# Modifying an Open Textbook: What You Need to Know

### MODIFYING AN OPEN TEXTBOOK: WHAT YOU NEED TO KNOW

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# ABOUT THE OPEN TEXTBOOK NETWORK



The Open Textbook Network is a diverse community of higher education institutions that promote access, affordability, and student success through the use of open textbooks. Open textbooks are funded, published, and licensed to be freely used, adapted, and distributed.

The Open Textbook Network manages the Open Textbook Library, a comprehen-

sive resource for peer-reviewed open textbooks that can be downloaded at no cost or printed at low cost.

We invite you to join us. Visit open.umn.edu.

### ACKNOWLEDGEMENTS

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### FEEDBACK INVITED

The Open Textbook Network and editing workgroup appreciate your feedback, suggestions, and corrections for the guide, *Modifying an Open Textbook: What You Need to Know*.

Please use our feedback form, or email Karen Lauritsen at klaurits@umn.edu or open@umn.edu.

### **QUICK GUIDE**

### **OVERVIEW**

*Modifying an Open Textbook: What You Need to Know* is for people who want to know what it takes to edit an open textbook and how to get started.

This guide focuses on the fundamental aspects of editing open textbooks found in the Open Textbook Library or elsewhere, and will help you assess the effort, expertise, and technical tools needed. It also gives general guidance on where to find additional help. Instead of trying to cover all of the nitty-gritty details of working with different file formats and platform types – details which are best explained and maintained by the software and tech companies themselves – this guide is designed to orient you to what you're working with, walk you through how to get started, and then point you in the right direction if you need further help.

*Modifying an Open Textbook: What You Need to Know* is actually two guides in one, the Quick Guide and a collection of Format Guides.

The Quick Guide is for evaluating the open textbook you'd like to modify or edit, and determining how you'll share the results of your work.

The Format Guides are for getting started with editing common open textbook file and platform types.

The truth is that while most open textbooks are legally licensed to be

The Quick Guide is organized into 5 steps:

1. Check license

- 2. Identify format
- 3. Assess editability
- 4. Determine access
- 5. Publish textbook

There are 5 Format Guides:

- PDF
- HTML
- MOBI and EPUB
- Pressbooks
- OpenStax

#### modified, the real-life work involved can sometimes be tough because of technical issues. We offer this guide as a way to help.

A quick note about terminology: *Adapt, modify, remix,* and *edit* are used interchangeably throughout the guide.

Thank you for your work! Let's get started.

# BASIC CONSIDERATIONS

Before editing an open textbook, it helps to consider several questions. The answers will inform the level of effort involved in modifying an open textbook.

Questions about the textbook:

- In what file format(s) is the open textbook currently available?
- · How much content needs to be changed: a few sentences or entire chapters?
- Do illustrations, graphs, or charts need to be changed?

Questions about your resources and plans:

- How comfortable are you with technology? Do you have access to software or other help you may need?
- Is it important that your version of the textbook be available in multiple formats?
- Do you plan to share your adapted textbook only with your students or with a wider audience?

If you're approaching a remix project for the first time, a good rule of thumb is to approach it incrementally. While it may be tempting to make a number of major changes at once, an open textbook is a living resource that can be revisited.

# STEP 1: CHECK LICENSE

First, confirm that the open textbook you want to adapt has a license that allows modification and redistribution on the scale you need.

**Open Licenses** 

The most common open licenses are Creative Commons licenses. As long as the Creative Commons license does not have a "No Derivatives" (ND) clause, you're free to change the contents of the book and redistribute with attribution. You don't need to ask the author for permission. Speaking of permission, pay special attention to nontext materials such as illustrations, charts, diagrams, or items marked "used with permission," as they may not be covered by the Creative Commons license.

If you're unsure about the license or what to do about third-party content cited in the textbook or "used with permission," contact someone who understands copyright law for advice. Your library, university counsel, scholarly communications office, or copyright officer are good places to begin.

People who share content with an open license may be receptive to inquiries about uses not covered by their selected license. It may be worth contacting the author or rights-holder with your questions.

