

# The OER Starter Kit for Program Managers

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# Introduction

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*The OER Starter Kit for Program Managers* was created to bring attention to the work that is involved in building and managing an OER program, from learning about open educational practices and soliciting team members to collecting and reporting data on your program's outcomes. Regardless of your program's scope and your own experience with OER, we hope that the *Starter Kit for Program Managers* will have some tips to help you along your way.

Multiple authors and editors contributed to this text's 22 chapters, as well as case study contributors who shared their personal experiences supporting OER programs in their local contexts. Since our team includes contributors from both the United States and Canada, you may see some spelling diversity across the text's chapters. That's okay! This book is not intended for a U.S. audience alone, or even for a North American audience. Although our examples may be rooted in that context, we hope that the experiences of our authors will prove useful for anyone working in the open education sphere.

*The OER Starter Kit for Program Managers* contains seven parts:

1. A Quick Guide to Open Education
2. Building an OER Program
3. Program Management
4. Training and Professional Development
5. Supporting OER Adoption
6. Supporting Open Textbook Creation
7. Collecting and Reporting Data

If you find any mistakes, issues, or areas for improvement within this text, please fill out our [Comments and Recommendations Form](#) to let our team know so we can improve this book in the future, and thank you for reading our book!

PART I

# A QUICK GUIDE TO OPEN EDUCATION

# 1. Introduction to Open Educational Resources

Abbey K. Elder

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*This chapter was adapted from [The OER Starter Kit](#) by Abbey K. Elder, licensed [CC BY 4.0](#). The sections on Licensing and Public Domain were adapted from [UH OER Training](#) by Billy Meinke, licensed [CC BY 4.0](#).*

There are many practices, theories, and tools that you'll need to learn about to manage an OER program effectively at your institution. However, before broader discussions around pedagogy, innovation, and support structures begin, most institutions start by exploring the idea of utilizing open educational resources (OER) in their courses. To provide a foundation for the discussions surrounding OER throughout the rest of this book, this chapter will introduce the basics, focusing on definitions, foundational components, and open licensing for OER.

## What is an Open Educational Resource?

The Scholarly Publishing and Academic Resources Coalition (SPARC) defines OER as:

“teaching, learning, and research resources that are free of cost and access barriers, and which also carry legal permission for open use. Generally, this permission is granted by the use of an open license (for example, Creative Commons licenses) which allows anyone to freely use, adapt, and share the resource—anytime, anywhere.”

This definition has a few key components, but in most contexts, it can be broken down into two major requirements: the freedom for anyone to access a piece of content, and the freedom to adapt that content without needing to contact the copyright holder for permissions.

## The Variety of OER

Because the term “teaching, learning, and research resources,” can comprise a wide variety of materials, the OER your instructors utilize may come in many forms. To showcase this diversity, let's explore the material types available to filter in the popular OER repository, OER Commons:

- **Activities & Assignments:** labs, homework, and assessments
- **Class Guides:** syllabi and student guides
- **Courseware:** lectures, modules, and full courses
- **Instructor Materials:** lesson plans and teaching strategies
- **Mixed Media:** illustrations, games, videos, podcasts, simulations, and interactive materials
- **Reading Materials:** case studies, data sets, lecture notes, primary sources, textbooks, and other readings

Since textbooks are often seen as the ubiquitous “course material” in discussions about the need for free, open content in education, it is no surprise that open textbooks are often seen as the default OER. However, it is important, especially as an OER program manager, to remember that there are a lot of options available for faculty looking to incorporate OER into their courses. Furthermore, thanks to their open nature, OER can be adopted, adapted, or remixed to fit your faculty members’ needs. This may include moving an OER into a new format, like taking a largely text-based OER and adding interactive elements, or making a video out of a set of open lecture slides.

## The Freedoms of OER

One of the most popular aspects of an OER is the fact that they are *literally* free, without a financial cost barring access. OER can be accessed by anyone in the world for free through the Internet, and they can be printed at cost as well.

Because open educational resources are all free to access and share, they have become incredibly powerful tools to support access to knowledge. According to the Bureau of Labor Statistics, the cost of educational books and supplies has risen 1,886% since 1967, nearly triple the rate of inflation for all items in the Consumer Price index, which rose only 676% during the same period of time (U.S. Bureau of Labor Statistics 2020). With prices rising at an incredible rate, it is no surprise that OER came into popular use in the 2010s.

In addition to this freedom from commercial costs, OER also have clear permissions, or reuse rights, embedded through open licenses.



**Figure 1.1.** [5 R image](#) by [BCOER Librarians](#) is licensed [CC BY 4.0](#).

Wiley (2014) solidified the ideas of freedom for open content by encapsulating it in permissions colloquially known as the 5 Rs:

- **Retain:** the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
- **Reuse:** the right to use the content in a wide range of ways (e.g., in a class, in a study group,



on a website, in a video)

- **Revise:** the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
- **Remix:** the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
- **Redistribute:** the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend).

Each of the five freedoms outlined by Wiley plays an important role in the utility of an open educational resource. For example, without the right to “remix” materials, an instructor who teaches an interdisciplinary course would not be able to combine two disparate OER into a new resource that more closely fits their needs.

## OER Definitions

There are many definitions available for OER, and these definitions vary in specificity and length. However, there are some commonalities among these definitions, including four common criteria that are used to determine whether materials should be considered OER:

- **Open license required:** the item must be available under an open copyright license, through an open source license, Creative Commons license, or through dedication to the public domain.
- **Right of access, adaptation, and republication:** The open license applied to the item must allow for users to access, adapt, and redistribute copies of the open resource. This can be accomplished by making content available in multiple formats: a work may be available online, provide a downloadable copy for offline reading, and a downloadable version which is editable (i.e., a .DOC file for text or a .AI file for complex images) (Wiley 2014).
- **Non-discriminatory:** the item can explicitly be reused by “anyone, anywhere,” and not for educational purposes only (or with restrictions on who can access and use the item).
- **Does not limit use or form:** the item does not include a limitation on its reuse and adaptation, which would be required with the use of a Creative Commons Attribution NoDerivatives license (Creative Commons Wiki Contributors 2020).

A set of definitions from various organizations are provided below. While few definitions include all four criteria, most include the first two: the requirement of an open license and the right for users to access, adapt, and share the work.

- **SPARC:** “teaching, learning, and research resources that are free of cost and access barriers, and which also carry legal permission for open use. Generally, this permission is granted by use of an open license (for example, Creative Commons licenses) which allows anyone to freely use, adapt and share the resource—anytime, anywhere.” (SPARC, n.d.)
- **William and Flora Hewlett Foundation:** “we use the term “open education” to encompass the myriad of learning resources, teaching practices and education policies that use the

flexibility of OER to provide learners with high quality educational experiences. Creative Commons defines OER as teaching, learning, and research materials that are either (a) in the public domain or (b) licensed in a manner that provides everyone with free and perpetual permission to engage in the 5R activities– retaining, remixing, revising, reusing and redistributing the resources.” (William and Flora Hewlett Foundation, n.d.)

- **Cape Town Open Education Declaration:** “open educational resources should be freely shared through open licenses which facilitate use, revision, translation, improvement and sharing by anyone. Resources should be published in formats that facilitate both use and editing, and that accommodate a diversity of technical platforms. Whenever possible, they should also be available in formats that are accessible to people with disabilities and people who do not yet have access to the Internet.” (Cape Town Open Education Declaration 2007)
- **UNESCO:** “teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.” (UNESCO, n.d.)
- **State of Texas:** “a teaching, learning, or research resource that is in the public domain or has been released under an intellectual property license that permits the free use, adaptation, and redistribution of the resource by any person. The term may include full course curricula, course materials, modules, textbooks, media, assessments, software, and any other tools, materials, or techniques, whether digital or otherwise, used to support access to knowledge.” (TEC § 51.451)

Discussions around what should “count” as OER have abounded over the last decade, particularly when it comes to licensing these works. The debate around “how open” an OER should be is addressed very well in Jhangiani’s (2017) article, *Pragmatism vs Idealism and the Identity Crisis of OER Advocacy*:

“Despite its merits, it would be naïve to believe that adopting an integrated approach would eradicate all tension within the OE movement. Idealists may still insist that OER creators apply CC licenses that meet the definition of “free cultural works” (Freedom Defined 2015). Pragmatists, on the other hand, will acknowledge that OER creators may have reasonable grounds for attaching a Noncommercial (NC) or even a NoDerivatives (ND) clause, even though an Attribution-only license (CC BY) facilitates the maximum impact and reuse of OER... Although these tensions will not disappear overnight, I believe it essential that we recognize both drives and have a deliberate, nuanced conversation about how to flexibly harness both idealism and pragmatism in service of the goals of the OE movement.” (para. 24)

Thinking about what aspects of OER are the most important to emphasize at your institution is a vital step for those starting an OER program. Choosing or creating a definition for OER can color the rest of your initiative. Consider alterations that anchor your OER program’s work to your institution’s goals, missions, or values. This can be achieved by adding a vision or mission statement alongside your OER program’s outreach materials, and tying that vision to both your chosen definition and your institution’s mission.

### Program Manager Tips: Defining “OER”

Do not attempt to redefine OER by committee. As we’ve shown above, there are enough definitions to choose from already. Rather than starting from scratch on an institutional definition, consider adopting an existing definition of OER, or rephrasing an existing definition for clarity. When taking the idea of an official definition to your team or administration, bring examples based on the sort of definition you would like to support.

## Copyright and Open Licensing

Since permissions and reuse rights are an integral part of OER, as an OER program manager, you will need to have a basic understanding of copyright law, particularly as it pertains to open licenses. Having a basic understanding of copyright law can help you feel more confident when answering questions from faculty about what makes an OER different from a traditional educational resource besides the fact that they are available at no cost. In addition, having this knowledge can help when managing OER projects that involve remixing multiple resources into something new. Since not all open licenses can be combined with one another, understanding how open licenses work can help you make more informed decisions about how to combine remixed works efficiently.

Since the authors of this book are primarily situated in the United States, the main examples used here will be referring to the standards within U.S. copyright law. The specific rules and regulations around licensing, fair use, and intellectual property in your country may differ from the ones described here, and you should seek out counsel on best practices in your own community. If you know of any resources we could add to this section to help readers locate applicable copyright guidance for their own contexts, please let us know by using the Contact Form in the front matter of this book.

## Program Manager Tips: Delegate and Coordinate Copyright Support

If you have a team that oversees OER work, you can delegate more complex copyright questions to your institutional copyright office or whichever team member has the most experience with this work; however, everyone who works with OER should have a baseline understanding of fair use and open licenses to help you answer questions from faculty. Keep in mind that if you do not have a law degree or a lawyer on your team, you will want to have an external contact who does have this background to help you answer more complex copyright concerns from faculty.

## U.S. Copyright Law

U.S. copyright law protects an author's rights over their original creative works, such as research articles, books and manuscripts, artwork, video and audio recordings, musical compositions, architectural designs, video games, and unpublished creative works (17 USC §102). As soon as something is “fixed in a tangible medium of expression,” it is automatically protected by copyright. A resource is considered fixed when:

“its embodiment ...by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.” (Legal Information Institute, n.d.)

In other words, an idea for a book is not protected by copyright, but the first draft of a manuscript is. Copyright protection ensures that the creator of a work has complete control over how their work is reproduced, distributed, performed, displayed, and adapted (17 USC §106). The faculty you work with will not need to register a resource with the U.S. Copyright Office for this to come into effect; it is automatic.

## Licensing

The copyright status of a work determines what you can and cannot do with it. Most copyrighted works are under full, “all rights reserved” copyright. This means that they cannot be reused in any way without permission from the work's rightsholder. This is usually the creator of the work, but it may also be the publisher of the work, for published scholarly materials like books and articles.

If you are supporting an author who wants to get permission to reuse someone else's work or who has created a work that others want to reuse, this can be handled through the use of a license. A license is a statement or contract that allows you to perform, display, reproduce, or adapt a copyrighted work in the circumstances specified within the license. For example, the copyright

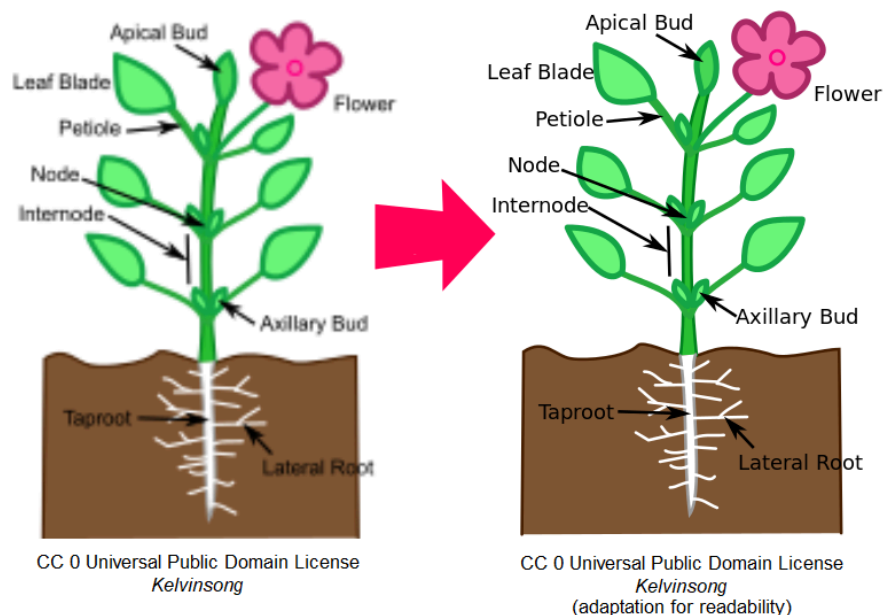
holder for a popular book might sign a license to provide a movie studio with one-time rights to use their characters in a film.

### Program Manager Tips: What About Fair Use?

If an OER is available under a copyright license that restricts certain reuses, or if an author does not want to license out their work for reuse, you can help faculty make a fair use assessment for reproducing or adapting that work. Some best practices you can follow when considering this approach have been compiled in the [Code of Best Practices in Fair Use for Open Educational Resources](#) (Jacob, Jaszi, Adler, and Cross 2021).

## Open Licenses

In contrast to all rights reserved materials, OER facilitate downstream reuses through the application of **open licenses**, copyright licenses that allow anyone to exercise the rights allowed under the license, not just a single user with permissions from the rightsholder. These explicit reuse permissions make OER not just free to access, but also free for instructors who want to alter the materials for use in their course. For example, in Figure 1.2 below, an openly licensed image has been traced to make it more readable.



**Figure 1.2.** This image was originally used to represent an improper recreation of a copyrighted work via tracing. In this example, it shows how an already open work can be legally recreated via tracing for readability. [“Adaptation in action”](#) by Abbey Elder, licensed [CC 0 1.0](#), was adapted from [“Copyrighted source to tracing”](#) by Kelvinsong, [licensed CC 0 1.0](#).

Adaptations that improve the clarity of a work are a great way to leverage an open license through small edits rather than more complex changes. Showcasing examples like the one in Figure 1.2 may be useful for helping instructors who are uncertain how smaller contributions and adaptations can improve a work that is almost perfect for their course.

## Creative Commons Licenses

The most popular open licenses for OER are Creative Commons (CC) licenses, standardized licenses that allow users to reuse, adapt, and re-publish content with few or no restrictions. The six Creative Commons licenses include combinations of one or more of the following components:

- **Attribution (BY):** Proper attribution must be given to the original creator of the work whenever a portion of their work is reused or adapted. This includes a link to the original work, information about the author, and information about the original work's license.
- **Share Alike (SA):** Iterations of the original work must be made available under the same license terms as the original work.
- **Non-Commercial (NC):** The work cannot be sold at a profit or used for commercial means. Copies of the work can be purchased in print and given away or sold at cost.
- **No Derivatives (ND):** The work cannot be edited or remixed. Only identical copies of the work can be redistributed without additional permission from the creator.

Under the description for the No Derivatives license, we noted that users can get permission from a creator for additional rights not traditionally allowed under the license. CC licenses may allow specific reuses up front, but they also work within traditional copyright law, and can be amended for individual reuses through additional permissions from the rightsholder. For example, if you are working with an instructor who wants to adapt a work that is available under an Attribution ShareAlike license by remixing it with a work under a more or less restrictive license, your author can ask the original work's creator for permission to reuse that work in a differently-licensed context. If the original creator says no in this case, your author might seek out an alternative work, or consider reusing a portion of that ShareAlike licensed work under fair use.

## Attribution

Although there are different rules for each license, every CC license includes the BY (Attribution) component, which requires that users provide proper credit for any original work being shared or adapted. Attribution is a similar process to citing for academic works, but there are some key differences. For example, attribution is a legal requirement of reusing licensed content, whereas citations are an ethical, academic requirement when referring to a peer's work. Instructors you work with can cite openly licensed content in their OER if they are simply referring back to the content within the work, just as they would for an all rights reserved resource, but if they are sharing, editing, or remixing a resource, that will require attribution. An attribution should include

four parts: the item’s title, author, and a link to both its original source and its license. This is often referred to with an acronym, such as “TASL.”

## Attribution Example

Let’s explore an example of attribution in action. An instructor you are supporting finds this song and wants to incorporate it into their OER project: [“First Results.”](#) Sometimes, attribution statements are created and presented alongside an OER to make them easier for users to attribute correctly. When this is not the case, you simply need to locate all four pieces of the “TALS” formula to create an attribution statement for the work you are reusing. When visiting this song’s website, you can find that the creator is “Blue Dot Sessions” and that the work is titled “First Results.” That gets you two pieces of TALS already: the title and author of the work.

Next, you need to locate the license. This is often in one of three places: the footer, the “about” page, or the homepage of the website on which the work is housed. In our example, the license is prominently placed in the details on the right side of the song’s webpage: a Creative Commons Attribution NonCommercial license.

Now that you have all those pieces in place, be sure to copy the links to both the resource’s website and its license information, as these make up the more robust pieces of the source and license portions of your attribution.

Once you have your title, author, license, and source, you can compile this information in an attribution statement:

The music used in this work is [“First Results”](#) by Blue Dot Sessions, available under a [Creative Commons Attribution-NonCommercial 4.0 International License](#).

### Program Manager Tips: No License?

If there is no license applied to a work, that means the resource is likely under all rights reserved copyright. If you cannot find the license clearly marked on the website where the work is hosted, consider searching your web search engine of choice (i.e. Duck Duck Go or Google) for the name of the work and “Creative Commons.” If that brings back no results, you can contact the creator of the work for context.

For additional support creating an attribution statement, you can point faculty toward the [Open Washington Attribution Builder](#), though I recommend reviewing the basics with authors as well, to ensure that they understand the importance of including robust attribution information for any openly licensed works they reuse.

## Implementing a CC License

Creative Commons has an online [Marking Guide](#) that demonstrates how to mark CC license on different types of media (Creative Commons Wiki contributors 2019). Making a license obvious is an important part of the dissemination process for OER, as it ensures that others can recognize that the work is openly licensed and feel comfortable reusing the work. No matter the format, there are three standards faculty implementing a CC license should follow:

- Make it clear
- Make it visible
- Provide links (to the license and the work)

Here is a book-level license that encapsulates the entire work while noting that not all content may be available under the same license:

“Except where otherwise noted, this work is copyrighted by [AUTHOR] and available under a Creative Commons Attribution 4.0 International (CC BY 4.0) license. You are free to copy and redistribute the material in any medium or format. However, you must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

Items available under a different license or used under the Fair Use doctrine (17 U.S.C. § 107) are marked in the text. Adopters in a non-U.S. jurisdiction should rely on the appropriate quotation provisions of their own national copyright laws.

We suggest the following citation: [CITATION EXAMPLE]”

As an alternative, let’s look at how you might implement an open license on a video. The language will be similar, but its application needs to be different to accommodate the different mode of communication. For example, let’s look at this video I created in 2018:



*One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://press.rebus.community/oerstarterkitpm/?p=116#oembed-1>*

There are three ways the license for this video has been marked:

1. The Creative Commons Attribution License option was selected within the YouTube interface when posting the video, so it would show up when users filter by license.
2. Within the description of the video, a statement was added about the license:  
“Open Education: Learning the Ropes” by Abbey Elder is available under a Creative Commons 4.0 License: <https://creativecommons.org/licenses/by/4.0/>”
3. A Creative Commons Attribution icon was added within the video.



This third point is particularly important since videos are often shared outside of the context of their platform, where the description and metadata cannot be consulted. I would even recommend that those putting out video or audio content verbalize the CC license applied either at the beginning or end of the work to make the license clear for end users.

## Talking about Licensing

There are a few situations when you'll likely need to talk to faculty about open licenses. These include:

1. When adopting an OER, the instructor needs to understand the reuse rights for that work if they want to create print copies or share a copy of a work with their class (or peers) online.
2. When adapting or remixing OER, the instructor needs to navigate which CC licenses are compatible with one another and how to properly attribute each work they use.
3. When choosing a license for their own work, instructors need to understand the pros and cons of each CC license so they can make an informed decision about how to license their work.

In the following section, we will be primarily discussing the second and third points on that list.

## Helping Instructors Choose a License

As the OER program manager for your institution, you may be asked to help faculty choose a license to apply to their OER projects. The first thing you will need to do is to assess the OER project itself and whether the materials created and/or adapted will affect the license the faculty member can choose.

Below are some questions you should ask faculty at this stage:

- How familiar are they with CC licenses?
- Is the bulk of their work original, or remixed selections from other sources?
- Are they adapting a single work, or pulling together multiple OER into a larger remix project?
- Are they planning to use any material under all rights reserved copyright within their work, and why?
- Are they citing and referring to other works, or incorporating these other works into their project directly?

Each of these questions will help you have a more productive conversation. For example, if the faculty member is not familiar with CC licenses, you will want to start by explaining each license and how they work. In the following section, we explore a few scenarios you may encounter when supporting faculty licensing and organizing attributions for more complex OER remix projects.

## Licensing and Attribution for Remix Projects

If you're working with a faculty member on an adaptation or remix project which includes multiple components, attribution may be a more complex process. Below, we have outlined a few common examples you can review.

### Creating a New Work with Adapted Figures

Let's say you are working with a creator who has developed an OER with the addition of some extra open content, such as background music within a video or images within a set of slides. In these situations, the author should credit themselves as the OER's creator and provide item-level attributions for the adapted works included within their project. In Figure 1.3, a slide using an openly licensed image includes attribution information just under the image, but this attribution could also be placed in the notes section of the slide, or in a description for other types of works.

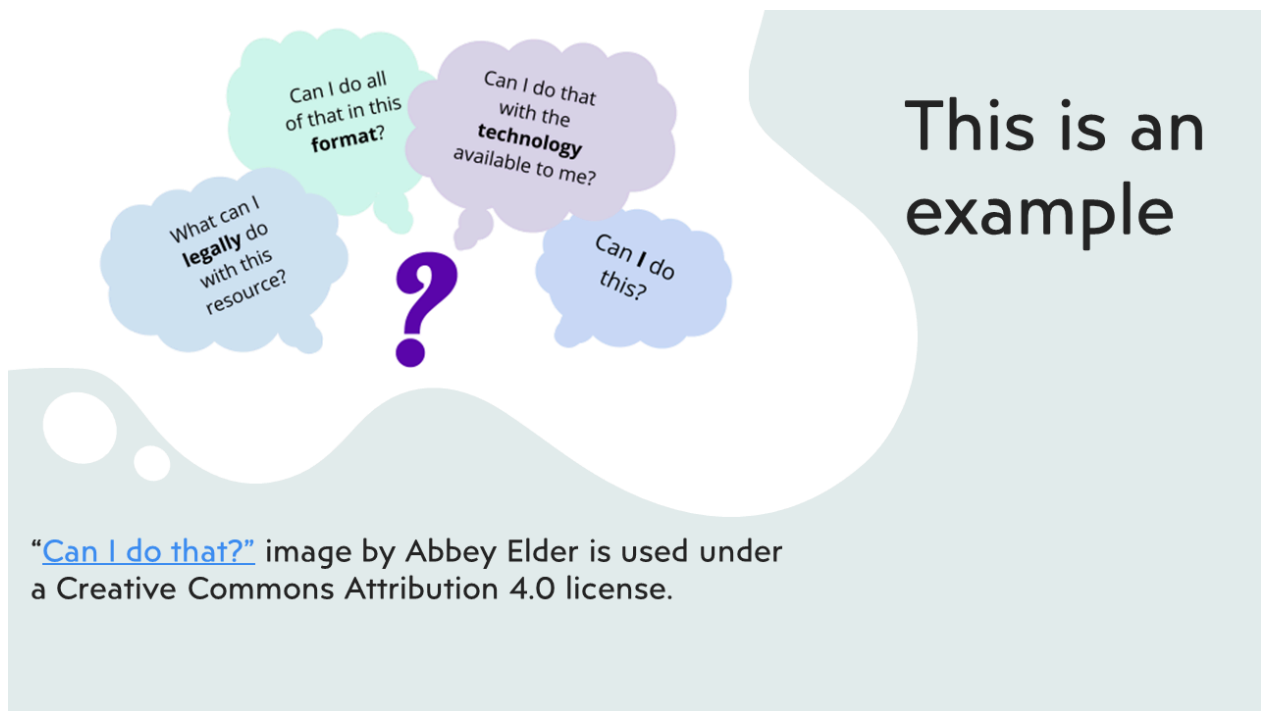


Figure 1.3. This PowerPoint slide is part of a longer presentation showcasing examples of how a single image can be integrated into a resource, adapted, or remixed with other works, and how attribution works in each case. The image in the slide is [“Can I do that?”](#) by Abbey Elder, available under a [Creative Commons Attribution 4.0 license](#).

### Adapting a Single Existing Work

If you are supporting a faculty member who is adapting a single work for use in their course, they should provide attribution for the original work's authors, and list them as the creators for the work. If they have contributed original content to the work, your faculty member may add their name to the Contributors or Authors list. As a best practice, the individual adapting the content

should also provide a description outlining the changes they have made to the original work and any additions they have contributed.

## Remixing a Single Existing Work, with Additions

If the individual you are supporting is adapting a single work while adding selections from other openly licensed works, they should follow the instructions from our previous example, and provide attribution for the additional adapted content within the sections containing them.

Alternatively, the faculty member may choose to provide a list of all the adapted content making up their work in a single list. For books, this might be placed in the front matter, while for other OER projects, this might be placed in a footer, notes field, or description section.

## Remixing Two or More Works with Different Licenses

Finally, if the faculty member you are supporting has remixed a set of OER with different licenses, they will need to carefully choose the final license of their remixed work. As an OER program manager, you will need to discuss how to choose a license for the new OER that is compatible with each of the remixed works' original licenses. As Table 1 shows, most licenses used for OER are compatible with one another, with a few notable exceptions.

**Table 1.1. Creative Commons Compatibility Table, Creative Commons Wiki Contributors, CC-BY-SA, adapted by Abbey Elder for accessibility and to remove the CC BY ND license, as it is not used for OER.**

License	Public domain mark	CC BY	CC BY-SA	CC BY-NC CC BY-NC-SA
Public domain mark	Yes	Yes	Yes	Yes
CC BY	Yes	Yes	Yes	Yes
CC BY-SA	Yes	Yes	Yes	No
CC BY-NC CC BY-NC-SA	Yes	Yes	No	Yes

When remixing open content, the CC licenses to be most aware of are ShareAlike licenses, since the two ShareAlike licenses, CC BY SA and CC BY NC SA, are not compatible with one another. This is because an adaptation containing a CC BY SA work must utilize the same license, just as a work utilizing CC BY NC SA materials as its base must utilize a CC BY NC SA license. You cannot apply a more or less strict license to either of these types, so they cannot override one another or be replaced by another license.

If all the OER being utilized by your faculty member have compatible licenses except for one, you might consider offering to help locate an alternative resource for the faculty member to integrate into their project, or asking for additional permissions from the work's creator. As an alternative compromise, you can suggest that the creator apply an overarching license to their work, and note that pieces of the work are available under separate licenses. Noting that a work contains resources that are used under a separate license can be done through standard language, such

as “This work is available under a Creative Commons NonCommercial License, except where otherwise stated.” This is the same language you might use if one of the images used in a resource was utilized under fair use or with permission from the rightsholder, for example.

## Tips for Talking to Faculty

Regardless of the situation you find yourself in, when helping an instructor choose a license for their OER project, remember these three tips: keep the creator on your side, don’t trivialize their concerns, and remind them that open licenses are powerful tools for both creators and users.

### Keep the Creator on Your Side

As you discuss open licensing, it’s important to ensure that faculty creators are comfortable and confident in their decisions. Early on, discuss each of the open license options available with the faculty member, and help them come to a decision on which license will be best for their project.

