WTCS Open Educational Resources (OER) Guidance

Contents

License

Wisconsin OER Support

Since the 1970s, textbook costs have risen more than three times the rate of inflation (PIRG Open Letter). These rising costs have priced students out of their education. In 2020, 65% of students in a national survey reported that they skipped purchasing a textbook due to its high cost and 21% skipped buying an access code (PIRG Report 2021). For students with basic needs insecurity, the costs of textbooks present a critical barrier. More than 80% of students with food insecurity reported not purchasing a textbook (PIRG Report 2021). Within the Wisconsin Technical College System (WTCS), approximately 40% of program students are living at or below the federal poverty line (2020 Client Reporting Data), highlighting the dire need to remove textbook costs as a barrier to student access and success.

Open Educational Resources (OER) are teaching and learning resources (e.g., textbooks, PowerPoint slides, activities, assessments, etc.) that are openly licensed and free to use. These resources can be adopted and used in the classroom as is or modified as needed to best fit the learning outcomes of a course. Open resources, and in particular open textbooks, remove financial barriers and help close student equity gaps in the classroom. Students who enroll in courses that have OER textbooks have higher course grades on average compared with students in courses that have traditional textbooks, and these increases in student performance are more pronounced for Pell recipients, minority students, and part-time students (Colvard, Watson & Park 2018).

In the WTCS, support and advocacy for OER has been led by our students. Our Wisconsin Student Government has advocated for state OER funding starting in 2018. The System office has supported this initiative and set up OER supports, including a WTCS OER Network that has developed various resources to advance OER scaling across the System and support for OER work in WTCS grants. The OER Network has OER champion members from each technical college with over 100 members systemwide and coordination from the System Office. The OER Network has developed and maintains the WTCS OER Repository, OER guidance resources available on myWTCS, and the annual Wisconsin Open Education Symposium. For the fiscal year 2024-25 biennial state budget, the WTCS requested and received $3 million to support the creation and adoption of open educational resources.

OER Strategic Collegewide Work

See the WTCS OER Field Guide for Sustainability Planning for guidance and information on OER infrastructure (e.g., policies and processes, organizational framework), resources to sustain OER (efficiency, finances), and culture (vision, strategic planning, communication plans, tracking OER metrics). With this field guide, there is also a corresponding scale of adoption assessment for colleges to track progress on key OER practices and set goals for scaling OER work.

Reporting OER

One aspect of OER work is tracking OER adoption across course sections. Within the WTCS, colleges can report OER adoptions within Client Reporting using program fee code 71. See the WTCS guidance on reporting program fee code 71 OER adoptions and recommendations for setting up this process.

Getting Started with OER

Open Educational Resources (OER) are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license (e.g., Creative Commons), that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others.[1] For more information, please see our "WTCS What is OER?" video.
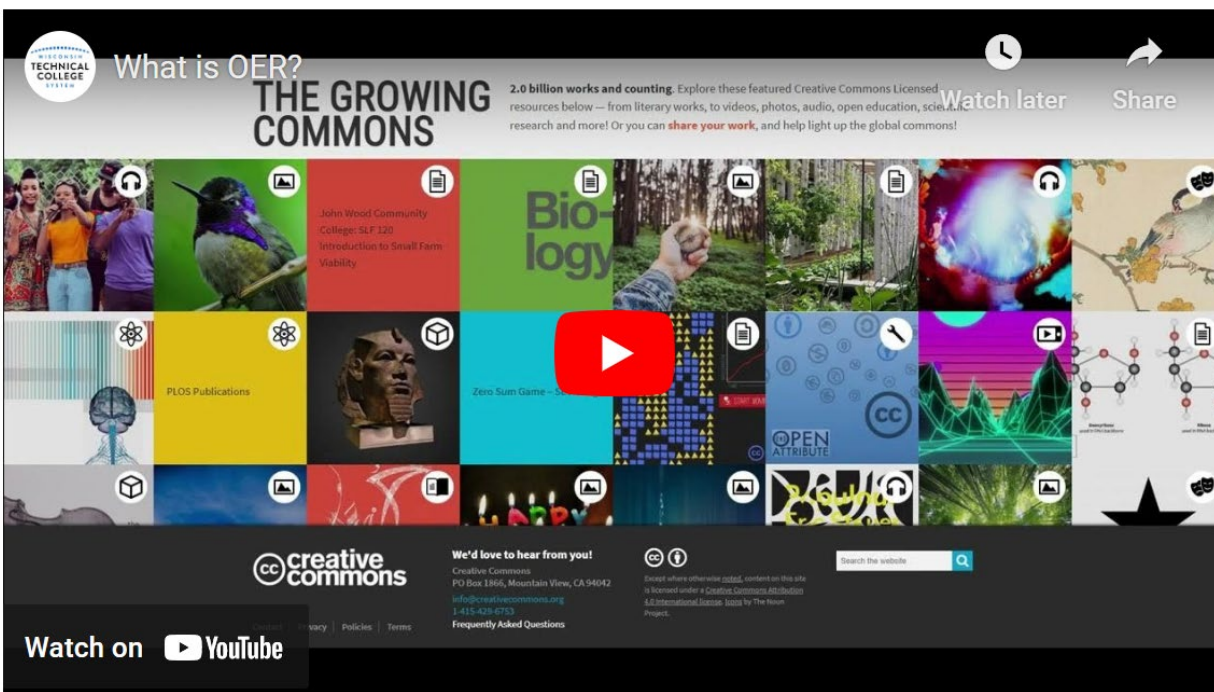
This video is an adaptation of 'What is OER?' from The Council of Chief State School Officers under CC-BY-4.0. Featuring Barbara Soots, Layla Bonnot, Katie Steen and Nicole Allen

How does Open Licensing work?

This section adapts and remixes content from the Creative Commons Certificate for Educators, Academic Librarians and GLAM from Creative Commons, under CC-BY 4.0.

By default, **all works are automatically granted copyright.** Even in the absence of a copyright symbol "©", the work cannot be assumed to be openly available for use. Registration with the local copyright office is not required to gain copyright protection. Under copyright, no one else can copy, distribute, publicly perform, adapt, or do almost anything else other than simply view or read the work without permission of the copyright holder. Copyright lasts a long time. In the United States copyright lasts 70 years after the death of the copyright holder. The combination of very long terms with automatic protection has created a massive amount of "orphan works" — copyrighted works for which the copyright holder is unknown or impossible to locate.