File Type	How Do I Read It?	Example
PDF	Adobe Reader	Beyond Lean: Simulation in Practice
HTML	Any internet browser	Human Relations
EPUB	eBook readers (except Kindle), iPhone and Android apps, Firefox and Chrome add-ons, Google Play books	Foundations of Academic Success: Words of Wisdom
MOBI (.AZW3)	Kindle eBook	Financial Accounting
Pressbooks (.WXR)	Any internet browser	Financial Accounting
OpenStax	Any internet browser	Anatomy and Physiology

# STEP 2: IDENTIFY FORMAT

For this step, you'll want to identify the format of the open textbook you'd like to modify. All books in the Open Textbook Library are available in at least one portable format (PDF, EPUB, or MOBI). Textbooks may also be available online (HTML) and via platforms such as Pressbooks or OpenStax CNX.

The PDF Reality

It's common for open textbooks to be available only in PDF. Unfortunately, it's difficult to make major changes to a PDF, so you may want to look for a different file type. Here are some possibilities:

- Use the publisher link (included in the Open Textbook Library) to look for source files.
- Search GitHub for other file formats (computer science and mathematics textbooks often have original files available on GitHub).
- Contact the author to request an editable format.

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### STEP 3: ASSESS EDITABILITY

Now that you've identified the format type of the open textbook you'd like to edit, you can assess the editability of that format. This table shows general levels of editability for common file types and platforms found in the Open Textbook Library. Each format type in the table below is explored in further detail in our Format Guides.

Format	How Editable?	Recommendation	Software/Expertise
PDF	Minor changes are easy. Easy to move sections and pages. Impossible to repaginate or make major changes.	Make only minor changes, obtain native file, use Microsoft Word, or copy/paste into another format.	Moving pages around requires Adobe Acrobat Pro DC (\$).
HTML	Highly editable. Requires comfort with software tools and markup language.	Requires HTML expertise and/or software.	Requires coding expertise or Adobe Dreamweaver (\$).
EPUB	Highly editable. Requires comfort with software tools.	Edit as EPUB.	Pressbooks (see below), calibre (no cost); Sigil (no cost). XML-based format.
MOBI (.AZW3)	Requires conversion to other format. Highly editable. Requires comfort with software. (See EPUB)	Convert into EPUB to edit. (See EPUB)	Many online tools; (See EPUB)
Pressbooks (.WXR)	Highly editable. Requires access to and comfort with Pressbooks platform.	Obtain .WXR file. Edit in Pressbooks or export and edit as EPUB.	Requires access to Pressbooks. Access and support via Open Textbook Network; free account also available.

OpenStax	Editable in OpenStax Connexions Legacy Editor.	Legacy Editor is best for minor changes, like making a custom edition with selected chapters of a larger work. Not recommended for a major edit or rewrite.	Requires Connexions Legacy Editor (no cost).
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Consult the Format Guides for more details.

#### Illustrations

If you plan to modify a textbook that includes photographs, drawings, maps, graphs, diagrams, charts, or other visual content, there may be additional technical issues. A few tips:

- If you want to add a photograph, it needs to be suitable for reproduction. Photos found on the web are often low resolution (72 dots per inch [dpi]), which makes them appear fuzzy when reproduced in print. The industry standard is 300 dpi (minimum).
- Maps are often generated using GIS technology and programs such as Adobe Illustrator, Google Map Maker, or Adobe FreeHand. Modifying maps will be difficult without the original application files (e.g., EPS files). If you do not have access to these files, it might be necessary to start from scratch.
- Graphs, charts, and other data-based figures are often generated from spreadsheet programs such as Microsoft Excel and then stylized for publication using Illustrator or another graphics editing software. As with maps, editing such figures may be difficult without access to the original application files.

Mathematical Characters or Diacritical Marks (LaTeX and Beyond)

Textbooks containing mathematical or scientific notation, nonroman alphabets, or diacritic language characters may require specific editing software.

- If your subject material includes mathematics, chemical symbols, or scientific notation, then LaTeX may be embedded within your main file. You may need editing software that supports LaTeX or MathML, such as TeXnicCenter (Windows), SageMath (open source), ShareLaTeX (online), or Overleaf (online). If you're not already a LaTeX user, you may want to locate a local LaTeX user community through your mathematics department or center for teaching and learning.
- If your subject matter includes non-latin characters or characters with diacritical marks, it may require using Unicode. It may also help to work with someone experienced in multilingual typesetting, and there are many services available online. For more information: Source Forge or Wikibooks.