The Creative Commons [Choose a License tool](#) can help faculty navigate this process if you cannot meet with them in person, but the choose a license tool is simple and you should explain the licenses to authors in clear, concise language before they use the tool themselves.

### Don’t Trivialize the Creator’s Concerns

Faculty new to OER, and even veterans in the space, may be hesitant to apply a CC BY license to their work, fearing that future users may create an adaptation that is inaccurate, unorganized, or even slanderous. As a program manager, it is best not to disregard these concerns or to argue that they are unfounded. Instead, make sure that authors understand that they can ask to have their name removed from any adaptations that they do not approve of, and that the version of their work that they create will always be available in the form they have published. Any adaptations created by other users will be hosted on other platforms, or clearly marked as adaptations with a link to the original work.

After you address the faculty members’ concerns, then you can then follow up with information about how negative adaptations of OER are rarely an issue, and showcase examples of positive adaptations that have occurred over time. Talking about the positive outcomes of open licensing can help faculty move past any anxiety they may feel regarding openly licensing their work, and ensure that all the contributors working on a project are comfortable with the level of openness they are moving toward.

### Remind the Creator that Licenses Help Everyone

OER are useful not in spite of but *because* they can be used by anyone and adapted for various purposes. However, that can be hard to explain when a creator is thinking about a specific use case for their own works, particularly if they are protective of their copyright. To help faculty

conceptualize how adaptations can improve and build on their work, share examples of different types of adaptations that have been done by creators at other institutions already. For example, a future user might:

- translate an open textbook into another language,
- add institutionally-relevant examples to a video,
- expand on a set of slides by adding “concept questions” at the end,
- remove sections of a work that aren’t taught at their institution, or
- change the focus of a work to support a more focused course (e.g., adapting “Algebra” to support “Algebra for Forestry Students”).

Finally, remind faculty that their version of their work will always be theirs, and that—if they wish—the creator can integrate adaptations that others have created into a future version of their work, or even collaborate with faculty at other institutions who have adapted their work to create more OER in the future. There are many opportunities to do more exciting and innovative work with OER, and highlighting those possibilities can help faculty feel more comfortable about making their work open.

### **Program Manager Tips: Which License?**

The CC BY license is often the preferred choice for OER projects because it allows the most freedom for users when adapting and remixing content. However, except the No Derivatives license, all CC licenses meet the standards for OER. While it may be tempting to promote the use of the most open license for all the OER projects at your institution, program managers should strive to promote faculty freedom in choosing the license that is right for their needs, so long as it meets the 5 R rights required for their content to be considered an OER.

## **Content in the Public Domain**

Works that are no longer protected by copyright are considered part of the public domain. Items in the public domain can be reused freely for any purpose by anyone, without giving attribution to the author or creator. Public domain works in the U.S. include works whose creator died 70 years prior, works published before 1926, or works dedicated to the public domain by their rightsholder. The Creative Commons organization created a legal tool called CC 0 to help creators dedicate their work to the public domain by releasing all rights to it (Peters 2010).

## What Isn't an OER?

Misconceptions about their usefulness and availability of OER have abounded among some instructors (Seaman and Seaman 2018). After all, an OER may come in the form of a textbook, lesson plan, syllabus, reading list, or even a piece of educational software. Rather than trying to define OER as a single item or implying that “open textbooks” are the main form of OER, it may be better to talk about what *isn't* an OER.

Anything that isn't both free *and* open with 5 R permissions is not an OER. For example, library-licensed ebooks may be free for students to access, but there is a cost incurred by the institution for their purchase and they certainly aren't openly licensed. Similarly, most websites and online materials like images or videos are free to access but are not openly licensed. Because these materials do not meet the definition for open educational resources, you should not call them OER.

However, supporting OER at your institution does not have to be an all-or-nothing proposition. There are a lot of high quality educational materials available for free online or through your institution's library that are not openly licensed. If you know where the materials came from and how to use them, feel free to share links to these materials as no-cost options for an instructor's course. So long as you don't conflate them with OER and you do not advocate for their adaptation as OER without a fair use assessment or permission from the author, this is a perfectly fine choice.

## Conclusion

Understanding OER is a core component of an OER program manager's duties. These resources can come in a wide variety of sizes and formats, but at their core they have two main components: they are free for anyone in the world to access online and they are available under an open license which allows for their reuse and adaptation. Anyone can talk about OER by focusing on these two concepts, and it is often best to begin discussions with faculty at a basic level. It takes time to comprehend and explain the smaller components of an OER, such as licensing and attribution. This chapter has reviewed copyright for OER in some depth, but we recommend that program managers seek support from copyright experts at their institution or review additional materials if they wish to explore copyright and licensing in more detail.

## Recommended Resources

- [Can I use this? Copyright Decision Path](#) (Harper College, n.d.)
- [Code of Best Practices in Fair Use for Open Educational Resources](#) (Jacob, Jaszi, Adler, and Cross 2021)
- [Creative Commons Certificate for Educators, Academic Librarians and GLAM](#) (Creative Commons 2020)
- [Why OER?](#) (Council of Chief State School Officers 2016)

## Key Takeaways

1. Open educational resources come in many formats and types, and because of this they can be seen both as “flexible, powerful tools” and “amorphous, difficult to explain materials.” Being able to discuss this variety in a positive and straightforward manner is key for program managers who want to support the growth of a new OER program.
2. Because misconceptions about OER are still prevalent among faculty new to OER, you should have a clear definition of OER in use at your institution and be able to communicate what this definition means for those new to OER.
3. Creative Commons licenses are the most common and simplest open licenses to apply to OER, and every CC license except those using the No Derivatives provision are sufficient for use on open educational resources.
4. If you find you cannot support a course with OER currently available, do not despair! New OER are being developed every year, and in the meantime, you can support instructors by offering alternatives, like library licensed ebooks or courseware available at a lower cost than your faculty members’ current course materials.

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## 2. Open Education

Abbey K. Elder

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When starting your work as an OER program manager, you'll likely have a base of knowledge that affects the way you talk and think about open education. For this chapter, we are going to delve into what open education is and how the field has expanded over time to encompass pedagogies and practices which go far beyond open educational resources (OER) alone.

### Background

"Open education is an idea, a set of content and a community which, properly leveraged, can help everyone in the world access free, high quality, open learning materials for the marginal cost of zero. We live in an age of information abundance where everyone, for the first time in human history, can potentially attain all the education they desire." (Cable Green 2017)

Open education as we know it today is part of an ecosystem, a series of "open" movements that have coalesced around education, technology, and scholarly communication. Apart from open education, the most notable of these movements are **open source**, **open access**, and **open science**, the last of which is sometimes purported to be an umbrella term under which all other "opens" fall (de la Fuente, n.d.). Rather than fighting for a specific and limited definition, most of these movements have positioned themselves in opposition to what they define as "closed" ecosystems (Weller 2014). This can be seen in the ways that the open education and open source communities talk about their content, not under a strict ruler but under general guidelines. The "open source way," for example, is described as a set of principles: transparency, collaboration, release early and often, inclusive meritocracy, and community (opensource.com, n.d.). Similarly, Wiley's 5 R's are a set of guidelines outlining what make OER "open."

One of the first open movements to take hold on the internet was the open source community, whose proponents committed to releasing software under a license that enables remixing and reuse. This became an integral part of open education as well. However, many of the groups present in the early open education community focused on sharing *content* through their communities rather than software. As Bliss & Smith (2017) explain in their breakdown of the history of open education:

"much of our attention focused on OER's usefulness at providing knowledge in its original form to those who otherwise might not have access. The implicit goal was to equalize access to disadvantaged and advantaged peoples of the world – in MIT's language, to create 'a shared intellectual Common.'" (p. 15)

Massachusetts Institute of Technology (MIT)'s OpenCourseWare site, [MIT OCW](#), gained national attention in 2001 when instructors began sharing their courseware and syllabi produced at the

distinguished university. Although MIT OCW was certainly not the first major institutional initiative for open education, as the term “open education” had been used by instructors for decades before, MIT’s repository of resources would influence the future of open education and its representation for over a decade (Weller 2014; Bliss & Smith 2017).

Later repositories would build upon MIT’s groundwork. MERLOT, OER Commons, and LibreTexts—three of the largest grant-supported OER repositories—have each added something unique to the ways in which they support the location and creation of open content. MERLOT brought forward the idea of members contributing content they had made themselves or found elsewhere to grow the collections within the platform rather than only adding content that was currently in use for a course. OER Commons innovated by contributing a more robust system for tagging and filtering content, including the alignment of materials to specific educational standards (e.g., the Florida Science Standards for K-12 courses). Finally, LibreTexts has continued to innovate by building out more interactive components, like their Remixer tool for easily cloning and remixing content from multiple resources on their platform into a new base book, as well as [several technical integrations](#), like Jupyter Notebooks and dynamic figures, 3D models that can be manipulated by users.

Today, the people who work in open education continue to innovate, looking ahead to how the use of open educational resources and open educational practices can improve education for students and instructors alike.

## Open Educational Practices: Centering on Education

Although many individuals working in open education in the early 2000s were focused on sharing free and open content online, there were also many instructors present in these communities who wanted to situate open content within the greater educational ecosystem. Open educational practices (OEP) are defined as “practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path” (Ulf-Daniel Ehlers 2011).

These practices are often discussed as if the idea of “actually teaching with OER” was an afterthought to the production and sharing of content. However, history tells us this is not the case. The open education community in the 2000s might not have emphasized open educational practices and open pedagogy in their early discussions; however, instructors at community colleges and those working in distance learning had long pioneered discussions around affordability, access, and pedagogies built around the sharing of content (Lee 2020). Additionally, scholars like Catherine Cronin have been spearheading the discussion around OEP to include a more nuanced view of teaching openly (Cronin 2017; Bali, Cronin, and Jhanigiani 2020). This is further highlighted by a growing interest in open pedagogy among instructors.

## Open Pedagogies

Open pedagogy relates to the set of teaching practices that include engaging students in a course through the development, adaptation, or use of open educational resources. Often, we discuss open pedagogy in reference to renewable assignments, a term coined by Wiley and Hilton (2018) as “assignments which both support an individual student’s learning and result in new or improved open educational resources that provide a lasting benefit to the broader community of learners.” In other words, these assignments include the creation of something that can be reused, unlike “disposable assignments,” which are discarded after being graded.

Common examples of open pedagogy assignments include student-created textbooks and student-created test banks to supplement open textbooks. However, these examples make up only a small portion of the possibilities available to instructors implementing open pedagogy in their courses. Over the years, scholars and open pedagogy experts have come together to discuss various ways of implementing this type of pedagogy. We recommend reading the work of these scholars and practitioners for more information about how open pedagogy work is accomplished:

- [Open Pedagogy Notebook](#) (Openpedagogy.org, n.d.)
- [Open Pedagogy Approaches: Faculty, Library, and Student Collaborations](#) (Clifton and Davies Hoffman 2020)
- [A Guide to Making Open Textbooks with Students](#) (Mays 2017)

## Diversity, Equity, and Inclusion in Open Education

As we explored in [Chapter 1](#), instructors tend to make the leap toward open education because OER supports affordable access to course content for their students. While the wider availability of affordable content might contribute to a more inclusive classroom for some students, there is reason to push back against the idea that access to content is all it takes to make a course “equitable” (Seiferle-Valencia 2020). Over the past decade, diversity, equity, and inclusion (DEI) has become an implied outcome of open efforts, something that should follow from the increased availability of content and participatory practices that OEP implies; however, as Croft and Brown (2020) explain, it is imperative that open education proponents “reinforce those conversations through intentional and coordinated efforts” (p. 160).

Below, we’ve compiled a few insights to help you foster a more inclusive OER program at your institution.

1. Talk about diversity, equity, and inclusion (DEI) often. Make it a part of your daily workflow, until it appears to be an integral piece of your open education program. When you discuss adopting or adapting OER with instructors, students, and other stakeholders at your institution, bring up not just the affordability of OER but the ways in which your program can support DEI.

2. Invest staff time and/or funding to support OER projects that might otherwise go unnoticed. This may include work by lecturers or adjuncts who do not traditionally have support structures or time to invest in open education work, OER projects that support lower enrollment courses in niche fields, or interdisciplinary projects that require training and oversight for a team housed in multiple colleges.
3. Include language in grant proposals and consultation forms to require that instructors have a plan for ensuring that their course is inclusive and equitable for all learners. Provide examples and support for instructors navigating these topics for the first time. This can help instructors center diversity and inclusion as a major part of their projects early on in their OER adoption or creation timeline.
4. Encourage open pedagogy projects that center on student participation and uplifting student voices to showcase a diversity of perspectives. Note: when doing this type of work, it is equally important to center discussions on student choice. Privacy and the ability to opt-out of public projects is particularly important for students who may feel singled out or vulnerable in public-facing spaces.

This list is far from comprehensive, and these steps will not be possible for everyone. To learn more about what your institution can do to foster equity through open education and related initiatives, seek out resources on social justice and open education. If you aren't sure where to start, we recommend [\*Open at the Margins: Critical Perspectives on Open Education\*](#) (Bali et al 2020).

## A Growing Focus on Accessibility

Accessibility is often discussed as a weakness in open education due to the common use of the word “accessibility” in OER discourse when referring to the free “availability” of content. While these two terms might be technically interchangeable, the term “accessible” has a much more important connotation when it comes to the production of digital content. Digital accessibility refers to tools and processes that help make “access to digital information possible regardless of the nature of a person’s disability and how they consult the information.” (Orange Digital Accessibility, n.d.). Accessibility has also been an issue for OER in the past, when much of the content being produced was made up of inaccessible PDFs created by individuals working without any official support.

The landscape for OER production has changed for the better over the past decade, but many institutions still lack dedicated support for ensuring the accessibility their staff produce. Digital accessibility should not be an afterthought to the production of educational content: it should be scaffolded into the production process and ensured for all resources. Luckily, there are resources to help guide that process for faculty and staff who are new to the topic, and many colleges now have accessibility offices and staff who can provide feedback on this work as well.

- [\*BCCampus Open Education Self-Publishing Guide: Accessibility, Diversity, and Inclusion\*](#) (Aesoph 2018). This chapter contains an excellent table with types of barriers that should be

taken into consideration when building accessible OER.

- [BCcampus Open Education Accessibility Toolkit](#) (Coolidge et al 2018). The BCcampus toolkit is an open handbook that addresses best practices and tips for ensuring that different types of content meet accessibility guidelines.
- [Portland Community College Accessibility Handbooks](#) (Portland Community College 2016). These excellent handbooks are a set of guidelines and handbooks to help support the creation of accessible content. It includes resources for creating accessible web pages, presentations, documents, and more.

### Program Manager Tips: Defer to Local Experts

While it is important to ensure that the resources created and used through your institution's OER program meet accessibility guidelines, you do not need to become an accessibility expert yourself. Instead, help faculty and staff get support to ensure that their projects are accessible. Collaborate with partners at your institution who work in IT, the Dean of Students office, or another department that specializes in access services, if that is available at your institution. Developing relationships early is incredibly important for this type of work, and these relationships can become lasting partnerships as your program grows over time.

## Conclusion

Looking back on the past and envisioning the future of the field of open education, it is clear that there is no one path we are all walking toward. Instead, there is a general branching out of our community, growing into new spaces and learning new things. One thing is clear: it does not matter if everything that we do fits the rules or standards of the “wider open education community.” Instead, what matters is that we can create, share, and collaborate with one another to develop something new: a base of content and practices that can disrupt or even replace commercial content in education. To do this work well, we must listen to instructors and learners so we can support their needs and ensure that the work we do is both open and inclusive for those within and outside our communities.

## Recommended Resources

- [A Brief History of Open Educational Resources](#) (Bliss and Smith 2017)
- [Differentiating Between Open Access and Open Educational Resources](#) (Walz 2019)
- [Open Education Timeline](#) (Open Knowledge Foundation 2013)
- [Resources for fighting racism in publishing and pedagogy](#) (Kinch-Pedrosa 2020)

## Key Takeaways

1. Open education is one specialization within a set of open disciplines, each of which takes a slightly different approach to openness as a concept.
2. Although OER are the central point of discussion for many open education advocates, other aspects of open education have become increasingly prominent in the field, such as open pedagogy and incorporating best practices for inclusion into teaching.
3. As the discipline of open education continues to grow, more nuanced discussions have been brought to the forefront, such as, “Who is able to engage in the creation and use of OER?” Questions like this are important, and acknowledging their importance through action can bring nuance and purpose to your OER program.

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# Case Study 1: Lessons Learned from an Open Education Librarian

Cheryl (Cuillier) Casey

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## My Path to Becoming an Open Education Librarian

My OER journey began in 2013. I had recently transitioned from a library administration role as Special Assistant to the Dean to a position that combined liaison librarianship and project management. The Dean of UA Libraries asked me to serve on a campus-wide eContent Pilot, testing an eReading platform. That 2013–14 pilot was almost derailed by technology problems with the platform, but two great things resulted from the project:

1. The library, bookstore, central IT, and teaching and learning center formed stronger partnerships through the pilot's challenges, and
2. OER's clear advantages over commercial/proprietary content became evident.

Our project team advised campus to scrap the eReading platform and pursue OER instead. In 2014, the library formally added OER coordination to my job description and I attended my first-ever OER conferences: OpenStax's CNX and the Open Education Conference. At that time, my primary job responsibilities were to lead the library's discovery service implementation and to serve as a business liaison librarian. I lobbied for the OER coordination role because I saw it as an unfilled need on campus, but the percentage of time dedicated to OER was never specified in my job description. In hindsight, I should have pushed for this.

In 2015, the University of Arizona joined the [Open Education Network](#) (OEN) and I organized a full day of OER workshops and sessions for instructors, librarians, and instructional designers. Meanwhile in 2015, architecture liaison responsibilities were added to my job description.

As my passion for OER grew, I wanted to focus on it full time. In 2017, I had the opportunity to move from liaison librarianship to a newly created department, Content & Collections. I envisioned working primarily on OER and I adopted the title of Open Education Librarian. Instead, my job description increasingly expanded to include much more than OER. By the end of 2020, I also was responsible for oversight of Course Driven Acquisitions (our ebook program that serves hundreds of classes a semester), streaming video, the setup and administration of our [Pressbooks site](#), expanded web content, and supervisory duties. These responsibilities diluted the time I could devote to OER.

As our library engaged in Future State planning in 2020–21 by looking closely at work we should stop doing and where new/additional resources need to be focused, I made the case for redirecting more personnel to course material initiatives. Our library's return on investment with

these programs has been substantial. Additionally, these initiatives directly support goals related to student success, innovation, equity, inclusion, and global engagement in the university's strategic plan (University of Arizona 2021). In early 2021, library leadership decided to spin off some of my current responsibilities. Oversight of Course Driven Acquisitions and streaming video will be reassigned to others. I'll keep leading OER, open pedagogy, and Z-Degree/Z-Major initiatives (the Z stands for zero course material costs), as well as managing Pressbooks, but I've moved to the library's Research Engagement Department and realigned with scholarly communication.

Advocating for yourself and your OER program is critical work. Competition for limited resources in libraries is fierce. You'll need to develop allies, clearly communicate why this work is important and deserves prioritization, and demonstrate its impact. In this case study, I'll be blunt about my biggest hurdles and lessons learned. OER program management definitely has its challenges, but it's also the most rewarding and impactful library work I've done.

## Biggest Challenges

### Self-Directed Learning

When I graduated from library school in 2008, none of my courses covered copyright, fair use, scholarly communication, Creative Commons licenses, OER, or ebook licensing models. As I became more involved in OER program management, it became clear that I'd need to educate myself. I turned to webinars, conferences, workshops, listservs, a Massive Open Online Course on copyright, and the Creative Commons Certificate for librarians. Newcomers can tap into a wealth of learning opportunities:

- [Creative Commons Certificate](#) materials are openly available, including an ebook version (Creative Commons 2020).
- OEN offers a [Certificate in OER Librarianship](#) and course materials are [openly available in Canvas](#).
- OEN's [Publishing Curriculum](#) is openly available in Canvas.
- OEN and the Rebus Community host [monthly Office Hours webinars](#) and [previous recordings are available on YouTube](#).
- The Community College Consortium for OER (CCCOER) maintains a list of [upcoming open education conferences and events](#).
- The Association of College & Research Libraries will offer the [Open Educational Resources and Affordability RoadShow](#).

### Scope Creep

In talking with other OER program managers, it's common to feel overwhelmed by the scope

of work. Challenges arise from both the breadth and depth of the workload. It often feels like drinking from a firehose.

OER projects are expansive and intersect with many other areas of library work—discovery, preservation, publishing, and open access, copyright and fair use, faculty outreach, marketing and communication, and more. It takes time to build expertise in these various areas and/or to coordinate with those colleagues. It's also time-intensive to work 1:1 with instructors on OER. The course material marketplace is continually evolving, so there are always new products, business models, and complexities to learn about.

Meanwhile, OER responsibilities are frequently piled on top of existing work. I've struggled to end legacy assignments and expand my OER focus. My project management work on the library's discovery service gradually diminished as the library replaced it with another system, but I had to actively resist being pulled into the new project. I had to convince my department head and library leadership that it would be more advantageous to the library and campus for me to concentrate on OER and course materials. I pointed out peer institutions' full-time OER positions and the positive outcomes of their grants, publishing initiatives, and course marking projects (which we lacked the bandwidth to do).

Be prepared to present a clear vision of what's possible for your initiative. The Certificate in OER Librarianship offers Action Plan templates you can adapt and present to leadership (OEN 2020). The Certificate also requires participants to meet with library leadership and ask questions such as:

- What resources will the library commit to our OER program (personnel, funding for grants and/or events, travel to OER conferences, etc.)?
- How do you envision my role in our OER program? How does that fit into the scope of my current job description? What percentage of time will I be able to devote to OER or affordability programs? Is there anything that can be moved off my plate to make more time to focus on OER?
- What's the most important thing for me to accomplish in the next year?
- What would you consider measures of success for our OER program?

I suggested several of these questions based on my own experiences.

## Sustainability

Cross-training is important for program sustainability and expanding bandwidth. One person can only do so much—together, we can accomplish much more. From a sustainability standpoint, it can be risky to have course material initiatives consolidated in a single position. If that person leaves or retires, the program could be set back or abandoned altogether. When my six-month sabbatical was approved for Spring 2021, backup coverage during my absence posed a challenge for the library. A campus hiring freeze due to COVID-19 had already left us understaffed and my department had no funding for a temporary hire. My course material responsibilities were

redistributed to a number of different people and I left resources to help them answer questions. I can tell that their expertise grew during my absence. That's a good thing for our program and its long-term future.

## Saying 'No'

In Fall 2020, several faculty asked me to help them apply for the national Open Textbooks Pilot (U.S. Department of Education 2020) and produce OER. Lacking the bandwidth, I had to decline. This is a necessary aspect of OER work when you have limited staff to support your program. Our Pressbooks publishing platform was quietly rolled out as a “self-service” model. We provide help (University of Arizona, n.d.) in the form of Pressbooks guides and videos but don't have staff available to support publishing projects in depth. The university could be doing much more with Pressbooks. It's frustrating but important to set boundaries and manage expectations. Prepare to have to prioritize what you'll support.

## Turf Battles

Like any workplace, academic libraries can struggle with internal politics, communication breakdowns, and power struggles. Moving OER and Course Driven Acquisitions from Research & Learning (the liaison librarians' department) to Content & Collections created some problematic silos and workflow issues. When faculty reached out directly to me for help with course materials, it sometimes caused conflicts with liaisons who preferred to be the sole point of contact with faculty in their subject areas. My best advice in these situations is to prioritize the customer, try to keep communication channels open, and work toward win-win solutions.

## Buy-In From Administration

When the university revised its strategic plan a few years ago, the library dean and I pitched the idea of Z-Degrees and Z-Majors. We were unable to convince administrators to adopt this as an institutional strategy, so we instead started working with individual faculty and deans. Our biggest success so far has been with the newly formed College of Veterinary Medicine. Its leadership was committed to keeping the cost of course materials as low as possible, so I worked with newly hired faculty on selecting course materials for inaugural classes. We weren't able to find OER, but the library provided free, unlimited ebook access to 38 of 41 required textbooks for Fall 2020. Several instructors are creating OER in Pressbooks. New programs and courses can present great opportunities.

## Lack of Money

My library has no ongoing budget for OER work. I can apply for one-time library funding for events, and other library accounts cover our annual OEN community fee and Pressbooks plan, but we don't offer faculty any financial incentives to participate in our learning communities or to

switch to zero-cost course materials. When faculty tell me they can't create or use OER without a grant, stipend, or course release, I explain that we lack the funding and infrastructure for such incentives. So far I've found enough volunteers, but "free" labor raises concerns about privilege, equity, and diversity. While it's possible to run course material initiatives on a shoestring budget, that effectively limits the number of OER adoptions, adaptations, and creations. Be creative in pursuing funding, which could include grants, donor gifts, or even crowd-funding.

## Assessment is Hard

It's been an ongoing challenge to find out which instructors are using OER. OpenStax notifies me (with instructor permission) when it gets inquiries. Our bookstore features a box on its textbook adoption form for instructors to check if their course doesn't require materials, so I can follow up with those instructors to ask what they're using. However, faculty often confuse library-licensed ebooks (and occasionally pirated textbooks) with OER, which requires some tactful emails or phone calls to explain the differences. Additionally, I've run into bureaucratic hurdles in getting access to centralized data on student enrollment; I haven't yet been able to access student grades, drops, or withdrawals. Still, it's important to have current data to share with administrators. I coordinate with our bookstore to jointly report estimated savings from OER, Course Driven Acquisitions, and inclusive access (automatic billing). For OER, I use the OEN's formula of \$100 per book multiplied by student enrollment in the course. The OEN offers member libraries a useful [Data Dashboard](#) to help tabulate and track OER outcomes.

## Lessons Learned

### Lesson 1: Networks are Extremely Valuable.

The University of Arizona was among the first 10 institutions to join the OEN. That was in 2015; the network has now grown to more than 1,560 institutions and expanded internationally to Canada and Australia. I learn a great deal from the OEN's active listserv, webinars, and Summer Institute. As a member of the network's Steering Committee, I also got to see its inner workings and help shape its guiding principles (Open Education Network, n.d.). I highly recommend becoming involved in national, regional, or state organizations. Valuable networks include:

- [SPARC Libraries & OER Forum](#): Open to all, it features a listserv and monthly calls.
- [Rebus Community](#): Facilitates global OER collaboration and provides useful resources.
- [OpenStax Institutional Partners Program](#): I participated in the program and found it valuable.
- [CCCOER](#): Although I'm not at a community college, I lurk on [their listserv](#).

### Lesson 2: Campus Relationships are Key.

When I became involved in OER work, I joined a range of campus groups to meet faculty, staff, instructional designers, and IT and accessibility resources personnel. I've been elected four times

as a member of Faculty Senate and now co-chair its Student Affairs Policy Committee (which often deals with textbook issues). The connections I've made have been invaluable. They have led to a textbook resolution by student government (Student Body Senate of the Associated Students of the University of Arizona 2019), updated course material policies in the faculty handbook (University of Arizona 2018), and a presentation to Faculty Senate on library/faculty/bookstore collaborations and why our campus bookstore shouldn't be outsourced (Cuillier, Shively, and Hawk 2020).

### Lesson 3: Team Up and Share Invitations.

Going to conferences and events with campus partners can be mutually beneficial. In 2017, I invited the Assistant Director of the UA BookStores to co-present with me at an Open Education Conference. I've attended several [Textbook Affordability Conferences](#) with her. Instructional designers from UA's Digital Learning unit attended an OERizona pre-conference in 2019. The head of Digital Learning stayed for the Open Education Conference, where she learned about Pressbooks and got excited about the open pedagogy possibilities for her classes. I told her that I loved Pressbooks but didn't have funding for it. She struck a deal with the library dean to pay for half so we could pilot it. We recently renewed the license. In Summer 2020, I partnered with a learning technologist in Digital Learning to offer beginning and advanced Pressbooks learning communities. These collaborations have expanded the reach of my OER efforts.

### Lesson 4: Go for Low-Hanging Fruit.

I wish I could remember who taught me this, but we're never going to convince every instructor to switch to OER. That's OK. When you're starting a new OER program, reach out to faculty known as innovators or champions at your institution. Contact faculty who teach subjects covered by OpenStax books, which offer free or low-cost ancillaries. Look at the courses with the largest enrollments or the most expensive textbooks at your institution. Start there. Word will spread.