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[1] UNESCO definition

Open licenses from [Creative Commons](#) (CC) provide a way for creators to retain their copyright and get credit for their work, *while permitting others to copy and distribute it*. The four license elements—BY, SA, NC, and ND—combine to make up six different license options. All of the licenses include the BY condition. In other words, all of the licenses require that the creator be attributed in connection with their work. Beyond that commonality, the licenses vary whether (1) commercial use of the work is permitted; and (2) whether the work can be adapted, and if so, on what terms.

CC Licenses

The six licenses, from least to most restrictive in terms of the freedoms granted reusers, are:

 The **Attribution license or "CC BY"** allows people to use and adapt the work for any purpose (even commercially) as long as they give credit to the creator.
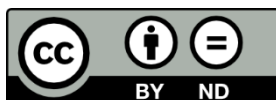
 The **Attribution-ShareAlike license or "CC-BY-SA"** allows people to use and adapt the work for any purpose (even commercially), as long as they give credit to the creator and make any adaptations they share with others available under the same or a compatible license. This is CC's version of a [copyleft license.](#)
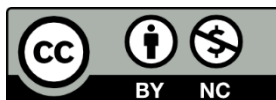
 The **Attribution-NonCommercial license or "CC-BY-NC"** allows people to use the work, or adaptations of the work, for noncommercial purposes only, and only as long as they give credit to the creator.

 The **Attribution-NonCommercial-ShareAlike license or "CC-BY-NC-SA"** allows people to use and adapt the work for noncommercial purposes only, and only as long as they give credit to the creator and make any adaptations they share with others available under the same or a compatible license.

 The **Attribution-NoDerivatives license or "CC-BY-ND"** allows people to use the unadapted work for any purpose (even commercially), as long as they give credit to the creator. They may also adapt the work for their own personal use but may not share any adaptations publicly.[1]

 The **Attribution-NonCommercial-NoDerivatives license or "CC-BY-NC-ND"** is the most restrictive license offered by CC. It allows people to use the unadapted work for noncommercial purposes only, and only as long as they give credit to the creator. They may also adapt the work for their own personal use but may not share any adaptations publicly.

Public Domain

In addition to works within the Creative Commons, Open Educational Resources can include any work within the **public domain**. The public domain consists of works that are not subject to copyright. Works enter the public domain in one of four ways:

1. The copyright expires.

2. The work was never entitled to copyright protection. This includes ideas, facts, and U.S. government works (because the works are considered public resources according to Section 105 of U.S. Copyright Law).

3. The creator dedicated the work to the public domain before copyright has expired (see public domain tools, below).

4. The copyright holder failed to comply with formalities or maintain their copyright. Today in most countries, there are no formal requirements to acquire or renew copyright protection over a work. This was not always the case, however, and many works have entered the public domain over the years because a creator failed to adhere to formalities.

In addition to the CC license suite, CC also has two **public domain tools** represented by the icons below. These public domain tools are not equivalent to licenses:

CC0 enables creators to dedicate their works to the worldwide public domain to the greatest extent possible.

The Public Domain Mark is a label used to mark works known to be free of all copyright restrictions. Unlike CC0, the Public Domain Mark has no legal effect when applied to a work. It serves only as a label to inform the public about the public domain status of a work and is often used by museums, libraries and archives working with very old works.

What can you do with a work that is in the public domain? Similar to a CC-BY 4.0 license, works within the public domain can be freely shared and used, retained, remixed, adapted for any purpose (even commercially). When using works in the public domain, provide an appropriate attribution and original source information. See the Public Domain Guidelines.

OER 101 Course

Interested in learning more about OER? Enroll in OER 101, a free introductory course taught by CVTC Director of Library Services, Vince Mussehl. This course has been developed as part of the OpenRN project, but participants do not need to be part of the Health Sciences. This opportunity is open to all WTCS faculty and staff. Sign up on the OpenRN webpage.

Finding & Adopting Open Content

A useful first resource for finding open content for WTCS courses, is the WTCS OER Repository, which is a growing database of open educational resources aligned with WTCS courses. Within this Repository, you can find (1) your college's OER point-person, (2) examples of OER that have been adopted across the WI Technical Colleges, (3) a database of available OER organized by instructional area, and (4)

funding opportunities to support open education work. Watch this [11-minute session](#) from the 2022 Wisconsin Open Education Symposium to learn how to best leverage this Repository and use the information to find and adopt open content.

Please share the link to any OER creation projects with your college's OER point-person and our System OER Network Coordinator ([hilary.barker@wtcsystem.edu](#)) to be added to this Repository.

Additional recommended repositories, include:

- [WISELearn Resources Library](#) is a OER Commons repository for OER used in Wisconsin's K-12 schools, and the [College and Lifelong Learning](#) group allows for collaboration and sharing of post-secondary resources for WTCS, WAICU, and UWS.
- [Skills Commons Repository](#) provides OER for career and technical education and workforce development. The content in Skills Commons is varied. Some of this content may not be helpful (e.g., a course syllabus), yet there are more comprehensive resources that are available (e.g., course shell), it's just a matter of finding them. The [apprenticeship showcase](#) in particular has useful content for career and technical education courses.
- [LibreTexts](#) provides a collection of open resources and allows for easy remixing of content to create new resources that are tailored to best fit your needs. See the [Remixer tool](#), [LibreCommons](#), and their [ADAPT homework platform](#).
- [OpenStax](#) provides open textbooks for general education, business and adult education courses. There are also ancillary materials available and LMS integration solutions. They are also expanding to other subject areas (e.g., [nursing book series](#)).
- [Open Textbook Library](#) provides a library of open textbooks with comprehensive faculty reviews.
- [OpenOregon](#) provides a database of OER adopted in Oregon institutions of higher education. Many of the OER within this database were developed with Open Oregon grants.
- [B.C. Campus Open Collection](#) provides OER developed from BC Campus in British Columbia, Canada. They have a growing collection of resources in many subject areas (e.g., computer science, trades, adult education, law and criminal justice). Since these are Canadian resources, spelling will follow British-English spelling and some references/context may be Canadian-specific.
- Search the [Pressbooks directory](#) by license type to find OER textbooks.
- To find CC-licensed images and recordings, try the [Openverse](#).