# STEP 4: Determine Access

At this point in the editing process, you'll want to decide where and in what format students can access your revised open textbook.

Students appreciate having textbooks available in multiple formats, so that they can choose what works best for them. Some students prefer reading a printed version; others prefer reading online. Still others prefer using an e-reader. Offering multiple formats means your content is more accessible. (See Step 2 for format types.)

If you produce multiple formats, remember that what works well in one format may not work well in another. For example, students who use print copies of your textbook need QR codes or short URLs to access content that students who read online can simply click on.

Regardless of the formats you produce, you need a stable place to keep your textbook so that students can access it. Options include distributing the open textbook via your:

- Institutional repository
- Learning management system (LMS)
- Personal website
- Campus bookstore

Some faculty prefer to provide separate chapter-by-chapter files in addition to the complete file.

Accessibility

Offering multiple formats of your open textbook is a key way to ensure greater access to it.

Campus communities can consult with their disability resource centers for guidance and assistance. Disability resource centers commonly facilitate student accommodations by ensuring access to:

- Portable electronic and large-type textbooks for people with mobility limitations or low vision.
- Read-aloud files for text-to-speech software for people with learning disabilities, traumatic brain injuries, or others who may benefit from listening to an audio text.
- Tagged texts, images, and tables to enable screen-reader navigation for people who are blind or low-vision. Tactile graphics and braille are also useful.

The EPUB format is often considered the most accessible for screenreading software.

Three ways to improve accessibility of your open textbook:

- Ensure that digital text is machine-readable.
- Tag navigation elements, including headings and subheadings.
- Tag and describe images and tables.

If you have questions about open textbook accessibility, contact your disability resource center. You can also consult the DAISY Consortium's guide to Making Publications Accessible for All and the International Digital Publishing Forum's EPUB 3 Accessibility Guidelines.

#### Testing and Generating Accessible Formats

If you want to test the accessibility of your open textbook, or convert your textbook into different formats, there are online tools you can use.

NonVisual Desktop Access: Free screen reader that enables user testing. It's an open source, Windows-based software available in more than 40 languages.

PDF Accessibility Checker (PAC 2): Free program displays a PDF preview in a web browser. The PAC preview shows PDF tags and presents the accessible elements as they'd be interpreted by assistive technologies. PAC also provides an accessibility report, which lists the detected accessibility errors.

DAISY Consortium's Pipeline Download: Cross-platform, open source framework for converting text documents into accessible formats for people with print disabilities.

Additional Resources

Many of the following resources on making your open textbook accessible include step-by-step instructions. Further information on accessibility can be found at the following Open Textbook Network partner institutions:

- University of Washington
- University of Montana
- Pennsylvania State University

In addition, you can consult the BC Open Textbook Accessibility Toolkit. The Texas Governor's Committee on People with Disabilities also provides a number of videos on making accessible documents. 15

Further Reading

National Instructional Materials Accessibility Standard (NIMAS): Standard developed in the United States to assist with the production of accessible content in higher education. The NIMAS standard is based on the DAISY standard.

Section 508 of the Workforce Rehabilitation Act: Requires federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities.

Web Content Accessibility Guidelines (WCAG) Overview from W3C: Aims to provide a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally.

International Digital Publishing Forum (IDPF): Maintenance agency for EPUB.

Special thanks to Krista Geear at the University of Washington for her contributions to this section.

# STEP 5: PUBLISH TEXTBOOK

This step is applicable if you plan to publish your edited textbook for use beyond your classroom.

How to Give Attribution

The open license you choose will depend on how the textbook you adapted was licensed. For example, if the original textbook was licensed with a Creative Commons Attribution-ShareAlike (CC BY-SA) license, then you must release your book with the same license to ensure it is compliant with the terms of use. For more information from Creative Commons, go to How to Give Attribution.