### Lesson 5: Encourage Pilots.

To busy instructors, it can seem overwhelming to revise an entire class that they've built around familiar content. It's less intimidating to pilot OER for a term, even as a supplemental resource, and see how students like it. Pilots can lead to full OER conversion.

### Lesson 6: It's Better to Be Proactive than Reactive.

We typically found out about textbook adoptions *after* they'd been submitted to the UA BookStores. By then, it was too late to explore alternative course materials with instructors. In 2020, I launched a [Check for Ebook Availability form](#) on the library website that allows instructors to see if an unlimited-user ebook license is available through the library *before* they submit required books through the BookStores' textbook adoption process (see Figures 1 and 2). We've

found that less than 20% of adopted textbooks are available to academic libraries as ebooks, so the form invites instructors to consider OER, alternative ebooks, streaming video, or chapters and journal articles through fair use. We also refer instructors to the UA BookStores' inclusive access program and explain its pros and cons. Instructor responses to the form have been positive so far, and we've had success finding free-to-use alternatives.

## Check for ebook availability

Instructors, before you submit your required textbooks through the UA BookStores' [textbook adoption process](#), check with the library to see if they're freely available to students as ebooks. The library buys unlimited-user ebook licenses for required course textbooks whenever possible. If an unlimited-user license *isn't* available from publishers (which is unfortunately often the case), the library can help you explore free/low-cost alternatives.

Learn more about [free-to-use course materials](#). Questions? Contact [your librarian](#) or Open Education Librarian [Cheryl Cuillier](#).


Figure 1. The UA Libraries' Check for Ebook Availability form requires instructor contact information, course details, and textbook information. It allows inquiries for multiple textbooks. I collaborated with the library's User Experience Strategist and User Experience Designer to design the form.

**If a title isn't available with an unlimited-user ebook license, which of these options would you like to explore with us?**

**(Check all that apply)**

- ☐ Find [open educational resources](#) (free to use, share, print, and customize)
- ☐ Find alternative ebook titles with an unlimited-user license
- ☐ Get 1 chapter or 10% of the book as a PDF through [document delivery](#) (a free service of the library)
- ☐ Find journal articles or book chapters to use instead of a textbook
- ☐ Find [streaming video](#) to use instead of a textbook

**Anything else we should know?**



**Figure CS1.1.** The bottom of the Check for Ebook Availability form offers links to other library services.

## Lesson 7: De-Emphasize Events.

After a series of poorly attended Open Education Week and Open Access Week events, I now avoid investing a lot of time and money on panels and guest speakers. One talk by Cable Green of Creative Commons, a superstar in the OER world, only drew eight people! Still, I have had success with the OEN's workshop model, providing lunch and a \$200 stipend to faculty who attend an OER training and write a review of a book in the [Open Textbook Library](#).

Low turnouts aren't necessarily a failure, as you never know which planted seeds will later bear



fruit, but I've had better results going to faculty and administrators than by inviting them to come to events. I recommend asking for time on department/college agendas and tailoring presentations to their specific needs. I have a set of OpenStax print books to show faculty and have set up an Open Textbook Petting Zoo at events. When in-person events and meetings were canceled due to the COVID-19 pandemic, I pivoted to online learning communities, webinars (live and recorded for later viewing), and Zoom meetings with individual faculty. Partner with other units that offer ongoing workshops so you can leverage their marketing channels. I've learned that it helps to ask for RSVPs (we use Qualtrics). Once I have attendees' email addresses, I can send reminders and follow up with additional information after the event. I can also invite them to join our OER listserv, where I share the [OER Digest](#) and other news.

## Lesson 8: Don't Reinvent the Wheel.

So many people are running incredibly successful OER programs. Adopt, adapt, and reshare ideas as much as possible. If you want to start a grant program, faculty awards, or a learning community, reach out to people already doing them. The [OEN Summit 2020 YouTube videos](#) have great advice for this. The OER community is extremely generous and happy to share resources and tips. Tap into listservs when you have questions. Twitter is also a great place to learn about OER happenings. Find additional resources in my [OER Toolkit](#).

## What I Wish I'd Known

Roadblocks come in many different forms (financial, political, systemic, relational, etc.). Each institution has its own unique culture and set of challenges. Finding ways around roadblocks takes creativity, initiative, and determination. Pivot. Pilot. Learn from what didn't work. Find champions. Build allies. Be a strong advocate for your program. Loudly publicize your successes and positive impacts. As Dory says in *Finding Nemo*, "Just keep swimming!"

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PART II

# BUILDING AN OER PROGRAM

## 3. Building Your Team

Abbey K. Elder

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Having a team to support your work is an integral part of any OER program. Team-building allows you to spread your message, gain visibility on campus, and garner insight from diverse groups. Whether you have an official team of OER staff at your institution or you're creating a committee to help support your work, team-building is a vital step in OER program management. As Cummings-Sauls et al. (2019) explain, "Even when a library has the potential to support all aspects of an OER program, collaborating with allies on campus enables the resources and time of the library and librarians to have faster, greater, and better impact" (para. 10).

### Soliciting Team Members

In some cases, you'll be assigned to a group put together by your administration or compiled from existing staff who have an interest in OER. You may even have student workers or other staff you supervise who support OER work at your institution.

Even if this is the case at your institution, you still need to know how to reach out to potential external partners. This can also be useful for building connections across your institution and spreading awareness of your work, but outreach like this is often done when creating a committee. Soliciting committee members doesn't need to be difficult. Sometimes, it is as simple as sending a friendly email to someone who works in a relevant area. Here are some tips for those of you just getting started:

### Recruit Peers at your Institution

The first option is also the simplest. If you know someone from another office or department who would make a good addition to your OER committee, ask them. This can be done informally or formally. On the informal side, you might email or approach your peer to ask if they are interested in joining your committee. For a more formal approach, check with the potential team member's supervisor before approaching them with a request to join, or send a formal email invitation on which you CC your peer's supervisor. This email may be useful to your peer as a promotion and tenure item in the future when discussing their work on your team.

To recruit new team members that you don't already know, it is best to send an introductory message to describe your team and why you think they would be a valuable addition to it. Here, it can be helpful to explain the story and motivations behind your OER program. What impact has your program had on your institution already, and how can your new team member contribute to make a difference? For those new to OER, providing a primer or offering to meet and discuss your work in more depth is a particularly good approach.

## Rotate Volunteers

Often, the best team members to have in your committee are new members. Building a rotation into your annual process can be useful, and it fits well with groups who rotate naturally, like a representative from your faculty senate, advisory board, or student government. Just be sure to follow up on these rotating positions each year to ensure that you don't suddenly lose a committee member without warning, if a past member is no longer at your institution or a part of the group they were representing.

## Utilize a Top-down Approach

When you're new to an institution, the best approach may be to contact the head of a specific department or office and ask for their opinion on who could contribute to your team. A few recommended partners are listed in the following section to help you brainstorm some options.

## Common OER Partners

You should build a team with members that have a range of experiences, expertise, and roles across your institution. Bringing in members who have a range of experiences can be incredibly useful when it comes to developing outreach and training programs on campus, since these members may have different perspectives that affect how they respond to your program's message.

## Institutional Library

Library representatives are often a staple of OER committees, and you might be a librarian yourself. Libraries are a natural fit for OER work, since they hold individuals experienced in copyright, content management, and publishing. The 2019 Connect OER Report from SPARC found that all of their surveyed institutions listed their college/university library as engaged in their OER program, and libraries have provided a leadership role in the open education community for many institutions. If you haven't already, contact your institution's library. They may be a valuable partner and can connect you with other local, state-wide, and national OER support groups.

## Teaching and Learning Center

Aside from the library, the teaching and learning center (or equivalent group) is the second most common representative office on OER programs (SPARC 2019). These centers work in instructional design, which makes them a great complement for OER work. As many recent studies have emphasized, faculty can't just effectively change their course content with no changes to the way they teach (Pierce 2016). Because of this, it's incredibly important that OER

programs have instructional design staff on their team to help faculty navigate their course design or redesign when making the change to open.

Besides triage support for faculty concerned about OER, these instructional design staff can also be useful for engaging with faculty learning communities in outreach projects, building out infrastructure to support open pedagogy on campus, and connecting with pedagogically minded faculty partners who can further support your team's work.

## Faculty and Faculty Senate

No matter how your OER team is made up, you should always seek faculty support for your work. Communicating with faculty members and with the faculty senate is important, and having one or more faculty members on your team can be incredibly useful when developing policy that affects instructors, putting together an outreach strategy, and testing professional development ideas. After all, if faculty members are one of your major audiences, it makes sense to include team members who represent this team. While this section has focused on “faculty,” teaching faculty and instructional staff are also incredibly useful partners for OER work. Don't discount their importance when developing your team!

## Student Government

Similar to faculty partners, students can make excellent partners for OER teams when utilized well. However, finding students with the time and interest in OER work is often difficult. To help with this, we recommend reaching out to your local student government since student government members are more likely to have interest in extracurricular committee work.

In addition, partnering with student government can help you by giving your team the opportunity to communicate with major student groups easily and to develop policies, such as student government recommendations for course material priorities. In addition to these policies, working with student government can help you share information about your OER program, create and disseminate student surveys, and gather student input on your work. This input is incredibly important. Like the campus food bank or scholarship programs, the work being done “for” students to adopt, adapt, and author OER in the classroom should reflect actual student needs. Working with your student government can help you orient your work toward students' needs.

## Online Learning Office

If your institution has a separate office dedicated to online learning, the staff and administration of these centers are likely familiar with the types of restrictions and needs of their distance learning students, and OER are often a component in online degree programs. This group may also contain instructional designers who are particularly well-versed in online learning, and can be an excellent partner for your program. Whether your office for online learning is aware of OER or not, they can make a valuable partner in this work.

## Campus Bookstore

Finally, a major partner you should consider for your OER program is your institution's bookstore. The bookstore is an obvious partner for OER work for a few reasons: they manage course material purchases for the institution, including software and ebooks, they gather adoption information from instructors about the materials they are using, and they provide lists for students to see what course materials have been assigned to their courses. In addition, bookstores have experience interfacing with vendors and can be a valuable partner in establishing standards for online platforms that are used at your institution.

### Program Manager Tips: Dealing with Bookstore Hesitancy

Depending on your institution, partnering with your bookstore may be a more or less useful endeavor. Concerns about campus bookstore partners may include the following:

- For-profit bookstores not owned by your institution may have private commercial concerns above your students' interests.
- The company that owns your bookstore may participate in [openwashing](#).
- Even institutionally-managed bookstores may perceive OER programs as a threat to their business model or be actively against your OER program for another reason (Sanders and Wright 2019).

While these are legitimate concerns, you shouldn't assume that your bookstore is an unwilling partner in your work. Think positive! Bookstores can make excellent partners in OER programs and should be given the benefit of the doubt when reaching out to potential collaborators at your institution (Bell 2015).

### Other groups to engage with:

- Admissions
- Financial aid
- Deans and department chairs
- Digital Accessibility
- Institutional research
- Institutional repository managers
- Information Technology
- Open access programs or departments
- Registrar
- Student success center
- University press

- University printing

## Assessing Potential Partners

It can be daunting to approach potential team members or partners about your OER program. If you're not sure where to start, or how to approach a specific group or individual, consider what you could learn from them and what might interest them regarding your program's work. The stakeholder analysis template created by Solera (2009) provides an excellent place to start this consideration, by asking you to list the stakeholders at your institution and how they might support your work. A **stakeholder**, in this case, refers to any contact who has the ability to support or hinder your program. A stakeholder analysis can be useful both for team building and for general program management, like soliciting funding or other types of support from administrators and other campus partners. Solera's chart includes the following sections which you can map out against local contacts:

- Stakeholder names and roles
- How important is this stakeholder to your program's success? (Low, Medium, or High)
- What is the current level of support from this stakeholder? (Low, Medium, or High)
- What do you want from this stakeholder?
- What is important to this stakeholder?
- How could these stakeholders block or be a barrier to your efforts?
- What is your strategy for enhancing stakeholder relations to encourage support?

When thinking about team building, the fourth and fifth points are particularly notable. The fourth point asks you to reflect on what you want from your potential team member, a useful exercise and a way of stepping outside of your position to consider whether your expectations might be overreaching. In contrast, the fifth point asks you to consider your contact's point of view, which can then inform how you approach your potential team member and help ground your discussions with them.

## Diversity and Inclusion for Team Building

If you already have a committee or group in place, consider whose voices might be missing and how you can incorporate those perspectives into your work. This could be accomplished either officially, by inviting additional members, or unofficially, such as by meeting with other offices on campus about your work.

Diversity comes in many forms, but it generally refers to including different people from different groups whose perspectives can enhance your work. Having a team that is diverse in race, age, gender, ability, and sexual identity as well as discipline, position, and pay grade can be incredibly useful for any academic program, but especially for OER programs. This is because OER work

often intersects with issues on campus that require expertise in multiple venues. In addition, diverse teams are simply better teams and more likely to yield creative projects (Egan 2005).

The easiest way to build a diverse team is to do so intentionally from the beginning. Make it clear that you are looking for specific viewpoints and experiences that your team lacks, rather than assuming that an open call for participants will yield a diverse group of volunteers. In addition, be transparent in your request and the requirements of being a part of your team. Black, Indigenous, People of Color (BIPOC) and LGBTQ faculty in particular are often asked to be representatives on departmental committees because they stand in for an underrepresented group; however, this mindset is not helpful to those faculty members or to you as a program manager as it places extra burden on them to confront and deal with issues that they may already be overburdened by on a daily basis (Matthew 2016). Interact with everyone on your team genuinely and create a space where each member can make meaningful contributions while respecting their workloads and time.

## Making the Most of Your Team

To make the most of a diverse team, you need to let potential team members know that you value their specific experiences and viewpoints, not just their participation as a checkmark on a list. Utilize the strengths of your individual members and their areas of expertise. If you're concerned that your committee lacks representation from staff, you shouldn't reach out to individuals who might fit that niche at random; instead, think about the ways that staff from a particular office on campus could help support your work, tell them why you would appreciate their support, and ask for their advice on what they would like to do as part of your team. Some of the most impactful OER projects come from team members who have no pre-existing biases about what an OER program "should be." Let the experiences of your team members and their areas of interest drive your work rather than hemming in your team to work on projects that you alone are invested in.

Keeping a diverse team requires work just as much as building one does. A diverse team includes people with different views, and because of this, a diverse team isn't an easier team to manage. However, if you can foster an inclusive culture within your team, one that allows each member to present ideas and to have the time to discuss their opinions openly, you'll accomplish better and more interesting work because of it (Rock and Grant 2016).

## Teamwork Tips

### Meetings

- Set up a regular meeting time when you can keep up with team members. If you don't have a regular meeting time and/or if some team members are unable to regularly attend meetings, develop a process for sending out communications to your team, such as meeting notes or updates on the progress of specific projects.
- Check in between meetings for those working on particularly time-intensive projects. This is



also a good practice for checking in with BIPOC, LGBTQ, and student members to make sure they're feeling supported/valued by your group.

- If members of your team are also staff you supervise, be reasonable in your expectations for meeting frequency and length. If you could not make headway on a project alone in two weeks, don't schedule check-ins with your team members on a biweekly basis.
- Be aware and considerate of student and instructor schedules, and try to set a consistent meeting time early in the semester that can accommodate the schedules of your student and instructor members. Using polling software or surveys can help in this process.

## Members

- For campus committee members whose work in OER is not related to their actual position, allow members to move away from the committee if they have too many other commitments.
- Additionally, seek new members for your team regularly, particularly if a long-term member has recently left the committee. You don't need to have regular "changings of the guard," but it is important to reach out to potential partners regularly to keep your team fresh.
- As you bring in new team members, introduce them to your team's past work. Build documentation to explain the history of your group and how it was built, and include a description of roles and responsibilities that might be part of that history. Providing documentation like this can help ensure that, as old members leave your group, their work is preserved, acknowledged, and able to be built upon in the future if new members find that work of interest.

## Projects

- Let your team pitch new projects! This can help drive interest in your team's work, and support individual members' buy-in to the group.
- Alternatively, pitch projects to your team. If you find that your team members are uncertain about the future of your group or what it could do, pitch projects that you find exciting. You're more likely to energize your group if you are personally invested in the projects you pitch. Take on responsibilities for aspects of the project that require extensive experience with OER and delegate other tasks to the rest of your team, given their individual expertise.
- For new projects, track commitments and follow up with team members about their progress. For projects you've picked up, check in with yourself to ensure that you are also following through with your promises and let your team know if you need help with a particular aspect of this work.
- For particularly engaged team members, give them more responsibility in the group to reflect their experience and interest level. The amount of work you hand over to team members should be discussed with them directly to avoid concerns about volunteers' workloads.
- Carefully plan out a timeline and structure for projects assigned to staff and student workers

to ensure that they can complete their projects during the term without falling behind in other aspects of their work/schoolwork. This is particularly important for any staff you supervise.

## Conclusion

OER initiatives are often headed by single individuals or units, but partnering with others can be incredibly impactful for your OER program. Sharing your work with others can amplify and diversify your work, while also providing a means for community engagement. This process brings stakeholders together under a mission they can mutually agree upon: improving the education of our students through both affordability and openness.

## Recommended Resources

- [BCcampus Working Group Guide](#) (Wright and Lambert 2019)
- [Lumen OER Playbook: OER Committee](#) (Lumen Learning 2018)

### Key Takeaways

- If your team has members from across your institution, ensure that you have included all major offices that have a stake in your work.
- Make room for consulting with staff and faculty members from other offices on campus, whether they are a formal part of your team or not. Getting input from campus partners can improve your work and ensure that you are taking into account the support available to you.
- Having a diverse team isn't just for show: it improves and expands the types and levels of work you can do. Let your team members pitch projects and contribute to your program by leveraging their unique skills and experiences.

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## 4. Talking about OER

Abbey K. Elder

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Whether you're an OER program manager or a staff member with no official OER duties in your job description, you'll likely be asked to answer many questions about OER as your program develops. In this chapter, we will be sharing some tips for answering common questions you may hear when talking about OER across your institution.

### Addressing an Audience New to Open Education

1. **Explain that there are many options for adopting open educational practices (OEP).** Instructors can use open supplementary materials, such as slide sets or lecture notes, offer open content to students as self-study materials, or integrate an open pedagogy assignment into their course. An open textbook is not the single expression of the “OER experience.”
2. **Don't assume ignorance from your audience.** Ask if the instructor or staff member you are working with is familiar with open education or OER before reviewing the basics with them. Approach meetings with faculty as a conversation between peers rather than a lecture.
3. Alternatively, **don't assume that your audience understands OER** just because they have adopted open textbooks in the past or mentioned OER in passing. For example, librarians are often aware of trends in scholarly communication, but that doesn't guarantee that every librarian at your institution is well-versed in open licensing.
4. **Emphasize the support available at your institution.** Is there a way you can make finding and adopting OER easier for your instructors? Provide instructors with existing OER resources at your institution, such as those found in OER library guides. You don't want instructors to duplicate efforts or attempt to do all of the work on their own.
5. Conversely, **make it clear what you cannot or will not do**, and the required work faculty will need to do to locate and adopt OER for their courses. This will help you set expectations early, something we discuss in more depth in [Chapter 12, Managing OER Consultations](#).
6. **Adopting OER may not be the best option for all instructors.** Talk less, listen more. Rather than continuing to pitch a particular resource or set of resources to a reluctant audience, listen to the needs of the instructors at your institution and provide options for meeting those needs. You may be able to connect faculty with library licensed ebooks for their course, or find other alternatives that meet your faculty members' needs.
7. **Avoid “us vs. them” language when discussing the pros and cons of open education.** Many faculty members peer review or serve on editorial boards for traditional publishers, and some have written their own textbooks. These instructors often do this work because they

care about advancing their discipline. Talking about any organization (i.e., a publisher, vendor, or institution) as if it is a monolith is likely to alienate your audience.

## The Benefits and Challenges of OER

If you've ever skimmed through an OER library guide, you've probably seen a list of “benefits and challenges” to using OER. These lists are useful to have on hand when working with individuals new to open education. Below, we've compiled some common benefits and challenges, and a description for each.

### Benefits

#### No-cost Access Online and Low-cost Print

By definition, OER are free in perpetuity. Once you access content, you can download and keep a copy for as long as you'd like. This gives OER a leg up on commercial electronic textbooks and homework software that might be utilized in a course once and then locked after a period of time. Instead of worrying about the cost of content and its effect on their well-being, students can access open course materials at any time without having to worry about the cost, even after their course ends. This not only supports students who may need to revisit content from an earlier course before diving into higher level content, but also empowers lifelong learning for nontraditional students and others who want to learn from the content, whether they are taking a related course or not. Additionally, the fact that OER start as digital materials allows students to access their course content on their phones and other mobile devices, allowing for a more flexible experience for users with diverse needs.

Some critics have leveled the concern that because OER are digital, they can't support students who prefer their content in print; however, this is a fallacy. In addition to being free to access online, students can print as many pages as they want. Many open textbooks can be printed at a relatively low cost (under \$50), and some OER platforms have made it even easier to obtain print versions of materials. For example, [LibreTexts](#) offers a print-on-demand option for the books in its libraries, and [OpenStax](#) has print versions that can be ordered in bulk by campus bookstores through the same systems they use to order traditional print books.

To review other options for getting access to affordable print OER, see [Chapter 15, Making OER Available in Print](#).

#### Adaptable Content

Adapting and revising content is both possible and encouraged thanks to the open licenses applied to OER. This freedom to adapt content allows instructors to more accurately match the materials they use with their course needs by adding or removing content. In addition to these simple edits, instructors using OER can also remix multiple materials by combining them to

create something new. The adaptability allowed by the open licenses on OER can help instructors make a piece of content their own, whether they're making small changes or bigger ones. Simple adaptation examples include:

- adding “Key Takeaway” boxes to the end of open learning modules,
- showcasing a diversity of perspectives that might have been missing from the original source, and
- highlighting specific concepts or keywords that students will be tested on.

## Multiple Formats May be Available

Depending on the resource, OER may be available in multiple formats for use and reuse. The breadth of formats will differ depending on the content type (with most videos only being accessible as streaming HTML or MP4 content, for example); however, the breadth of formats provided for many OER has been increasing as many publishing platforms for OER now provide tools for exporting content in multiple formats. For example, the popular OER publishing platform Pressbooks allows PDF, EPUB, XML, HTML, and ODT formats, among others.

## Student Success

Open educational resources, when integrated into a course with care, often have the same or better outcomes than traditional, commercial course materials (Ross, Hendricks, and Mowat 2018; Fialkowski et al. 2020). Additionally, having free or low-cost access to course content may increase retention and progress toward degree completion for students who would otherwise be required to juggle course material costs and other expenses (Zhao, Satyanarayana, and Cooney 2020).

## Interactivity and Student Engagement

Regardless of an OER's format, the technologies and practices utilized in open education often provide opportunities for students to participate in more active engagement for learning. This might be possible through the implementation of open pedagogy or through the help of tools that can encourage student engagement such as [Hypothesis](#) and [H5P](#). Students who participate in open pedagogy in the classroom have partnered with their instructors in the co-creation of content for their course, updated and added content to the Internet to bring forward stories about underrepresented individuals, and built innovative learning materials that showcase not just content proficiency but also technical prowess. These examples and more are explored in the excellent resource, *Open Pedagogy Approaches: Faculty, Library, and Student Collaborations* (Clifton and Davies Hoffman 2020).

## Challenges

### Issues with Content Findability

Faculty have often complained that it's difficult to locate open content compared to traditional materials (Seaman and Seaman 2018). This is true for several reasons. First, textbook publishers often send out review copies of new textbooks or even work with instructors directly to get commercial textbooks adopted into a course. This type of active and present marketing makes discovering new textbooks easy; however, marketing tactics like these also require staff time and a willingness to alienate your audience if they don't want to be marketed to, two things that are not common in open education circles.

Another reason why faculty may have difficulty locating open content is because of the various methods by which OER are produced and published. Some OER are self-published and shared on free tools like Google Drive or WordPress websites, while others are produced within OER repositories like OER Commons, and still more are produced on third-party platforms and shared through various other means.

In the best scenarios, open content is shared on popular OER referatories like the Open Textbook Library or OER Commons, regardless of where it was first produced. **Referatories** “point” to content that is housed on external sites, facilitating the location of content that might otherwise go unnoticed. This can help centralize access and findability for resources that are made through less popular means. However, it can also lead to “content bloat,” wherein a single platform is filled with so much content that authors want to share, it becomes difficult to locate something specific. Being aware of these challenges can help OER program managers relate to their community and better support faculty who might run into these findability issues before seeking support from your team.

Finally, the actual act of finding OER may be more difficult due to a lack of robust metadata for OER repositories. Although some groups have created in-depth metadata schema that can meet the needs of a diverse OER ecosystem, there is still no single agreed-upon metadata scheme adopted by the majority of OER repositories or platforms (Bothmann 2020).

### Variable Availability

There is currently low OER coverage for some subjects, particularly in niche fields or for upper-level courses. While this issue is not as prominent as it once was, with OER in nursing, agriculture, and other specialized fields growing every year, subject availability is still a noticeable problem in the open education discipline. Because of this, there won't be current, complete lists of OER available for every course at your institution. Similarly, some courses may have one relevant OER available but nothing else.

In these circumstances, we do *not* recommend asking faculty to create content unless that is something they've expressed interest in themselves. Instead, use this as an opportunity to

discuss other options that are currently available for their courses, like your library's Course Reserves program or other free-to-use materials available to supplement or replace the commercial content that the instructor currently uses. If you're interested in supporting the creation of more OER in a specific discipline, it's always better to start from a place of supportive encouragement rather than asking authors to do more work on their own.

### **Program Manager Tips: No OER Available? Create It!**

To support the creation of more OER in a specific department or topic area, you should consider securing grant funding to pay authors, asking for administrative support if you are interested in offering authors course release time, and utilizing platforms like [Rebus Community](#) for soliciting co-authors from around the world to work with your institution's instructors on their project(s).

## **Variable Quality**

Although some OER are exceptional, not all open content is adaptable. The reason for this is simple to see: open content is often created by individual faculty members in their free time for a specific course and outcome. So long as the materials they create work for their needs, these faculty members have no incentive to make their work adaptable or even accessible. This is particularly true of content that came out of an institution with no official OER program. Don't demonize these OER with your instructors. Instead, explain how the licenses allow end users to customize them to fit their specific needs. These OER aren't bad – they're just built to someone else's preferences and needs.

Acknowledge this variability in the quality and depth of content rather than pretending it doesn't exist. Ignoring this problem could lead to faculty distrusting your team in the future, whereas acknowledging the concerns with these issues and explaining how they might be overcome in the future can help you make progress over time if you choose to continue to partner with the same faculty.

## **Age of Content and New Editions**

Interest in OER began growing in the early 2000s and a boom of content was created at that time. Much of that content still exists, and some resources have new editions as well as adaptations. This can lead to confusion and consternation about versions and the age of the OER available. Although attributions will be present in new editions, checking to see if there is a newer version of an OER available requires time and effort on the part of the faculty member or OER program manager doing that search.

While the age of open content is becoming less of an issue now with more content being



developed annually, there is a need within our community for a standard for creating and supporting new editions of open content. Keeping track of older editions of OER that require updates, particularly open textbooks, should be part of an OER program manager's work. How you handle that work, though, may differ from institution to institution based on your funding and the technologies you use to track and manage your publications.

## Tips for Talking to Administrators

Much of the advice in this chapter is applicable to discussions with anyone at your institution, but there are considerations to keep in mind when talking about OER with administrators. To help you navigate higher level discussions about your OER program, some key tips have been pulled out below.

### Match Institutional Priorities

Tie your OER program to your institution's goals. Look for keywords that you can connect to your work (e.g., affordability, access to education, equity, or student success). If your institution's strategic plan, vision, or mission statement mentions these keywords, you can mention how OER and open education more broadly help facilitate those goals in discussions with administrators.

### Present Case Studies

Take note of successful programs to share as illustrative examples. If you want to talk to the head of your institution or department about expanding your OER program, share how the work you want to promote has been handled at other institutions, and explain how the impact of the work could benefit your institution specifically.

### Be Specific

Be clear about what you mean when you talk about your OER program, and where your work is making an impact at your institution. As we mentioned in [Chapter 1, Introduction to Open Educational Resources](#), there are many definitions for OER, and your program may reach beyond OER alone. If you are advocating for the use of a wide range of affordable or no-cost course materials through your program, explain the range of materials you support and how OER are unique among them and deserving of support. Likewise, if you are working toward a broader pedagogical shift on your campus to help instructors who want to embrace open pedagogy, you should explain how open pedagogy and approaches like it can leverage the expertise of your institution's educators to bring a more personalized learning experience to students.

