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Access for All: How Libraries, Publishers, and Vendors Can Collaborate on Accessible Products

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Access for All: How Libraries, Publishers, and Vendors Can Collaborate on Accessible Products

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Abstract

According to the 2016 Disability Statistics Annual Report, “The overall rate of people with disabilities in the US population in 2015 was 12.6%.” This means tens of millions of people in the United States alone, but making work accessible serves a far larger population even than that. As has often been noted, most of us, if we live long enough, will experience a disability at some point. Many of the steps taken to create accessible texts makes them better, more reader-friendly, and more usable to everyone—those with or without impairments. This session’s focus on accessibility will consider how libraries, publishers, and vendors can work together to ensure that all readers can access electronic books and texts.

Organized by the AUPress’s Library Relations Committee, this panel features librarians, publishers, and vendors who will discuss what they’re doing to engage with accessibility challenges and opportunities. This session will be of benefit to librarians providing access to materials for patrons, publishers putting out accessible materials, and vendors providing services that increase accessibility of materials for all readers. The session also will focus on how these groups can partner and learn from one another to create more and better accessible products.

Bill Kasdorf, Principal, Kasdorf & Associates, LLC

[This is a summary of the presentation given by Bill Kasdorf at the 2018 Charleston Conference.]

In the past, accessibility has been seen as a burden. But today, increasingly, it’s being seen as a benefit. Not just for those with disabilities, but for everybody. By making both publications and the platforms and systems that deliver them accessible, we make them easier to use by everybody.

Accessibility makes our products and processes better. It makes our publications easier to read and navigate by providing good, logical structure and reading order, the ability to access them on various devices, and read-aloud functionality when we need hands free or to keep our eyes on the road. It makes our systems and applications easier to use, too, by providing things like labels on buttons and forms and keyboard equivalents for everything.

There are so many things in our daily lives that we now take for granted but which were originally created for accessibility. Think how much we appreciate curb cuts when we’re dragging a heavy suitcase to a hotel or taking a child in a stroller for a walk. Closed

captioning on videos enables us to watch in noisy places where we couldn’t hear the dialog, or in quiet places where the sound isn’t appropriate. And think how much voice assistants like Siri and Alexa have become part of the family. All of these technologies were originally created for accessibility.

The industry is working on making accessibility something we take for granted, just as we now take curb cuts for granted. Publications should be “born accessible.” They shouldn’t require special workflows or postpublication enhancement or remediation to be accessible, as they most often do now. Instead, the standard publications we make should be accessible from the start.

The good news is that for publishers, and for those who deliver publications, like libraries, making publications and systems accessible is much easier than it used to be. The main reason for this is that today accessibility is largely based on Web standards. The Open Web Platform (OWP) is fundamental.

The W3C’s Web Content Accessibility Guidelines (WCAG) provide the foundation for accessibility, both for content and systems. Most accessibility standards, recommendations, and specifications

worldwide are based on WCAG now, including the recently updated Section 508 standard in the United States.

Another W3C standard, WAI-ARIA (Web Accessibility Initiative—Accessible Rich Internet Applications), provides standard semantics that enable assistive technology (AT) to navigate and render content in predictable ways for people with disabilities—for example, providing a label for a form field or button, or identifying a section as a chapter or a paragraph as an alert.

Another important factor is that the proper file formats are now the file formats we already use anyway. The DAISY Consortium, the global accessibility standards and advocacy body, now recommends EPUB 3 as the proper format for interchange of accessible publications. EPUB 3 is also the standard e-book format and the format for interchange of reflowable digital publications. As an example of how well standards are converging, EPUB is based on the Open Web Platform.

This can be standard EPUB 3, not a special “accessible version.” Ideally, it should be the same EPUB everybody can buy. It uses the markup that publishers and vendors routinely use: HTML 5 is the structural semantic foundation; WAI-ARIA augments it for Web accessibility; and DPUB-ARIA adds publication-specific terms like “doc-chapter” and “doc-footnote.”

This is spelled out in EPUB Accessibility 1.0, which specifies EPUB features for accessibility; proper navigation and structure so AT can find things and skip to them (e.g., going straight to Chapter 5), or skip over them (for example, choosing not to bother reading the footnotes); and accessibility metadata describes how accessible the pub is (using the identical accessibility properties in schema.org).