Creative Commons (CC) licensing at this stage can get complicated. More resources are available at the CC Wiki. Here are some frequently asked questions: Can I combine material under different Creative Commons licenses in my work? If I derive or adapt material offered under a Creative Commons license, which CC license(s) can I use? If I create a collection that includes a work offered under a CC license, which license(s) may I choose for the collection?

If you need additional help, a librarian may be able to offer more information about how Creative Commons licenses work together.

Art and Image Attribution

If you decide to publish your new textbook with an open license, you must ensure that all of the material within it is openly licensed.

Sometimes openly licensed textbooks include art and images that are not openly licensed. This means the textbook isn't truly an open textbook. Even if the author got permission from the artist to include an image, there's no way for others to know the details of the permission agreement. For example, perhaps the artist gave permission for onetime use. All content in an open textbook must be open, and assigning a legal, open license is the only way to ensure that's the case.

If you're modifying an existing textbook, it's important to resolve any image licensing issues before you publish your version. This means replacing any images that are not openly licensed with ones that are. Here are a few resources:

Google's Advanced Image Search lets you filter by usage rights as well as image size and type, color, format, region, and more.

In Flickr, you can browse or search through images under each type of Creative Commons license. Bing also allows you to filter images by license type.

Creative Commons offers a search tool for images, videos, music, and other media.

Wikipedia's public-domain image resources

- Wikimedia Commons
- Pixabay
- SnappyGoat
- National Park Service Historic Photograph Collection
- U.S. Department of Agriculture Image Gallery
- U.S. Census Bureau Photo Collection

In addition, the British Library has released more than one million images into the public domain. The New York Public Library Digital Collections has more than 700,000 items from its collections online.

The library indicates when a work is in the public domain or has "no known U.S. copyright restrictions."

If you have questions about an image, Tineye Reverse Image Search and Google Reverse Image Search are good places to find information about the origin and license of an image.

#### Making the Textbook Findable

Depending on how much content you've changed or added, you may want to add your new textbook files to open libraries and repositories. For example:

- Open Textbook Library
- OER Commons
- Your institutional repository
- A statewide repository
- A disciplinary repository

Note that each library and repository may have requirements of its own with respect to file types and other specifications. The Open Textbook Library, for example, catalogs the book of record and not derivatives. However, if you create a textbook that includes significant new content in addition to previously shared content, it may meet the library's criteria.

#### Soliciting Feedback

If you publish an open textbook, consider creating a pathway to invite feedback. You may want to crowd-source copyediting through error reporting, for example. Many authors also want to track adoptions and invite peer reviews.

### EDITING FORMAT GUIDES

# FORMAT GUIDE: PDF

PDFs aren't easy to edit. Converting a PDF to an editable format is a time-consuming and imprecise process, whereas having the source files lets you get right to work. Before attempting to edit a PDF or extract text from it, check the open textbook author's website or GitHub to look for source files or HTML, EPUB, or other formats. You may also want to consider contacting the author to see if he or she will share the original files with you.

If you're still reading, then working with a PDF is probably your only option. This format guide helps with three common processes:

- 1. Making minor changes in a PDF.
- 2. Copying and pasting from a PDF.
- 3. Exporting a PDF and cleaning up.

This guide also includes a brief section on designing a PDF to simplify future editing.

A final note before we get started: If you're working with a PDF, it's best to limit your changes so that you don't alter the pagination. If you want to make more substantial changes that will impact the page numbers, you'll probably need to extract the contents of the PDF into another file format. However, this will change the way the pages display. **Making Minor Changes** 

To edit a PDF, you'll need to have access to either Adobe Acrobat Reader (free), Acrobat Pro DC (\$), or Acrobat XI (no longer sold by Adobe, but product support is still provided). PDF files are typically backward-compatible, meaning that a current version of the software usually opens files in earlier (older) PDF formats. Adobe keeps an archive of help guides in case you're working with an older version of Acrobat.

Here are three options for making minor changes to a PDF:

 You can add comments, highlights, or virtual sticky notes in any Adobe Acrobat version (see instructions). Notes added to a file are editable by subsequent readers.
You can also rotate, move, delete, and renumber pages in Acrobat Pro DC (see instructions) and Acrobat XI (see instructions). You can delete pages using Adobe Reader, but you can't move or renumber them.
You can addit the text on a page in Acrobat Dro DC (see instructions) and acrobat XI (see instructions).

