcripts with their video and audio presentations. Links are provided to any special readers or plug-ins that required for interpreting user-contributed page content.  Color is used to supplement non-color methods of conveying information, but the same information is available whether or not the user can see the colors. The meaning of the content would not change if the colors were removed, through use of <strongs <em="" and=""> tags, as well as CSS selectors.  Foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen.  (d) Documents shall be organized so they are readable without requiring an associated style sheet.  Supports  All of the static content is formatted using CSS. When CSS is turned off, the content is still available and structured semantically using the appropriate HTML elements.  Supports  Digital Commons does not use server side image maps.  (f) Client-side image maps shall be provided instead of server-side image maps.  Supports  Digital Commons does not use client-side image maps except where the regions cannot be defined with an available geometric shape.</strongs>			for visual layout. Whenever images are used solely for decoration, or enhancement of the site's "look and feel," they are called from the CSS.  Content is usable/accessible with images
information conveyed with color is also available without color, for example from context or markup.  Important to the user can see the colors. The meaning of the content would not change if the colors were removed, through use of <strong> and <em> tags, as well as CSS selectors.  Foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen.  (d) Documents shall be organized so they are readable without requiring an associated style sheet.  Supports  All of the static content is formatted using CSS. When CSS is turned off, the content is still available and structured semantically using the appropriate HTML elements.  (e) Redundant text links shall be provided for each active region of a server-side image map.  (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.  Supports  Digital Commons does not use client-side image maps.</em></strong>	multimedia presentation shall be	Supports	multi-media files that are hosted on a remote server. Please note that users are responsible for providing audio captions, audio descriptions, and transcripts with their video and audio presentations.  Links are provided to any special readers or plug-ins that required for interpreting user-
are readable without requiring an associated style sheet.  (e) Redundant text links shall be provided for each active region of a server-side image map.  (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.  CSS. When CSS is turned off, the content is still available and structured semantically using the appropriate HTML elements.  Digital Commons does not use server side image maps.  Digital Commons does not use client-side image maps.	information conveyed with color is also available without color, for example from	Supports	methods of conveying information, but the same information is available whether or not the user can see the colors. The meaning of the content would not change if the colors were removed, through use of <strong> and <em> tags, as well as CSS selectors.  Foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white</em></strong>
for each active region of a server-side image maps.  (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.  image maps.  Digital Commons does not use client-side image maps.	are readable without requiring an	Supports	CSS. When CSS is turned off, the content is still available and structured semantically
provided instead of server-side image image maps.  maps except where the regions cannot be defined with an available geometric shape.	for each active region of a server-side	Supports	_
(a) Row and column headers shall be Supports Data tables have the column and row	provided instead of server-side image maps except where the regions cannot be	Supports	_
(8) Now and column headers shall be supports Data tables have the column and row	(g) Row and column headers shall be	Supports	Data tables have the column and row

identified for data tables.		headers appropriately identified (using the  tag).
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Supports	Data table cells are associated with the appropriate headers (e.g. with the id, headers, scope attributes)
(i) Frames shall be titled with text that facilitates frame identification and navigation	Supports	Digital Commons does not use frames on its static pages, Search/Login/My Account pages.
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Supports	Digital Commons does not use blinking text, objects or other elements.
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Supports	Because the site is coded semantically per HTML 5 and images are not used to convey information without a text equivalent, there is no need for a separate text-only page for any pages on the site.  Content is usable/accessible when images are disabled.
(I) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Supports	Digital Commons uses non obtrusive clientside scripts.
(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with Û1194.21(a) through (I).	Supports	Article pages contain a link to a page where the PDF reader can be downloaded.  Digital Commons supports links to accessible plug-ins.
(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	Labels are matched to input ids to allow for assistive technology to describe the meaning of form field elements  Text instructions are provided at the beginning of forms to describe the necessary input.  1) Forms are designed in a linear format, and similar form items are grouped.  2) Text labels are positioned to maximize