Creating a College Program for OER Projects: Adopt, Adapt, Create

College programs for OER adopt, adapt and create projects tend to be led and organized by college libraries, yet this will differ for each college (e.g., bookstore, teaching and learning center). Within these programs, faculty can submit a simple application to receive funds to adopt OER or adapt/create OER. Here are some items to consider including in a college OER program:

- Within the application:
  - OER Adopt Projects: collect course title and number, current commercial educational materials and cost to students, number of students typically enrolled in a semester or year, current course syllabus, level of OER understanding of the faculty member (are they new to OER, have they had any OER training previously, etc.)

- o OER Adapt Projects: same as above and also include whether the project will create new content or adapt existing content, what materials will be developed (e.g., textbook, ancillaries, course shell)
- Requirements of the program: faculty must meet with an OER librarian/champion to develop a project plan, required OER training for faculty who are new to OER, set timeline for when the project must be completed by (e.g., by the bookstore textbook deadline), deliverables (updated course syllabus with OER materials, adapted/created materials in WISELearn), faculty and/or student testimonials regarding the project and its impact

See example College OER Grant Programs:

- Texas Tech University OER Adoption Incentive Grant: call for applications, application form, evaluation rubric
- University of Wyoming Alt-Textbook Grants: call for proposals, FAQ, application
- UW Milwaukee Open Textbook and Open Educational Resource Adoption Project
- Villanova University OER Adoption Grant Application

In the Appendix, see a template for a potential OER adoption application and a template for an OER program request for proposals.

Creating Open Content

Process
See the **OER Creation Checklist** below and the following information for guidance on how to create new OER. This provides a very high-level process. For a more detailed process, see the appendix, The Rebus Guide to Publishing Open Textbooks (So Far) by Ashok, Hyde and Schilling, and the BC-Campus Self-Publishing Guide.

- ☐ Find and collect existing OER that can be leveraged in this OER project
- ☐ Adapt existing OER as needed and include proper attribution to these resources
- ☐ Create original OER content as needed
- ☐ Complete initial draft of OER deliverable(s)
- ☐ Collect reviewer feedback regarding OER deliverable(s)
- ☐ Incorporate reviewer feedback as needed
- ☐ Check accessibility of OER deliverable(s)
- ☐ Ensure Creative Commons license is added to OER deliverable(s)
- ☐ Publish/launch OER deliverable(s)
- ☐ Share link to OER deliverable(s) with System Office for addition to WTCS OER Repository
- ☐ Upload the OER deliverable(s) to WISELearn
- ☐ Pilot OER deliverable(s) in WTCS courses (optional)
- ☐ Adopt OER deliverable(s) in WTCS courses
- ☐ Share/present OER deliverable(s) with System colleagues

A common workflow for creating new Open Educational Resources is to first conduct a needs assessment to understand what content will be needed for a successful completion of the OER project. This includes the material types (e.g., textbook, course shell, ancillaries) and the content needs (e.g., course competencies). From this information, the OER creation team can then identify any existing open

content that could be remixed and reused. See the 'Finding & Adapting Open Content' section for recommended OER repositories and tips on finding content. Once this information is compiled, project team members can develop an initial outline of the OER creation product (e.g., textbook, course shell) that aligns with the course competencies and curriculum. It may be that given existing open content, that much of the source material is available and just needs to be adapted and contextualized for the WTCS course, or it could be that little openly licensed material is available and a lot of original content will need to be made.

If there is existing open content available to remix, then project team members can review this content and make edits as needed. Within this work, ensure that proper attribution of the original work is maintained in the process and that care is taken to understand the original work's licensing and how this can be incorporated/remixed into the new OER creation product (see Remixing CC-licensed Work from the Creative Commons Certificate). OER librarians can be especially helpful in this stage. Another helpful tool for this stage is hypothes.is, which is a free browser plugin that allows individuals and groups to annotate the web. Using a hypothes.is group, OER project team members can collectively comment and add ideas for improvements/edits to existing open content that is available online.

Also know that under particular circumstances, copyrighted content that does not have a Creative Commons license can be provided within OER creation products under *fair use*. To learn more, please see our Using Copyrighted Content Within Open Educational Resources guidance.

Based upon the initial outline, incorporate and adapt any existing content as needed and develop original content to develop a draft of the OER creation product. Refine this draft as needed and then solicit reviewer feedback (see the recommended reviewer rubric). Reviewers should be subject matter experts (e.g., instructors) within the Wisconsin Technical College System or external partners. Reviewers can provide high-level feedback using the rubric in addition to more detailed comments (e.g., track changes in Word or Google Docs, hypothes.is comments for OER drafts published to the web). Reviewers should be given a reasonable timeline and due date for their feedback (e.g., 1-2 months) and stipend for their work. Project team members can then go through and prioritize reviewer feedback and incorporate changes as needed. It can be helpful to create a timeline for this process in which smaller improvements (e.g., fixing typos, correcting text) can be readily made and incorporated, while larger scale changes (e.g., restructure content, add a new section) could be saved for a future draft of the OER (see sustainability guidance).

Once the OER creation product is ready for publication, ensure that the work has a Creative Commons license, has proper attribution of any source content, and has been checked for accessibility (see the Accessibility Checklist). See the accessibility considerations for the OER creation platform you are using (see the platform section). Many of these platforms have built-in accessibility checkers or in the case of web-published content, the WAVE Web Accessibility Evaluation Tool can be used to assess any accessibility issues and provide guidance to fix these issues. See the BC Campus Accessibility Toolkit for more guidance and see the Department of Education's Office for Civil Rights video series on digital accessibility best practices.

Within the published OER product, consider adding both an 'adoption survey' to help track adoptions of the text and a 'suggest an edit survey' for textbook adopters to suggest corrections and improvements. See the WTCS Medical Terminology textbook as an example with simple forms created in Microsoft Forms:

- Let us know that you are using this textbook:
  - Please respond to our quick [textbook adoption survey](#) to let us know that you are using this resource. Help us continue to make high-quality educational materials accessible by letting us know you've adopted! Our future grant funding is based on faculty adoptions and the number of students we impact.
- Suggest a correction:
  - Please respond to our [suggest a correction survey](#) to submit suggestions for improvements to the Medical Terminology textbook and ancillary materials. We appreciate your feedback.

Sustainability

Sustaining open content requires planning and resources. OER project managers/creators should determine the most appropriate timeline for revisiting and updating OER. For instance, this timeline could follow the curriculum review process or changes in licensing/accreditation standards for the program. For OER with a 'suggest a correction' survey, project managers/creators can revisit the submitted responses each semester or annually and identify which corrections or improvements will be implemented in phases (e.g., phase 1 – small edits and typos, phase 2 – adding new section, stage 3 – restructuring a chapter) and which improvements will be ignored.