3. You can **edit the text on a page** in Acrobat Pro DC (see instructions; also see instructions for editing scanned PDFs) and Acrobat XI (see instructions). You can't edit text in a PDF using Adobe Reader.

Editing a PDF is not like using word processing software. For example:

- Text can be added and will wrap at line ends, but each paragraph is a separate box and the text boxes aren't linked. Text can't flow from one box or one page to the next.
- While the font or font characteristics may be changed (size, bold, italic, underline, superscript, and subscript), there are no options for math symbols or operation characters within Acrobat.
- If your edits frequently move text beyond the margins, consider extracting (exporting) the text into another format and reformatting the entire page, element by element.

You can also edit images or objects in a PDF using Acrobat Pro DC

(see instructions) and Acrobat XI (see instructions) as well as delete graphic design elements. You can't do either using Adobe Reader. Some notes on editing images:

- Bitmapped or graphic images may be scaled or stretched in two dimensions, but must be centered/aligned manually. Any drop-shadows are automatically integrated with the image file.
- The <Add Image> link allows images to be dropped into a PDF file. Be sure the resolution is adequate.
- Use the <File Information> to record image data (source, credits, rights, origin, and contact information) so that you can properly attribute the image.

#### Copying and Pasting

How you copy and paste text from PDF files depends on how the file was created. If the PDF was created using word processing software (and not scanned as an image), the text can be copied and pasted into another application, such as Microsoft Word or Pressbooks.

If the PDF was created as an image or scan, you must first use the Acrobat Optical Character Recognition (OCR) function. The text in the resulting file can be copied and pasted, but should be checked to be certain that characters have been correctly identified.

#### Exporting and Cleanup

With the right software, PDFs may be exported into editable formats such as Microsoft Word, PowerPoint, or other formats. However, the format, aesthetics, and other functions of the resulting text document will require extensive reformatting and cleanup. Extracting or "exporting" content from PDF requires a paid version of Adobe Acrobat (Acrobat Reader can't extract text). Check with your library or academic technology department to see if the software is available to you via a campus computing lab. Or ask your IT department if a campus-wide license is available.

More information on extracting content from PDFs:

Acrobat Pro DC: Convert PDFs to Word, RTF, spreadsheets, Power-Point, or other formats

Acrobat Pro DC: Tutorial: Export PDFs to Microsoft Office formats

Acrobat XI: Export PDF files to Word and other formats using Acrobat XI

Designing a PDF File to Simplify Future Editing

You can optimize a PDF file for future users to edit more easily, although providing alternate file formats is preferable. Here are some tips for making a more edit-friendly PDF file:

- Produce (print) a PDF from the native software (for example, Word); don't print and scan a page to PDF (which produces an image that is no longer editable).
- Specify the output-file type as PDF/A (if you have the option).
- Paginate files by chapter (e.g., 1.1, 1.2; 8.38, 8.39, 8.40; 13-9, 13-10) rather than sequentially through the volume.
- Minimize the number and type of design elements, such as colored boxes and frames. Design element components (lines, boxes) may be blocked, lengthened, widened, or deleted, but can't be moved.
- Provide access to the book in its native file formats, preferably in structured, non-proprietary formats such as EPUB, XML, WXR (Pressbooks), or HTML when available.

Additional Help

Adobe offers an archive of articles and video tutorials about editing PDFs.

Contributors: Richard Saunders, Anita Walz

	Possible Editing	Possible Editing Tools	Possible
	Tools (Web)	(Desktop)	Output
HTML	HTML editors, Pressbooks (free version available), MediaWiki (free), Adobe Acrobat Pro DC (\$)	Adobe Dreamweaver (\$), Microsoft Expression Web (free version available), or other HTML editor	HTML, Pressbooks, PDF, Microsoft Word

# FORMAT GUIDE: HTML

If you have access to an HTML file of the open textbook you'd like to edit, you have options. Guidance for three of those options is included in this format guide: 1) using an HTML editor, 2) importing HTML into Pressbooks, and 3) converting HTML to a PDF so that you can then extract the contents into Microsoft Word.