### Share Program Data

Finally, data is often a necessary component of discussions with administrators and other campus

officials. While faculty and staff are often excited to discuss theoretical projects and individual case studies, administrators prefer having concrete data with which to judge your work's impact. It may be useful to begin discussions with administrators by sharing the number of courses supported by your program, the funding given to faculty, and the money saved by students enrolled in OER courses before diving into more complex topics surrounding your program's continued growth. You can learn more about collecting and reporting on your OER program's impact in [Chapter 21, Data Collection and Strategies for OER Programs](#).

## Conclusion

This chapter does not give you a template for talking about OER. Every conversation you have about open education will be different, guided by the history and knowledge of your conversation partner. What we wanted to do with this chapter was to bring forward the importance of respecting your conversation partner, and giving them the benefit of the doubt in your discussions. Be up front with faculty when there are barriers to adopting OER in their discipline, and conversely, make it clear when there are exciting possibilities for moving a course to be more open. Perhaps an instructor has never heard of open pedagogy, but wants to explore examples from other instructors who have delved into this pedagogical practice. Guide them through that work, and be ready to answer questions as they arise.

## Recommended Resources

- [Crafting a Message](#) (West 2015)
- [Tough Question Cheat Sheet](#) (Open Education Network, n.d.)
- [OER FAQ](#) (Open Oregon Educational Resources, n.d.)
- [OER Mythbusting](#) (SPARC 2017)

## Key Takeaways

1. Be ready to respond to tough questions as they arise and prepare answers to common questions, like those listed in OER FAQs online.
2. OER should not be viewed as a monolith. These materials come in many different sizes and formats. Be frank with your institutional partners about the variability present in OER, and how this variability can be an asset to your instructors.
3. When discussing OER with faculty, emphasize the support available to help them locate and adopt OER, and the fact that personally creating and sharing content isn't required to participate in open educational practices.
4. When discussing OER with administrators, tie your program's work into institutional priorities and be clear when discussing your work's potential and continued impact.

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# Case Study 2: Two Sides of the Same Coin: A Tale of Two OER Initiatives

Regina Gong

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Many OER initiatives in higher education have developed and grown within libraries and are increasingly led by librarians (SPARC, 2019, 6). I believe that librarians are natural advocates who are ideally suited to support, lead, manage, and implement OER programs. Because of this belief, I willingly took on the role of leading an OER initiative; originally at a community college and currently at a land-grant research university. What is notable about my work in these libraries is the contrasting nature of my position and job responsibilities. While both jobs entailed overall leadership and management of the OER program, in one role these duties were an add-on to my existing position, while in the other role I was 100% dedicated to OER. These contrasting experiences are the focus of this case study. It's a personal narrative that is all too common among OER librarians. While we are committed to advocacy and support for OER, the demands imposed on us by our workload (often with OER as an added item to our already-full plates) need to be unpacked and interrogated because they're often not discussed. On the one hand, we have to maintain our commitment to access and equity through the adoption of OER, and on the other, we grapple with the frustration of not having the support and financial resources needed to realize these goals.

## Building an OER Program at a Community College

I came to work at Lansing Community College (LCC) Library in 2010 as the Head of Technical Services and Systems. This position was classified as an administrator, similar to the library director. Like many community college libraries, our staff was small and our work was always student-focused. I was in charge of a small unit where I supervised one librarian, two support staff, and two student employees. Our team was responsible for cataloging, acquisitions, collection management, collection development, resource sharing, interlibrary loan, electronic resources management, the integrated library system, and the discovery system.

In 2014, I became part of an Academic Senate committee tasked with considering innovative ways for LCC to make learning materials more affordable and engaging for students. At that time, I was already interested in OER from having recently heard a TED Talk by David Wiley and attended webinars by the Community College Consortium for Open Educational Resources (CCCOER). The more I learned about the promise and benefits of OER, the more I was inspired to pitch an OER project to the college. The timing could not have been better because a new provost had just started his tenure and a new strategic plan had just been drafted. Ultimately, in early spring 2015, and with the provost's support, I became the lead of LCC's fledgling OER initiative. As I encouraged faculty to explore and consider OER, I found several allies and champions willing to

try something new. One of them eventually became Academic Senate president, and that paved the way for the Senate to pass a resolution that supported and encouraged the use of OER.

An important goal was to encourage and support faculty exploration and innovation in adopting or creating high-quality learning materials that improved students' learning and engagement. The primary purpose of this goal was to reduce educational costs for students by providing free or low-cost learning materials that were available from day one of class as well as customizable to fit their learning needs. It was vital that I didn't focus exclusively on affordability, but also to anchor the goals of the OER program on pedagogical improvement and faculty innovation. The good thing about leading an OER program at LCC was that I had the college administrators' buy-in (president, provost, chief financial officer, and the deans), as well as the support of faculty. As a show of initial support, I was provided \$25,000 from the Provost's Office to jump-start event planning and professional development to help raise awareness about OER across the college. It also meant that I had free reign in setting the initiative's goals and directions, which was very empowering.

I chose to focus on awareness and advocacy first. I believed that faculty needed to hear about the problem we were trying to address and how OER could be a possible solution. At the time, many were unaware of OER or the textbook affordability issues faced by our students. There were also a lot of misconceptions about OER and copyright. At the same time, the perception about the quality of OER as inferior to publisher textbooks was a constant concern to faculty.

A perfect place to start was the creation of an OER LibGuide since many academic libraries have access to the Springshare platform. I used the LibGuide as a teaching and training tool when I led workshops for faculty since most of the information they needed to know about finding, adopting, and evaluating an OER was located there. I also developed a partnership with the Center for Teaching Excellence (CTE), so I'd be included in the regular workshop schedule for faculty professional development every semester. This is very important, especially in community colleges where the majority of faculty are adjuncts. Adjuncts have heavy teaching loads and often don't have time for in-person workshops, but since these OER workshops are done through the CTE, they receive payment for the training they attend. I led three to four workshops every semester and they were attended by both full-time and part-time faculty.

I still wanted to broaden my faculty advocacy, so I reached out to all of the Associate Deans and program faculty chairs. I asked them if I could attend their departmental meetings and give a short presentation about OER. Talking about OER in department meetings was an effective way to reach faculty and allowed me to tailor my presentations to their disciplinary areas. After I finished presenting, I received requests for one-on-one meetings with faculty who were interested in adopting OER. These meetings led to individual faculty OER adoptions and eventually to an entire department adopting OER. This was the case with the Intro to Psychology course (PSYC 101).

Upon learning about the OER initiative, the program faculty chair of psychology reached out to me about the possibility of adopting an OER for all PSYC 101 sections. I provided them with five open textbooks that they could review to replace the required course material they were using. A

group of psychology faculty reviewed the OER list I sent them and assigned instructors to review each of these open textbooks. They approached the review the same way as publisher textbooks and rated each open textbook according to the evaluation criteria they created. The review and adoption decision was done in the spring 2016 semester. The faculty committee decided to adopt OpenStax Psychology as the required course material in all sections of PSYC 101 starting in the fall 2016 semester.

Additionally, having allies and champions from the Academic Senate was advantageous since I could regularly present at their meetings. These not only increased awareness among faculty, but also academic staff, advisors, financial aid officers, and instructional designers who were present during those meetings.

Perhaps the single most impactful event I organized was the first-ever OER Summit in September 2015, which paved the way for OER adoptions by faculty at LCC and at other Michigan higher education institutions. I used my initial \$25,000 budget to bring prominent open education experts to LCC, including David Wiley, Nicole Allen, Nicole Finkbeiner, Una Daly, Lisa Young, Preston Davis, and Quill West. Each speaker talked about various aspects of open education (advocacy, open licensing, open educational practices, etc). The Summit also included an afternoon workshop with about 200 participants from both K-12 and higher education. We were able to make this a truly open event that was free to all attendees and open to everyone. It was a turning point for many of my colleagues; after the convening, several institutions were inspired to start their own OER programs. It was followed by three more annual OER Summits sponsored by LCC with Cable Green, Chris Gilliard, Daniel Williamson, and Alexis Clifton as speakers.

Reflecting on my past experiences, I cannot overstate the importance of aligning your OER goals with your institution's strategic plan. Since the OER project was one of the critical initiatives in LCC's strategic plan, we realized its immediate impact in the first year of implementation. We went from 21 to 120 faculty adopters in just one academic year. By the time I left LCC in June 2019, we had over \$2.9 million in textbook savings. In addition, I successfully secured a one-time \$500,000 budget from the Board of Trustees. This came about after I spoke at one of the Board of Trustees meetings where I talked about the goals of the OER initiative and how it could help our students succeed in their classes. Additionally, I talked about how the OER initiative could be an effective way to demonstrate leadership among the community colleges in Michigan. I believe that resonated with the Trustees and garnered the support of the LCC President who pushed for this funding as a way of gaining statewide and national recognition for the College. This financial support enabled me to create an OER award program which supported faculty in their OER adoption, adaptation, and creation. It was, by far, the most significant funding ever given for faculty grant support by any community college trustees. As a result, the OER initiative became the most successful and impactful project in the strategic plan and made LCC a state and national OER leader among community colleges.

However, despite the success of the Summit and the other initiatives, I want to highlight that leading an OER program at LCC was still an add-on to the job responsibilities I already had. Even though I had the support of the administration and was able to implement a successful program,



creating a separate OER position was a challenge. For one, I did not have the support of the Library Director, to whom I reported. They considered my OER work as my “pet project” and disavowed any involvement with the OER program. There were also some financial constraints with the creation of a new administrator position. It was not considered a priority because I was doing the job successfully despite my multiple responsibilities. In hindsight, my commitment to taking on the additional role of leading an OER program proved a disadvantage. The perception was that I could do the job and deliver exceptional results. After all, LCC was leading the way in OER adoptions at community colleges in Michigan. Why should the College invest in a new position when they can clearly see that I’m doing an excellent job with it? Even if we got positive press coverage state-wide and nationally, my emotional and intellectual labor weren’t valued. It was exhausting and frustrating, especially since not many people knew of what I was going through at that time. Those who knew offered support, care, and concern. Personally, I thought that it was just a matter of time before I decided to leave.

## Building an OER Program at a Research University

After nine years at LCC, and on the heels of a very successful OER program, I decided to move to Michigan State University (MSU) Libraries in July 2019. The decision was easy for me because it was a new position that was entirely dedicated to building, managing, and leading an OER program. When I accepted the job, I saw it as an opportunity to make a difference on a broader scale at a university with about 50,000 students. It all boiled down to the potential impact that I could make on students and the challenge of working with the university’s faculty: many of whom are notable scholars, researchers, and authors. Also, I believe that MSU’s land-grant mission dovetails with the OER program’s goals of access, equity, innovation, and student success.

When I was hired, OER was at a nascent stage at MSU. There was already an interest in starting an OER initiative within the MSU Libraries, but there was no full-time librarian to build and lead a more formal and cohesive program. Fortunately, library administration (our dean and the associate dean I report to) already paved the way to ensure that I had the necessary structural and financial support. MSU Libraries signed up as an institutional member of the Open Education Network (OEN), which provided a discounted subscription to Pressbooks: a publishing software commonly used in open textbook production. Most importantly, I was given a \$50,000 annual budget to support faculty interested in adopting or creating OER.

Moreover, I have a team of colleagues, including a student employee, that I work with on Pressbooks publishing, copy editing, cover art designs, accessibility, and print-on-demand services. This is in stark contrast with my previous job at LCC, where I was a one-woman OER team who did the grueling daily grind of managing the program alone. This change was liberating.

Now that I was able to be laser-focused on OER work, I could do more than what would have been possible in my previous position. It worked to my advantage that I already knew what I wanted to do and had the experience of building an OER initiative from the ground up. Within the first three months, I formed a university-wide OER Advisory Committee that comprised faculty, students,



learning designers, information technology, librarians, and accessibility and assessment experts. I was also able to launch our first round of OER award program funding, where we provided incentives to nine faculty in the adoption, adaptation, and creation of OER. As I write this, our second round of OER awards recently funded ten faculty teaching thirteen courses.

I've seen an increase in the number of courses using OER and instructors who expressed interest in creating their own course materials especially in light of the COVID-19 pandemic that had us all working, teaching, and learning from home. Some of our faculty have found that OER are much more engaging and accessible for online learning and it filled the gap that traditional materials couldn't address. I consider the first year of our OER program a success. In the academic year 2019–2020, we had 24 courses using OER, impacting 14,235 students. In the 2020-2021 academic year, we had 56 courses using OER, impacting 18,871 students. That represented a cumulative textbook savings of about \$3.3 million. Owing to this initial success, our Associated Students of MSU (ASMSU) drafted [a bill advocating for the use of OER](#) across all undergraduate courses at MSU. The ASMSU General Assembly passed the bill unanimously on November 5, 2020. In addition, the student leaders spearheaded the programming and events for the March 2021 Open Education Week by moderating a faculty panel, giving awards to faculty for their OER leadership, and buying custom-designed OER swags to give away.

Furthermore, there was an enthusiastic group of faculty who wanted to go beyond adopting or creating OER and leveraged it to improve their pedagogy. This resulted in the convening of an open pedagogy and open educational practices learning community. It focused on helping all of us learn how to make our course materials more student-focused and participatory.

## Straddling Part-time and Full-time OER Librarian Positions

As I mentioned earlier in my discussion about working at LCC, OER was an added responsibility that I sought and asked for because of my commitment and passion to open education as a pathway toward achieving access, equity, and student success. At that time, I didn't mind having OER work as part of my already-full plate and one of the many hats I was already wearing, in part because I considered it a vehicle to demonstrate the value of the library. Being the OER program manager allowed me to collaborate and advise faculty in their course material selection in a way that put openly licensed materials as the first choice when pedagogically appropriate. However, as expected, this arrangement can't be sustained in the long term. At some point, burnout will ensue, as it did for me four years after I started the OER program.

Many librarians, especially at community colleges, have been in this same situation, but with fewer resources and institutional support than I had. This is not only frustrating but has the unintended consequence of derailing the momentum of any OER program. The whole lifecycle of an OER project is a complex undertaking and requires a great deal of management and coordination with different groups. It's a continuous cycle that involves what I call "The 5 A's": awareness, advocacy, adoption, accessibility, and assessment. These tasks are carried out—not just by the OER librarian but by many campus stakeholders—to ensure effective program implementation. Over time, as

in my case, these responsibilities add up and morph into a whole new position by themselves. While the LCC administration recognized the magnitude and complexity of the work, and even though I proposed creating a separate OER project manager position, I continued to operate in this untenable arrangement.

Faced with this situation, how can we advocate for ourselves to ensure that we receive the necessary support to carry on this critical work? Dai and Carpenter (2020) provided suggestions on effectively advocating for ourselves as we negotiate these added responsibilities. The most important step is to begin by asking the right questions (Dai and Carpenter 2020, 14):

- How does OER align with institutional priorities?
- What percentage of my time will be spent on OER?
- What resources will I have available to support me in this work?

Of course, many more questions need to be asked, but the bottom line is that there needs to be initial and ongoing conversations with library and campus administrators to ensure that OER program managers are set up for success. This applies to both part-time and full-time OER librarian positions. All too often, the inherent excitement, commitment, and passion of the OER manager aren't enough on its own to sustain and grow the program. In my case, the success of LCC's OER program came at a heavy price that took a toll on my mental and physical health. I see much rhetoric in academic libraries of "doing more with less," but this mentality privileges those whose positions are more secure, especially those librarians in full-time or tenure-track appointments. But what about those librarians working in community colleges as adjuncts, struggling to achieve the same success with fewer hours, lower pay, and no benefits?

Fortunately, there are now OER librarian positions in academic libraries of all types that have been created specifically to support these growing initiatives. While many are still added responsibilities, a growing number are full-time positions. No matter your individual situation, it's crucial to reach out within your institution and externally as well. The success of an OER program hinges on institutional support and commitment to ensure sustainability. This includes providing staff and financial support, recruiting people who can help with advocacy and awareness, ensuring that there are technological tools and platforms to support the creation and publication of OER. Likewise, reach out outside your institutions. The open education community embodies the ethos of openness and sharing. Many have walked in your shoes and are willing to help. You don't have to do it alone.

## Suggested Strategies for Self-Advocacy (Adapted from Dai & Carpenter, 2020)

### Ask the right questions:

- How does OER align with institutional priorities?
- What percentage of my time will be spent on OER?
- What resources will I have available to support me in this work?

### Document your work:

- Update your position description to reflect the OER work
- Create a work plan
- Maintain a journal where you can document the work that you do. You can also use this to record your success and the outcomes of the work that you've done.

### Build a community:

- Community of practice such as the CCCOER, SPARC LibOER, OEN (Open Education Network)
- Community of peers such as your institutional learning circles or communities (At MSU, we have our [Open Pedagogy Learning Community](#) that I facilitate)

## References

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PART III

# PROGRAM MANAGEMENT

## 5. Common OER Projects and Programs

Abbey K. Elder and Jeff Gallant

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*This chapter was adapted from the SPARC Open Education Leadership Program's [Open Education Primer](#), version 1.0.*

Perhaps the most obvious work that an OER program manager does is to support projects (which have a finite end) and programs (which are ongoing) on campus. In this chapter, we will review common OER projects and programs, and provide examples of each. In addition, we have assigned a list of “related needs” to highlight what resources you might need to develop each project or program. Administrative buy-in, for example, can be a powerful tool for supporting and advancing your work. Since this chapter is an overview of many project types, it provides only basic information. For more detail about a single project type, review its corresponding chapter (e.g., see [Chapter 6, Building a Grant Program](#), for more information about grant program development and management).

### Professional Development Workshops

**Related needs:** staff time, staff expertise, funding (optional)

Organizing professional development workshops can be a successful way to engage faculty, raise OER awareness, and build a community of practice around open education and open pedagogy. Professional development workshops may take many forms and cover a wide variety of topics.

- **Local Workshops:** North Carolina State University has an open education program that offers open pedagogy workshops to educate instructional staff on the use of OER (North Carolina State University, n.d.).
- **Consortial Workshops:** The Open Education Network (OEN) provides workshops to member institutions to increase open textbook adoptions (Open Education Network 2022). Participating educators complete a full rubric-based review of an open textbook (see “Open Textbook Reviews” below) and institutions may choose to recognize this engagement with small educator stipends. A significant number of faculty who attend OEN workshops subsequently adopt open textbooks for use in their teaching. Another example is the monthly webinars series presented by the Community College Consortium for OER (CCCOER), featuring open education experts from across the United States. These webinars are free to the public and archived on YouTube.
- **System-Wide Workshops:** As part of its [Affordable Learning Georgia](#) program, the University System of Georgia offers locally-relevant [training and events](#) for members of its community to learn about OER, including the Featured Speaker Series (University System of Georgia, n.d.)

## Professional Development Workshop Guidelines

If you are anticipating creating and running workshops, here are a few guiding principles to keep in mind:

### Don't Forget the Basics

While it may seem unnecessary or repetitive to offer workshops on the basics of OER (e.g., open education, open licensing, and finding/using OER), faculty come to OER at different times. Additionally, new faculty are always being hired. Program managers will be well-served by offering training on fundamental concepts annually. These workshops may have low attendance as your program grows, but those who are new to OER will appreciate the opportunity to learn.

### Incentivize Participation

Faculty and professional staff often have a very limited amount of time to attend professional development workshops. It may seem logical to let the attendance of a workshop rely solely on the merits and relevance of your program, but regardless of the interest that faculty might have in open education, incentives can help encourage attendance. Consider offering small stipends, a certificate, or professional development credit for those who attend a workshop or complete a workshop series. Aside from external incentives, you may be able to gather more interest in your workshops by partnering with organizations at your institution that provide required training (such as onboarding for new faculty) to introduce open education to staff at a larger scale.

### Grow Communities of Practice

Once instructional faculty are knowledgeable about the basics of open education and possibly teaching with OER, webinars on the fundamentals will apply less to this group. Professional development opportunities shouldn't end with the fundamentals, though: communities of practice, such as faculty learning communities, allow faculty to share their ideas and experiences with each other. This can unearth emergent and relevant topics to the group and ultimately encourage participants to take on further institutional leadership and advocacy roles around open education.

Karen Pikula, OER Coordinator for Minnesota State Colleges and Universities, has shared many resources about coordinating faculty learning circles for professional development. We recommend watching this video overview of her work from the Open Education Network: [OER Learning Circles for Instructional Improvement](#) (Open Education Network, 2020).

A similar program is helmed by SUNY and Lumen Learning, who partnered to create a Circles program for SUNY faculty consisting of nine-week virtual learning circle fellowships on a particular topic, including Teaching with OER, Open Pedagogy, and Diversity, Equity, and Inclusion (Lumen Learning, 2021).

## OER Review Programs

**Related needs:** staff time, staff expertise, funding (optional)

OER review programs encourage instructors to review and evaluate existing OER by offering stipends or other incentives. Popularized by the Open Education Network's approach of pairing an OER workshop with a requirement for participants to subsequently review an open textbook, this type of program has multiple positive outcomes:

1. By reviewing open textbooks, instructors become part of the OER quality assurance process.
2. Supporting OER reviews directly encourages faculty to explore OER in their subject area and to critique these offerings more carefully than they might when reviewing content on their own.

For example, the Davidson College OER Review Program (Hare, Wright, Allen, Clinkscales, & Reed 2019) has the following requirements for participants:

- Attend an OER consultation with a librarian to learn about OER and identify appropriate OER for their review.
- Complete a review form (provided) for each OER identified in the consultation.
- Provide feedback on the workshop and the review experience via an online survey.

Davidson's program, and others like it, provide faculty who complete their evaluations with a small stipend to offset the time they have committed to evaluating and reviewing OER.

## Grant Programs

**Related needs:** funding, administrative buy-in, staff time, staff expertise, IT support

### Mini-Grant Programs

A mini-grant program is one that provides small grants to faculty to replace costly, traditionally-published textbooks with free or low-cost alternatives for students. These alternatives can take multiple forms, making use of a variety of open and library-licensed content.

The University of Massachusetts at Amherst launched their grant program in spring 2011, when instructors and administrators found that the average yearly allowance for books and supplies at a four-year institution was equivalent to 79 percent of earnings from a summer job for a student working full-time earning the Massachusetts minimum wage (The College Board 2011). The Open Education Initiative provides grants for instructors to create new open resources, use existing open resources, or even use library resources in place of a traditional commercial textbook (University of Massachusetts at Amherst Libraries, n.d.).

In contrast, Florida State University's Alternative Textbook Grants program provides \$1,000 in funding for instructors who commit to replacing their commercial course materials with OER, but do not provide funding for OER development (Florida State University Libraries, n.d.).

In addition to supporting the use of OER, many mini-grant programs supplement OER with other materials that are available free on campus, including library-licensed materials (which have already been paid for), public domain resources, free internet resources such as YouTube videos, and materials integrated under fair use. This approach can help broaden the spectrum of content available, although it is important to be clear with faculty and students about what content is OER and what is not.

## Full Grant Programs

Full grant programs fund work that would not be feasible with a smaller budget, such as a total conversion of a course to OER for a team of faculty, or the creation of an entire open textbook without previously-existing materials that are easily remixed or revised. In essence, most grant funding is dedicated to supporting time; without a course release, summer pay, or overload pay for faculty, or similar support for a percentage of staff time, these larger projects would not be possible to complete.

Grant programs address and alleviate a common issue: the lack of value placed on OER labor within an institution or a system. When creating a full grant program, be sure to consider any differences in policies your institution or system has for funding faculty and staff. Leverage partnerships with other units (See [Chapter 3, Building Your Team](#)) to make grant projects more feasible and effective. For example, if you have a department dedicated to assisting faculty with creating digital resources, this department may be able to participate within a grant project as part of a team, such as the provision of librarians and project managers in Ohio State University's Affordable Learning Exchange Grants (The Ohio State University 2020).

For more information on starting a grant program, see [Chapter 6, Building a Grant Program](#).

## Open Education Policies

**Related needs:** staff time, staff expertise, administrative buy-in, funding (optional)

An open education policy is a plan of action or rule created to support the adoption, adaptation, and creation of open educational resources (OER) and/or the implementation of open education practices (EDUCAUSE 2018). Including Open Education in your institution's policies is a way to directly raise awareness among your institution's faculty and staff and to encourage part of an institution's time and funding to be dedicated to open education work.



## Resolutions

Institutional governance organizations such as a Student Government Association (SGA) and a Faculty Senate can pass a resolution stating that this organization is asking for particular open education outcomes, such as the adoption of OER or the funding of a grant program. While these resolutions are not rules or plans of action, they can lead to further development for your program by showcasing interest among the student population. For example, the Student Government Board at the University of Pittsburgh passed a resolution in 2018 to express their support for the use of OER at their institution (University of Pittsburgh Student Government Board 2018).

## Promotion and Tenure Policies

Faculty will need to dedicate time and energy to the adoption, adaptation, and creation of OER. One way to recognize these efforts outside of extra compensation is to make sure this work matters during promotion and tenure evaluations. Working with your institution's Faculty Senate or Student Government Association can move this work along and provide additional support for your policy's development. For example, the University of British Columbia's Student Government Association helped to add OER into their faculty P&T document in 2018 (Yano, Munro, & Coolidge 2018). This policy can be found in the current Guide to Reappointment, Promotion, and Tenure Procedures at UBC (University of British Columbia 2020).

Other helpful examples of documentation for OER in promotion and tenure include the DOERS3 OER in Promotion and Tenure Matrix, intended to be repurposed for particular institutions and systems (DOERS3 2021), and Iowa State University's Open Education in Promotion, Tenure, and Faculty Development guide, which includes supplementary handouts and presentation materials (Iowa State University 2021).

## Strategic Plan Inclusion

Institutions use strategic plans to set goals for outcomes they hope to achieve within a set span of time. While organizations often connect their initiatives to these plans after they are created, direct inclusion in the strategic plan often leads to higher priorities placed on this work. For example, the University System of Georgia's Strategic Plan for 2024 explicitly lists Affordable Learning Georgia, their course materials affordability and OER initiative, as a strategic investment to improve affordability for their students (University System of Georgia 2019).

Alternatively, at Kwantlen Polytechnic University, the institution's Open Education Program has its own strategic plan, rather than being part of a wider institutional planning document (Jhangiani 2018). This allows Kwantlen's Open Education Strategic Plan to delve deeper into its OER program's goals.

## Instructor Recognition

**Related needs:** administrative buy-in, funding (optional)

Recognition acknowledges the work that instructors do to create, adapt, and teach with new open content. Providing this recognition is important for OER programs because it rewards this extra effort rather than expecting faculty to do more with less. Recognition for instructors may come in many forms, from informal “news features” or blog posts to more formalized certificates and awards.

- **Featured faculty website:** Institutions can highlight instructors who have adopted OER into their courses by including them on a website or news feature. Iowa State University has a section on their OER website for OER Trailblazers, which features profiles for faculty who have adopted or created OER (Iowa State University, n.d.).
- **Letters of recognition:** OER Committees can support faculty who have created or adopted OER by sending out letters of recognition at the end of the semester or academic year highlighting their work with thanks. For committees with administrative support, getting a Provost’s or Chancellor’s signature on these letters can be incredibly impactful. Recognition letters can be physical or electronic. In the latter case, letters should be CC’d to the instructor’s department chair and/or dean to further boost the instructor’s work.
- **SGA awards:** Student Government Associations can make a big difference in your OER program by lending their voice as representatives for the student body. Awards from the SGA show thanks to instructors for the savings that OER brings to students in their course. Awards given by the SGA can be physical trophies, letters of recognition, or even monetary awards if your SGA is given a budget that allows for them. Texas A&M University’s Student Government Association has created two awards for instructors using OER, an Open Educator Award and an Open Education Champion Award (Texas A&M University Libraries, n.d.).
- **Professional development (PD) certificates:** PD certificates show that an instructor has completed some level of training around the use of OER. These certificates may be singular, showing completion for a training program, or they may be tiered, with different levels for specific workshops and areas of interest, such as open pedagogy, copyright, or the use of an OER publishing software like Pressbooks. One example of an OER PD certificate can be seen at Houston Community College, which offers OER certificates for instructors who complete OER training on the basics of “open education, OER, copyright, and the use of online resources and course design in Canvas” (Houston Community College, n.d.).

## Course Schedule Markings

**Related needs:** staff time, staff expertise, administrative buy-in

Designating zero-cost or low-cost sections by providing markings in an institutional course schedule can achieve multiple outcomes for your open education program:

1. Raising awareness of more affordable course material options including OER for faculty.
2. Pointing out the most affordable course sections to take for students.
3. Providing a potentially accurate way of measuring OER implementation and student success with OER throughout an institution.

