Born Accessible

Moving from "Should Do" to "Can Do"

How University of Michigan Press approaches making accessible books

Charleston Webinar
October 23, 2019

Jillian Downey
Jonathan McGlone
University of Michigan Press
Jillian Downey
Director of Publishing Production
University of Michigan Press

Jonathan McGlone
Front-End Developer & UI Designer
Michigan Publishing
Overview

- Background on University of Michigan Press and our accessible ebook initiatives

- Discuss how University of Michigan Press approaches making accessible ebooks
  - High-Level strategies for developing a born accessible workflow
  - Background information on components of accessible EPUBs
  - Illustrate with real-world examples from working with production staff, vendors, authors, and editors
University of Michigan Press
Publishing traditional, scholarly monographs since 1930, currently producing about 100 books a year (digital and print) in the social sciences and humanities.

Michigan Publishing Services
A campus-based publishing services outfit, producing primarily online journals, print and digital books, with the majority of its content open access. Provides additional services such as typesetting, cover design, print on demand.

Deep Blue
Set of institutional repositories, including over 100,000 research outputs from U-M faculty and including a cutting edge data repository and services for archiving U-M faculty data sets.
My Everest: The University of Michigan Press

JULY 21, 2015 / SAKUUSIS

I am a blind professor of disability studies and literature. I teach at Syracuse University. I’m now 60 years old though on the day I was born in 1955 I wasn’t expected to live more than a few hours. In fact my identical twin brother died straight away. We were premature babies in small town America.
Timeline

2015  Establish task force, audit existing EPUBs, adopt EPUB as primary ebook format, endorse Society for Disability Studies Accessible Publishing Guidelines

2016  Adopt born accessible workflow - pilot with disability studies titles, develop image description guidelines, develop production guidelines, public accessibility statement and recommended reading systems, hold Describing Visual Resources Workshop

2017  Launch Describing Visual Resources Toolkit (developed with support of Samuel H. Kress Foundation), audit third-party shopping cart, regular iterations on production workflow

2018  Image description writing workshops for staff, iterate production workflows, develop Fulcrum EPUB spec, establish EPUB baseline, establish audio and video baselines, adopt EPUB baseline for Spring 2019 titles

2019  Launch U-M Press Ebook Collection, update Author's Guide with image description requirements, require alt text for all newly acquired projects, begin working with Benetech Global Certified program to certify that our workflow produces accessible books
Making Born Accessible Books at University of Michigan Press
High-Level Changes
A diagram simplifying the monograph life-cycle in four steps: 1) research and writing, 2) acquisition and book contract, 3) copy editing and typesetting, 4) publication of print and ebook versions. The diagram emphasizes the second step as the most important place to discuss and gather image descriptions from authors.
Author's Guide

Please use the following checklists to be certain you have properly prepared the required elements of your final manuscript. A few important things to keep in mind:

Formatting

- If you will be reproducing copyrighted material in your book, you will need to turn in the necessary permissions when you turn in your completed manuscript. Getting permissions can take months, and delays with permissions can mean delays for your book, so start the process early (after discussing it with your acquiring editor).

Citation Checklist

- If your book contains material from interviews you've conducted, you will need each of your interviewees to sign an Interview Release Form (PDF). Getting them to sign the form at the time of the interview will save you from having to go back later.

Submitting the Final Manuscript

- Before submitting your manuscript please review the text for consistency in spelling, grammar, and punctuation. Please also fact-check your manuscript to ensure that all information is accurate and verify that bibliographic references are complete and up-to-date.

Fonts and Unusual Characters

- We ask that you make every effort to use bias-free and gender-neutral language.

- UM Press places a priority on making our electronic products as accessible as possible. If your manuscript includes images or figures, you will be asked to provide descriptive text (alt text) in addition to captions, for each image to help readers with print disabilities who may interact with the electronic version of your book using software that reads text aloud.