Using an HTML Editor

There are many HTML editing programs. Which program you select will depend on the editor's user friendliness and your HTML fluency. In order to use an HTML editor, you must save the original content as HTML in order to upload the file into an HTML editor. Wikipedia offers an HTML editor comparison chart.

Importing HTML into Pressbooks

Consult the Open Textbook Repository - Import Process by Shane

Nackerud and Eric Wigham at the University of Minnesota for stepby-step guidance on importing openly licensed HTML into Pressbooks. The instructions assume that you've already created a place within Pressbooks to put your files. After you import the content into Pressbooks, cleanup will be required.

Converting to PDF

It's possible to convert an HTML textbook to a PDF and capture the table of contents, document structure, and other formatting. Once you have a PDF, you can convert or extract the contents to an editable Microsoft Word file. Adobe offers instructions for this process.

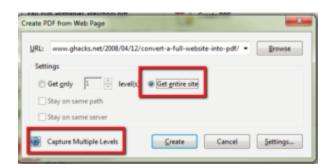
You can always select and right click to convert individual pages without Adobe Acrobat Pro DC, but if you want a full site document concatenated, you'll need Acrobat Pro.

To capture an entire website as a PDF using Acrobat Pro:

1. Open Acrobat Pro

2. Click shift+ctrl+o

3. Click on the "Capture Multiple Levels" icon and select the "Get entire site" radio button



NOTE: Make sure you have a bit of hard drive space before you start. It can take a bit of time and space to complete this transaction.

You can also save any single web page as an HTML web page and then

open it directly in Microsoft Word for editing, but the layout isn't as well preserved as when you use Acrobat Pro to create a PDF. This option works best for quickly editing pages that have no embedded images. Credit: Monica Marlo, Portland Community College.

Contributors: Amy Hofer, Shane Nackerud, Monica Marlo, Anita Walz

# FORMAT GUIDE: EPUB | MOBI

EPUB and MOBI are the most common formats for reading eBooks on eReader devices and tablets. Apple's iBooks, Barnes & Noble's Nook, Adobe Digital Editions, and Aldiko on Android all support EPUB. Amazon's Kindle uses MOBI, a software package created by the French company Mobipocket, which was bought by Amazon in 2005. MOBI eBook files usually have the .prc or .mobi extension.

The advantage of EPUB and MOBI is that both formats display reflowable content (the text adjusts to fit the size of the screen on your reading device) as well as fixed-width layout. Both formats are also open standard, which means that they are free and publicly available, although rules exist regarding their usage.

EPUB and MOBI files can be edited using a number of eBook editing tools. MOBI should first be converted to EPUB, after which the file can then be edited using one of the tools described in this guide. A variety of MOBI to EPUB conversion tools are freely available online. CNET.com lists many of these tools with crowdsourced reviews.

Editing an EPUB

An EPUB is essentially a ZIP file containing nested folders with XHTML text, images, Cascading Style Sheets (CSS), embedded fonts, and metadata files. Almost anyone can edit EPUB files with the help

Original Format	Possible Editing Tool (Web)	Possible Editing Tools (Desktop)	Possible Output
MOBI	Convert to EPUB to edit	_	_
EPUB	Pressbooks	Sigil calibre	Pressbooks: PDF, EPUB, HTML, .wxr Sigil: EPUB calibre: EPUB

of an eBook editing tool, although some familiarity with hypertext markup language (HTML) is helpful.

Sigil and calibre are open source software applications that can be downloaded freely from the Web. Both are maintained by volunteer developers, which means that user support is limited. The user instructions provided below are very basic. The best source for help is usually one of the online forums where users exchange information and answer questions.

Sigil

Sigil can ingest .txt, .html, and .epub. The output type is always .epub. Using Sigil requires some knowledge of editing HTML. CNET offers technical documentation and free software downloads for Sigil.

For additional help, see MobileRead's Sigil Forum.