People often think that PDFs are accessible, but they hardly ever are—and it’s very hard to make them accessible. Even then, PDFs are far less accessible than EPUBs. In both cases, you have to make them correctly, and it’s much easier to get EPUBs right.

PDF/UA is the standard for “accessible PDF.” That requires proper tagging, image descriptions, and logical reading order and navigation. Most fall short, requiring “remediation.”

The accessibility community is moving to EPUB, because it’s much more inherently accessible.

While of course there is still work involved in getting accessibility right in EPUBs, there are a number of good resources to help—many of them are quite recent. The *BISG Guide to Accessible Publishing* is the place to start, especially with the significant expansion and update in January 2018. DAISY’s Accessible Publishing Knowledge Base is a comprehensive, dynamic reference that provides detailed, easy-to-read information. Benetech’s DIAGRAM Center provides excellent training, examples, and resources, for example POET (for how to make proper image descriptions) and MathML Cloud (for creating MathML and alt text for equations).

Three new services are especially useful. Ace by DAISY provides free, incredibly detailed, automated online or on-premise analysis of EPUBs. DAISY’s SMART (Simple Manual Accessibility Reporting Tool) complements Ace by facilitating the necessary human review and generating a report. Benetech Global Certified Accessible provides extensive analysis to certify a workflow as reliably producing good, accessible EPUBs.

All of these services are making it easier than ever to make publications accessible—and to get it right.

Resources mentioned in this article:

WCAG, <https://www.w3.org/WAI/standards-guidelines/wcag>

WAI-ARIA, <https://www.w3.org/WAI/standards-guidelines/aria/>

DPUB-ARIA, <https://www.w3.org/TR/dpub-aria-1.0/>

Section 508, <https://www.section508.gov/>

EPUB 3, <https://w3c.github.io/publ-epub-revision/epub32/spec/epub-spec.html>

EPUB Accessibility 1.0, <https://www.w3.org/Submission/epub-a11y/>

Inclusive Publishing, <https://inclusivepublishing.org/>

BISG Guide to Accessible Publishing, <https://bisg.org/store/ViewProduct.aspx?id=6972996> (2016 edition; 2019 out in January)

DAISY’s Accessible Publishing Knowledge Base, <http://kb.daisy.org/publishing/>

Benetech Diagram Center, <http://diagramcenter.org/>

ACE by DAISY, <https://inclusivepublishing.org/toolbox/accessibility-checker/>

SMART. Check inclusivepublishing.org after November 2018, when this will be publicly available.

Benetech Global Certified Accessible, <https://benetech.org/our-work/born-accessible/certification/>

PDF/UA, <https://www.pdfa.org/pdfua-the-iso-standard-for-universal-accessibility/>

Emma DiPasquale, Fulcrum Community Manager, University of Michigan Library

[This is a summary of the presentation given by Emma DiPasquale at the 2018 Charleston Conference.]

Fulcrum is a community-based, open source digital publishing platform that has been developed by

Michigan Publishing and the University of Michigan Library with support from the Andrew W. Mellon Foundation. Committed to presenting the full richness of authors' research outputs, Fulcrum addresses the challenges that hold back the development of digital scholarship in the humanities and qualitative social sciences: discoverability, durability, flexibility, and accessibility. With accessibility being a core value and design component of Fulcrum, we have made a greater effort to dedicate more time and resources to creating inclusive services and content for all readers, and we are constantly working to make Fulcrum and its content as accessible and usable as possible.

One of the first major steps we took in creating a more accessible platform was a collaboration with Michigan State University Usability and Accessibility Research Consulting. From January to March 2018, Fulcrum was tested by assistive technology users, identifying usability and accessibility issues, some of which included usability issues for assistive technology; missing image descriptions for assistive technology navigation; and missing captions and transcripts for video and audio content. Based on this testing, we recognized the need for more specialized work to be done on the platform. We were fortunate to work with Luke Kudryashov, a Rackham public engagement graduate fellow, for a few months during summer 2018. Luke's fellowship centered around testing and documentation of the platform according to the Web Conformance Accessibility Guidelines (WCAG 2.0)

and Section 508 standards as well as the creation of public-facing content around accessibility and develop user guides to accessibility.