Table of Contents

Final Manuscript Preparation

- Formatting
- Citation Checklist
- Submitting the Final Manuscript
- Fonts and Unusual Characters

Image, Alt Text, and Table Preparation

Permissions

- UM Press places a priority on making our electronic products as accessible as possible. If your manuscript includes images or figures, you will be asked to provide descriptive text (alt text) in addition to captions, for each image to help readers with print disabilities who may interact with the electronic version of your book using software that reads text aloud.

https://www.press.umich.edu/authors/auguide
DEscribing Visual Resources Toolkit

Describing Visual Resources for Accessibility in Arts & Humanities Publications

Home

The description of visual resources is a crucial component of accessible digital publications, as it affords access to the information contained in images for the many people with disabilities that affect reading, and for all the technologies that interact with publications when indexing, searching, or converting text to speech. Description makes visual resources more discoverable and sustainable, and makes publications more useful to more people.

In academic publications in the arts and humanities, description must be scholarly as well as accessible, and in line with existing standards: metadata, copyright, and disciplinary conventions. It is therefore best managed by the scholars, academic publishers, and arts organizations who create the publications.

The resources in this 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.

Background

**Understand**. Learn why we need accessible digital publications for people with print disabilities and how this project developed.

Authors

**Describe**. As an author, you can describe visual resources to make your work more accessible, and let publishers and image rights holders

https://describingvisualresources.org
Follow a specification

Developed a house-style EPUB spec, extending 3.0.1 that is explicit about HTML markup and emphasizes accessibility.

A specification that includes accessibility features for a publication can be shared with vendors who have a hand in creating your publications.

Screenshot of the Fulcrum EPUB specification, developed with Mellon Foundation support. Specification available at https://github.com/mlibrary/fulcrum-epub-spec
<table>
<thead>
<tr>
<th></th>
<th>format</th>
<th>code</th>
<th>metadata</th>
<th>img</th>
<th>Data tables</th>
<th>Video</th>
<th>Audio</th>
<th>Lang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>DRM-free, EPUB</td>
<td>HTML with headings</td>
<td>Schema</td>
<td><code>&lt;alt&gt; is not empty</code></td>
<td>If html, <code>&lt;table&gt;</code> is accessible. If img <code>&lt;alt&gt; is not empty.</code></td>
<td>See baseline video</td>
<td>See baseline audio</td>
<td><code>&lt;lang&gt; of publication is identified</code></td>
</tr>
<tr>
<td>Standard</td>
<td>DRM-free, EPUB that follows Fulcrum Spec</td>
<td>Semantic HTML</td>
<td>Schema</td>
<td><code>&lt;alt&gt; is not empty</code></td>
<td>If html, <code>&lt;table&gt;</code> is accessible. If img <code>&lt;alt&gt; is not empty</code> has text equivalent.</td>
<td>See standard video</td>
<td>See standard audio</td>
<td><code>&lt;lang&gt; of individual sections and phrases are identified</code></td>
</tr>
<tr>
<td>Special</td>
<td>DRM-free, EPUB that follows Fulcrum Spec</td>
<td>Semantic HTML</td>
<td>Schema ONIX</td>
<td><code>&lt;alt&gt; is not empty</code></td>
<td>Includes accessible html <code>&lt;table&gt;</code> as primary or secondary version. Includes some textual description.</td>
<td>See special video</td>
<td>See special audio</td>
<td><code>&lt;lang&gt; of individual sections and phrases are identified</code></td>
</tr>
</tbody>
</table>

Table depicting three tiers of accessible EPUBs at U-M Press.
Components of Accessible Ebooks
Elements of image description

Visible Elements
(available via all reading technology)

Hidden Elements
(available via assistive technology)

Alt text: shorter text (often 140 characters or fewer) associated with a specific visual resource, accessed via assistive technology; shorthand for “alternative text”

Long description: longer text associated with a specific visual resource, accessed via assistive technology; may contain structural elements or subsections (e.g. a table, paragraphs)

Body: the main text of the publication, available via all reading technology

Diagram showing visible and hidden elements of a page. Image credit: Stephanie Rosen
**Fig. 10** Detail of New York University Child Study Center’s (2007) “Ransom Notes” campaign umbrella advertisement. Photograph by Eduardo Trejos. Reprinted with artist’s permission.