		predictability of relationships.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Supports	The first link on every page allows users to skip past the main navigation links.
IIIKS.		All static pages define the following access keys access:
		Access key 1: IR Home page Access key 2: Skip to main content Access key 3: My Account Access key 4: Search Access key 0: Accessibility Statement
		Also, each section is coded using the appropriate heading elements (H1 is used for the site title, H2 tags are used for main titles, H3 and H4 tags for subtitles), allowing users of screen readers to jump from section to section or to hear an outline of the entire page if they like.
		All static pages include a search box (Access Key 4) in the sidebar.
		Additional navigational aids Search results can be navigated by using the following access keys:
		Access key f: First results page Access key n: Next results page Access key p: Previous results page Access key I: Last results page
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	N/A	Digital Commons does not use timed responses.

Note to 1194.22: The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

# Section 1194.24 Video and Multi-Media Products

 $*\ Refer to\ (\ \underline{http://www.access-board.gov/sec508/guide/1194.24.htm}\ )\ for\ details\ on\ the\ guidelines\ listed\ below.$ 

Criteria	Supporting Features	Remarks and explanations
(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	N/A	NOTE: Digital Commons is entirely web-based, so the most applicable Section 508 accessibility criteria are those in 1194.22 dealing with web-based information.
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	N/A	<b>NOTE:</b> Digital Commons is entirely web-based, so the most applicable Section 508 accessibility criteria are those in 1194.22 dealing with web-based information.
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	N/A	Digital Commons does not solely rely on training or informational videos in multimedia format.
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	N/A	Digital Commons does not rely on training or informational videos in multimedia format.
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	N/A	Digital Commons does not rely on training or informational videos in multimedia format for access to any application functionality.

# Section 1194.31 Functional Performance Criteria

Criteria	Supporting Features	Remarks and explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Supports	All functions may be performed from the keyboard and all information is displayed in web pages so that existing Assistive Technology may be used by people who are blind or visually impaired.
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supports	Digital Commons public facing pages support the use of screen readers to access user interface information.  Digital Commons Search/Advanced Search/Results pages satisfy:  1) U.S. Federal Government Section 508 Guidelines.  2) The AA level of the W3C 2.0 Web Content Accessibility Guidelines.
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	N/A	Digital Commons does not require user hearing for access to any application functionality.
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	N/A	Digital Commons does not require user hearing for access to any application functionality.
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	N/A	Digital Commons does not require speech recognition.
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Supports	Digital Commons public facing pages support the use of keyboard controls and screen readers to access user interface information.

# Section 1194.41 Information, documentation, and support

Criteria	Supporting Features	Remarks and explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Supports	Digital Commons makes its documentation available from all public facing pages (faq.html).  Documentation is provided in HTML, and can be converted to other formats as needed (a print stylesheet ensures that all static pages can easily be printed).
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Supports	A description of the Digital Commons accessibility features is available in HTML format, and accessible from every static page (accessibility.html).
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	The support services for Digital Commons accommodate voice communications and email communications, both of which are operable by persons with disabilities.
		Support personnel are familiar with such features as keyboard access and other options important to people with disabilities.

# **DIGITAL COMMONS VPAT APPENDIX**

SUPPLEMENTAL DIGITAL COMMONS ACCESSIBILITY COMPLIANCE DOCUMENTATION

#### SYNTAX VALIDATION

All static pages validate as HTML 5.

All static pages on the Digital Commons platform use structured semantic markup:

• H2 tags are used for main titles, H3 and H4 tags for subtitles.

This site uses cascading style sheets for visual layout.

• If your browser or browsing device does not support stylesheets at all, the content of each page is still readable. Digital Commons sites do not contain duplicate pages with the same content.

Each page has a unique title.

#### SEMANTIC VALIDATION

Links are written to make sense out of context.

Many links have title attributes which describe the link in greater detail, unless the text of the link already fully describes the target.

As a rule, links to other web pages do not open in new windows. All download links contain a title attribute "opens in new window".

- E-document types are included as part of the link description text. Additionally,
- E-document types are exposed through semantic mark-up (e.g. <span class="pdf">)

The E-document file size is included as part of the link description text on individual article pages

Linked text within the body content is clearly distinguishable from non-linked text content

- Links are underlined
- Links have visited, active, and hover states defined.