For examples of course marking projects, see the excellent case studies and examples provided in *Marking Open and Affordable Courses* (Hare, Kischner, and Reed 2020). This open book, published by the University of Texas at Arlington, is a comprehensive guide to no-cost and low-cost designators, containing analyses of the policy and practices behind OER/affordable course markings and nine case studies from diverse higher education institutions and systems.

## OER Hosting & Publishing

**Related needs:** staff time, staff expertise, IT support, funding (optional)

### Hosting OER

When it comes to programs that support the publication of OER, it's tempting to assume that only larger programs, like those supported by university presses, fill this definition. However, your OER publishing work can start in many different places. In fact, many community colleges and even larger institutions share OER by hosting them on their institutional or consortial repositories rather than through an official publishing system.

Examples of places to host OER are provided below, with a description of each:

- **Institutional repositories:** A place to host all institutional files for public and/or limited distribution. Repositories often have vast options for entering metadata, which makes searching and browsing easier with large collections. One disadvantage of institutional repositories is their original function as a home for journal articles, theses, and dissertations: living, updated documents are harder to maintain in a static-file system like a repository.
- **Library Guides (LibGuides):** A place for the creation of web page-based modular (tabbed) guides to particular subjects. The modularity of LibGuides lends itself well to the creation of public and open versions of learning management system-locked courses. Depending on the subscription, LibGuides may have file size limits, and those limits may be exceeded by larger textbook files or other instructional materials with high-resolution images.
- **OER Commons:** Creating and/or linking to OER is free in OER Commons for individuals. While hosting files in OER Commons without a hub lacks a centralized way to bring all of your institution's materials together, it does provide a solid way for creators to provide open-licensed and free access to the public.
  - **OER Commons Hubs:** A place to gather all OER Commons-linked or hosted materials for one institution. Because these are hosted within OER Commons and not within campus infrastructure and domains, extensive linking and promotion are needed in

order to guide faculty, staff, and students within your institution to these materials.

## Publishing OER

Publishing programs are more extensive and often provide services such as graphic design, copyright management, and double-blind peer review alongside hosting.

In 2011, the University System of Georgia partnered with the University of North Georgia Press to create the first systemwide-authored open textbook, published in 2013. This partnership led to a workflow for the creation and publishing of textbooks that includes a call for authors, developmental edits, double-blind peer reviews, peer review revisions management, copyright management, copyediting, proofreading, graphic design, and hosting (University of North Georgia Press 2022).

Another noteworthy example comes from Oregon State University (OSU), which established a model for publishing open textbooks by leveraging the strengths of its existing campus units. Through the collaboration of OSU Libraries, OSU Press, and OSU Extended Campus, their publishing program provides financial, technical, and editorial support for faculty members to create open texts that aim to reduce costs for students (Oregon State University 2014).

For more information about OER publishing, see [Chapter 17, Tools and Techniques for Creating OER](#).

## Hosting and Publishing Open Courses

**Related needs:** staff time, staff experience, IT support

Open courses, sometimes referred to as open courseware, are full collections of materials aligned to a single course. These are sometimes presented as part of an online course offered live, and other times presented as an archive of materials used within a course in the past. The most prominent open courseware system is MIT OpenCourseWare (OCW), one of the first repositories for OER. Examples of open courseware projects include:

- **MIT OpenCourseWare (OCW):** A repository of course materials utilized at MIT, including syllabi, lessons, lecture slides, readings, and more. When commercial readings are assigned, information about the assigned texts are also included.
- **Open Yale Courses:** A select repository of free lecture videos from popular Yale courses. This set of materials has been diminished over the years as Yale instructors have moved their courses into Coursera, where learners can enroll for free or receive certificates of completion for paying a fee to the Coursera platform.
- **Open Learning Initiative (OLI):** Supported by Carnegie Mellon University, OLI offers fully online courses through interactive courseware. Instructors can adopt these materials in the OLI interface by creating an account. Note: some courses require a fee for students (or institutions) to pay for access to the courseware system.

Note that open courseware may pose some issues with accessibility and regular updates over time, particularly if they are meant to present a single moment in time for a course. Broken links, inaccessible PDFs, and difficult to remix PDFs of PowerPoint presentations can be found in some older courseware archives, though this trend is changing now that OER programs are given more support from digital archivists and other support staff. Proper versioning of course content and a linked data system for “pointing” at newer versions of a course should be considered for any newer open course systems, particularly those housed at a single institution.

## Zero Textbook Cost Degrees

**Related needs:** administrative buy-in, staff time

A Zero Textbook Cost or “ZTC” Degree (sometimes called “Z Degrees”) refers to a degree pathway where at least one section of every course uses open or otherwise free materials. The idea is that students can attain a degree without spending a single dollar on textbook costs.

Tidewater Community College introduced the [first truly textbook-free degree](#) program in 2013: there is no cost for textbooks, and all course content is openly-licensed for its Business Administration Associate of Science Degree (SPARC, n.d.). This covers not only the degree-specific courses but also the general education courses needed to acquire each credential.

Pierce College in Washington State has instituted a ZTC Degree program for a university transfer degree. The Pierce Open Pathway program will allow students to enroll in online and hybrid classes, which feature low-cost, openly licensed learning resources (Pierce College 2015).

ZTC Degrees are often paired with course marking programs since students can enroll in some ZTC courses without necessarily being in the full degree program. By marking the ZTC sections of a course, students in the ZTC program can more easily locate the section they need to enroll in, and other students can selectively choose which sections to enroll in to save themselves money.

## Conclusion

There are many programs and projects that an OER program manager can implement at their institution. The number and complexity of the projects you choose to undertake will depend on three things:

1. Your workload and the availability of staff time to support your OER program.
2. Whether and how much funding is allocated toward your OER program.
3. The level of interest for OER on your campus, and existing programs that can tie into your work.

After taking these three considerations into account, you should be able to pick out a few projects or programs which will enable you to start at your institution. If you don’t have enough support

to realize a project right now, this may be a great opportunity to reach out to stakeholders on campus and get additional funding, staff, or other support for your program's ongoing success. Remember: you don't have to start with a fully-realized OER program with multiple components. We all start small, and work our way towards a more comprehensive OER program as we find the ability to support it.

## Recommended Resources

- [Open Education Strategy Database](#) (BCcampus, n.d.)
- [OER Project Planning Worksheet](#) (Elder 2018)
- [OER Policy Development Tool](#) (Coolidge & DeMarte 2016)
- [Faculty Communities of Practice on Open Educational Resources: A Toolkit](#) (Louis, n.d.)
- [OER Action Plan Template with Examples](#) (Open Education Network, n.d.)

### Key Takeaways

1. OER projects and programs come in many types, from workshops and workshop series to publishing programs and grants. Explore these options and consider whether you want to pilot or expand a project or program at your institution.
2. You have a lot of options for supporting the faculty adopting or creating OER on your campus. Beyond direct grants, you can also consider methods for recognizing instructors through thank you letters, awards, or by advancing institutional policies that acknowledge open education work in promotion and tenure guidelines.
3. OER programs can contain many pieces, from smaller projects to ongoing programs. What pieces your program contains will depend on the support available to you.

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## 6. Building a Grant Program

Jeff Gallant

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### Why Grants?

Grant programs are a common and effective practice within OER initiatives; these programs are so widespread and trusted that statewide OER legislation often includes the establishment or continuation of a grant program (see Recommended Resources: State Legislation Examples). A grant program encourages action without mandating action, supporting the time and resources that are necessary for faculty to implement OER. Open education programs can support and grow the adoption, adaptation, and creation of OER while still giving instructors and departments the agency to choose which resources are best for their courses and students. Grants are therefore a core method of “opt-in” support, inviting faculty members to explore, collaborate, and build new OER within their areas of subject expertise.

### Step 1: Determine Your Strategic Priorities

Before you begin building a grant program, ensure that you have the vision, mission, and strategic goals of the program finalized. While grant programs typically address common goals of student savings and student success, it’s important to link what you will prioritize in the grant application and review process to what your overall program prioritizes. Be sure to address these questions before creating your grant program:

#### Is your open education program focused on textbook cost savings?

Early open education programs often focused on the zero-cost aspect of OER and its potential to enhance student success through equitable access to materials (see Recommended Resources: Early Open Education Programs). Grant programs focused on textbook cost savings often prioritize the adoption of OER with regard to how many students are affected by a project and how much the new OER will save each student (see [Chapter 21, Data Collection and Strategies for OER Programs](#), for more on savings data).

Not every open education program has a primary focus on affordability: the MIT OpenCourseWare program has a strategic priority of making MIT teaching and learning resources available over the Web to a global audience (Massachusetts Institute of Technology, n.d.). Grant programs focused on the global impact of sharing OER may prioritize the creation of original open materials.

## Who makes the decisions on textbook selection?

In higher education institutions, individual faculty often select the materials they will use for their courses (Seaman and Seaman 2020). This could vary by the course or the institution, though: departments will sometimes choose a uniform set of course materials for their courses, or a major introductory course may uniquely have a uniform set of materials to accommodate part-time and adjunct instructors. Grant programs supporting individual faculty may focus on course release time and stipends, while grant programs supporting entire departments may include a partnership with embedded professional staff support (instructional designers, librarians) and include a department-wide approval process for materials.

## Can your program support other institution-wide goals?

Open education programs often address student success through both affordability and innovative ways of teaching, but there are other goals that open education programs could support. Diversity, Equity, and Inclusion (DEI) goals could be supported through the creation of inclusive and accessible OER, while digital access-focused goals could be supported through zero-cost, day-one access to OER as an institution moves to online or hybrid instruction.

## Step 2: Create a Draft Request for Proposals

The creation of a draft Request for Proposals (RFP) might seem sudden at this stage of creating a grant program, but this process happens early for a reason: designing the grant program that best fits the needs of your faculty, staff, and students first will function as the basis of *your* formal proposal for the implementation and funding of the grant program. Having an RFP ready means that you're ready to tell administrators exactly what you need for the program and why you need it. When creating an RFP draft, include at least these sections:

### Purpose/Background

Why do these grants exist? State the strategic goals the program is addressing, along with a few desired outcomes of the program, such as enhancing student success through open educational practices, making access to course materials more equitable and affordable, or impacting the global community through sharing institutional resources.

### Grant Structure

What do your grants look like? Are there multiple categories? Do those categories differ in how much you can award each grantee? This is where you define what these grants look like and the desired amount of funding. Here are some examples of different OER grant structures:

- Affordable Learning Georgia's Affordable Materials Grants have two categories:

transformation grants, for the replacement of commercial textbooks, and continuous improvement grants, for the improvement of OER through revision and ancillary materials creation (University System of Georgia 2014). Further strategic priorities are addressed through priority categories, which influence review scores but do not alter the amount of funding.

- The Ohio State University Affordable Learning Exchange (ALX) grants have four categories: high support, low support, a syllabus review, and a special grant that supports the strategic goal of racial justice (The Ohio State University 2022).
- Open Oregon Educational Resources' OER Grants have six categories based on the type of work being done: as-is, maintenance, interactives, revise/remix, author, and a catch-all "other" category (Open Oregon Educational Resources 2021).

## Required Activities

What will your grantees need to do before, during, and after the project? The work as described on each proposal will be the majority of the work, but consider whether or not these activities will also be required:

- Getting signatures on an agreement or contract
- Submitting invoices for payment
- Attending a kickoff meeting or regular check-ins
- Completing reports before the project is done
- Completing a final report
- Submitting any created materials
- Ensuring any created materials are accessible and inclusive
- Assigning a Creative Commons license to new materials
- Marking completed OER courses with a designator in the course schedule
- Participating in presentations and other program communications

## Application Process

While it may seem like a separate application form would suffice to explain how the application process works, it's both good for applicants to know what to expect in the RFP and good for administrators to know how the process works. Be sure to address the following:

- How to apply, including links to the application forms and any review rubrics (links may be TBD in your first draft)
- The review process, including how peer and/or administrative reviews will work
- Any approvals needed, including departmental letters of support
- How notifications work once applications are accepted or rejected

## Timeline

What are the dates and deadlines that applicants will need to know? Setting a timeline will also give administrators a heads-up on when funding needs to be available. Be sure to include:

- The application deadline, including the date and time when applications close
- The review period, separated by peer and administrative reviews if applicable
- The notification date when all applicants should expect to know whether or not their application was awarded
- Any required meeting dates for accepted applicants, such as a kickoff meeting

## Funding Details

While the award amount is critical to know, and you may have already put these award amounts in the Grant Structure section, you will need a space to explain the details for how funding works. Some of these might be TBD until funding is approved by your institution or until you meet with applicable grants/research office staff, but the following should be addressed early:

- When are grant funds disbursed? Do awardees receive all funding up-front, all funding at the end when a final report is submitted, or half up-front and half at the end? Funding methods where at least partial funds are disbursed at the end of the project can ensure an extra level of accountability for project completion.
- Are these direct stipends, departmental funding, or given in the form of release time?
- What happens if there is a change in personnel? Direct stipends can be tough to manage in the event of turnover or other personnel changes in the middle of a project.

At this point, you now have an RFP that outlines exactly how your grants will work; if you already have funding ready, you can continue with creating all of your supporting documentation to make these grants happen. If you are trying to secure funding, you may be doing extra work too soon by creating the rest of the documentation; consider stopping here and working toward securing funds with the RFP as your outline for administrators on how everything will work. Once funding is secured, you can move to the next step.

## Step 3: Create Supporting Documentation

The RFP Draft as described in Step 2 will require quite a few documents to ensure that the launch of your grant process moves smoothly. These documents will include:

- The application form(s), including downloadable/printable versions for applicants to use as a template before applying (see [Chapter 21, Data Collection and Strategies for OER Programs](#), for data you may need to gather for reports)
- The online application submission form

- A review rubric to share with reviewers and applicants with evaluation criteria
- A web page to host the RFP and all applicable forms
- An announcement to raise awareness of your grant program and the release of your RFP
- In addition to the documentation required for launching the program, you will need the following documents created in the near future:
  - Report templates for mid-project and final reports
  - Agenda, presentations, and activities for a kickoff meeting

## Step 4: Finalize and Announce

Now that your documentation is completed and your grant program is ready to launch, it's time to launch it. Finalize the RFP, with links to all of the supporting documentation replacing the TBD sections, and host the finalized documents on your web page. Be sure to run any official documentation through appropriate channels for approval, such as your department's director. Work through as many communications channels relevant to your instructional faculty as you can, and capitalize on any opportunities to present to faculty at regular events such as new faculty orientation, committee meetings, and faculty senate meetings. See [Chapter 7, Marketing Your OER Program](#), for more ideas on marketing your grant program. Be sure to set some time aside to answer questions from interested faculty during the timeline for the RFP.

## Optional Step: The Peer Review Process

There are programs where the evaluation of applications by you and your team will be enough, but larger programs with limits on how many applications can be accepted can benefit from outside perspectives from peer reviewers to mediate this process. If you are planning on a peer review process for grant applications, you will need to recruit peer reviewers and facilitate the process. This includes:

- Securing funding and confirming how reviewers will be compensated, if applicable
- Issuing a Call for Reviewers and an application process
- Reserving a time for an introductory meeting about the peer review process with reviewers
- Providing an easy way for each reviewer to access all assigned applications

There are a few different approaches to the peer review process that have been widely adapted by OER programs:

### Scoring-Only Peer Review

After an initial introductory meeting, peer reviewers are assigned their applications. Applications are evaluated individually, with peer reviewers filling out a form with scoring that pertains to the evaluation rubric. After all peer reviews are submitted, scores are either added or averaged for each application.

**Advantages:** This individual approach saves time for both reviewers and administrators. If used in tandem with an efficient online form, scores can be put side-by-side, added, and averaged immediately.

**Disadvantages:** Peer reviewers will not typically communicate with each other during this process, meaning if one reviewer identifies an issue, others may not identify that same issue when submitting their reviews. To ameliorate this disadvantage, consider assigning more than one peer reviewer per proposal.

## Committee-Only Peer Review

Peer reviewers are given access to all applications and must read them over before the first meeting. Multiple meetings are convened to discuss each application and decide whether to accept or reject each. This committee of peer reviewers will need information on how many grants, or the maximum amount of funding, they can award. This process can also happen in multiple groups (for example, if there are thirty applications and nine peer reviewers, three groups of three peer reviewers select a maximum of six applications out of the ten assigned to them).

**Advantages:** Reviewers discuss each application with each other, and each reviewer's perspective contributes to the overall evaluation, so most strengths or issues in an application are not lost in the numbers.

**Disadvantages:** In most cases, this will take more than one meeting to complete, and this process involves a heavy amount of consensus-building. Both program managers and reviewers will spend more time in this process.

## Scoring/Committee Hybrid Peer Review

This peer review approach still requires meeting time, but scoring happens before the meetings convene. This way, peer reviewers already have all of their individual thoughts on each assigned application ready, and the ranking and acceptance processes will usually take less time in meetings.

**Advantages:** Every reviewer is equally prepared for the meeting, and while scoring does take place, there's room for reviewers to share their perspectives with each other and change their scores if necessary.

**Disadvantages:** This will still involve consensus-building. To ameliorate this process, be sure to give clear expectations on what you want the final recommendations to look like, including your minimum/maximum amount of projects or funds available.

## Step 5: Send Notifications

Once the review process is completed and your awardees are selected, it's time to distribute

notifications to all applicants. Set aside a substantial amount of time on the notification date to both distribute notifications and answer follow-up questions. Your communication channels will vary depending on your institution, but you need to distribute basic acceptance and rejection notices to applicants at the very least. Here are some things to keep in mind for notifications:

- Acceptance notifications should come with information on how to get started. This includes anything the awardees need to do to confirm they will participate, information on how to attend a kickoff meeting, and how they can get started on receiving funds. This is also a good time to give out a unique identifier for their project: usually a unique number that will identify the project going forward in all documentation and tracking. Affordable Learning Georgia gives out a three-digit number for each project.
- If you have projects where critical questions need to be answered by the applicants before awarding them, consider sending out these questions on the notification date and delaying the notification until these questions are answered. Assign a deadline for responses.
- Consider encouraging any rejected applicants to revise and resubmit in a future round. Be sure to include peer reviewer and administrative reviewer feedback in order to assist, and offer to talk with applicants about how to improve their project proposal.

## Step 6: Get Grant Projects Started

### Signed Agreements

Now that you have your confirmed awardees, it's time to help these projects move forward. Most institutions will have a standard Service Level Agreement (SLA) or Memorandum of Understanding (MOU) between the grantees and your program, and these signed agreements will be connected to the disbursement of funds. Be sure to adapt this agreement to your specific program: for example, what happens if a project is only partially completed? What happens if zero work is done? What happens if someone leaves the institution or is replaced by another instructor on the project due to time constraints?

### Kickoff Meetings

A kickoff meeting is a great way to ensure that all grantees understand the fundamentals of open education, accessibility, and hosting, along with how to complete reports and receive funding. Perhaps more importantly, it gets all awardees together as one ad-hoc community of practice centered in open education. Whether it's online or in-person, kickoff meetings put a face to the email addresses and position titles and link those experienced with open education with those who are just getting started.

Covering open education, accessibility, how to host new materials, how to complete reports, how funding works, and how signed agreements work would take quite a bit of in-person time, and you want the actual kickoff meeting to encourage collaboration and teamwork, not just presentations.

To make things easier, consider having some of the training done asynchronously before the meeting takes place. Affordable Learning Georgia has an open-licensed asynchronous kickoff training through Google Sites and Google Forms (University System of Georgia, n.d.).

## Step 7: Deadlines and Reports

Once the deadline for grant projects gets close, send reminders out to awardees who should be filling out their reports, finalizing their materials, and sending everything to you. Have a final report submission form ready with everything you want to know about the project, including a narrative description of the project, successes, lessons learned, quantitative and qualitative data (e.g., student perceptions of the materials, student success data, course-level student retention data such as drop/fail/withdraw rates), and future plans to sustain the implementation of OER.

Have a folder structure ready to organize all reports – you may want to do this by the unique identifier assigned to each project. Ensure that all documents, including invoices for final payments if applicable, are sent to you. Consider hosting this in a closed space shared by your organization, such as Microsoft Sharepoint or a private FTP server, in order to access these documents remotely at any time. See [Chapter 22, Calculating and Reporting Student Savings](#), for more on how to report the resulting data to your stakeholders.

## Additional Considerations

### Moving from Pilot Funding to Consistent Funding

Grant programs often start with a one-time pilot round of funding. These OER pilot rounds often attract faculty who are innovative instructors with the time and agency to learn about new teaching methods and apply them in their courses. In order to bring faculty with less time to devote to teaching and learning innovations within the program, grant programs will need to run for more than one round. This will allow faculty who are not early adopters to see successful examples, read successful applications, and plan out an adoption, adaptation, and/or creation strategy with often time-constrained teams.

One way to assist faculty with more time constraints in applying for grants is providing grant writing support or consultations for prospective applicants. Not all instructional faculty have grant writing experience to draw from when applying for an OER grant; this type of one-on-one support can help bridge the gap between those with grant writing experience and those without. It may also help introduce new, part-time, and/or adjunct faculty to OER work, instead of having a program that almost solely works for experienced, tenured or tenure-track instructors. For more on providing one-on-one OER support, see [Chapter 12, Managing OER Consultations](#).

If you are running a grant program with just one year of funding, securing a renewal of the program in the following fiscal year will likely be a goal of the initiative. In order to reach this goal, the



Program Manager will need to make the case that this is an impactful program worth sustaining. The following activities are crucial in securing a renewal of the program:

- Executing a data collection plan. For more, see [Chapter 21, Data Collection and Strategies for OER Programs](#).
- Analyzing data and reporting on student savings to those responsible for funding the program. For more, see [Chapter 22, Calculating and Reporting Student Savings](#).
- Knowing your environments and connecting with key stakeholders. For more, see [Chapter 8, Building Familiarity on Campus](#).
- Marketing to these key stakeholders. For more, see [Chapter 7, Marketing Your OER Program](#).

## Strategic Connections to Other Faculty Incentives

The long-term sustainability of an OER program often depends on more than just grant funding; without additional incentives, interest may wane quickly. To encourage the use of OER, consider a grant program which connects with other faculty incentives, such as:

- the inclusion of OER work in promotion and tenure criteria (See [Chapter 5, Common OER Projects and Programs](#))
- linking the grants to an already-existing course redesign initiative, such as Iowa State University's Miller Open Education Mini-Grant Program and its stated inspiration from the Miller Faculty Fellowship Program (Iowa State University 2021)
- a link to a goal or objective within the organization's strategic plan
- a link to an already-existing faculty awards program

Recognition and rewards outside of the grant program will drive further engagement with OER past the term of a grant project and frame OER adoption, adaptation, and creation as a practice that is not dependent on grant funding alone. A great example of this is the University of Tennessee-Knoxville's SGA Open Educator Award, where the SGA awards instructors for high-quality OER creation, the promotion of OER, contributing to a culture of openness and knowledge sharing, and/or increasing student access to course materials (University of Tennessee-Knoxville 2019).

## Conclusion

Grant programs within your OER initiative will depend heavily on the program's environment, contexts, funding, and staff time available. Starting with existing and successful models will help to jump-start a grant program and provide a solid rationale to those responsible for funding at your institution or system. Keep an eye on your institution's unique mission, strategies, and values while building your grant program, and be sure to connect grants with other faculty incentives available within your program or your institution.

## Recommended Resources

### State Legislation Examples

- [SB810: State of Texas, 2017](#)
- [AB-1809: State of California, 2018](#)
- [HB18-1331: State of Colorado, 2018](#)

### Early Open Education Programs

- [Maricopa Community College: Maricopa Millions](#)
- [Tidewater Community College: Z-Degree Program](#)
- [OER Funding Amounts and Types](#) (collectively authored, hosted and edited by Rebel Cummings-Sauls)

#### Key Takeaways

1. OER grant programs support and expand the adoption, adaptation, and creation of OER within your institution without mandates; faculty still have the agency to select their own resources.
2. A consistent grant schedule, which is dependent on a consistent availability of funds, will help faculty with less time to devote to pedagogical innovations to join OER efforts when they can.
3. Just because funding is available does not mean that your OER grant program will see an immediate flood of interest. Partner with other strategic initiatives to get the word out and prioritize OER work.
4. Recognition and awards can accelerate OER work outside of the grant program.

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## 7. Marketing Your OER Program

Abbey K. Elder

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Doing outreach is an important job for both program managers and general OER support staff, but it requires a set of skills that we aren't often equipped to do. In this section, we'll cover some basics for marketing OER and partners you can ask for support, both on and off campus. In the next chapter, we will expand this overview to look at more general tips around building and managing your program's brand.

### What is Marketing?

The American Marketing Association defines marketing as

“the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services, to create exchanges that satisfy individual and organizational objectives” (Bennett, 1989).

For the purposes of this book, we'll focus on the last section of that definition, “creating exchanges that satisfy objectives.” Marketing isn't just about branding and logos. It is also about making connections with people based on your experiences and your ties to a common goal.

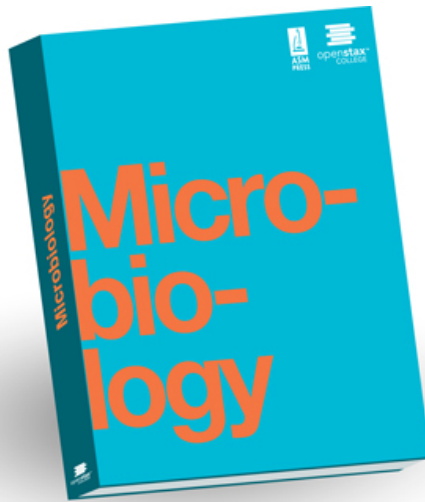
While traditional marketing is focused on selling a product to a wide base of consumers, marketing for institutional initiatives is more focused on broadening awareness of existing and future support. In other words, just because you've built something, that doesn't mean that your program will see widespread usage. You will want to continue to promote your program throughout its growth to ensure that your community is aware of your work and its evolution over time. Proper use of marketing tactics can ensure that your community is aware of the programs you've built and can take advantage of the opportunities you've provided for them.

### Building a Brand Identity

Before you can set out on promoting your initiative, it's a good idea to put together a brand identity. A **brand identity** is a set of standards that make your program recognizable at a glance for your audience. Your brand identity might include a recognizable color scheme, logo, character, or motto. You may tie your brand identity into your institutional branding by utilizing your institution's colors or mascot. Keep in mind that if you are using your institution's branding you may need approval from an institutional marketing or communications team before finalizing your branding. Next, we'll look at a few examples of how brand identities are crafted.

A good example of a clear brand identity is an OpenStax textbook (See Figure 7.1). The basic,

bold text implies that their textbooks provide a clear and general overview of common general education topics, which reflects the background of OpenStax's work.



**Figure 7.1.** All OpenStax textbooks use the font Helvetica Bold for their titles, a basic and sometimes critiqued choice. Whatever your preference, you can't deny its impact.

So, how should you approach branding for your OER program? There are no hard and fast rules here, but there are a few tips and tricks that you can follow.

## Creating a Logo

The branding for your OER program should be three things: simple, clear, and consistent. This work usually starts with your logo or an icon that represents your work in some way. For example, The Iowa Open Education Action Team ([Iowa OER](#)), a grassroots action team supporting the use of OER in the state of Iowa, developed their logo within an outline of their state to represent the scale of their group.



**Figure 7.2.** State and regional logos may be more complex or fairly simple, like this example from the state of Iowa.

Another consideration you might bring to your logo's design is how it will be perceived by your community. Since Iowa OER includes representatives from state universities, private colleges, and community colleges, they carefully avoided using a color scheme in their logo's text that was representative of any single school among their ranks, and instead incorporated colors found in the branding for OER Commons, a popular OER referatory. By doing this, the group was able to present itself as an inclusive force for their community rather than one focused on a specific demographic.



**Figure 7.3.** You can read more about KSU's marketing approach in *Marking Open and Affordable Courses* (Hare, Kirschner, and Reed 2020).

For an even simpler graphic, we can look to Kansas State University. KSU's Open/Alternative Textbook Initiative developed their OER icon, a book with an "O" on the cover, to be recognizable even at a small scale. This was done because it would be used as a marking denoting the use of open materials in their course schedule. This graphic is clear, easy to read, and emblematic of the initiative itself, by representing open textbooks with a book icon.

## Aligning with Your Identity

Like KSU did with their OER icon, your branding should be reflective of your initiative's work in some way. Think about your audience and what you want them to feel when they see your program's marketing on campus. Does your program have a unique name or tagline that influences the way you present it (e.g., playful, bold, colorful, or innovative)?