After conducting an extensive environmental scan, Luke completed a Voluntary Product Accessibility Template (VPAT) Version 2.1 with the help of our development team and other accessibility specialists in the University of Michigan Library. The VPAT measures and reports the extent to which Fulcrum meets WCAG 2 AA Standards (currently WCAG 2.1 AA) and Section 508 of the U.S. Rehabilitation Act. With Luke's help, our team also developed more accessibility features. These features include improved screen reader compatibility; text zoom features in e-reader; implementation of Able Player, an accessible multimedia player for captions, audio descriptions, and transcripts; image descriptions through alt-text attributes encoded in our EPUB 3 files; zoom controls on images; keyboard navigation shortcuts in the Fulcrum E-Reader; and compatibility with major accessibility browser extensions and operating system settings including text-to-speech, zoom, and contrast. Our VPAT and all compatibility features and known issues are publicly available in our online accessibility statement.

While we have, and continue to, put substantial effort into creating an accessible platform, we also want to make it easier to create accessible content from the start. We have worked with APEX Covantage to develop an EPUB 3 specification for Fulcrum to share with authors and vendors. This spec makes it easier to add alt-text and long descriptions, and provides a deeper semantic markup that helps users with screen readers more easily navigate books. Additionally, we ask authors and publishers to fill out our metadata ingest log for Fulcrum content before we ingest it. It gives authors an ample amount of time to provide alt-text and long descriptions for their media assets. We are also able to provide them with the Describing Visual Resources Toolkit, a resource developed by Stephanie Rosen with help from the University of Michigan Library and Press and the Samuel H. Kress Foundation. The resources in the toolkit are designed to support authors, editors, publishers, and arts organizations in advancing the description of visual resources for accessibility in arts and humanities publications. We hope to continue to develop similar resources to aid these stakeholders in their accessibility work from the get-go.

Recognizing the challenging, dynamic nature of this work, our Accessibility Working Group developed a

mission statement and efforts to hold our organization accountable to meet the highest possible accessibility standards in both technology and content. It reads: "Our vision is to make Michigan Publishing an accessible publishing organization: producing accessible publications, implementing accessible systems, and effecting change among peers and partners by maintaining a high standard of accessibility." At Fulcrum, we want these publications to be accessible from the start, which is why we're working on creating policies, resources, and best practices for partners so that going forward this will be less of an issue.

The Working Group continues to set standards and goals for all Michigan Publishing's publications. We have developed three standards: baseline, standard, and special. By June 2021 we would like most publications we produce to adhere to Publishing's Accessible Book Standard and at the very least all titles publishing after June 2021 to meet our Accessible Book Baseline. To start getting there, fall 2019 press titles will begin aiming for the Baseline. Much of this work has been developed around the forthcoming University of Michigan Press Ebook Collection (launching January 2019). These standards apply to EPUBs and supplemental content like video and audio.

Additionally, Michigan Publishing is also working on other projects that are challenging us to think even more about accessibility and usability. We

have partnered with the *Deaf Studies Digital Journal* (DSDJ) to host their journal and are working with them to develop an interface that serves the needs of their users. We always welcome other feedback and potential partnerships, and we encourage people to share their feedback about our platform and content on our webpage.

Resources mentioned in this article:

Fulcrum's Accessibility Statement, <https://www.fulcrum.org/accessibility/>

Fulcrum's VPAT 2.1, <https://www.fulcrum.org/docs/Fulcrum-VPAT2.1-20180818.pdf>

Describing Visual Resources Toolkit, <https://describingvisualresources.org/>

Accessibility & Publishing by Stephanie Rosen, <http://dx.doi.org/10.3998/mpub.10212548>

Fulcrum Issue Tracker, [https://tools.lib.umich.edu/jira/browse/HELIO-1806?jql=project%20in%20\(CSB%2C%20HELIO\)%20AND%20status%20in%20\(%22In%20Progress%22%2C%20%22To%20Do%22%2C%20%22For%20Review%22\)%20AND%20labels%20%3D%20accessibility](https://tools.lib.umich.edu/jira/browse/HELIO-1806?jql=project%20in%20(CSB%2C%20HELIO)%20AND%20status%20in%20(%22In%20Progress%22%2C%20%22To%20Do%22%2C%20%22For%20Review%22)%20AND%20labels%20%3D%20accessibility)

Accessibility Feedback Form, https://docs.google.com/forms/d/e/1FAIpQLSeYGHkCVgVsSREm-6AsufDJzO8kQou7RVsBoO_ZV8Z8I3y3dA/viewform