#### **SECTION 508 CHECKPOINTS**

§ 1194.22 Web-based intranet and internet information and applications (See: http://www.section508.gov)

#### CHECKPOINT A: TEXT EQUIVALENTS

All images that convey content have equivalent alt-text (e.g. Site logo, institution logo):



All system <img> elements have appropriate text equivalents (alt attributes).

Whenever images are used solely for decoration, or enhancement of the site's "look and feel," they are called from the CSS. Alternate text makes sense in the context of the page as spoken.

Real text is used instead of images where possible. Content is usable and accessible with images disabled: text content contained in images does not disappear when images are not available.

#### CHECKPOINT B: MULTI-MEDIA

As of the 6.5 release (June 2009), the Digital Commons platform allows users to include streaming of video and audio files that are hosted on a remote server. Please note that users are responsible for providing audio captions, audio descriptions, and transcripts with their video and audio presentations.

Links are provided to any special readers or plug-ins that required for interpreting page content.

#### CHECKPOINT C: COLOR

Color is used to supplement non-color methods of conveying information, but the same information is available whether or not the user can see the colors. The meaning of the content would not change if the colors were removed, through use of <strong> and <em> tags, as well as CSS selectors.

Foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen.

All site designs are manually checked for sufficient contrast ratio before implementation

#### CHECKPOINT D: STYLES

All of the static content is formatted using CSS. Digital Commons sites are structured semantically using the appropriate HTML elements, and when CSS is turned off all content is still available.

With all styles disabled, color and font information is rendered in the browser's default style.

With all styles disabled, headings, paragraphs, and lists are obvious and sensible.

All Digital Commons web pages include 4 different areas. When CSS (Cascading Styles Sheet) is not applied to a document (or when using a screen reader), the 4 areas are always read in the following order:

- Header bar that includes the main navigation
- Main content area
- Side bar
- Footer

Because the site is coded semantically per HTML 5 and images are not used to convey information without a text equivalent, there is no need for a separate text-only page for any pages on the site. Content is usable/accessible when images are disabled.

With all styles disabled, content appears in a few select places where it was invisible before on the default Digital Commons installation. Examples of instances where content is hidden by default: Skip links at the top of each static page, label element for sidebar search drop-down, as the select list itself already indicates the necessary input.

./ Bepress will override these default settings and expose the platform's hidden elements at no extra charge upon subscriber request.

Headings are properly nested by level: H2 tags are used for main titles, H3 and H4 tags for subtitles. Headings accurately reflect the structure of the document content.

#### CHECKPOINT E: SERVER-SIDE IMAGE MAPS

Digital Commons does not use server side image maps.

#### CHECKPOINT F: CLIENT-SIDE IMAGE MAPS

Digital Commons does not use client-side image maps.

#### CHECKPOINT G: SIMPLE TABLES

Digital Commons does not use simple tables.

#### CHECKPOINT H: COMPLEX TABLES

Digital Commons does not use complex tables.

#### CHECKPOINT I: FRAMES

Digital Commons does not use frames on its static pages.

#### CHECKPOINT J: FLICKER

Digital Commons does not use blinking text, objects or other elements.

#### CHECKPOINT K: TEXT ONLY

The Digital Commons platform is coded semantically per HTML 5; images are not used to convey information without a text equivalent, hence there is no need for a separate text-only page for any pages on the site.

### CHECKPOINT L: SCRIPTS

Digital Commons uses non obtrusive client-sidescripts.

Digital Commons does not rely on javascript to generate any content on the public-facing pages.

#### CHECKPOINT M: APPLETS AND PLUG-INS

Links are provided to any special readers or plug-ins that required for interpreting page content. Below is an example of the Preview PDF feature that was developed for Release 6.5.