To make the work of updating the open content more manageable, project managers/creators can leverage our System (e.g., collaborate with faculty in the same/similar programs) and engage students in the process with open pedagogy. When updating content, consider:

- What new developments have emerged within the field that need to be included?
- Are there new standards or licensing requirements that need to be addressed?
- What information from program advisory committees should be included?
- Given student assessment data, are there aspects of the content that could be improved so that students are more successful in completing the course?

The System Office will continue to advocate for state OER funding to help sustain this work and allow for OER sustainability stipends that compensate faculty and staff for updating and maintain OER.

Team-Based Creation

Below are the recommended roles for a cross-functional OER creation project.

Project team role	Role responsibilities
Project Manager	Developing project timeline, scheduling meetings with the group, troubleshooting issues that may arise, tracking progress of key deliverables, facilitating the OER development process, ensures OER deliverable is shared with WTCS Office
Subject Matter Experts (e.g., instructors)	Modifying/adapting existing OER content, creating new OER content, aligning information with course competencies and curriculum, piloting/adopting OER in courses, sharing OER with colleagues across WTCS
Librarian(s)	Finding existing OER to remix/adapt, help with attributions, assistance with creative commons licensing

Project team role	Role responsibilities
Instructional Designer(s)/Technologist(s)	Help with loading OER into the learning management system, provide guidance for OER creation that aligns with curriculum/competencies, assist with the technology platform that is used to develop the OER
Student(s)	Help create/adapt OER content (e.g., open pedagogy), provide feedback on OER throughout the development process
Editor(s)/Reviewer(s)	Ensure OER fits the needs of the course, check for typos/readability, suggests improvements
Other Role(s)	Accessibility checker

WTCS OER Creation Project Examples

The OpenRN project, led by CVTC, has developed OER nursing textbooks with virtual reality scenarios as part of a Department of Education OER grant. Learn about their process to develop these open textbooks in this 16-minute video from project director, Kimberly Ernstmeyer (MSN, RN, CNE, APNP-BC, CHSE).

Another Systemwide OER creation group developed the WTCS Medical Terminology OER textbook with Student Companion and Canvas course shell. Learn about the process to create this OER package in this 18-minute video.

Platforms

There are many freely available online platforms for creating and hosting Open Educational Resources. Below is a summary of these options – yet know that this is not an exhaustive list. For each platform, there is a description of the platform, an outline of key features, information regarding group collaboration and skillset needed for use, and examples of OER (or other content) in these different platforms.

Shared cloud documents, e.g., Onedrive or Google Docs

Shared documents within the cloud provide an easy way to create and collaborate with others on OER projects. These documents can be readily shared with students and downloaded in various formats, yet options for embedding interactive or multimedia content are limited. Typically a college will have either Office 365/Onedrive or Google Drive and additional collaborators outside of the college can readily be added as long as the permissions are set to 'anyone with the link' can access and edit the content.

Getting Stated with OneDrive | Getting Started with Google Docs

- **Collaboration options/ability**: easy to collaborate, make sure to share access to others, providing the appropriate permissions so that they can access and edit the document. Can also set additional sharing features (e.g., when collaborators enter the document, they will do so in 'track changes mode'). Track changes and adding comments with @commenting collaborators is helpful in collaboration.
  - Collaborate in OneDrive
  - Share files from Google Drive
- **User skillset needed**: minimal, do not need any coding experience to use, but to ensure accessibility of the developed resource see the guidance below
- **Download options**:

- o **OneDrive**: Microsoft Word Document, OpenDocument (ODT), PDF, Publish to a webpage
- o **Google Docs**: Microsoft Word Document, OpenDocument (ODT), Rich Text Format, PDF, plain text, EPUB Publication, publish to webpage
- **Accessibility considerations**:
  - o **OneDrive**: Can be readily made accessible, as long as best practices (e.g., alt text, heading styles) are followed – see the 'Make your Word documents accessible to people with Disabilities' guidance
  - o **Google Docs**: Can be readily made accessible, as long as best practices (e.g., alt text, heading styles) are followed – see the 'Make your document or presentation more accessible' guidance
- **Ability to incorporate multimedia or interactive content**: if publishing these documents to a webpage, then some multimedia can be supported (e.g., embedding YouTube videos). Otherwise link to the multimedia content online.
- **Adding a Creative Commons license:**
  - o **OneDrive:** Can add the Creative Commons add-in for Microsoft Office to readily add a CC license to the document. Otherwise, just copy and paste CC license icon and information directly into document.
  - o **Google Docs:** Can add the 'Creative Commons' add-on to readily add a CC license to the document. Otherwise, just copy and paste CC license icon and information directly into document.
- **Examples of OER or other resources**:
  - o Early Childhood Education OER textbook on 'Understanding the Whole Child' – the google group includes links to the OER textbook in Word Doc and PDF format
  - o Fundamentals of Electricity in Google Drive with a PDF and Word Doc version

OER Commons Authoring Tool
OER Commons has a basic authoring tool, called 'Open Author' that allows for readily creating OER materials and collaborating with coauthors. In the tool, you can add a title image, breakout the content into various sections, readily format text, including math equations and symbols, and embed content and resources. See the Creating with Open Author guidance. Note that information and resources can be readily imported from a Google drive or One Drive, and if any existing OER content is available *within OER Commons* that could be leveraged in creating this resource, this can be more readily pulled in and remixed as needed.

See Department of Public Instruction's WISELearn Resources OER Commons site. Also see the College & Lifelong Learning group within WISELearn to share resources with other postsecondary partners in the state.

- **Collaboration options/ability**: multiple authors can be added to an OER Commons project as long as they all set up a free account. Yet, there is not a 'track changes' feature within the Open Author tool or a way to directly comment on content and tag other authors.
- **User skillset needed**: Minimal, do not need any coding experience to use, and may not need much accessibility knowledge as well
- **Download options**: EPUB publications, PDF, Thin Common Cartridge, SCORM Package

- **Accessibility considerations**: Has an embedded 'check accessibility' button in the content editors that will find accessibility issues and suggest corrections.
- **Ability to incorporate multimedia or interactive content**: can embed videos.
- **Any additional/unique features**: Ability to add instructor notes that are only visible in the instructor view of the resource.
- **Adding a Creative Commons license:** This process is readily built into the authoring tool. When publishing the resources to OER Commons, you can select the appropriate Creative Commons license.
- **Examples of OER or other resources**:
  - U.S. History Open Textbook/Course that is based on the OpenStax US History textbook

Libretexts

Libretexts is a growing online repository of OER with free built-in tools to streamline the work of OER (e.g., remixing content) and develop ancillary materials (e.g., student assessments). While Libretexts is not a tool for authoring entirely new OER, you can readily remix, combine and download available OER in an editable format to further develop and refine. The resulting OER product can then be published back into Libretexts and the LibreCommons for free and easy online access and hosting with 1-minute import into a learning management system. You just need a free instructor account. Libretexts also has available options for print on demand and printing of entire textbooks.