**Figure 7.4.** You can read more about CVCC's marketing approach in *Marking Open and Affordable Courses* (Hare, Kirschner, and Reed 2020).

A great example of a program whose name and messaging align clearly with their work is Central Virginia Community College (CVCC). CVCC uses the tagline "OpenEd CVCC: Innovation and Affordability" as their program's name and their icon features this theme of innovation through graphics of light bulbs, gears, and representations of various disciplines.

CVCC's logo is more complex than the ones we shared in our "simple" section. However, this isn't a problem in their case. Keep in mind that the simplicity of any graphic will depend on where and how it's used. CVCC's logo might have more going on than KSU's icon, but it is meant to be used at a larger scale, so it can accommodate this complexity. If your logo will be used in print materials or as a smaller icon, that's when you'll want to focus on simpler designs. For graphics that will be displayed more prominently, though, a larger graphic works fine.

## Be Consistent with Colors and Phrases

Finally, your OER program's brand should use the same color palette and phrases consistently. By using the same themes and colors, you can easily tie your programs, services, and promotion materials together in a way that resonates with your audience. You might do this by connecting your program's branding to institutional branding by mirroring color choices or even naming conventions. For example, [Open CI Channel Islands](#) uses their institution's color palette in their logo's design, making their program feel like an extension of institutional networks rather than an external or "extra" program on campus.



**Figure 7.5.** Open Channel Island's logo incorporates a lock, similar to the international Open Access logo.

Open CI's logo makes for a great case study because it exemplifies each of the tips we've given thus far:

- The logo is simple and easy to read.
- It contains an effective icon representing their work, a book which is also an open padlock reminiscent of the open access logo.
- The color choice and use of "CI" in the logo makes it clear that the program is tied to the institution.

### Program Management Tips: Pilot before you commit

It can be tempting to jump right in with a website redesign, a new logo, and a full box of new marketing materials for your OER program. However, we would caution against jumping ahead with this work all at once. Instead, pilot your ideas first.

Get feedback from your team or committee before pushing out changes at the institutional level. For branding changes, like alterations to your OER program's logo design, use your new logo and color scheme on a website or digital materials before ordering physical materials in bulk, just in case the changes you make are not well-received.

## Promotional Materials

A good promotional strategy should include multiple facets, from physical materials to digital communications. Below, we've compiled a table of promotional materials you might use on campus, and examples of each type.

**Table 7.1. Types of promotional materials**

Communication Channel	Medium	Examples
<b>Direct communications</b>	Physical or digital	meetings, consultations, listening sessions, email lists
<b>Indirect communications</b>	Primarily digital	websites, videos, news articles, newsletters, social media posts,
<b>Messaging</b>	Physical or digital	brochures, posters, signs, booklets
<b>Events</b>	Physical or digital	presentations, webinars, seminars, panels, training sessions
<b>Interactive</b>	Physical or digital	OER "petting zoos," games, exhibits, surveys
<b>Goodies</b>	Primarily physical	pens, notepads, bookmarks, stickers, buttons, etc

Get in contact with partners at your institution to learn more about the processes and options available to you and how you can best leverage the support at your disposal. If you have a marketing team available to you that orders pens and other materials for campus events, get in contact with them about their vendors and how you can leverage their existing workflows for ordering materials to support your OER Program. This might be as simple as ordering buttons and posters through your University Printing Office, or it may require you to browse a third party's marketing catalog or to create materials yourself, if you lack funding for your work.

## Annual Events

Creating promotional materials and graphics can make your OER program recognizable on your college's campus, but just because you've created materials doesn't mean that people will find or learn from them. As a program manager, you will need to find ways to implement your messaging and events on campus. Leveraging annual events like Open Education Week in March and International Open Access Week in October can ground your work in a given time of year and focus your programming around a topic or theme (Open Education Global, n.d.; SPARC, n.d.). [The Open Education Week website](#) lists past events and provides downloadable promotional materials to help you kickstart your event planning and coordination. If these weeks regularly conflict with other events at your institution, that's okay. You can celebrate Open Education Week the week before or after it falls. So long as you are consistent in the general time you hold these events, they will still gain recognition at your institution and faculty will come to expect them.



## Program Manager Tips: You don't have to start big

It can be daunting to host a week's worth of events centered around Open Education each year. Here's a tip for those of you just starting your OER program: don't worry about it! If your institutional community has low awareness of OER and you don't know many faculty who would be interested in learning more, planning a week of programming might be wasted effort. Instead, take the time to develop regular introductory OER workshops and set up meetings with departments across your institution to raise awareness of your work. Rather than building new events, leverage existing campus events to promote your OER initiative, such as orientations for new students or new faculty. It doesn't matter when you do this work, only that you find a time and place that works for you.

To learn more about partnering with campus stakeholders, see [Chapter 3, Building Your Team](#).

## Communications Plans

As you are pulling together events, materials, and features to highlight OER in your community, it can help to have a clear plan for how and when each of these will be implemented. In other words, you should familiarize yourself with communications plans. A **communications plan** helps you structure your outreach work by organizing your messaging strategies for specific audiences according to a timeline with measurable goals.

When developing your communications plan, list the promotional materials you will be sharing, the audience you want to address, and the channel(s) through which you'll be sharing your message. Having these considerations in place early can help you better format the materials your team creates. For example, for social media graphics aimed at a student audience, you'll want to prioritize big ideas, catchy graphics, and a simple message. In contrast, you can expand upon your message in newsletter articles and blog posts aimed at faculty and administrators by adding references to your services and the data you've collected assessing your program's work.

In addition to planning what you will be creating, your communications plan should factor in the time it will take to draft, create, and implement each item. Think of it like a structured timeline for your semester's OER work: what do you hope to create, and how will you ensure that you are reaching a wide audience with your message *during* the semester, and not just when you have time to create all that you'd like to share. Keep in mind timing to avoid finals week, midterms, and other busy times in the semester where your audience may not be amenable to contact or additional work.

To make assessing your communications plan feasible, start with measurable goals in mind. We recommend using SMART goals as you are developing your communications plan. SMART is an acronym for Specific, Measurable, Assignable, Realistic, and Time-related (Doran, 1981). While the

specific words ascribed to the acronym have changed over the years, we will use the original term, assignable, for “A” because it brings to mind something that is often overlooked in open education: someone has to do this work. If you can’t assign a project to someone on your team, you won’t be able to meet your goal. Below are a few examples of SMART goals for marketing open education programs:

- We will develop and provide two additional training sessions or workshops about open pedagogy during the fall semester.
- We will release five social media graphics highlighting Faculty OER Champions weekly during the month of March.
- We will present on the impact of our program at department meetings for three academic departments during the academic year.

## Getting Help

There is one thing we’ve left off of this section that needs to be addressed: how do you make the graphics, logos, and other materials your program needs? If you’re lucky, you have someone in your office or department who creates graphics for you already and who is knowledgeable about the systems in place to help you create and order promotional materials. If not, you at least have experience creating digital graphics and access to software that can help you do your work well, like [GIMP](#), [Canva](#), or [Inkscape](#). Most OER program managers have to navigate their marketing work slowly, either because they lack experience doing this work themselves or because they don’t know how to get support for their work.

### Program Manager Tips: Instead of giving up, get help!

You can get help marketing your OER program from on campus resources like marketing or communications professionals in your institution, members of your OER committee with interest in marketing support (students can be an excellent support system for this work, as our [Case Study 6](#) author attests), or even through outside help. Reach out to other OER program managers whose work you admire and ask for advice. They might have a specific tool they used to create their own logo(s), or they may have promotional materials available in formats that you can edit and palette swap for your own use.

Asking for help through OER listservs can be a great way to not only build your own network of peers but also to gather files, graphics, and other examples of promotional materials that you can adapt for your own work. After all, many of us openly license our own materials to support the open community at large.

## Conclusion

Developing an effective marketing strategy will signal to your institution that your OER program is growing, tied to institutional values, and enduring. Having a marketing and communication plan for your program can help ensure that your work is acknowledged, and that you can continue to grow your efforts over time, as more faculty and students learn about your program. Explore a variety of marketing tactics and materials based on the support and funding you have available to you, and don't be afraid to ask for help from peers and partners if you aren't sure where to start. Marketing may seem daunting at first, but it doesn't have to be.

## Recommended Resources

- [OER Advocacy Template](#) (Library as Open Education Leader 2017)
- [Communication Planning](#) (Watt 2014)

### Key Takeaways

1. Ensure that your branding is consistent, clear, and simple to understand at a glance.
2. Connect with campus partners to learn about the services available for printing or ordering materials.
3. Start small and build awareness at your institution to garner interest in your work.
4. Leverage local or international events like Open Education Week to further legitimize your work.

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## 8. Building Familiarity on Campus

Marco Seiferle-Valencia and Jeff Gallant

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Building familiarity with OER on campus is a key part of the outreach and promotion work OER program managers must undertake to help expand the adoption and promotion of open course materials. When thinking about building awareness at your institution, it helps first to determine what the overall OER climate is. Campuses with existing robust OER programs will have different needs than those whose OER efforts are more nascent. This chapter provides a guide to conducting an environmental scan to establish starting points for helping your institution build familiarity and interest with OER.

### Conducting an Environmental Scan

When considering where to start or refine your strategy for building familiarity with OER at your institution, an environmental scan can give you and your team a firm foundation to start with. An **environmental scan** is an examination of the environments surrounding your program with special regard to how they interact with, support, or possibly hinder your program's mission. When conducting an environmental scan for an OER program, consider these questions in order to get a full picture of your institution and its surroundings:

#### Internal Environment: Your Institution

##### How does materials adoption work at your institution?

Check for departmental or institutional policies which may affect whether instructors have the agency to select materials for their own course sections. For example, departments may adopt a single set of resources for use in large introductory courses at one institution, while faculty may select their own resources at another. The amount of agency an instructor has in selecting materials may also differ depending on their status (full-time, part-time, adjunct). Finally, there may be external factors which influence the choices instructors make, such as vendor incentives, automatic billing programs, or minimum sales requirements for discount prices on materials.

##### What are the current OER adoption levels on campus?

Gathering accurate data regarding how many faculty are adopting OER at your institution or system can be a daunting task, but some of this information may already exist. If your institution has comprehensive materials adoption data through a campus store or auxiliary services department, for instance, this data would be a great place to start looking for OER adoptions. Check with the providers of this data to find how it's reported and whether or not they see the

data as largely accurate. For institutions where adoption data is incomplete or disregards OER adoptions, you may only be able to estimate the current use levels by conducting a survey.

### **What can you discern about attitudes towards OER at your institution?**

Take a look at the current activities within places that support teaching and learning; there may be open education activities taking place, along with open-friendly faculty learning communities, which may have the potential to discuss OER topics alongside other innovative ideas in teaching and learning. The presence of these activities increase the likelihood that faculty and staff at your institution are already aware of OER, and in addition, partnerships with these departments or offices providing these activities would be an easy way to schedule more focused OER sessions. Library focuses related to Open Education, such as Open Access or Open Data, may be the most common activities to bridge with an OER program.

More direct ways of discerning attitudes toward OER at your institution include one-on-one interviews, moderated focus groups, and surveys with open-ended survey responses. Looking at trends in this data will help you identify overall sentiments, and grouping your data by subject area, position, and other factors will help you understand more localized differences between groups of instructors regarding OER.

### **External Environments (your region, state, nation, etc.)**

#### **What is the recent history of OER efforts within your state or region?**

This may start with some web searching, but consider contacting any OER program leaders within these environments as you find them. Look for OER library guides, websites, and other markers of existing programs near you to help identify peers as well. Library consortia and regional higher education compacts with open education programs will often be glad to help, and open education leaders tend to be very amenable to discussions about their programs and how to get yours started. Open education conferences, from regional to international, will help in forming networks with other open education leaders close to you. National and international open education organizations, such as the Open Education Network and the Rebus Community, are also wonderful places to explore OER collaboration.

#### **Which institutions does your institution consider aspirational peers? Do they have an OER and/or open education program?**

Knowing this information will help when discussing the potential for an OER/open education program with executive leadership at your institution, and knowing how leadership views aspirational peers will help as well. For example, if you are within an institution which looks to only “tried and tested” efforts in the field, identifying these within your institution’s aspirational peers will help in communicating the potential success and rationale for starting an OER program. Institutions could also function as the aspirational peer and the “pioneer” for other institutions; in this case, it may benefit you more to communicate the innovative side of OER programs, such

as open pedagogy, contributing to a global and growing collection of resources, and the power of being able to remix or revise materials to meet specific instructional objectives.

### **Are there state-wide or system-wide vendor deals which affect open educational resource adoption, adaptation, and creation?**

Look for wording mentioning “day-one access” or “inclusive access,” as this is usually how these programs are titled in a marketing context. Some commercial resource contracts with automatic billing may include discounts based on the volume of adoptions or student purchases, which may be steering administration and/or academic departments in favor of adopting those resources (Vitez 2020).

There may also be existing contracts between your institution or system which may create new opportunities for the program as well – for instance, if you have an existing subscription to a teaching and learning tool that may enhance open pedagogy, this may be both a good place to start with project suggestions and an opportunity for a partnership with the office that initiated this contract.

## **OER Audiences**

With the specific data on your open environment in mind, think about potential audiences with whom you wish to build familiarity and hopefully a positive valence towards OER. These groups can include:

### **OER Ready**

Faculty who are ready and/or open to adopting OER. These are faculty and graduate students who are either at the start of a new curriculum design process or are interested in converting an existing course to OER materials. They are aware of the advantages of OER but may need support in identifying the exact platform or materials they will use. Folks like this are primed for something like an Open Education Network workshop, or similar, which can rapidly orient them to the resources out there to get started. Faculty who are OER Ready are often poised to become OER Leaders once they’ve successfully undertaken a course conversion project.

### **OER Leaders**

OER Leaders are those teaching faculty and graduate students at your institution already using OER in their courses. Perhaps these instructors have designed their own OER from scratch using a custom platform, or adopted a high-quality open textbook. In addition, OER Leaders might include librarians, instructional designers, administrators and leadership, and others with OER experience and knowledge, who can speak to the powers and potentials of open course materials. Their enthusiasm may be shared through lightning talks and showcases, conferences, scholarly publishing, campus promotional materials, and even directly in conversation with fellow faculty

and students. Social media spaces like Twitter and Facebook are also sites of productive conversation and engagement amongst OER Leaders and the OER Ready.

## OER Agnostic

Campus community members in this category aren't familiar enough with OER to have a vested interest or opinion. Faculty who fall into this group are potential OER Adopters and Leaders waiting to happen!

To reach the OER Agnostic, strategize about what information is available at your institution pertaining to OER and what wider OER adoption might mean for your institution. OER Agnostic faculty might not be interested in promotional materials specifically branded around OER cost savings but may respond well to sessions that emphasize some of the unique pedagogical advantages of OER, for instance the potential of OER to advance diversity, equity and inclusion with materials and content engaged around social justice concerns.

Part of the challenge for program managers will be discerning the messages that resonate most on their campuses – here as in seemingly most all cases, consulting with liaison librarians, instructional designers, and others doing front facing work directly with faculty, can help program managers identify key areas of concern where OER adoption might offer benefits related to access, cost, representation, or technological affordance.

## OER Averse

People in this category might have negative perceptions of the value or efficacy of OER, have had negative past experiences with a specific open resource, be intimidated by the perceived technological elements of open, and/or may feel that traditional publishing options are more sophisticated or authoritative. Others may support the concept of OER on campus, but be concerned about the additional labor contributions required of often overloaded faculty to rework courses to use new course materials. OER Program Managers should strive to identify the concerns raised by the OER Averse on their campus and address those concerns in programming and OER related services offered.

Some suggestions for addressing these common pitfalls include:

- Making sure the scale and scope of the work required of the program is appropriate for the compensation offered.
- Designing and iterating program requirements based on participants' actual capacity. Initial goals may need to be scaled back or up depending on what people are actually able to accomplish.
- Building a list of talking points you think are impactful for your specific audience(s) that engage with questions around OER quality, cost, and ease of implementation.

Assume your audience is often unaware of the huge amounts of money and power wielded by



big publishers and may even enjoy a friendly relationship with sales representatives who visit campuses to help promote and sell textbooks. Create opportunities to educate about the real cost impacts of traditional publishing, as well as addressing the many known factual errors or shortcomings found in traditional publishing.

## Clarifying A Campus Vision of Open

Many faculty are now familiar with OER as a term, but there's still a lot of understandable confusion given the overlap of emerging terms like Open Education, Open Pedagogy, OER, Open Access, as well as the relative complexity of related topics like Creative Commons. Create opportunities to educate stakeholders, especially teaching faculty, about what these different terms mean and the different ways they can positively impact their work. This might mean workshops, invited presentations to faculty senate, short videos, blogs featured in your institution's publication channels, social media presence, or more. The goal is to help define and clarify what Open will mean at your institution.

## Engaging Campus Partners

Many OER Program Managers will be taking on their OER work as a small part of a full-time position. Thinking creatively about how to engage campus partners can help create a larger OER impact than would be accomplished working alone. Partners like the library, instructional support units, student advocacy groups including student governments, and even more formal structures like faculty senates can all be engaged as effective partners in advocating for OER on campus. Program managers are wise to introduce themselves and their programs to these potential partners, and to develop organic points of collaboration when aligned goals arise.

## Conclusion

Building familiarity with OER means making sure the key stakeholders at your institution have the knowledge and language they need to engage effectively around OER. This complex goal resists a one-size fits all approach, so project managers should expect to develop plans and goals customized to their program's desired outcomes. Considering different OER user groups, and how to reach them, as well as planning for how to engage campus partnerships and existing OER programming in building familiarity, are just a few strategies OER Project Managers might use to grow OER activity on campus.

## Recommended Resources

- [OER Champion Playbook: Building Awareness & Enthusiasm](#) (Lumen Learning, n.d.)
- [20 Questions to Ask about Open Education \[pdf\]](#) (BCcampus 2019)

## Key Takeaways

1. Check your internal environments to find any previous OER work, OER-related initiatives, attitudes toward OER, and the adoption levels of OER at your institution or system.
2. Check your external environments to find programs to aspire towards, the history of OER work in your region, organizations that support OER work, and any consortial arrangements that may assist or act as a barrier in a new OER program.
3. Identifying those who are OER Ready, OER Leaders, OER Agnostics, and OER Averse at your institution can help you map the strategies necessary to reach your target audiences.

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# Case Study 3: Building the Roller Coaster While Riding It: OER at Oregon Institute of Technology

Dawn Lowe-Wincentsen

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“Building an airplane while flying it” is a phrase sometimes used to describe when something is built while it is working. Building a roller coaster while riding it is similar, but you keep coming around for another turn. This is what the first few years of the Oregon Institute of Technology (Oregon Tech) Open Educational Resources (OER) Incentives felt like.

## Year 1: Laying the Track

In October 2017, I was the Interim Director of Libraries at Oregon Tech. I was inspired by a conference presentation to start a local OER incentives program. In my position and at my institution, I was empowered to start this program and had the capacity to do so. I started by contacting Amy Hofer, the statewide coordinator for Oregon OER. She was able to give me access to information and resources I needed to determine outcomes for the program. I reviewed programs that were similar to what I wanted to do, and talked to people working on such programs in the field. Beyond a few ideas and conversations, I had no plan.

Next, I started gathering a wide range of interested allies across Oregon Tech. I found faculty who had participated in Oregon state OER initiatives and invited them to be on an OER committee. The committee was charged with developing an application process and would review the applications received that same year. This provided me with a group of faculty at the university who already had experience working with open educational resources. Once I had formed the OER committee, I contacted the Commission on College Teaching (CCT) to get volunteers. This led to some of their own membership being involved. CCT is a committee that supports teaching at the university through professional development, internal grants, and other programs. By having members of CCT on the initial committee I was able to reach a wider audience that was interested in learning new teaching methods. When forming the committee, I also made sure that each college was represented. In the end the committee had two members from CCT, two people who had received state of Oregon Support for OER work, and myself. Coincidentally this also represented both colleges at the university and the library.

## Piloting the Grants

Once our group was formed we started creating two applications: one for adopting and adapting OER and one for creating OER. The applications were based on the Open Oregon Educational Resources grant applications. We asked for pre-identified resources, connections with other instructional departments, and universal design elements. We then tailored the applications to

the financial resources that were available at Oregon Tech and the amount of money we were able to offer. One important way in which we differed from the state program was our preferential treatment for upper division STEM classes unique to the university. We wanted to provide special encouragement to these classes, which are generally not eligible for OER funds from outside programs given their relatively low enrollment and school-specific curricula.

We received 14 applications. The majority were adoption applications – a trend we would continue to see. Notably there was a creation application in this initial set of applications that has led to a whole department going open ([Chemistry 201 in LibreTexts](#)) The committee met after reviewing the applications. We discussed what to do when a person applied for more than one grant and how to deal with teams that applied in a single application. We decided to fund all the applicants, though some did not receive all that they were asking for. This provided a strong base for the pilot year and an equity in the funding model that continued in later years.

During Spring 2018 we got the committee and all the applicants together for a breakfast Q&A. This gave them an opportunity to see what others were doing, and to make connections with the people from the committee who had already had experiences with OER. We had an upfront agreement with applicants indicating they would create, adapt, or adopt OER over the summer when they were off-contract. They would use the resources in the following academic year, and present back to the university community in the following Spring term.

The actual funding process was the most difficult part of that first year. Funding for OER initiatives are unique to each institution's business processes, and I had not yet learned those processes at Oregon Tech. After talking to people in the business, budget, and grants offices, and re-explaining the desired outcome, the Provost's executive assistant used a contract process similar to that used for adjuncts to pay incentive recipients.

## What Worked?

Breakfast! The free breakfast Q&A for the grant's applicants gave people the opportunity to connect and build a relationship. It was a required, in-person meeting, with an informal atmosphere and food. Time constraints meant that we did not have any other cohort gatherings, but this one meeting started the conversation and gave people someone to turn to if they needed. In planning for future incentives I keep coming back to this cohort idea.

One helpful task during this process was to make [a flow chart of different funding options](#) for OER. The chart I made in 2018 has been used to explain OER funding to every new constituent that has come along since.

## Year 2: Adding Supports

In Fall 2018 I contacted all the grant recipients from the previous spring and asked for volunteers to be on the review committee. We used opportunities such as the CCT newsletter, provost

newsletter, and campus presentations to advertise the first group's successes and the opportunity to apply again.

## Introducing OER Day

In January 2019 I started contacting all the recipients to schedule their presentations to the university. I gave them the opportunity to present at OER Day, a new event scheduled for the week before Open Ed week, or to present in a brown bag style session. Most chose to present as part of OER Day. Amy Hofer the Oregon Tech bookstore manager with whom I had developed a relationship were also scheduled to speak. We scheduled a room in the library and one at the Portland branch campus, and used Skype to connect the sessions and allow people off-campus to join. This was a fortuitous choice as both campuses were closed or delayed because of snow on the day of the presentations. Overall there were 8 presentations from incentive recipients and two others. Although the presentations shifted to a virtual session, attendance was good. After OER Day, the [Open Education and Textbook Affordability at Oregon Tech website](#) was created to show the program data and share the presentations.

To promote the 2019 incentive program, we chose to launch the application for the 2019 incentives during OER Day. Additionally, we were able to schedule brown bag sessions prior to the application deadline to help drum up more support and awareness of the program and successful faculty projects. For these sessions, the library supplied desserts on-site and a Skype link for those not at the main campus.

## Year Two: Grant Changes

There were fewer applicants in the second round of grants. After individual conversations with some past recipients who had waffled about taking up resources that others might want, there was a surge of repeat applicants after the deadline. These applications were included in the funding, bringing the number up to the previous year's total. This group was given the same expectations as the previous cohort.

During this time, my position had changed; there was a new University Librarian, and I went back to being director of the branch library. This change meant far less travel to the main campus, less access to funds, and less ability to direct what was going on 300 miles away. Because of the change in position, the 2019 cohort did not get breakfast or social events to connect with each other. The lack of community showed in the next year with less cohesiveness in presentations, and faculty who floundered because they did not know who to reach out to.

Spring of 2019 was also the first time we were able to assess the program's impact on student savings. Applicants had given the cost of their previous textbook at the time of application. We used this cost and looked up the course numbers in the registration system to get the enrollment for each professor's course. Enrollment was multiplied by the cost of the previously-required

textbook and/or materials to find the student savings per term. This was added up for each of the academic year's terms to achieve the savings for the year: \$202,000.

## What worked?

Using the cost of the previous textbook in our student savings calculations gave us a more accurate look at the savings from our incentives program because STEM materials are generally more expensive than humanities or social science materials.

Another success in the second year was the addition of OER Day to our spring events lineup. Even though inclement weather interrupted our activities, we were able to broadcast the presentations to a wider audience, and post the presentations publicly.

A third success was the direct connections I made with faculty and the connections they had made with each other in 2018. These connections allowed us to continue to build relationships, and for faculty peers to gain visibility and attract others to the program.

## Year 3: Adding Guard Rails – making a plan

In the third year the program started to get attention from our administration. In the latter half of 2019, I presented at convocation, an annual event attended by all faculty and staff. Later, I presented to the Student Government leaders and University Boards of both campuses. It was a flurry of presentations, but it did help to establish alliances with groups outside the faculty who had been participating in our program beforehand.

As a result of the success of the presentations, I was inspired to reach out to faculty who had high cost materials and offer OER interventions through emails and personal conversations. These were information sessions, talking points, and suggestions on ways we could work together to both meet their course outcomes and net student savings. In some cases this was successful and in others it wasn't; one example of failure is with the Anatomy and Physiology courses. The professors for this course series work together to provide consistent materials across sections and locations. When I identified the cost of their course materials as a barrier to students, they cited the ancillaries they use, and the quality of the course materials. They also noted that students had cheaper options and could get by with only purchasing the course ancillaries' access code. While overall I have not found a way to convince the group to change, I have had a couple of the professors come to workshops and seek out more information.

In addition to email communications, Oregon Tech uses Microsoft Teams, which allows people to group together in Teams for different committees, departments, interests, or other reasons. These Teams then have a shared message board and shared file access. I was able to create a Team that is open to all at the university where information about OER and open education is posted. However, it also required people to use the Teams platform; some faculty are not familiar with it or don't check it on a regular basis.

During this time, I also applied for the Open Education Network (OEN) [OER Librarian Certification program](#). The outcome of the program was to create a campus action plan by September 2020. However, the coursework began in March 2020 and immediately began to impact how I was running our program. The most impactful change was the creation of a program plan – some guard rails to keep us on track. Finally, I shifted the OER initiative Program from “building the rollercoaster while riding it” to working toward a set of longer-term goals.

## Year 3: Working With a Plan

In March 2020 during Open Education Week we once again held an OER Day. A higher percentage of initiative recipients were able to present at OER Day in the second year, and not just because of better weather. The program had grown to include more faculty and more classes. We also offered the presentations as part of a series of events at both campuses. There were photo booths, and thank you card stations where students were encouraged to share their thoughts and appreciation to faculty participating in the program. Through student advocacy, the Portland Metro campus held a listening session with doughnuts on OER Day.

OER Day was again used to launch the application process for the third round of grants. And then COVID-19 came in the Spring of 2020 and everything we had been doing was thrown into disarray. We extended the application deadlines as long as we could, but there were far fewer applicants. The committee, which was composed of people who had received incentives the previous spring, communicated via email.

As part of my own goals, and inspired by a conference presentation, I created a professional development course for OER incentive recipients and others. The course is asynchronous with the opportunity for communicating with the annual cohort. This was intended to work on the community building at a distance issue seen previously. The course also included presentations from 2019 and 2018 recipients to help each new group see what was already going on at the institution. The 2020 recipients were added to the [new OER course in Canvas](#) and were instructed to complete it by September.

The faculty who did not present during OER Day were unable to present, even in a streaming format, during spring term. Without a strong plan, a few things unraveled a bit. There was still more than \$200,000 in student savings in the second year, but when comparing spring term 2019 to spring term 2020 we saw a downturn in savings numbers. The difference in years is only \$642.00, but every other term — including summer 2020 saw an increase in student savings from the year before.

## What Worked?

In the flurry of presentations in Fall 2019 I spoke with the student government. After attending the presentation as shared in Appendix A, they became advocates for the program and a voice to other students, which was helpful since students tend to listen to their peers more than faculty

members or administrators. Students planned the listening session and added doughnuts to OER Day's plan. Finally, the students, whose voices are often more impactful to faculty than the voices of program managers, adopted a resolution asking faculty to post course materials by the time registration opens for a term. This partnership with the student government continues to help build relationships and create more student advocates each year. Student advocacy and perspectives also helped to build the university [textbook affordability plan](#).