#### EXAMPLE OF EMBEDDED PDF WITH ADOBE READER PLUGIN:

Figure 1



#### EXAMPLE OF FALL-BACK WHEN NO PLUG-IN IS AVAILABLE:

#### Figure 2

To view the content in your browser, please <u>download Adobe Reader</u> or, alternately, you may <u>Download</u> the file to your hard drive.

NOTE: The latest versions of Adobe Reader do not support viewing PDF files within Firefox on Mac OS and if you are using a modern (Intel) Mac, there is no official plugin for viewing PDF files within the browser window.

#### CHECKPOINT N: FORMS

- Each <input> element or control (except buttons) has an associated <label> element.
   Please note: In some cases the <label> element is hidden with CSS. These occur in instances where the form element itself already indicates the necessary input.
  - ./ Bepress will override these default settings and expose the platform's hidden elements at no extra charge upon subscriber request.
- 2. Labels are matched to input IDs to allow for assistive technology to describe the meaning of form field elements: Example of Simple Search input:

```
<label for='simple-search'>
     <input type='text' size='40' name='value_1' value='' id='simple-search'>
</label>
```

3. Text instructions are provided at the beginning of forms to describe the necessary input.

Forms are designed in a linear format, and similar form items are grouped. Tab order to reach the form and the tab order between form elements consistent with the normal order of entering form data.

Text labels are positioned to maximize predictability of relationships.

#### CHECKPOINT O: SKIP LINKS

The first link on every page allows users to skip past the main navigation links. This link is triggered by:

Access key 2: Skip to main content

- PLEASE NOTE: Skip links at the top of each static page are hidden with CSS by default.
- ./ Bepress will override these default settings and expose the platform's hidden elements at no extra charge upon subscriber request.

#### **SECTION 508 WEBSITE PLANNING AND EVALUATION TOOLS**

#### **ACCESSIBILITY TOOLS**

Fangs Screenreader Emulator: https://addons.mozilla.org/en-

US/firefox/addon/402

Firefox Accessibility Extension: https://addons.mozilla.org/en-

US/firefox/addon/5809

Juicy Studio Accessibility Toolbar: https://addons.mozilla.org/en-

US/firefox/addon/9108

TAW3 with a click: <a href="https://addons.mozilla.org/en-">https://addons.mozilla.org/en-</a>

US/firefox/addon/1158

Yellowpipe Lynx Viewer Tool: https://addons.mozilla.org/en-

US/firefox/addon/1944

Wave Accessibility Evaluation Tool:

http://wave.webaim.org

Wave Toolbar

http://wave.webaim.org/toolbar

WCAG Contrast Checker: https://addons.mozilla.org/en-

US/firefox/addon/7391

#### **AUTOMATED TESTING**

CynthiaSays:

http://www.cynthiasays.com

Functional Accessibility Evaluator:

http://fae.cita.uiuc.edu

#### COLOR CHECKING TOOLS

Colorblind Web Page Filter: <a href="http://colorfilter.wickline.org">http://colorfilter.wickline.org</a>

Juicy Studio: Luminosity Color Contrast Analyzer:

http://juicystudio.com/services/luminositycontrastratio.php

#### **DEVELOPMENT TOOLS**

HTML Validator: https://addons.mozilla.org/en-

US/firefox/addon/249

**Total Validator:** 

http://www.totalvalidator.com

W3C Feed Validation Service: <a href="http://validator.w3.org/feed">http://validator.w3.org/feed</a>

Web Developer Toolbar: https://addons.mozilla.org/en-

US/firefox/addon/60

#### PRODUCT PLANNING/WIREFRAMING TOOLS

Axure – Wireframes, Prototypes, Specifications:

http://www,axure.com

iPlotz:

http://iplotz.com

# DIGITAL COMMONS ACCESSIBILITY RELEASE HISTORY

STANDARDS COMPLIANCE: SECTIONS 1194.21 (D), 1194.21 (N)

#### 6.11 RELEASE: Key Improvements

#### Administrator Menu

We've updated the look and feel of the Digital Commons administrative interface to improve the user experience.