Additional Sigil resources:

- http://sigil.en.softonic.com
- https://github.com/Sigil-Ebook

1. Install calibre on your computer.

2. Download the EPUB version of the open textbook you'd like to edit.

3. Open the textbook in calibre.

4. Click on "Add books" to add your book.

5. Click on "Edit book" to launch the editor.

6. Double click the section/chapter of the text you want to edit.

7. Add/delete/modify the text. A preview of your edited text will appear on the right side of the window.

8. To add an image, click on the "Insert image" button. Note: If your image is very large, you may have to play around with the HTML to adjust the size.

9. Don't forget to save a copy as you go along!

10. To change the cover of your book, go back to your calibre library. Right-click on the book. Then choose "Edit metadata" and "Edit metadata individually." Edit the new title and author, and then click "Generate Cover." (Make sure to click "OK" so you know it's saved.)

calibre offers a Help section on its website. Kovid Goyal has also written a guide to editing eBooks in calibre.

Pressbooks

Pressbooks can ingest EPUB and output into read-online-HTML or downloadable EPUB, MOBI, or PDF. If your institution is a member of the Open Textbook Network, contact the OTN for information about access to a shared instance of Pressbooks. Or, you can download and host your own instance.

Start with Step 3 of this Pressbooks guide to import your EPUB into Pressbooks. (This step also covers ingesting WordPress files into Pressbooks.)

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For more information about editing in Pressbooks, see the Pressbooks User Guide.

Contributors: Annie Johnson, Anita Walz, Peter Potter

## FORMAT GUIDE: PRESSBOOKS

Pressbooks is a web-based authoring tool based on the WordPress authoring platform. If you've created a website using WordPress, you'll find some similarities working with Pressbooks. Some also find working in Pressbooks similar to working within a Learning Management System (LMS) such as Canvas, Blackboard, Moodle, or D2L.

Content hosted in Pressbooks generally appears as chapter-by-chapter HTML, often with downloadable files (PDF, EPUB, EPUB3, XHTML, MOBI, WXR, and/or ODT) made publicly available. This guide covers editing from Pressbook sites for which files are downloadable, those where a WXR (Pressbooks) file is available, and those for which downloadable or WXR files are not available.



When multiple editable formats are available, the format you choose to edit will depend on your familiarity and ease with the format, along with what final format(s) you'd like to distribute your work. Many formats options you'll find available via a Pressbooks published textbook are covered in this guide. For those formats that aren't included in this guide, you'll find a selection of free editors online: XHTML (possible editors) and ODT (OpenDocument – possible editors). Finally, some authors make the Pressbooks filetype (WXR) publicly available. You can then install Pressbooks or get access to Pressbooks with an Open Textbook Network membership for modifying.

Importing for Editing in Pressbooks

WRX files, as well as Microsoft Word (.doc, docx, .rtf), EPUB, HTML, .txt, and OpenOffice (.odt) may be imported and edited directly in Pressbooks.

Import content from EPUB or WordPress

Import content from Microsoft Word (.doc, .docx, .rtf)

Import content from OpenDocument (.odt)

Import content from WordPress XML (.wxr)

Import content from Pressbooks XML (you can Export Pressbooks XML from the Export page; this is WordPress XML but with certain Pressbooks-specific extensions)

As of the writing of this guide, Pressbooks is in the process of adding a feature that will allow you to point at any open Pressbooks book, and import it automatically into your own Pressbooks book.

Pressbooks can't ingest random XHTML, because random XHTML it is not specific enough about, for instance, separations between chapters. Pressbooks can ingest HTML on a chapter by chapter basis, but again, random HTML is not specific enough about how it should be ordered to ingest en masse.

Some open textbooks created using Pressbooks are not as readily editable. In that case, you can consult the Format Guide: HTML or contact the author to request the WXR or EPUB file. You can also copy and paste the content into the format of your choice. Helpful resources

Pressbooks Userguide Introduction to Using Pressbooks (YouTube)

Developer resources

Pressbooks offers developer resources on GitHub and Google.

Contributor: Anita Walz

### FORMAT GUIDE: OPENSTAX

In this guide, we introduce how to work with the OpenStax Connexions Legacy Editor. Many OpenStax textbooks are also available in Pressbooks and EPUB through the BCcampus Open Textbook Project (search for "OpenStax"). Please consult our Pressbooks and EPUB Format Guides for guidance on how to edit those formats.