## Year 4: This Trip Around is a Whole New Ride

This case study is being written in Fall 2020. Because of my participation in the OEN certification course, the library now has [an action plan](#) that will provide direction for the balance of 2020 and continue into 2021. The plan is to continue the incentive program to offer more professional development, and to find new non-monetary incentives for participation.

## Tweaking the Grants Again

To form the review committee for the next year I have sent an email to the 2020 recipients, and posted a call for participants in the Microsoft Team. This broadens the number of potential volunteers. The messaging to faculty has also changed. Instead of student savings we are focusing on improved pedagogy: the ability for faculty to adopt and create materials which directly support their courses' learning outcomes. There have been more presentations: one at a virtual convocation, one to student government, and one at new faculty orientation (See appendix B for the presentation to new faculty).

In order to recreate the sense of community found from our breakfast in 2018, part of the committee work will involve leading the professional development for the 2021 cohort. To allow time for this, the incentive applications' due date will be changed to fall on OER Day. The applications were launched December 2020 through the CCT newsletter.

## What I Have Learned

Have a plan! I was inspired to try something new at Oregon Tech, and it was wildly successful in the pilot year. In the second year it received much attention, but in the third year I learned how unstable the program was. It is ok to try new things and have pilot programs; however, an important step I skipped in that pilot year was creating a plan of what to do in case the pilot was successful. I needed to have a long-term vision for the program, something that looked beyond the initial success. The OEN certificate program helped improve my frame of reference and reconcile the needs of the program with the needs of the library department and the university administration.

By creating a plan, I now have a guide for what the next few years should look like: one which stabilizes the program and eliminates the need to rebuild every time the roller coaster makes its



trip around the track. As with any plan, there needs to be adaptability and flexibility built-in, but the overall direction and goal to save students money is clear and measurable.

Have a plan! Be willing to break the plan, be willing to change the plan, but have it nonetheless to guide you on the roller coaster.

## Presentation Examples

- [Presentation to Student Government Fall 2019](#)
- [Presentation to New Faculty Fall 2020](#)

# Case Study 4: Integrating OER Programming into Institutional Norms at Pierce College

Quill West

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When I first started working in open education, I felt like my job was to persuade faculty and administrators that open education was a good choice simply because of the benefits of OER. I obsessed over elevator pitches, drafted and performed presentation after presentation on the virtues of OER, and strove to change the educational landscape at my institution course by course. I designed professional development sessions in which faculty and staff wrote haiku about the limitations of commercial textbooks and practiced course design through card games. I developed lists of OER broken down by course topics and outcomes with reviews by faculty and students so that I could share them with other faculty, and I asked students to share testimonials comparing their learning with OER to learning with commercially produced educational materials. These were great strategies for relationship-building, connecting OER to success stories at the institution, and garnering support for OER, but the amount of investment in individual and incremental change was a mark against the sustainability of our overall project.

There are only so many times you can talk to the same group of people about the virtues of open practices before they tune out your message, even when that message comes with the chance to earn a stipend. The secret to success in any project is to both ensure that the project ties clearly to institutional goals, and that the faculty, staff, and students believe in those goals and see the payoff for their investment in them. In 2015, Pierce College hired me to manage the development of an OER Degree Pathway. This was the first step in moving from a faculty-to-faculty based approach to OER adoption to a more integrated approach with institutional goals and supports.

## A Brief Look at the Structure

Pierce College District serves Pierce County, WA with two colleges, Pierce College Puyallup and Pierce College Fort Steilacoom, two education centers at Joint Base Lewis-McChord (PCJBLM), and two remote education centers in area high schools. In addition, Pierce College offers online learning through each college and center. The District operates with a central leadership team, but there are unique cultures and student needs at each of the campuses and educational sites; this means each campus sometimes implements initiatives meant to serve their specific students. In particular, PCJBLM has a unique structure that is meant to support over 155,000 service members and their families who live and work at the Joint Base Lewis-McChord military base. While any student can enroll for classes at PCJBLM, most students at that site are either service members or family of service members. The first major investment of funds and personnel in OER at Pierce College was to help meet student and program needs at PCJBLM.

## Investing in OER

A major issue at PCJBLM in 2015 was the commercial textbook infrastructure and the barriers it created for both students and faculty. Textbook costs were a significant barrier to enrollment and retention for students. Although students might have their tuition covered by various funding programs, most students at PCJBLM were paying a conservatively estimated \$1,100 per year out of pocket for textbooks. At that time the faculty at JBLM were also required to adopt the most recent edition of every commercial textbook they used because of the challenges for the bookstore of delivering used and older edition materials to students all over the world. This meant that faculty were often having to revise and update courses to reflect changes in textbook editions.

In 2015, the leadership at Pierce College decided that the model for course materials wasn't supportive of the students or program at PCJBLM. Textbook costs were higher than similar programs and faculty were investing significant time in adapting to new editions each time a publisher made a change. The college decided to invest in an open education degree pathway to help cut costs for students and ensure faculty choice in selecting course materials. An open education degree pathway is an opportunity for students to take all of the required courses to earn a degree or certificate without paying for textbooks. All of the course materials (particularly textbooks) in an open education degree pathway are openly licensed and available for very low or no cost.

At Pierce College, the initial investment in our open education project included hiring an open education project manager and providing stipends for faculty at PCJBLM to develop OER courses. Using this initial investment, we built structures that were meant to help integrate the work happening at PCJBLM across the entire Pierce College District.

## Finding Structures to Support Goals

Having one unifying and specific goal can help build intrinsic and extrinsic motivation for people to embrace open education. Our program had two goals. The first was to create an OER Degree Pathway which we called Pierce Open Pathways (POP) at PCJBLM within two years. The second was to increase OER adoption throughout the District, though we carefully avoided adding specific numeric goals so that we didn't overwhelm ourselves and our constituents. The general goal of "increased adoption" was meant to motivate the program and the institution to build support structures for a later growth of the POP across the entire District. Charged with these two goals, we began to build a series of support structures that were meant to support the primary goal of developing an OER Degree Pathway. However, too much focus on establishing an open program at PCJBLM sometimes meant that we found ourselves having to repeat efforts or revise our approach when we included faculty, students, and staff from across the District.

Any OER project can intertwine itself with institutional practices to become more sustainable and meet goals more quickly, but keeping a project sustainable requires consistent reflective and

evaluative practices. Below I have provided an examination of the structures we built throughout the development of the POP and how they integrated with other institutional practices to help us meet our goals.

## Faculty Incentives

Faculty at PCJBLM united around the goal to create the POP because they saw it not only as a way to increase enrollment and retention, but also as a way to choose course materials that best served their students. Other faculty throughout the Pierce College District had either been teaching with OER for years because of their interest in saving students money or adapting and revising their own course materials. Still others were disinterested in OER altogether, and faculty who were new to the idea of OER showed interest but concern over workloads. The diversity of interest in OER and motivations to adopt open materials meant that it was important to build a structure around incentives for faculty to engage with OER.

The first and most obvious incentive to develop was a stipend for developing or adapting OER courses. Pierce College has a faculty union, so our original course development stipend of \$1,500 was negotiated with the union. This negotiation was an opportunity to discuss the value of open education work with faculty as well as raise awareness of the project itself. It was also an opportunity to have a discussion about workload and compensation related to a project that might have been easily side-lined otherwise. Another benefit of this conversation about compensation is that the faculty contract is regularly negotiated, which means that a conversation about OER and faculty workload in relation to adopting openness is a part of an ongoing process that is entrenched within our institutional culture.

The best advice I can offer in relation to talking with faculty about financial compensation for open education work is to be honest, direct, and to listen when people share their worries. We were lucky at Pierce College because many of our faculty were knowledgeable about OER and individual faculty invested in developing OER courses. Additionally, our leadership wanted to be fair in how we compensated faculty for their work. In my role as an advocate for open education, and at the request of the negotiation team, I prepared [a series of outlines](#) describing the processes of adopting OER that started with three different levels of adoption: Full Development, Heavy Adaptation, and Adoption (West, 2021). As an example, at the Full Development level, no open resources exist yet for the course. In that case the faculty member might have to begin by writing or heavily adapting and remixing resources to have enough content to meet learning outcomes. Whereas, at the Adoption level, a teacher might need to do less work to make slight adaptations to a course already designed to be open. These outlines served as a baseline for describing the work involved in developing open courses, and they helped everyone involved discuss how much time and effort might go into designing open courses for Pierce College. In 2019, negotiations moved from a flat-rate stipend to a variable stipend based on the three levels described in the initial outlines.

Other incentives around OER at Pierce College include inclusion of open education work in tenure, promotion, and retention. In particular it is important to recognize the value and vulnerability

of part-time faculty who adopt and adapt open materials. During recent contract negotiations, Pierce has begun to adopt official recognition and elevation of part-time faculty who participate in a process we call Leveling. Essentially, Leveling helps us to add some stability in the work lives for part-time faculty who engage with the process. Our OER project part-time faculty get credit in Leveling for offering professional development and ongoing support throughout the process of adopting and adapting open materials. In this way, they are rewarded for their commitment to open practices in service to our students.

## Course Review Processes

Almost every course at PCJBLM is taught both in-person and online, and for that reason, the quality of course design has always been a central concern for the program. In 2015, PCJBLM was heavily invested in the Quality Matters (QM) process for course review. Every online course went through a modified QM review process that included two QM trained faculty peers who examined the courses carefully before they could be approved for inclusion in the course schedule. When we started to design the POP, an additional review for open licensing and use of open materials was included in the review process. Faculty were concerned about violations of intellectual property rights or US copyright laws in addition to selecting OER that best fit their students' needs. Originally, I acted as the OER Reviewer, but when we were at our highest number of courses in development, there were fifteen courses in creation or review. I couldn't sustain the pace of course development and review if I remained the only reviewer. To make the process easier on myself and on faculty reviewers, we developed a [POP rubric](#) that included both licensing and accessibility of open materials used in every open course. More importantly, the POP rubric helped faculty to examine how their courses met standards in both QM and the open education space.

In more recent years, Pierce has reviewed the existing tools we use for evaluating course design, and we are considering new processes that include an emphasis on equity, diversity, and inclusion in the design of courses. To help develop an OER rubric that centers student experience and diversity more clearly, Pierce held workshops in which faculty examined existing OER courseware rubrics and drafted rubrics that showed how students might use, learn from, and feel affirmed by educational resources. These draft rubrics were used to evaluate open materials and are one of our tools for thinking about how to center students in the use of OER at Pierce.

## Professional Development

Our professional development outreach around the POP had to include outreach to faculty who wouldn't teach POP classes, because we wanted to extend our efforts to include the entire institution. While faculty at PCJBLM had a practice of meeting weekly for professional development and fellowship, this was not a common practice across the whole institution. Instead, we began to offer specific programming, such as a "How to Teach with OER" three-week course to faculty at Pierce College. We also offered specific professional development that impacted the growth of the OER project. This practice has extended as open education

has become more embedded within our institution. For example, in spring of 2021 we offered a cohort learning experience facilitated by myself and librarian Kathy Swart called “Inclusive Pedagogy and Renewable Assignments.” In that cohort, 19 faculty members from across the institution discussed the commonalities of inclusive pedagogy and open education practices with the mission of creating their own renewable assignments.

## Staff Investment

Originally the POP was offered only at PCJBLM, which is a smaller program. For that reason staff involved in labeling open courses, tracking student completion of OER courses, and advising students into POP classes were a small but mighty number of individuals who easily adapted to helping students identify opportunities for taking open courses. One staff member worked with me to devise a system to identify and code the POP courses as they became available. Faculty who taught with OER and who had their courses approved for POP, worked with me to get their courses labeled correctly in the course schedule. This was a very effective process which led to over 45% of enrollment at PCJBLM being in POP courses.

However, this manual process couldn’t work for the larger Pierce College District as scheduling of courses in the wider institution is handled at a departmental level, which means a more manual process would cause more work for already overburdened staff members. Instead, the college elected to wait for a newer student management system to build a unified process for identifying open courses in our student schedule. We’re still trialing a new system, but the groundwork laid at PCJBLM allowed us to know what could work for our new approach to labeling open courses.

## Looking Forward

The success of the POP at PCJBLM is something that our college wants to spread to the entire institution, however we want to do this in a coordinated way. We strive to find structures and systems, such as tenure, promotion, and hiring processes that will ensure that our project remains sustainable and a part of the fiber of our institution. Openness is a valuable initiative, but it must work in alignment with many other goals and strategies to support our institutional values. To that end, we continually examine how our work in open education supports our institutional values, and we reflect often on how our day to day work supports those values.

One of the biggest challenges to engaging in open education work is stopping to reflect on whether the actions we take to forward openness support our institutional values. We do this reflection in several ways. For example, as the manager of open education at our institution I make a point of asking several questions: Who does this work serve? How does this work support our most vulnerable students? What about this work will help address a known barrier to historically underrepresented students? How does this work move the needle on our institutional scorecard? These questions help me and my colleagues to guide open education at our institution into our central values of serving underserved students and practicing antiracism. It also helps us to know how and when to measure the impact of our project on the institution and students.

To build an integrated and sustainable OER project, consistently and relentlessly ask difficult questions and give honest answers to those questions. Open education is not a process distinct from other institutional efforts. Rather, it is an integral part of how the institution operates and serves its students and community. Take a moment to turn away from the minutiae of your OER efforts, and see how they weave into the fabric of your workplace.

## References

West, Quill. 2021. *Levels of OER Course Creation/Adoption*. <https://docs.google.com/document/d/1ltkaAT0BnkBE4zINmIKo3AUvvEb2-IMDRYa61T0tIE/edit?usp=sharing>

## Appendix: OER Evaluation Rubric (Sample)

**Table CS4.1. OER Evaluation Rubric Sample**

<b>Criteria &amp; Explanation</b>	<b>Can Use As Is</b>	<b>Minimal Revision</b>	<b>Significant Revision</b>
<p><b>Principles of Equity, Diversity, Inclusion</b></p> <p>How would a student from a historically marginalized community see members of their community represented in this source?</p> <p>What messages about diversity and inclusion are reflected in this source?</p> <p>How does the source present issues of representation and belonging for people who are often overlooked by larger social systems?</p> <p>How does the source encourage a sense of self-reflection about positionality, identity, and personal responsibility for building a community that respects, honors, and supports diversity?</p>			
<p><b>Accuracy and Currency</b></p> <p>How accurate is the material, based on current standards in the field?</p> <p>If the material is inaccurate, does it acknowledge conflicts in perspectives and changes over time?</p> <p>If the material is outdated, does it serve other purposes (to provide historical perspective, to provoke discussion, or to serve as an example)?</p> <p>How might traditional markers of accuracy, currency, authority express a Western European interpretation of the information? How might that affect the overall message about diversity within the field?</p> <p>Is the material peer-reviewed? Does the peer-review system support or hinder the diversity of the resource? How does the peer-review process address privilege as it relates to equity, diversity, and inclusion in the field?</p>			



Criteria & Explanation	Can Use As Is	Minimal Revision	Significant Revision
<p><b>Different Perspectives</b></p> <p>How does the material acknowledge perspectives (of the authors, of other experts in the field, of critical voices, etc.)?</p> <p>Whose viewpoint does it represent well, and whose viewpoints are left out?</p> <p>How does the material present facts, opinions, and judgments?</p> <p>Is the material customizable?</p>			
<p><b>Overcoming Barriers to Engagement</b></p> <p>How does the material engage students? Does the material reflect student experience and views?</p> <p>What about the piece will keep students interested in reading/interacting with it?</p> <p>How will students be inspired to reflect-on and/or use this resource to change their understanding of the topic?</p> <p>How do students access the material? Does it require technology skills? Can it be accessed in multiple ways through multiple means?</p> <p>How does the material/resource respond to accommodative and adaptive technologies?</p> <p>Are there intentional ways for students to connect the content to their identities, backgrounds, cultures, and/or the identities, backgrounds, and cultures of others?</p>			

Criteria & Explanation	Can Use As Is	Minimal Revision	Significant Revision
<p><b>Relevance to the Course and Field</b></p> <p>How does this material align with course outcomes?</p> <p>Are there any outcomes that are not covered in this resource?</p> <p>How does the material relate to the values and ethics that you would like students to remember as they participate in your field of work?</p> <p>How would this source influence the students' further development in the field?</p> <p>What other perspectives would need to be included in this course in order to provide more balance? (For example, if the resource is created by professional/technical educators, could it be balanced with some perspectives from researchers and university scholars?)</p> <p>What would be lost/missing from the course if this source wasn't used?</p>			
<p><b>Relevant and Useful for Students</b></p> <p>How does the material reflect student interests and learning goals?</p> <p>How does the material give students autonomy in their learning?</p> <p>How does the material encourage interaction, critical thinking, and deeper learning/processing?</p> <p>Appropriate reading/content level for students (entry-level)</p>			

PART IV

# TRAINING AND PROFESSIONAL DEVELOPMENT

## 9. Training Your Team

Stefanie Buck

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Whether you are a one-person OER team or have staff/student workers, you will most likely need to provide some training to those who are involved in building an OER program. Your team may be just you, you and other staff, you and students, you and external partners, you and faculty or any combination of the above. Sometimes, OER will be your main job, other times it will be in addition to your current portfolio. In any case, a good training program will help your team and your projects be more successful.

See [Chapter 3, Building Your Team](#) to learn how to gather a strong team to support your OER program.

### Training Basics

If your team consists primarily of supportive roles, for example administration, faculty representation or your center for teaching and learning, who are not actively creating OER, then you will want to provide some basic training so that everyone understands the concepts involved and what some of the issues and challenges are (See [Chapter 1, Introduction to Open Educational Resources](#)). These people are your campus champions and getting them trained means more recognition for you and your program.

If you and/or your team will be consulting with OER adopters, adaptors or creators, it is best to have a common understanding of the concepts listed below. That way, you can assist the OER adopter or creator in making informed decisions at the beginning of the project, saving both time and resources. For example, if your authors or adopters are unclear about the different Creative Commons licenses and how they work, you may end up in a situation where content is being reused in an inappropriate way (e.g., not providing proper attribution when remixing texts).

### Open Educational Resources

There are many definitions of Open Educational Resources. The most [commonly used definitions](#) include:

**Table 9.1: Common definitions of Open Educational Resources**

Definition	Creator
Open Educational Resources (OER) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.	( <a href="#">UNESCO 2002</a> )
Open educational resources (OER) are free and openly licensed educational materials that can be used for teaching, learning, research, and other purposes	( <a href="#">Creative Commons</a> “Open Education,” n.d.)
Open Educational Resources are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions	( <a href="#">Hewlett Foundation 2013</a> )
The foundation of Open Education is Open Educational Resources (OER), which are teaching, learning, and research resources that are free of cost and access barriers, and which also carry legal permission for open use. Generally, this permission is granted by use of an open license (for example, Creative Commons licenses) which allows anyone to freely use, adapt and share the resource—anytime, anywhere. “Open” permissions are typically defined in terms of the “5R’s”: users are free to Retain, Reuse, Revise, Remix and Redistribute these educational materials	( <a href="#">SPARC</a> , n.d.)

In addition there may be federal, state or local definitions. All of these definitions are valid and it may be helpful to choose one as your program definition. This will ensure consistency in your message. See [Chapter 1, Introduction to Open Educational Resources](#) for a more thorough discussion on the definition of OER.

There are also many misconceptions about what the “O” in “OER” actually means, e.g. “online” rather than “open,” In addition, the concept of “open” is also not clear to everyone. Some think that open and free are synonymous, which they are not. A work may be open and then is, by definition, free but a free work may still have all rights reserved and therefore cannot be altered or remixed and is therefore not considered “open.” A common understanding of the term “open”, is essential to a successful program.

## The 5Rs

You will also want to make sure that you and your team are familiar with the 5Rs. The 5Rs are the cornerstone of OER use, reuse and creation. The 5Rs (reuse, remix, retain, redistribute, revise) were coined by Wiley and are widely understood to be the most basic definition of “what is open” (Wiley 2014). Without meeting these criteria, a resource cannot be considered open (again, not to be confused with free). The flexibility which the 5Rs afford open educational resources is one of the benefits and your team should be able to explain both the positive and potentially negative aspects of open educational resources to faculty and administrators (depending on who makes up your team). See [Chapter 1, Introduction to Open Educational Resources](#) for more about the 5Rs.

## Why OER?

Training your team on why OER is important is one of your first steps. Everyone on the team should be familiar with the benefits (and drawbacks) of open educational resources. Benefits include

“Textbook costs should not be a barrier to education. The price of textbooks has skyrocketed more than three times the rate of inflation for decades. College students face steep price tags that can top \$200 per book, and K-12 schools use books many years out of date because they are too expensive to replace. Using OER solves this problem because the material is free online, affordable in print, and can be saved forever. Resources that would otherwise go to purchasing textbooks can be redirected toward technology, improving instruction, or reducing debt.

Students learn more when they have access to quality materials. The rapidly rising cost of textbooks in higher education has left many students without access to the materials they need to succeed. [Studies show](#) that 93% of students who use OER do as well or better than those using traditional materials since they have easy access to the content starting day one of the course.

Technology holds boundless potential to improve teaching and learning. Open Education ensures that teachers, learners and institutions can fully explore this potential. Imagine a biology textbook that incorporates COVID-19 in the chapter about viruses, or a math tutorial that incorporates local landmarks into word problems. Imagine a lecture attended by hundreds of thousands of people across the globe, or a peer-to-peer exchange between Canadian students learning Mandarin with Chinese students learning English or French. All of this and more is possible when the pathways for technology in education are fully open.

Better education means a better future. Education is the key to advancing society’s greatest goals, from building a strong economy to leading healthy lives. By increasing access to education and creating a platform for more effective teaching and learning, Open Education benefits us all.” ([SPARC](#) n.d.)

To learn more about the pros and cons of OER, see [Open Educational Resources: Pros and Cons](#) by the University of Maryland Global Campus (2020). See also [Chapter 4: Talking About OER](#).

## The Efficacy of OER

While they don’t necessarily need to be experts in the field of efficacy studies for OER, your team should be able to respond to the question “are OER any good?” with some confidence. Here, you should ground your answers in the research literature. Keeping up with the literature is an important part of being a program manager. For your team, it is sufficient that you share major findings that can help them formulate what the benefits of OER really are, based on research studies and not just hearsay.

Some recent important articles on efficacy include:

- Clinton, Virginia and Shafiq Khan, 2019. Efficacy of Open Textbook Adoption on Learning Performance and Course Withdrawal Rates: A Meta-Analysis *AERA Open* 5 (3): 1-20. <https://doi.org/10.1177/2332858419872212>.
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## Where and How to Find OER

You may want your team to be knowledgeable about how and where to find OER. Since it is a common complaint among faculty that OER are hard to find, having a team of people who understand the nuances of searching for and locating OER and what kinds of tools are at their disposal can help spread the word about OER among their colleagues (Cuillier 2018). Again, they don’t necessarily need to be experts in finding OER, just be informed enough to encourage others to reach out and get assistance with finding OER. See [Chapter 12, Managing OER Consultations](#) for more information.

## Copyright and Fair Use

While not everyone on your team needs to have expertise in copyright, all of your team members should understand the basics of copyright guidelines and the limitations of use that copyright places on an item. There are many good sites where you can educate yourself and your authors about copyright and fair use.

- [Copyright and Fair Use](#) (Stanford n.d.)
- [Copyright and Fair Use](#) (Harvard University 2016)
- [Copyright Basics](#) (University of Minnesota n.d.)

Similarly, your team needs to understand how fair use works in OER. Some team members may feel that everything they do is Fair Use because they are educators. Unfortunately, that is not entirely true. Copying an entire text that has all rights reserved most likely does not fall under fair use. For questions about Fair Use, you may wish to consult the [Code of Best Practices in Fair Use for OER Guidelines](#) (Jacob, Jaszi, Adlter and Cross, 2021) and the [4 factors checklist](#) (Columbia University, n.d.). Fair Use is rarely a straight yes or no type question. Actions may either weigh more in favor of fair use or weigh against fair use. No one but a court of law can actually determine if the use was “fair.” Be careful here to not give any legal advice.

## Creative Commons (CC) Licenses

Creative Commons (CC) licenses are the cornerstone of OER. Authors/adapters will have many questions about what licensing their work under a CC license means for them. They will want to know the consequences of each type of license combination and will probably request your help in making that decision. They will also have questions about how they can use the CC-licensed works of others. The license authors or adapters choose affects the ability of someone else to use the work downstream is a major consideration. It will also affect whether they can or cannot use CC-licensed materials in their own works.

Authors or adapters may lean towards more restrictive licenses but need to be aware that this may prevent others from using their work downstream. Mixing licenses is challenging but extremely important. While your team may not need to know all the details, they should know that you cannot mix all the CC licenses together at will, as some are not compatible with each other.

You may also need to decide early on if you will allow for certain license types in your program. Consider for example, the ND (No Derivatives) part of a license. ND technically makes your work available for free (a good thing) but will not allow for others to adapt your work. Many choose to classify works with an ND license as not truly ‘Open’ and therefore don’t support the license when assisting authors in selecting a license for their work. You should also be able to defend your decision, either for, or against the allowance of ND.

You should give equal consideration to the [ShareAlike](#) (SA) part of the Creative Commons license. Your author/adaptor/team may be limiting the reach of the content and others’ ability to reuse or remix the material because there are limited licenses that can be remixed with work that is licensed under CC BY-SA (Bissell 2009).

CC Licenses and mixing licenses is a complex topic. Here are some additional resources to help you:

- [Creative Commons Certificate for Educators, Academic Librarians and GLAM. Unit 4: Remixing CC licensed works](#) (Creative Commons, “Creative Commons Certificate for Educators,” n.d.)
- [Considerations for Licensors and Licensees](#) (Creative Commons Wiki 2013)

## Creating or Adding a Proper Attribution

Providing a proper attribution when you use an OER is not only ethical, it is a legal requirement for anyone using an OER for any purpose. There are no “rules” (style manuals) about how to do this, just some [best practices](#) by the Creative Commons (2018) for you and your team to follow. You want to set an example about how to do attribution properly and encourage your authors/adapters/adapters to do the same. It is also a good idea to train your authors and adapters to keep track of the sources they used (open or not) for referencing in their OER.



## Basic Accessibility

Equity is an essential component of OER and therefore accessibility must be part of the resource creation process. There are numerous guides on creating accessible texts and images (See [Chapter 18, Universal Design, Accessibility, and Usability for OER](#)). Apprise your faculty authors of your accessibility policies early on so they can create their content appropriately. If you are working with adopters or adapters of OER, help them understand if the resource they have selected is accessible or not. For example, a series of YouTube videos licensed under a Creative Commons license may not have closed captioning. An open textbook presented only in the PDF format is more difficult to remix than one created in Google Docs.

### Program Manager Tips: Competencies

While not a universal standard, you may want to consult the [Open Educational Resources Competency Framework](#) as a tool to help you set learning outcomes for your training program. Competencies include: Becoming Familiar with OER, Searching for OER, Using OER, Creating OER, and Sharing OER (International Organization of La Francophonie 2016).

## Advanced Training

In this section, we will cover some of the more advanced topics on which you and your team may need some training. This will vary depending on if you are working with faculty authors or adapters or if you are dealing primarily with adopters. An adopter may not need to have much information about publishing workflows but an author will need it.

## Publishing Basics

Publishing is a process that requires a defined workflow. You may be guiding the author/adopter step-by-step through that workflow or need to provide them with tools to help them manage their workflow. There are a number of excellent guides on publishing an OER, using Pressbooks, improving accessibility, and managing workflows available online from organizations who have a lot of experience with OER. Don't reinvent the wheel; see what others have done and what works for them. All of these tools are open so you can feel free to customize them for your institution's training needs.

- [BCcampus Open Education Self-Publishing Guide](#) (Aesoph 2018)
- [The Rebus Guide to Publishing Open Textbooks \(So Far\)](#) (Ashok and Hyde 2019)
- [Combine material under different Creative Commons licenses](#) (Creative Commons, "FAQ,"

n.d.)

- [BCcampus Open Education Accessibility Toolkit, 2nd Edition](#) (Coolidge et al. 2018)
- [Authoring Open Textbooks](#) (Falldin and Lauritsen, n.d.)