Affected work flows: Editor/Administrator, Reviewer

Affected CGI's: associate\_editor.cgi, bookreviewer.cgi, config.cgi, context.cgi, editor\_gallery.cgi, editor.cgi, mailinglists.cgi, metadata\_config.cgi, preview\_lawreview.cgi, preview.cgi, regenerate.cgi, sendings.cgi, user\_config.cgi,user\_mailinglists.cgi

- 1) Overhauled legacy mark-up.
  - a) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Removed all inline visual styling of page elements and text.
  - a) Separated mark-up from style
  - b) Replaced all rollover images with plain text links

#### Multimedia Support For iPads and iPhones

We added HTML5 support to multimedia, which means that we now offer streaming media for the iPhone and iPad.

Flash mode with HTML5 failover for non-Flash browsers (iPad, iPhone, etc.)
Failover to direct download if neither Flash nor HTML5 are supported (for older device support)

As of 6.11, the following formats will be supported for iPad and iPhone:

Supported File Formats	
Video Formats	H.264 / MP4 (.mp4), VP8, Ogg Theora (.ogv)
Sound Formats	AAC (.m4a), MP3 (.mp3), Ogg Vorbis (.ogg)
*Browser dependent	

#### **Supported Platforms**

Browsers	Flash	HTML5
Chrome		
Firefox		3.5+
Internet Explorer		9.0+
Opera		
Safari		

Devices			
iPhone/iPad			
Android	2.2+	2.1+	

#### **Reset Password**

- 1) Overhauled legacy mark-up.
  - a. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately:
  - a. Added <caption> element to programmatically associate the title of the table with the table itself.
  - b. Implemented proper table headings, using the element for the left column cells.
  - c. Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
  - d. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - e. The *for* attribute of each label matches the *id* attribute of the control.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.
- 4) Added DOCTYPE declaration to all Reset Password screens.

#### Other Improvements

#### DOCTYPE Declarations for dynamic pages

As part of an ongoing effort to ensure that not only our static pages, but also our dynamic pages conform to HTML specifications, we added DOCTYPE declarations to the following CGI's:

subscription orders.cgi

#### 6.10 RELEASE: Key Improvements

#### My Account

Affected work flows: Editor/Administrator, Reviewer, Author, Subscribers

Fixed foreground and background colors on link hover to provide sufficient contrast.

#### Referee Workflow

- 1) Overhauled legacy mark-up.
  - a. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately:
  - a. Added <caption> element to programmatically associate the title of the table with the table itself.
  - b. Implemented proper table headings, using the element for the left column cells.

- c. Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.

#### Other Improvements

#### **DOCTYPE** Declarations for dynamic pages

As part of an ongoing effort to ensure that not only our static pages, but also our dynamic pages conform to HTML specifications, we added DOCTYPE declarations to the following CGI's:

Subscription orders.cgi

#### 6.9 RELEASE: Key Improvements

The 6.9 Release includes some key improvements to the Digital Commons author-facing pages and workflows, aimed at Section 508 compliance and meeting the Web Content Accessibility Guidelines (WCAG 2.0).

This release also includes many improvements to site-wide metadata, page titles, links & text, as part of our on-going focus to enhance Digital Commons SEO.

#### Improvements to Additional Files Widget

- 1) Overhauled legacy mark-up.
  - a. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately:
  - a. Added <caption> element to programmatically associate the title of the table with the table itself.
  - b. Implemented proper table headings, using the element for the left column cells.
  - c. Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
  - d. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - e. The for attribute of each label matches the id attribute of the control.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.

#### **SEO Improvements**

- 1) Metadata improvements
  - a) New metadata descriptions using the abstract field.
  - b) Metadata descriptions for SelectedWorks.
- 2) Page Titles
  - a) New user config for custom taglines at the site and publication levels.
- 3) Enhancements to Links & Text
  - a) Article titles now link to the full text download.
  - b) Improve cross linking with an "Add this link to your site" comment on author emails.

- c) New abstract instructions on the submit form to educate users about how abstracts improve page rank.
- 4) General SEO Improvements
  - a) Create Sitemaps.xml to speed discovery and updates of content
  - b) Auto-ping google when page is published with new content
  - c) Add class="robots-nocontent" to headers/footers and other unrelated content.