- **Collaboration options/ability**: Platform is not for creating collaborative OER – instead the platform assists in the other aspects of OER work (remixing, hosting, interactive content, import to LMS)
- **User skillset needed**: minimal – the remixer tool has a user guide and supports drag and drop use
- **Download options**: PDF, import to LMS, zip file of individual pages, buy print copy and print book files
- **Accessibility considerations**: The OER that has been added to Libretexts should be already accessible within their platform. When developing and refining OER from remixed Libretexts content, authors will need to follow accessibility best practices to ensure that the content remains digitally accessible.
- **Ability to incorporate multimedia or interactive content**: can readily incorporate multimedia (videos, recordings) and more advanced interactive content (e.g., Jupyter notebooks)
- **Any additional/unique features**: ADAPT homework platform (learn more from Libretexts Director Delmar Larsen in the 2022 WI Open Education Symposium), Remixer tool and OER are being added to the platform continuously – see their 'Under Development' webpage
- **Adding a Creative Commons license:** Remixing content within Libretexts maintains the CC-license and attribution of the original work.
- **Examples of OER or other resources**:
  - A Guide to the Principles of Animal Nutrition
  - Nursing Fundamentals (OpenRN)
  - Basic HVAC

Canvas Commons

Canvas Commons is a free to use platform for creating open course content. The finished product can be readily imported into the Canvas learning management system or downloaded as a Canvas Common Cartridge that could be added to other systems (e.g., Blackboard). Any existing open content that is already within the Canvas Commons can be readily pulled in and remixed for the creation of new OER.

See What is Canvas Commons? to get started and view the Commons Guide for more detailed information.

- **Collaboration options/ability**: multiple authors can be added to a Canvas Commons resource as long as they all set up a free instructor account. Yet, there is not a 'track changes' feature within Canvas Commons or a way to directly comment on content and tag other authors.
- **User skillset needed**: Minimal, but still need to follow best practices for accessibility
- **Download options**: Import directly into Canvas, download as Canvas Common Cartridge
- **Accessibility considerations**: can download and adapt the "Accessible Course Layout (Simple)" or "Accessible Course Layout (Multiple Front Page)" in Canvas Commons to help with creating accessible content.
- **Ability to incorporate multimedia or interactive content**: can embed multimedia (e.g., videos, audio recordings) and create interactive assessments
- **Adding a Creative Commons license:** This process is readily built into the authoring tool. When publishing the resources to Canvas Commons, you can select the appropriate Creative Commons license.
- **Examples of OER or other resources**:
  - WTCS Medical Terminology Canvas Commons Course shell that provides the assessments and information to accompany the WTCS Medical Terminology open textbook

Google Sites

Free to use website creation platform that allows for collaboration with multiple site editors. Can readily add interactive content and multimedia. Easy to use with drag and drop content and helpful options for customizing content and features. Note, that providing the content in offline formats (e.g., downloadable pdf) may require additional work.

See How to use Google Sites and the Google Sites training and help pages for more information.

- **Collaboration options/ability**: can add multiple editors to the Google site. Note, that if you are using a college Google Account, that your admin (IT department) may have limited the ability to add editors, especially if they are external members. While there isn't a track changes or a way to directly comment on content and tag other editors, Google sites do have version history and automatically saves changes to Google Drive.
- **User skillset needed**: minimal – supports drag and drop content and easily embeds different resource/content types
- **Download options**: Can provide downloadable content (e.g., pdf, Google Doc) on the Google Site for students/user to download and access offline
- **Accessibility considerations**: see accessibility guidance for best practices. Use the WAVE Web Accessibility Evaluation Tool to assess the published Google Site and fix any issues.

- **Ability to incorporate multimedia or interactive content**: Can readily embed many kinds of content, including YouTube videos, Google Maps, Google Calendar, Charts, Forms, and other Google Drive documents (e.g., Google Docs)
- **Any additional/unique features**: Has different themes to choose from for styling. Content is responsive to screen size (e.g., phone vs tablet). Can add Google Analytics to assess page views, insights and other usage metrics.
- **Adding a Creative Commons license:** To publish the Google Site under a Creative Commons license, use the embed code option for adding to a website (see 'Get a CC License. Put it on your website' and the CC License Chooser).
- **Examples of OER or other resources**:
  - See the 'ACC Learn OER' course that is published in Google Sites under CC-BY

GitBook

Gitbook provides a way to publish technical documentation online in an interactive book/website format. Using the platform may require more technical skill then some other options (e.g., Google Sites), and while the personal account is free, collaboration with team members costs a small monthly fee. Integrates with Github, providing a great resource for developing information technology or data-focused OER that need to document/show code and resulting applications. Can import content from other sources (e.g., Google docs, Word docs, etc.)

- **Collaboration options/ability**: The free personal account may not allow for collaboration with coauthors. The 'plus account' allows for small teams to collaborate for $6.70 per month with git-like version control.
- **User skillset needed**: May require a more technical skillset for use
- **Download options**: Can provide downloadable content (e.g., pdf, Google Doc) on the GitBook for students/user to download and access offline. PDF export of the GitBook itself seems to require a 'Pro' account.
- **Accessibility considerations**: Does not seem to have an accessibility checker – thus authors will need a basic understanding of accessibility best practices (e.g., alt text, heading structure) and use the WAVE Web Accessibility Evaluation Tool to assess the published GitBook and fix any issues.
- **Ability to incorporate multimedia or interactive content**: can readily embed multimedia (YouTube videos, SoundCloud),
- **Any additional/unique features**: Integration with other platforms (e.g., Slack, GitHub, Google Analytics), can add various types of blocks to GitBook pages (e.g., code blocks), and instead of relying on a 'suggest a correction' survey for feedback, content users can suggest an edit through the git commit process
- **Adding a Creative Commons license:** To publish the GitBook under a Creative Commons license, use the embed code option for adding to a website (see 'Get a CC License. Put it on your website' and the CC License Chooser).
- **Examples of OER or other resources**:
  - GitBook Example for Teaching
  - Mastering Bitcoin (CC-BY-SA)
  - The Open Science Training Handbook

Bookdown and Rmd

Bookdown is an opensource platform that allows for web publishing of R markdown files for creating books and long-form articles/reports. For details on publishing with Bookdown, see the Authoring Books and Technical Documents with R Markdown guide. Publishing to https://bookdown.org is free and hosted by RStudio.