This image is of a towering billboard. The text on the billboard appears composed of words and letters cut out from a variety of different print sources and pasted together. The text reads: “12 million kids are held hostage by a psychiatric disorder.”
Alternative (alt) text and front cover description

- High-quality alt text starts with the author, and starts early
  - Most accurate
  - Makes for better book content overall
  - Consistent - when received at the start alt text is copy edited along with the text and captions

- Educate, encourage, and support authors in doing this
  - Written guidelines, and links to concrete examples in relevant fields, are extremely helpful

- Plan on doing some of this work in-house, or with vendors, too
  - Publisher sometimes needs to step in for writing or rewriting
  - Plan in the time and expense to copy edit

- Front cover description
  - Once the front cover has been designed, work with the author to write a cover description for the copyright page.
Cover description from the EPUB, and often included on the copyright page in the printed book as well:

“At the top of the cover page runs the title, *Just Vibrations: The Purpose of Sounding Good*; at the bottom, William Cheng, foreword by Susan McClary. Against the white background is an image of an eggshell’s interior. Cradled within the egg is a nude man, knees tucked and arms wrapped close to his body, as if in a womb. His eyes are closed. A red tattoo shines from his left shoulder. The egg is fragmented, with jagged edges and holes. Small shards of the shell are scattered all around.”
not what was intended by Kamiyama—in fact the references to bullying in this conversation were exclusively concerned with abuses that girls suffered at the hands of boys.

What is particularly interesting about these student conversations is that while the young people do speak of problems adjusting to coeducation, overall they seem quite positive on the topic. Most of the students recount initial feelings of trepidation at sitting in the same classroom with members of the opposite sex, but these reservations seem to have gradually evapo-
Multiple points of access

Including lists of tables and figures, subject indexes, and other methods to navigate an ebook helps provide alternative points of access to the text.
Semantic headings and document structure enables assistive device users to navigate the book content quickly.

<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h2>Heading 2</h2>

Be careful to use HTML semantically, otherwise your ebook will be more difficult to use.
Page markers and page navigation

We add page markers into the text of the epub, that match the print book, for citation purposes.
And page navigation is another way for epub readers to access any part of the epub that they want to, using the Page-List.
Tables

Table 1.1. Sample of Iterated Reform Cases, 1951

<table>
<thead>
<tr>
<th>Country</th>
<th>Reform Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>1991, 2009</td>
</tr>
<tr>
<td>Colombia</td>
<td>1991, 2003</td>
</tr>
<tr>
<td>Croatia</td>
<td>1995, 2000</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1997, 2002</td>
</tr>
<tr>
<td>France</td>
<td>1951, 1958, 1985, 198</td>
</tr>
<tr>
<td>Germany</td>
<td>1953, 1956</td>
</tr>
<tr>
<td>Honduras</td>
<td>1985, 2004</td>
</tr>
<tr>
<td>Italy</td>
<td>1993, 2005</td>
</tr>
<tr>
<td>Macedonia</td>
<td>1998, 2002</td>
</tr>
<tr>
<td>Romania</td>
<td>1992, 2008</td>
</tr>
</tbody>
</table>

- "Live" HTML tables instead of tables as images
  - Our default is HTML tables whenever possible
- Table design - it helps to be proactive
  - Communication between Acquisitions and Production
  - Author education again, written guidelines and examples
  - Level of detail in the HTML coding
Equations

\[ u_{FC} = \gamma u_b + (1 - \gamma) u_s, \]

\[ \begin{align*}
\gamma &\leq \frac{1}{1 - Q \frac{b}{a} - l} \\
1 - Q \frac{b}{a} &> l.
\end{align*} \]

- Single-level equations can be expressed in unicode fonts and read out loud.
- However, multi-level equations are currently images, due to the limitations of what ebook vendors will accept. Hopefully changing soon.
Accessibility metadata

accessMode
accessibilityFeature
accessibilityHazard
accessibilitySummary

Four schema.org metadata must be included

Added to our EPUBs to improve discovery of accessible titles

Few platforms are exposing this metadata

Read about these metadata fields at https://kb.daisy.org/publishing/docs/metadata/schema-org.html
Video captioning and audio description

As books begin to include multimedia, it is important to consider the effort required to make these objects accessible.

Accessible video guidelines require captions for the deaf and hard of hearing and audio descriptions for the visually impaired.
Transcripts with audio files help provide equitable experiences for the deaf and hard of hearing, but can also be a benefit to the visually impaired.
Now Available on Fulcrum: the University of Michigan Ebook Collection

Product info at https://www.press.umich.edu/librarians
Demo at https://www.fulcrum.org/michigan

fulcrum-info@umich.edu
@fulcrumpub
https://fulcrum.org

jmcglone@umich.edu
jilliand@umich.edu