#### Other Improvements

#### **Digital Commons CSS Optimization**

We migrated, optimized and reorganized all of our CSS files, in an effort to reduce overall page sizes.

#### DOCTYPE Declarations for dynamic pages

As part of an ongoing effort to ensure that not only our static pages, but also our dynamic pages conform to HTML specifications, we added DOCTYPE declarations to the following CGI's:

user\_subscribe.cgi preview\_lawreview.cgi

### 6.8 RELEASE: Key Improvements

The 6.8 Release includes some key improvements to the Digital Commons author-facing pages and workflows, aimed at Section 508 compliance and meeting the Web Content Accessibility Guidelines (WCAG 2.0).

#### Improvements To User Profile Forms

Platform component	Affected workflows	Affected cgi
About You, Co-Authors, and Author Details	Author, Editor/Administrator	submit.cgi
Author Contact Info	Editor/Administrator	contact.cgi
Edit User Info	All users	accountinfo.cgi

- 1) Overhauled legacy mark-up.
  - a) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately:
  - a) Added <caption> element to programmatically associate the title of the table with the table itself.
  - b) Implemented proper table headings, using the element for the left column cells.
  - c) Added < thead > for table head, < tfoot > for table footer and for table body, to provide additional grouping aids.
  - d) Added explicit labels to each form control to programmatically tie the text prompt with the associated control.

- e) The for attribute of each label matches the id attribute of the control.
- 1. Keyboard-accessible: All page functionality is available using the keyboard.

#### **General Usability Improvements**

Affected work flows: Editor/Administrator, Reviewer, Author

- 1) Overhauled legacy mark-up.
  - a) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b) The for attribute of each label matches the id attribute of the control.
- 3) Implemented as a proper DATA table
  - a) Added <caption> element to programmatically associate the title of the table with the table itself.
  - b) Implemented proper table headings, using the element at the top of each column.
  - c) To avoid any screen reader ambiguity, each table header is also assigned a unique *ID*, along with the *SCOPE* attribute.
  - d) Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
- 4) Keyboard-accessible: All page functionality is available using the keyboard.

#### **Revision History Table General Usability Improvements**

- 1) Added color to alternating rows, to facilitate readability (*Figure 1*)
  - a) Allow users to quickly distinguish each separate line-item.
- 2) Replaced small typographic symbols EDITOR APPROVED VERSION and AUTHOR APPROVED VERSION with icons and separated the Native and PDF columns with a border to minimize confusion (*Figure 2*)
  - a) The user is able to quickly view the status of a file.
- 3) Auto-converted files are now part of the same line-item as user-submitted native file (Figure 3)
  - a) Especially in the case of many revisions, it was difficult to connect the auto-conversions to their corresponding native files.
  - b) New revision table combines the native file and system-generated PDF, displaying the native and PDF download links adjacent to each other.
  - c) The auto-conversion message is being output in *italics* underneath the user comment.
- 4) Dates have been normalized (Figure 4).
  - a) The table now outputs the same date/time format for Auto-converted message and DATE column
  - b) Uses the 24 hour time format, as opposed to the 24hr in one and 12hr AM/PM in the other
  - c) Rather than listing PST next to every date/time instance, added a note at the foot of the table, indicating NOTE: All times are in PST (Pacific Standard Time)

## Figure 1



## Figure 2

Revision History					
User	Comment	Date	Cover letters	Native	PDF
Samira Vijghen	Editor uploaded new full-text	Mar 23 14:46:00 2010		& image/jpg	& DDF
	Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010			2	
J. Alfred Prufrock	minor revision	Mar 19 01:06 2010		text/rtf	PDF
	Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 2010				
Editor selected version 2	Author approved version	NOTE: All times are in PT (Pad	cific Time)		

#### Figure 3

Revision History					
User	Comment	Date	Cover letters	Native	PDF
Samira Vijghen	Editor uploaded new full-text  Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010	Mar 23 14:46:00 2010		& D image/ipg	& D PDF
J. Alfred Prufrock	minor revision  Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 2010	Mar 19 01:06 2010		<u>text/rtf</u>	PDF
b Editor selected version	Author approved version	NOTE: All times are in PT (Page	cific Time)	ti e	



#### 6.7 RELEASE: Key Improvements

#### Search and Accessibility

As of the 6.7 release, our Search/Advanced Search/Results functionality satisfies:

- 1) U.S. Federal Government Section 508 Guidelines.
- 2) The AA level of the 2.0 W3C Web Content Accessibility Guidelines.