- **Collaboration options/ability**: Does not appear to support direct collaboration easily.
- **User skillset needed**: Requires more technical skillsets and familiarity with R markdown syntax
- **Download options**: PDF, LaTeX, HTML, EPUB, and Word
- **Accessibility considerations**: Does not seem to have an accessibility checker – thus authors will need a basic understanding of accessibility best practices (e.g., alt text, heading structure) and use the WAVE Web Accessibility Evaluation Tool to assess the published Bookdown site and fix any issues.
- **Ability to incorporate multimedia or interactive content**: can readily embed multimedia (e.g., YouTube) and embed code (R, C/C++, Python, Fortran, Julia, Shell scripts, and SQL, etc.) and dynamic/interactive content (HTML widgets, R shiny apps)
- **Any additional/unique features**: allows for dynamic and interactive content (see above)
- **Adding a Creative Commons license:** To publish the Bookdown under a Creative Commons license, use the embed code option for adding to a website (see 'Get a CC License. Put it on your website' and the CC License Chooser).
- **Examples of OER or other resources**:
  - Targeted Learning In R
  - Data Coding Analytics Fundamentals (CC-BY-NC-SA)
  - Tidy Finance with R (CC-BY-NC-SA)

Jupyter Notebooks

Jupyter Notebooks is a web platform for creating online notebooks that can support advanced interactive content (e.g., code, interactive data visuals) that may be especially beneficial for OER in information technology and data fields. See the Jupyter Documentation for more info and to get started.

- **Collaboration options/ability**: Similar to Bookdown, there does not appear to be a way to directly collaborate with coauthors in real time. Yet there are other tools such as CoCalc (Collaborative Calculation and Data Science) that provide this ability with a free version and paid offerings.
- **User skillset needed**: Requires more technical skillsets and familiarity with coding syntax (python, Julia, R, C++, etc.)
- **Download options**: markdown files, pdf
- **Accessibility considerations**: Does not seem to have an accessibility checker – thus authors will need a basic understanding of accessibility best practices (e.g., alt text, heading structure) and use the WAVE Web Accessibility Evaluation Tool to assess the published Jupyter Notebook and fix any issues.
- **Ability to incorporate multimedia or interactive content**: can readily embed multimedia (e.g., YouTube) and embed code (R, C/C++, Python, etc.) and dynamic/interactive content (HTML widgets)
- **Any additional/unique features**: allows for dynamic and interactive content (see above)

- **Adding a Creative Commons license:** To publish the Jupyter Notebook under a Creative Commons license, use the embed code option for adding to a website (see '[Get a CC License. Put it on your website](#)' and the [CC License Chooser](#)).
- **Examples of OER or other resources**:
  - [Reproducible Data Science with Python](#) (CC-BY-SA)
  - [Data Science in Practice](#) (CC-BY)

Additional OER formats

Images

Find CC-licensed images that allow for derivatives and remixing. See these available repositories:
[Openverse](#) | [Wikimedia Commons](#) | [Inclusive Imagery](#) | [Noun Project Icons](#) | [flickr](#) | [Pexels](#) | [Harvard Lib Guide: Finding Public Domain & CC Media](#)

If you are interested in remixing images, then you can use the free opensource platform [GIMP](#) (GNU Image Manipulation Program). See a quick [tutorial video on how to edit CC-licensed images with GIMP](#).

Audiobooks

Learn more about making audiobooks in a podcast format from Brian Barrick and Sarah Arya (Los Angeles Harbor College) in the 2022 Wisconsin Open Education Symposium session, "[Let's Hear It for OER: Creating an Audiobook](#)".

Videos

Record, create and publish videos on YouTube. In the licensing you can [add a Creative Commons license to the video](#). Just ensure that the autogenerated [captions in YouTube are edited](#) and fixed for accuracy to make these videos fully accessible. See '[Create a YouTube Channel](#)' for more information and to get started.

Interactive Assessments

Interactive assessments can be developed within [Libretext's ADAPT homework platform](#), [Canvas Commons](#) or in the open-source [H5P platform](#). For a subject-specific platform, [myOpenMath](#) provides a repository of openly licensed math assessments.

Engaging Students

Students are an integral part of OER creation and adoption projects. Students not only can provide feedback on the open educational resource to help improve these, but they can also be part of the co-creation process to create and help maintain these resources as part of 'open pedagogy.' *The following information is adapted from '[What is Open Pedagogy?](#)' from BCcampus, which is licensed under a [Creative Commons Attribution 4.0 International License](#).*

There are many ways of building open pedagogy into your learning environment. You can engage your students to create a set of exercises for a specific chapter in an open textbook or incorporate student assignments into a collection of OER which could be submitted as part of a future open textbook or used in conjunction with an existing resource. Instead of using disposable assignments that offer no value to the student or the instructors, your students, under your direction and supervision, can build a resource designed to improve the learning space for future students. See examples of open pedagogy within the [Open Pedagogy Notebook](#).

Appendix

Reviewer Rubric

Reviewer Name: **Date completed:**

Instructions: Use the criteria below to evaluate the WTCS OER Project. The primary question your review should answer is, "**To what extent does this textbook successfully meet the learning needs of an *entry level student going into a health-related field [update this for the specific OER Project that is being reviewed]***?**"[1] If you select "Not Met" for a specific criterion, please explain how it could be further developed.