Before we get started, a couple of notes:

- If your primary editing aim is to rearrange content, you may want to consider simply hyperlinking readings in the order you prefer, using your learning management system (LMS).
- If you're hoping to reduce the textbook print price by reducing the number of pages, please keep in mind that custom printing an OpenStax book may ultimately result in higher overall costs, even when custom books have fewer pages. This is because small or custom print runs are usually more expensive than large-volume print runs. Customization may also limit resale value, which may be of concern to your students. If you decide to use a print-on-demand online vendor for a customized OpenStax textbook, the vendor should be able to project the cost in advance, based on number of pages, book dimensions, binding type, and color. OpenStax also has relationships with many custom printers if students want print copies of customized versions. Local solutions may also exist

Original Format	Possible Editing Tools (Web)	Possible Editing Tools (Desktop)	Possible Output
Connexions platform	Legacy	_	HTML on Connexions' platform, CNXML, PDF, EPUB
Pressbooks (XML/WXR)	Pressbooks	_	Pressbooks HTML, PDF, EPUB, MOBI, ODT
EPUB	Pressbooks	Sigil, calibre	Pressbooks: PDF, EPUB, HTML, .wxr
			Sigil: EPUB
			calibre: EPUB

(your library or campus bookstore may have an Espresso Book Machine, for example).

OpenStax content is also available in iBook, HTML, and PDF. This guide does not cover editing OpenStax content in those three formats.

Editing in Legacy, the OpenStax Connexions Editor

OpenStax's editing platform "Legacy" is freely available at http://legacy.cnx.org. Note that nearly all OpenStax content has a CC BY license (the three-volume Calculus texts, which have a CC BY-NC-SA license, are the exception). If you change or add images and text, ensure that they're CC BY licensed or in the public domain and correctly attributed.

Here's how to get started:

1. **Create account**: CNX requires its own login account separate from openstax.org. You may use your same credentials

for both, but must create an account in CNX in order to edit. There may be a brief waiting period before you can access your CNX account.

 Login: While viewing an OpenStax book you wish to edit, log in via the CNX Author | Legacy Site link in the upper right corner. That will bring you to the Collection (OpenStax term for book), where you can edit a Module (section or chapter).
Editing interface: Making a derivative copy of an entire book may take a minute or two, so patience is needed. Once a copy is created, use the drag-and-drop interface at the chapter or section level. After making any changes, be sure to click the Publish tab to save. Your work is saved to your Personal Workspace (MyCNX), which can contain entire books or your own collection of various items. These files can be made accessible to others via a URL.

4. **Documentation**: See Connexions Tutorials and Reference. This site provides extensive but concise help on CNXML, the language used in OpenStax.

5. **Multimedia content**: See Adding Multimedia for information on how to provide accessibility, proper CNXML codes, etc.

#### Watch video: Creating Derived Copies on Connexions

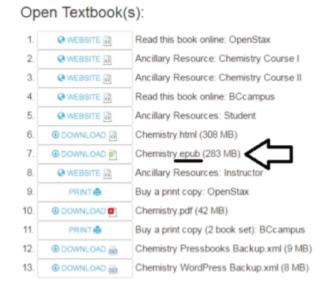
#### Additional Help

OpenStax provides documentation and email help. For CNX technical support, contact: info@openstax.org or OpenStax Customer Support: 713-348-5012. OpenStax also offers up to 10 hours of technical assistance annually to schools with an institutional partnership.

#### Pressbooks & EPUB

Many OpenStax textbooks are available in Pressbooks and EPUB through the BCcampus Open Textbook Project. Search the

### BCcampus OpenEd site for "OpenStax" and see the Pressbooks and EPUB Format Guides for additional guidance.



Contributors: Kathy Labadorf, Anita Walz Special thanks: Nicole Finkbeiner and Brittany Weinstein (OpenStax), Lauri Aesoph (BCCampus)

### SUPPORT

Thank you for your work in adopting and editing open textbooks.

The Open Textbook Network and editing workgroup appreciate your feedback, suggestions, and corrections for this guide, *Modifying an Open Textbook: What You Need to Know*. Please use our feedback form, or email Karen Lauritsen at klaurits@umn.edu or open@umn.edu.

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