#### Additional improvements include:

- 1) Overhauled legacy mark-up.
  - a) Converted from table-based layout to structural HTML
  - b) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a) Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b) The for attribute of each label matches the id attribute of the control.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.

#### **Search Results Navigational Aids**

Results can be navigated by using the following access keys:

Access key	Destination
f	First results page
n	Next results page
р	Previous results
	page
I	Last results page

#### Login Improvements

- 1) Overhauled legacy mark-up.
  - a) Converted from table-based layout to structural HTML
  - b) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a) Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b) The for attribute of each label matches the id attribute of the control.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.

#### **General Usability Improvements**

Administrators now have the ability to customize login text and instructions at the domain level.

#### 6.0 RELEASE: Key Improvements

#### **Author Widget Improvements**

- 1) Overhauled legacy mark-up.
  - a) Converted from table-based layout to structural HTML
  - b) Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2) Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a) Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b) The for attribute of each label matches the id attribute of the control.
- 3) Keyboard-accessible: All page functionality is available using the keyboard.

#### **6.8 RELEASE: KEY IMPROVEMENTS**

The 6.8 Release includes some key improvements to the Digital Commons author-facing pages and workflows, aimed at Section 508 compliance and meeting the Web Content Accessibility Guidelines (WCAG 2.0).

#### IMPROVEMENTS TO USER PROFILE FORMS

Platform component	Affected workflows	Affected cgi
About You, Co-Authors, and Author Details	Author, Editor/Administrator	submit.cgi
Author Contact Info	Editor/Administrator	contact.cgi
Edit User Info	All users	accountinfo.cgi

- 1. Overhauled legacy mark-up.
  - a. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2. Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately:
  - a. Added <caption> element to programmatically associate the title of the table with the table itself.
  - b. Implemented proper table headings, using the element for the left column cells.
  - c. Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
  - d. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - e. The *for* attribute of each label matches the *id* attribute of the control.
- 3. Keyboard-accessible: All page functionality is available using the keyboard.

#### GENERAL USABILITY IMPROVEMENTS

Affected work flows: Editor/Administrator, Reviewer, Author

- 1. Overhauled legacy mark-up.
  - Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2. Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b. The *for* attribute of each label matches the *id* attribute of the control.
- 3. Implemented as a proper DATA table
  - a. Added <caption> element to programmatically associate the title of the table with the table itself.
  - b. Implemented proper table headings, using the element at the top of each column.
  - c. To avoid any screen reader ambiguity, each table header is also assigned a unique *ID*, along with the *SCOPE* attribute.
  - d. Added <thead> for table head, <tfoot> for table footer and for table body, to provide additional grouping aids.
- 4. Keyboard-accessible: All page functionality is available using the keyboard.

#### REVISION HISTORY TABLE GENERAL USABILITY IMPROVEMENTS

- 1. Added color to alternating rows, to facilitate readability (Figure 1)
  - a. Allow users to quickly distinguish each separate line-item.
- 2. Replaced small typographic symbols EDITOR APPROVED VERSION and AUTHOR APPROVED VERSION with icons and separated the Native and PDF columns with a border to minimize confusion (*Figure 2*)
  - a. The user is able to quickly view the status of a file.
- 3. Auto-converted files are now part of the same line-item as user-submitted native file (Figure 3)
  - a. Especially in the case of many revisions, it was difficult to connect the auto-conversions to their corresponding native files.
  - b. New revision table combines the native file and system-generated PDF, displaying the native and PDF download links adjacent to each other.
  - c. The auto-conversion message is being output in *italics* underneath the user comment.
- 4. Dates have been normalized (Figure 4).
  - a. The table now outputs the same date/time format for Auto-converted message and DATE column
  - b. Uses the 24 hour time format, as opposed to the 24hr in one and 12hr AM/PM in the other
  - c. Rather than listing PST next to every date/time instance, added a note at the foot of the table, indicating NOTE: All times are in PST (Pacific Standard Time)