Evaluation Criterion	Met	Not Met	Comments
Comprehensiveness Content aligns with current WTCS Medical Terminology curriculum. There are no major content gaps or omissions.			
Content Accuracy Content is accurate and supported with valid sources.			
Relevance and Currency Content is up to date according to industry standards and evidence-based practices.			
Clarity Text and learning activities are written to the level of an entry-level health student. Terminology is appropriately defined.			
Consistency The textbook has consistent style and tone and follows a standard structure across chapters.			
Learning Activities Learning activities are included that assist the learner to apply content to a healthcare-related field/patient care and receive formative feedback.			
Organization Topics are presented in a logical, clear flow.			
Interface The interface of the e-book is easy to navigate and appropriately displays images, tables, and learning activities.			
Grammar/Spelling Errors The text is free of spelling and grammatical errors.			
Diversity & Inclusion The text reflects diversity and inclusion. There is no insensitive or offensive language.			

Evaluation Criterion	Met	Not Met	Comments
Accessibility and Usability The textbook's design facilitates readability and provides accessible text and images that meet the needs of diverse learners.			

Overall Comments:

References

Adapted from the OpenRN Textbook Evaluation Rubric. 2021.

- *Guidelines for Reviewing an Open Textbook by Tony Bates is licensed under CC BY-NC-SA 4.0.*
- *Rubrics for Evaluating Open Education Resources (OER) Objects by Achieving the Dream is licensed under CC BY-3.0.*
- *B.C. Open Textbooks Review Rubric by BC Campus is licensed under CC BY 4.0.*

Accessibility Checklist

The below checklist is an adaptation from the [Accessibility Toolkit - 2nd Edition](#) by BCcampus, which is licensed under a [Creative Commons Attribution 4.0 International License](#).

Organizing content
- ☐ Content is organized under headings and subheadings.
- ☐ Headings and subheadings are used sequentially (e.g., Heading 1, Heading 2).

Images
- ☐ Images that convey information include alternative text (alt text) descriptions of the image's content or function.
- ☐ Graphs, charts, and maps also include contextual or supporting details in the text surrounding the image.
- ☐ Images do not rely on color to convey information.
- ☐ Images that are purely decorative do not have alt text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information).

Links
- ☐ The link text describes the destination of the link and does not use generic text such as "click here" or "read more."
- ☐ If a link will open or download a file (like a PDF or Excel file), a textual reference is included in the link information (e.g., [PDF]).
- ☐ Links do not open in new windows or tabs.
- ☐ If a link must open in a new window or tab, a textual reference is included in the link information (e.g., [NewTab]).
- ☐ For citations and references, the title of the resource is hyperlinked, and the full URL is not hyperlinked.

Tables
- ☐ Tables are used to structure information and not for layout.
- ☐ Tables include row and column headers.
- ☐ Row and column headers have the correct scope assigned.
- ☐ Tables include a caption.
- ☐ Tables avoid merged or split cells.
- ☐ Tables have adequate cell padding.
- ☐ Rows do not break across pages.

Multimedia
- ☐ All audio content includes a transcript. The transcript includes all speech content and relevant descriptions of non-speech audio and speaker names/headings where necessary.
- ☐ Videos have captions of all speech content and relevant non-speech content that has been edited by a human for accuracy..
- ☐ All videos with contextual visuals (graphs, charts, etc.) are described audibly in the video.

Formulas
- ☐ Equations written in plain text use proper symbols (i.e., −, ×, ÷).
- ☐ For complex equations, one of the following is true:
  - o They were written using LaTeX and are rendered with MathJax (Pressbooks).
  - o They were written using Microsoft Word's equation editor.
  - o They are presented as images with alternative text descriptions.
- ☐ Written equations are properly interpreted by text-to-speech tools.

Font size
- ☐ Font size is 12 point or higher for body text in Word and PDF documents.
- ☐ Font size is 9 point for footnotes or endnotes in Word and PDF documents.

☐ Font size can be enlarged by 200 per cent in webbook or ebook formats without needing to scroll side to side.

College OER Program Request for Proposals Template

Subject: Request for Grant Applications - Adopting Open Educational Resources (OER) at [Your College Name]

Dear [Potential Grant Applicants],

[Your College Name] is excited to announce a grant opportunity to support faculty members in adopting Open Educational Resources (OER) for their courses. Learn more about OER on our college webpage [insert link]. The purpose of this grant is to enhance student learning experiences, reduce textbook costs, and promote equitable access to educational materials. We invite all interested faculty members to submit grant applications to be considered for funding.

Grant Requirements:

Applicants for the OER Adoption Grant are required to meet the following criteria:

- Eligibility: All full-time and part-time faculty members at [Your College Name] are eligible to apply.
- Course Adoption: The proposed project must involve the adoption of OER for at least one course in the applicant's area of expertise. See a listing of readily available OER by course and instructional area in the WTCS OER Repository.
- Cost Savings for Students: The grant application should outline the potential cost savings for students resulting from the adoption of OER materials.
- Faculty Development: Faculty members awarded the grant will be required to participate in OER training workshops and other professional development activities to ensure effective OER integration.

Deliverables:

Faculty members awarded the OER Adoption Grant will be expected to fulfill the following deliverables:

- Course Material Transformation: Successfully integrate OER materials into the selected course(s), replacing traditional textbooks and proprietary resources. This can be shown via an updated course syllabus that includes the OER materials.
- Faculty Experience: Share insights and experiences gained during the adoption process through a brief faculty testimonial.
- Resource Repository: Contribute the developed or adapted OER materials to [Your College Name]'s OER repository for sharing with the wider academic community.

Application Process:

To apply for the OER Adoption Grant, interested faculty members are required to submit a grant application package, including:

- Fill out our proposal form that details the course(s) for which OER adoption is planned, along with a timeline and plan for implementation.
- Outline the potential cost savings for students resulting from the adoption of OER materials.
- Submit your current course syllabus.

Supports for Grant Recipients:

To help ensure the success of these OER Adoption projects, each recipient will be provided with OER support, including:

- OER professional development opportunities
- Direct support from OER Librarians
- Direct support from instructional designer/technologist
- For OER adoption projects, faculty will receive a stipend of $1,500
- For OER adapt/create projects, faculty will receive a stipend of $2,500

Submission Deadline and Contact Information:

The deadline for submitting grant applications is [Submission Deadline Date]. Please send the completed application package to [Contact Email Address] with the subject line "OER Adoption Grant Application - [Your College Name]."

Selection Process:

Grant applications will be evaluated by a committee of faculty members and administrators with expertise in OER adoption and curriculum development. Successful applicants will be notified by [Notification Date].

We look forward to receiving innovative and compelling grant applications that showcase the potential of OER adoption in enriching our students' educational experiences and contributing to our college's commitment to academic excellence and accessibility.