#### Figure 1

User	Comment	Date	Cover letters Native
Samira Vijghen	Editor uploaded new full-text	Mar 23 14:46:00 2010	& 🕽 image/jj
	Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010		
J. Alfred Prufrock	minor revision  Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 2010	Mar 19 01:06 2010	<u>text/rtf</u>
& Editor selected version	Author approved version	NOTE: All times are in PT (Paci	fic Time)

## Figure 2

User	Comment	Date	Cover letters	Native	PDF
Samira Vijghen	Editor uploaded new full-text	Mar 23 14:46:00 2010		🏖 🕽 image/jpg	& DE
	Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010			2	
J. Alfred Prufrock	minor revision	Mar 19 01:06 2010		text/rtf	PDF
	Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 2010				

## Figure 3

Revision History					
User	Comment	Date	Cover letters	Native	PDF
Samira Vijghen	Editor uploaded new full-text  Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010	Mar 23 14:46:00 2010		🏖 🕃 image/ipg	& DF €
J. Alfred Prufrock	minor revision  Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 2010	Mar 19 01:06 2010		<u>text/rtf</u>	PDF
& Editor selected version	Author approved version	NOTE: All times are in PT (Page	cific Time)		·

## Figure 4

User	Comment	Date	Cover letters	Native	PDF
Samira Vijghen	Editor uploaded new full-text	Mar 23 14:46:00 2010		& image/jpg	& DE
	Revision auto-converted to PDF, revision posted: Thu Mar 23 12:52:21 2010				
J. Alfred Prufrock	minor revision	4 Mar 19 01:06 2010		text/rtf	PDF
	Revision auto-converted to PDF, revision posted: Fri Mar 19 01:04:57 4				

#### **6.7 RELEASE: KEY IMPROVEMENTS**

#### SEARCH AND ACCESSIBILITY

As of the 6.7 release, our Search/Advanced Search/Results functionality satisfies:

- 1. U.S. Federal Government Section 508 Guidelines.
- 2. Priority 1 guidelines of the W3C Web Content Accessibility Guidelines.

#### Additional improvements include:

- 1. Overhauled legacy mark-up.
  - a. Converted from table-based layout to structural HTML
  - b. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2. Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b. The *for* attribute of each label matches the *id* attribute of the control.
- 3. Keyboard-accessible: All page functionality is available using the keyboard.

#### SEARCH RESULTS NAVIGATIONAL AIDS

Results can be navigated by using the following access keys:

Access key	Destination
f	First results page
n	Next results page
p	Previous results page
l	Last results page

#### 6.5 RELEASE

#### LOGIN IMPROVEMENTS

- 1. Overhauled legacy mark-up.
  - a. Converted from table-based layout to structural HTML
  - b. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2. Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b. The for attribute of each label matches the id attribute of the control.
- 3. Keyboard-accessible: All page functionality is available using the keyboard.

#### GENERAL USABILITY IMPROVEMENTS

Administrators now have the ability to customize login text and instructions at the domain level.

#### 6.0 RELEASE

#### **AUTHOR WIDGET IMPROVEMENTS**

- 1. Overhauled legacy mark-up.
  - a. Converted from table-based layout to structural HTML
  - b. Stripped deprecated attributes from all table cells and text (e.g.: BGCOLOR, ALIGN, FONT)
- 2. Markup now facilitates accessibility. This includes following the HTML specifications and using forms, form labels appropriately.
  - a. Added explicit labels to each form control to programmatically tie the text prompt with the associated control.
  - b. The for attribute of each label matches the id attribute of the control.
- 3. Keyboard-accessible: All page functionality is available using the keyboard.