Should you have any questions or require further information, please do not hesitate to contact [Your Contact Name] at [Your Contact Email/Phone].

Sincerely,

[Your Name]

[Your Title/Position]

[Your College Name]

College OER Adoption Grant Application Template

Section 1: Course Information

1. Course Title & Number:

2. Course Description:

3. Target Semester for OER Adoption:

4. Typical number of students who enroll in the course each time it is offered:

Section 2: Current Course Materials

1. List all required textbooks, workbooks, and supplementary materials currently used in the course:

2. Cost of Current Materials (per student) in all formats that are available (e.g., if there is an ebook and physical book formats available, please include both prices):

3. Upload your current course syllabus.

Section 3: OER Adoption Plan

1. Outline your plan for OER adoption in this course:

2. What supports (e.g., OER librarian assistance) will you need to be successful?

Section 6: Current Understanding of OER

1. Describe any prior experience with OER, including any courses where OER materials have been successfully adopted:

2. Have you received any training or attended workshops related to OER adoption? If yes, provide details.

Detailed OER Creation Process

This process is based on information from OpenStax [How OpenStax books are made] and the WTCS Medical Terminology creation process, developed by Ellen Range (WTC).

1. **Needs Assessment and Planning**:
   a. Identify the target audience and their specific educational needs
   b. Identify the course of focus or materials to be developed. Consider:
      i. Market research:
         1. Are there other similar materials that already exist? If these are insufficient, could they be adapted?
         2. What content is currently included in commercial textbooks?
      ii. What are the course competencies that need to be filled?
      iii. Survey faculty from across the System about the educational material needs for the course.
      iv. What are the primary objectives for developing this content? (e.g. affordability, incorporating diverse perspectives, appropriateness to students, etc.)
      v. Will this be applicable to multiple colleges, courses, or needs?
      vi. Is there support and motivation for OER work in this area?
      vii. What is the potential impact of this project?
2. **Assemble the Team**:
   a. Share a brief description of the project goals and objectives, as well as the tentative timeline and anticipated commitment
   b. Offer opportunities to participate in all or part of the project, as able (e.g. writing, reviewing, creation of ancillaries, etc.)
   c. Identify subject matter experts (faculty) who will be involved in the project
      i. If possible, include multiple faculty members
      ii. If possible, recruit faculty from multiple colleges and/or areas
   d. Identify any additional staff who can serve as project manager(s) and/or provide support as needed. These staff may include:
      i. Teaching and Learning Staff
      ii. Instructional Designers
      iii. Instructional Technologists
      iv. Librarians
      v. Content area deans or other administrators
   e. Identify project manager(s) for the group(s) - Project Management chapter from the OER Starter Kit for Program Managers has some helpful resources
3. **Collaboratively Define Project Scope and Objectives:**
   a. Is this an adaptation project or a creation project?
   b. What materials will be needed?
   c. What are the project priorities?
   d. Create a high-level outline of the materials to be developed
   e. Draft a tentative (broad) timeline for the project, listing out each project objective or component as possible
   f. Some possible questions to discuss as a group:
      i. What is your motivation for being involved in this project? What do you hope to accomplish?
      ii. What availability do you have to work on this project?
      iii. What is your previous experience with OER?

        iv.   Does the drafted project objectives and timeline seem reasonable to you? Is anything important missing?

        v.   How do you prefer to work on this kind of project? (dividing up the work or working together as a group; meeting to check in on progress or meeting to work on the project; synchronously or asynchronously)

4. **Project Development Process**
   a. Roles/activities
      i. Project manager(s):
         1. Sets meetings and agendas, may lead conversations
         2. Organizes and shares documents and resources
         3. Documents questions or issues that arise
         4. Frequently checks in on progress
      ii. Faculty / work group members
         1. Select, reorganize, identify needed content
         2. Engage actively in the work, completing assigned tasks
         3. Reach out to project manager with questions or issues
   b. Development steps:
      i. Create detailed outline(s) of the materials to be developed and solicit reviewer feedback from other WI Technical College faculty – revise outline as needed
      ii. Content discovery: create repository of available OER that could be remixed and included in the project
      iii. Create a draft of the content based on the detailed outline and incorporate remixed material as appropriate
      iv. Develop or add supplementary and ancillary materials. This may include:
         1. Interactive activities and/or assessments
         2. Printable resources or study materials
         3. Assignments or in-class activities
         4. Videos, audio elements, or presentation slides
         5. Course shell
      v. Key considerations throughout the creation process:
         1. Structure and availability of the text and materials
            a. Are they well organized?
            b. Is formatting consistent throughout?
            c. Are they designed with tools that are readily available and easy to use?
         2. Accessibility - see also Universal Design, Accessibility, and Usability for OER
            a. Are appropriate headings and structure in place?
            b. Is there Alt text for all images?
            c. Are tables and other elements accessible to all?
         3. References and citations
            a. Is all information accurately attributed or cited?
            b. Do all images have appropriate attribution and metadata in place?
            c. Is all content openly licensed or used on the basis of fair use?
            d. Is the new work CC licensed?
            e. Is there sufficient introductory content and attributions provided so as to enable attribution by future users?

5. **Project Review Process**
    a. Reread and review all content with fresh eyes
    b. Be sure to check everything (e.g. links, glossary terms, citations, videos, interactive elements, everything)
    c. Invite peer reviewers to provide feedback
        i. Provide a rubric for reviewing content
        ii. Set a timeline (perhaps 6 weeks) for reviewers and remind them near the end of that time
6. **Revise accordingly**
    a. returning to workgroup(s) as necessary to resolve issues
    b. Identify which revisions will be implemented at various stages/editions of the materials to be developed
7. **Finalization of Project Materials**
    a. Accessibility review
    b. Copyediting: checking and correcting written content for errors in grammar, spelling, punctuation, style, and overall clarity
    c. Finalize the platform and access to materials: can the material be readily downloaded by students for offline access? Available for printing?
8. **Beta Testing (Optional):**
    a. If feasible, pilot the textbook in a classroom setting to gather feedback from students and instructors
9. **Publish and share out**
    a. Create a press release that can be easily shared with all interested parties
    b. Share out the finished resources via our OER network and any other relevant networks
    c. Add to WTCS OER Repository and WISELearn Resources
10. **Continuous Improvement**
    a. Monitor the textbook's usage and receive ongoing feedback from educators and students.
    b. Regularly (with curriculum review schedule, annually, etc.) update the content to reflect advancements in the field or address any identified issues.