## Publishing Platform

Depending on your program, you may use one or more publishing platforms, such as Pressbooks, Manifold or simply an accessible Adobe PDF or Google Doc. If you are using a platform, your authors/adaptors may be doing work in the editing platform or you may choose to hand that work over to your team and not allow the faculty authors/adaptors into the platform. If they are creating their OER in a Google Doc or PDF or using some other tool to create their OER, you may or may not have access to the content. If you have assistance or staff, your OER team should be trained to use the platform and be ready to offer training to adopters and creators. There are useful resources here to help you understand the pros and cons of the different file types.

- [Scholarly Communication Technology Catalogue](#) (Antleaf, n.d.)
- [Mind the Gap](#) – A Landscape Analysis of Open Source Publishing Tools and Platforms (Maxwell et al. 2019)

In any case, it is important to share with authors/adopters and your team the pros and cons of each platform you support, as well as the features and functionality you can support so author/adopter expectations are managed.

## Publishing Formats and File Types (ePub, PDF, etc.)

For text-based OER, the output may be in a variety of formats. You will need to decide which formats you will or will not offer. This may depend on the publishing platform and what you are able to support. For other OER, such as course modules or test banks, you will want to consider how their content will be shared and where and in which formats you will make it available. See [Chapter 19, Hosting and Sharing OER](#) for more information.

- [Comparison of ebook formats](#) (Wikipedia 2021).

## Multimedia Formats

For OER that contains more multimedia than text, you will also need a basic understanding of the [tools and the outputs](#) (MiniTool, n.d.). For example, if your authors or adaptors are creating a module or game, what are the technical requirements of the platform they wish to use? Where will this content be housed and how will it be shared with others? You may need an additional space for hosting multimedia content.

## Basic Image Editing

Even if all the images your author is using are openly licensed, you may still need to adjust the images (size or cropping) to make them work in your OER. In some cases, if you have the resources, you may be creating images for faculty who need something that cannot be found in OER or you may need to edit openly licensed images to meet your author's needs. You will need to decide what level of service you can provide. Expect to make minor adjustments and you or someone on your team should have some capability in this area if you plan to offer this service.

## Copy Editing

You probably won't have an in-house copy editor on hand. Do you want your texts to go through copy editing? If so, how will this be handled? There are options to outsource copy-editing services or you may leave that to the author. Copy editing is a mark of quality in your OER and should not be neglected. However, copy editing may be expensive and you need to plan on how to provide the necessary funding. An example of a copy-editing service is [Scribenet](#) which works with the [Open Education Network](#) to provide copy editing to its members.

## Developmental Editing

Another type of editing that you will need to be familiar with is developmental editing. A developmental editor does the big picture review of the content and looks at the structure and narrative of the work. Developmental editors are not copy-editors as they generally don't correct your grammar or spelling. They take a step back from that to see if your textbook is well-laid out, has structure and flow, and that the ideas or concepts within it are explained clearly. In most cases, you won't have access to a professional developmental editor but you could try your institution's writing program to see if there are any graduate students who could help you.

## Advanced CSS and HTML

In some cases, your publishing platform may require an understanding of [CSS and HTML](#) (W3C, n.d.) or other markup languages. This will depend on if you want to offer a certain level of customization to the author. You may want to limit the kinds of CSS or customization you can create, depending on your capacity. Is there someone on your campus who can help if you need to do some CSS tweaking? Can you or do you want to build this capacity in-house? Is there someone on campus who can assist you with this? For example, do you have an IT person on your team who may be able to help with some of these questions?

## Mathematical and Other Markup Languages

Textbooks, especially in the Science, Technology, Engineering, and Math fields, may require the use of mathematical equations or formulas. While it is probably best to have the author create

this (in LaTeX or other compatible formats), you may need to implement some fixes in house when creating the final product. If you cannot support this, what resources does your author have to learn LaTeX or another math markup? You also may need to consider that your authors may want to use [Overleaf](#) or another LaTeX editor. These may not be compatible with your publishing platform.

## Metadata

Metadata is what helps people find your OER. While there is no standard metadata scheme for OER (yet), it is important in that metadata can also help users find more specific items (Santos-Hermosa, Ferran-Ferrer, and Abadal 2017). This will depend on where you store your OER. Will it be in an institutional repository? How much can you or do you want to customize the metadata? What is the minimum metadata you want to apply, who will apply it, and how will you ensure consistency across projects? Each repository will act a little differently.

## Instructional Design & Open Pedagogy

Building an OER is only part of the challenge. Once your subject matter expert (author) has selected an OER platform or is in the process of creating one, integrating the OER into the course is the next challenge. Not all OER librarians, even those with teams, have the instructional design background to support faculty in the process of course redesign. However, some understanding of backward design processes, open pedagogy, and universal design can be very beneficial. Your faculty authors will appreciate having a Center for Teaching and Learning or something similar for guidance at hand.

## Professional Development

In addition to the above, there are many professional development opportunities available for your team and for yourself. Many of these are freely available online. Some examples are listed in [Chapter 10](#) under the section Training Your Authors and Adopters: Professional Development. While the training opportunities are mainly designed for faculty authors or adopters, they are a great place to get yourself or your team started. Training that is designed specifically for OER leaders include the [OER Pub 101](#) (OEN, “Open Textbook Publishing” 44, n.d.) training by the Open Education Network, which also hosts the [OEN Summer Institute](#), and the Scholarly Publishing and Academic Resources Coalition (SPARC)’s [Open Education Leadership Program](#). While you will need to apply, this is a great option for someone who is new to the field and wants to get more involved. It is rather intensive so apply for this fellowship when you know you will be able to dedicate the time to it. Training or professional development is also available for specific aspects of OER. For example, the Creative Commons runs the [CC Certificate program](#) designed for OER leaders, librarians and museum professionals. Or, if you are really interested in copyright, the [CopyrightX](#) program from Harvard offers a rigorous course on copyright.

Lists and communities are another great source of information and support. There are many regional lists to sign up for so check around for a regional list in your area. For example, Oregon Open Educational Resources or the Maryland Open Source Textbook Initiative are local communities that offer symposiums, workshops, regional conferences, forums, and other professional development opportunities.

A national list that is heavily used by OER leaders is the [SPARC lib-oer](#). It is well worth signing up for this list as it hosts a community of individuals who help each other out with questions related to OER, such as assistance finding an OER for a faculty member. SPARC also produces the OER Digest, which can help you keep up with happenings in the OER world. A similar useful national list is the [CCCOER](#) (Community College Consortium for OER) list, mainly for community colleges but useful for anyone seeking OER support. The CCCOER is within the larger [Open Education Global](#) organization which also hosts professional and learning opportunities as well as an annual conference.

Other communities that offer support and sometimes professional development include [SPARC](#), the [Rebus Community](#), a nonprofit building a new, collaborative model for publishing open textbooks, and the [Open Education Network](#) (OEN). The OEN, as well as many of the organizations mentioned here, also provides regular informal conversations and webinars which may be of interest to you and your team.

## Conclusion

Everyone should have some basic understanding of what an OER is and where and how to find it. This will help you get onto the same page and make your message more cohesive. More advanced topics may include copy-editing or metadata. This will depend on the size and scope of your program. While the list may seem daunting at first, you can teach the skills needed to run an effective OER program little by little. Take advantage of professional development opportunities that come your way and share those experiences with your team.

## Recommended Resources

- [Authoring Open Textbooks](#) (Falldin and Lauritsen, n.d.)
- [BCcampus Open Education Self-Publishing Guide](#) (Aesoph 2018)
- [BCcampus Open Education Accessibility Toolkit, 2nd Edition](#) (Coolidge et al. 2018)
- [Copyright and Fair Use](#) (Harvard University 2016)
- [Copyright Basics](#) (University of Minnesota, n.d.)
- [Stanford Copyright and Fair Use](#) (Stanford, n.d.)

## Key Takeaways

1. Provide training to your team. It will help all of you have a common understanding of what OER is and many of the related aspects. A common vocabulary will prevent many misunderstandings.
2. There are basic things your author and you should know. You can start with these and then work up to the advanced training suggestions.
3. Take advantage of the many OER communities that offer support, professional development, and conferences. These can be international, national or regional.
4. This chapter asks many questions. Make a list for yourself about how you want to address each of these issues and update it regularly.

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# 10. Training Future Authors and Adopters

Stefanie Buck

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Not all the work of creating an OER can fall on you as a single OER content manager. In this case, your Subject Matter Experts (SMEs) are the faculty and instructors who are creating or adapting the content of the OER. You are there to help them manage their project, not create the content for them.

What kind of training you offer to authors, adaptors, and adopters will depend on how much you expect them to do and what services you can offer. It's very important to set those expectations right from the beginning, preferably in a Memorandum of Understanding (MOU) or some other form of agreement. For example, you may not want to give your authors access to the publishing platform. If you choose to give authors access, you may need to set some guidelines for what the authors can and cannot change in the text and how often. If your author or adaptor is expected to provide you with a manuscript in a specific format, make this clear as well. If you are requiring your faculty adopters, adaptors and authors to participate in some kind of professional development opportunities, put that in the MOU as well.

When training authors, much of the content is similar to training your team. For example, your authors should have a basic understanding of what OER are, fair use, copyright, Creative Commons licensing and which type of license they can choose, where and how to find OER, and how to write an attribution statement and the basics of accessibility.

In addition to the basics listed above, your training of authors or adopters should address some of the known faculty concerns about and obstacles to OER adoption or publishing.

1. A lack of awareness of OER
2. Concerns about the quality of OER
3. Not knowing where to begin or a lack of confidence
4. Difficulties in finding suitable OER
5. Workload concerns (i.e., takes too much time to create or redevelop my course or the belief that it is too difficult to create OER)
6. Belief there is no material out there for a specific discipline and/or no ancillaries are available
7. Academic freedom and intellectual property concerns (e.g., loss of control over content)
8. Unclear about how OER might help with the tenure and promotion process
9. Unclear understanding of copyright, fair use and CC licenses and a fear of liability
10. Fear that the bookstore will retaliate in some way or at least not cooperate
11. Belief that students will just spend the money elsewhere (e.g. recreation) (Cuillier 2018, Harold and Rolfe, 2019)

These objections or obstacles can keep a faculty member from adopting, adapting or authoring

an OER. The best way to respond to these questions is to be prepared ahead of time. The Open Education Network (OEN) provides an excellent [Guide to Answering Tough Questions](#) (OEN “Guide,” n.d.). In addition, you will want to ground your responses in the literature so keeping up with new publications is a good habit. Here are some additional Frequently Asked Questions pages you may want to review.

- [OpenWashington FAQ](#) (Open Washington 2019)
- [George Mason FAQ](#) (Algenio 2021)
- [A Basic Guide to Open Educational Resources](#) (Wikisource 2013)
- [OER Mythbusting](#) (OER Policy for Europe, n.d.)

Consider gathering the questions you get from faculty and making your own FAQ page to which you can point faculty who have questions or concerns. Writing your own FAQ will help you formulate your responses and make them more relevant to your faculty and institution.

### Program Manager Tips: Address Misconceptions Early

There is already [a lot of research](#) about faculty and student perceptions of OER. Addressing these perceptions and misconceptions at the beginning will save time and misunderstandings (See [Chapter 4, Talking about OER](#)).

When offering training, you may want to partner with your local teaching and learning center. That way your offerings get more exposure and you don’t have to do all the work. In addition, collaborating with a teaching and learning center helps people to view authoring and adopting OER as teaching and learning practices. These centers have communities of faculty who are interested in learning more about teaching so this is a good way to establish connections. Consider recording workshops for future interested SMEs and authors or adopters who cannot attend.

## Types of Training Offered

### General OER “101” Workshops

These workshops are introductory and for those faculty or instructors who are new to OER and the issues surrounding affordable learning. They can be a brief ½ hour or as much as a full day or even several days.

Topics often presented include:

1. High cost of textbooks – How the cost of textbooks has been rising for decades.
2. Impact on students – How students get around buying expensive textbooks by sharing with a friend or relying on the library course reserves.
3. What is OER? – A basic understanding of this concept is essential. Faculty may have a different understanding of OER than you do so it is important to get on the same page and clear up any misconceptions early on.
4. Why is OER important? -This may vary according to your institution but mostly it has to do with cost savings, accessibility of resources, and opening up the classroom.
5. Why would a faculty member choose to give their work away? – This is a common concern. While it may feel like you are giving your work away, OER always have to be attributed, giving the author a wider audience and impact with each reuse.
6. Finding appropriate OER – One common faculty complaint is that they have a hard time finding OER. In a workshop, you can point them in the right direction.
7. Evaluating OER – Faculty will ask about the quality of the OER. Just like a regular textbook, it is up to the faculty member to do a thorough evaluation of the content, layout, readability, and ancillary materials.
8. Pros and Cons of using OER
9. Open Pedagogy -This may not come up right away but it is the next logical step in going open and some faculty may already be familiar with the concept.
10. Creative Commons licenses – How and when to use the licenses and how to determine what you can do with an openly licensed work.
11. Basic copyright and fair use – Again, just to be on the same page about what can and cannot be done under fair use.
12. Time factor involved in adapting and integrating OER into a course – Faculty will be concerned about the time it takes to adopt, adapt or author an open textbook. Be honest about this; it is a time-consuming process but in the end, the course will make a positive impact on their students.
13. Integration of OER into your Learning Management System (LMS) – For many faculty having the OER in the LMS is a big incentive for moving to an OER.
14. Writing an attribution statement – Most faculty will not know how to do this so you will need to walk them through the process.

**Table 10.1 The pros and cons of OER**

Pros of using OER	Cons of using OER
Increased access to learning for students	Quality concerns
Augmentation of class materials	Language barriers (most OER are in English)
Easy to access and distribute	Technology and access issues
Cost-savings for students	Sustainability issues

For adopters or adapters, you may wish to cover more specifically:

1. **How to remix licenses:** This is essential for adapters who will be looking to remix one or

more OER. It is also important to train your authors on how they need to keep track of those resources so that everything they use in their own resource has an appropriate attribution.

2. **How to track and attribute images:** This is very important and often overlooked until the end. Again, adopters need to keep careful track of the resources they used so that they can apply a proper attribution to any images, graphs, charts or other media they use.
3. **Creating ancillary materials:** If the project includes test banks, simulations, games or other material that is not in a standard format, you will need to let your author/adaptor know how this material should be created and formatted for maximum accessibility and remixing.
4. **Copyright and fair use:** A clear understanding of what is and is not under copyright and how fair use comes into play is essential. Here, you may want to review the [Guide for Best Practices in Fair Use for Open Educational Resources](#) (Jacob, Jaszi, Adler and Cross 2021). Keep in mind that some institutions are more risk-averse than others so checking with your general counsel is probably a good idea.

For authors, you may want to add

1. **Textbook design:** Layout and design are generally not in the author/adaptor repertoire unless they have published a textbook in the past. Here the [Open Education Network's Pub101 workshop](#) (OEN "Open Textbook," n.d.) is an invaluable resource, particularly the part on developing a textbook structure.
2. **Pedagogical devices or tools and how to use them appropriately:** Pedagogical devices include such things as worksheets, glossaries or vocabulary lists, chapter or module summaries, etc. An example of an OER textbook that uses pedagogical devices is [Modern Philosophy](#) by Walter Ott at the University of Virginia. Again, the OEN Pub 101 is a great resource here.
3. **Universal Design for Learning:** UDL is a way of constructing learning material that is open to everyone. See [Chapter 18](#) for more on Universal Design for Learning.

### Program Manager Tips: Keep Track of Image Sources

Whether you are working with authors or adaptors, one important topic to address with them is tracking their images or other resources they plan to incorporate into their OER. Faculty may come to you with a collection of images they want to use but don't have the information to attribute them properly (and sometimes they don't have permission to use the image at all). Provide an Image Tracking template (either a spreadsheet or a Word document) where authors and adaptors can enter the name of the picture, the URL, the license, the alt-text tag and any other important information. Encourage your authors and adaptors to track images from the very beginning.

You may want to offer a general workshop to your authors/adopters after they sign an MOU or other agreement. For this workshop, you can cover such things as the terms of the MOU, set

expectations about what you can and cannot provide, talk about milestones and deadlines, review the publishing or creation process, establish communication protocols, etc. You may actually want to break this up into a small series of workshops so that no one gets overloaded with information.

Some examples of workshops that are offered include:

- **OER textbook workshop:** The [Open Education Network \(OEN\)](#) offers workshops on OER and OER textbooks which concludes with a call for participants to review an open textbook. Reviewing an open textbook can be an excellent starting point for faculty who are interested in OER but not quite ready to commit to moving to an OER.
- **In-depth workshops:** Workshops are similar to online courses, although in most cases these are more abbreviated (3-8 weeks). These may be synchronous or asynchronous. Because they are multi-week, these workshops allow faculty to develop a more in-depth understanding of OER, where to find them, and, more specifically, how to integrate OER materials into their courses. They allow for more faculty reflection and insight and can support faculty members who are adopting or authoring an open textbook. These workshops are often delivered using an LMS or via a website such as LibGuides. Some may require registration and include face-to-face components while others are completely asynchronous and self-paced.

Some examples of openly-licensed multi-week or multi-module workshops include;

- [Open Content to Transform the Classroom](#) (Bloom, n.d.)
- [OER Up To Speed](#) (Morehouse, n.d.)
- [Houston Community College OER Certificate](#) (Smith 2016)
- [Open Washington](#) – Offers a 10 module self-paced online tutorial on copyright and licensing, OER, and Creative Commons licenses, among other topics. This tutorial may be useful to your faculty and yourself, as someone who is new to OER. (Open Washington, n.d.)
- [Introduction to Open Educational Resources](#) (Arteaga and Watkim, n.d.)

## Faculty Guides and Resources

Faculty guides are manuals or other resources that walk faculty through the process of finding, evaluating, adapting or adopting OER. These guides are often in the form of an openly licensed Pressbook or website such as a LibGuide and faculty can use these as a resource or a “step-by-step” guide through the creation process. Some institutions also use these guides in their faculty author training programs. Examples of guides or publications include:

### The Rebus Community

- [A Guide to Making Open Textbooks with Students](#) (Mays 2017)
- [The Rebus Guide to Publishing Open Textbooks \(So Far\)](#), with accompanying [video series on YouTube](#). (Ashok and Wake Hyde 2019)

## BCcampus

- [BCcampus Open Education Self-Publishing Guide](#) (Aesoph 2018)
- [BCcampus Open Education Adaptation Guide](#) (Aesoph 2016)
- [BCcampus Open Education Adoption Guide](#) (Aesoph 2019)
- [BCcampus Open Education Faculty OER Toolkit](#) (Moist 2017)
- [Authoring Open Textbooks](#) (Falladin and Lauritsen 2017)

You can use any of these resources in your training program as they are all openly licensed. At some point in the future, you could produce your own faculty guide that is tailored to your needs and institution.

## Communities of Practice

Faculty support is essential to making an OER program a reality. Not only do they need to support the idea of OER but they will also need some support to help them as they adapt, create and integrate OER into their courses. Communities of Practice (CoPs) are used in many disciplines as a way to offer support and guidance to individuals working on similar projects. Communities of practice are made up of practitioners in a specific discipline or domain. They build community or relationships with each other as they explore and learn about their chosen domain (Wenger, MacDermott and Snyder, 2002). Koohang & Harman (2007) also note that CoPs are a way to address the issue of sustainability since the group works together to solve problems or share learning experiences.

CoPs for OER groups can be an effective way of engaging the faculty and providing professional growth in these areas. They are generally long-term (up to a year or more) and have criteria or expectations by which the participants need to abide. CoPs may be invitation only or application-based. Wright and Lambert (2019) have created an excellent resource about CoP for OER groups.

If you are interested in developing a community of practice at your institution, be sure to check out [Pikula and Johnson's work](#) on [CoPs \(or learning circles\)](#) (Johnson and Pikula 2018). Keep in mind that these take some time to develop.

## Professional Development

There are many opportunities for you to personally engage in professional development but you should also keep your faculty authors and adaptors apprised of any opportunities. Professional development, in this case, are learning opportunities that are outside of the basic or in-depth workshops. Some of these opportunities may be local or regional and it is unlikely that your author or adaptors will know about them. Scanning the various lists and blogs can help you identify relevant local and regional professional development. Many states or regional organizations have an annual OER symposium or conference. These are often free or have a minimal charge. Faculty

may not be aware of these so keep them posted about these opportunities. Check around with colleagues in your network to discover more of these opportunities.

- [Open Education Symposium](#) at the University of Alberta is an example of a local professional development opportunity. In 2021, it was held during Open Education Week which is a great way to get future authors or adopters involved in OER.
- Another local example is the [Missouri A&OER Symposium](#)

In addition to local or regional workshops and training, there may be state or national professional development opportunities such as conferences or workshops. Faculty may also be looking for opportunities to present their work, so letting them know about a conference that may be of interest will be appreciated. Regional or national opportunities include

- OpenStax has hosted a CreatorFest (an annual hack-a-thon) for faculty interested in incorporating OER into their courses. It is an intensive 4 day workshop. The 2020 CreatorFest was canceled due to the pandemic.
- [Open Oregon Educational Resources Annual Symposium](#) is an example of a regional professional development symposium.
- [Open Education Conference](#).
- [OEGlobal](#). The OE global conference is currently being held online due to the pandemic but will hopefully resume as a face-to-face conference in the near future.
- While it isn't a symposium, Open Education Week (usually held in early March) is a great time to offer professional development to your faculty or to attend events hosted by other institutions or consortia. There are many great events to choose from during Open Ed Week.

The good news is that many of these conferences and symposiums are often available to anyone and are frequently recorded (especially during the pandemic) so you can listen later.

Most of these professional development opportunities will be useful to you, your team, and to your authors and adopters. Don't hesitate to take advantage of these as it will also help you build your support network.

## Conclusion

Training future authors or adopters of OER works is an important part of your job as project manager. You don't have to know how to do everything but expect that people will look to you as the expert in open license publishing. Take the time to familiarize yourself with the topics described above so you can answer many of the questions likely to arise.

## Recommended Resources

- [OpenWashington FAQ](#) (Open Washington 2019)



- [George Mason FAQ](#) (Algenio 2021)
- [A Basic Guide to Open Educational Resources](#) (Wikisource 2013)
- [OER Mythbusting](#) (OER Policy for Europe, n.d.)
- [Faculty Communities of Practice on Open Educational Resources: A Toolkit](#) (Texas A&M University Corpus Christi, n.d.)
- [Developing a Community of Practice for Open Education with CCCOER](#) (West and Daly 2017)

## Key Takeaways

1. Decide early what services you can and cannot support. Start small and grow your program. What kind of training you offer to authors and adopters will depend on how much you expect them to do and what services you can offer.
2. Set expectations early on for the responsibilities that you and your author(s) will be taking on.
3. Be prepared for potential authors to ask some tough questions about time, resources, and the benefits to them as faculty when creating an OER. Be honest about the challenges but also encouraging. Know what the common excuses are and be prepared to answer them.
4. There are many resources available to assist you. Take some time to at least skim them before you embark on your first project.

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# Case Study 5: Creating a Reusable OER Training Program at UH Manoa

Billy Meinke-Lau

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The Open Educational Resources (OER) program at the University of Hawaii (UH) began in 2014 with the hiring of a full-time librarian dedicated to OER adoption at the university system's flagship campus, UH Manoa (UHM). Early work with OER at the campus level focused on curation and archiving of openly licensed textbooks and courses, the first step in an *adopt, adapt, create* strategy cast by administrators and stakeholders within the university.

Based in the UHM Outreach College and working collaboratively with system IT Services and the UHM Library, the OER librarian led introductory OER workshops, facilitated open textbook reviews with the Open Education Network, and created an institutional repository dedicated to OER. Adoption and uptake of existing OER grew during this two-year period, including large-scale adoptions in the subject areas of physics and economics. After the departure of the OER librarian in 2016, I joined the UHM Outreach College as the OER Technologist, tasked with moving the OER program into the 'adapt' and 'create' phases of the strategy.

Prior to this role supporting OER across the campus, I spent several years within the UHM College of Education designing online courses and programs. Even earlier, I worked for Creative Commons on their education and science initiatives, so I was comfortable with copyright, open licenses, and open source technology tools in addition to traditional instructional design methods. To make use of this expertise, I set out to create tools for UH instructors that would be useful to them as they became OER curious, translating complex and potentially intimidating concepts around copyright and publishing into consumable ideas.

## Developing our workshops

A primary goal of the UH OER program was to empower faculty with the basic skills and knowledge needed to confidently work with OER. To do this, we had to identify the skills and knowledge that faculty needed, and to build our workshops around those competencies. Many of the skills and knowledge we identified as necessary for confident OER use overlapped with existing frameworks for digital and information literacy, which served as guides for developing a set of useful, tangible competencies. Beetham and Sharpe's pyramid model of digital literacy development helped when framing OER work as an ongoing process, one which may potentially become part of an instructor's professional identity (Joint Information Systems Committee 2014). The Seven Elements of Digital Literacy from the Joint Information Systems Committee (JISC) describe knowledge and skill areas within digital literacy — what it means to meaningfully participate in a knowledge economy as a student, researcher, or academic professional. At that

time, most members of the UH OER interest group served in librarian roles, so the search for OER competencies included a review of ACRL's Framework for Information Literacy for Higher Education as well (Association of College & Research Libraries 2014).

Working from these digital and information literacy frameworks, I combined the outcomes associated with several existing OER training programs ([Washington SBCTC](#), Leeward Community College, Kapiolani Community College), revised them to include technical competencies, and created a baseline set of OER competencies which would inform our workshops' structure. *Each competency represents a common activity associated with OER work, ranging from understanding fundamental advocacy arguments to understanding the various terms associated with Creative Commons licenses.*

### Key OER Competencies as Defined by UHM Library:

- Define and describe the importance of OER
- Differentiate between copyright, fair use, Creative Commons licensing, and public domain
- Identify resources that are openly licensed, in the public domain, or all rights reserved
- Distinguish between different types of Creative Commons licenses
- License a work with a Creative Commons license
- Upload a work into the UH OER repository
- Combine work with different types of Creative Commons licenses
- Properly attribute a Creative Commons licensed work
- List useful repositories and search tools for finding OER
- Find OER that are relevant to a specific area of study or research
- Assess the technical openness of an OER ([ALMS framework](#))
- Download an OER from the UH OER repository
- Describe techniques for creating accessible OER
- Describe the steps necessary to plan for OER adoption

I tailored the more general competencies to be UH-specific, referencing our institutional repository, and added competencies for adapting existing OER such as combining work with different open licenses and basic content accessibility practices.

The list of competencies was then split into three buckets, and a three-part workshop series was constructed around them. First, an introduction to OER with background on our program and foundational ideas of open education. Next, a deep dive workshop on copyright and fair use, including understanding and using Creative Commons licenses. Lastly, a workshop introducing the publishing tools we support at UHM, emphasizing the fundamental necessity of technical openness and accessibility. This three-pronged approach was intended to equip faculty with the essential skills to begin their process of working with OER, independent of expertise and other resources available to them.

## Adapting the OER workshops into a workbook

Each workshop was broken into written lessons that align to the key OER competencies we had identified, forming the *UH OER Training* guide published in 2018. Each lesson includes ancillary content with links out to further resources, plus *H5P*-based formative assessment items placed directly in the text. Putting to use the more common types of H5P interactivity, multiple choice and drag-the-word activities are embedded at the end of each module, providing simple checks to ensure learners are progressing. At the conclusion of each chapter is a summative assessment that requires learners to submit their OER findings (after a search) or share OER they have adapted slightly.

Modifying works on the fly can be an intimidating task, so gentle guidance and ample time can be helpful in training of this kind. The guide itself is a meta-OER, an OER about OER, and was built to be “open” in terms of having an open license (CC BY) and being shared in a technical format that allowed maximum remixability. Using the open source tools, both technical and legal, we demonstrated the potential of OER to lower barriers to collaboration, setting the stage for a range of reuse scenarios for this instructional content.

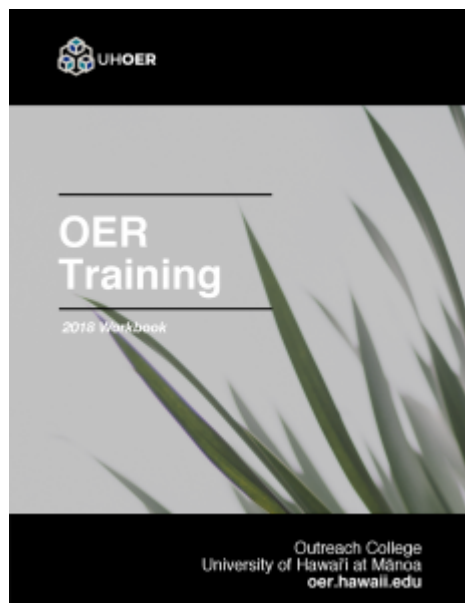
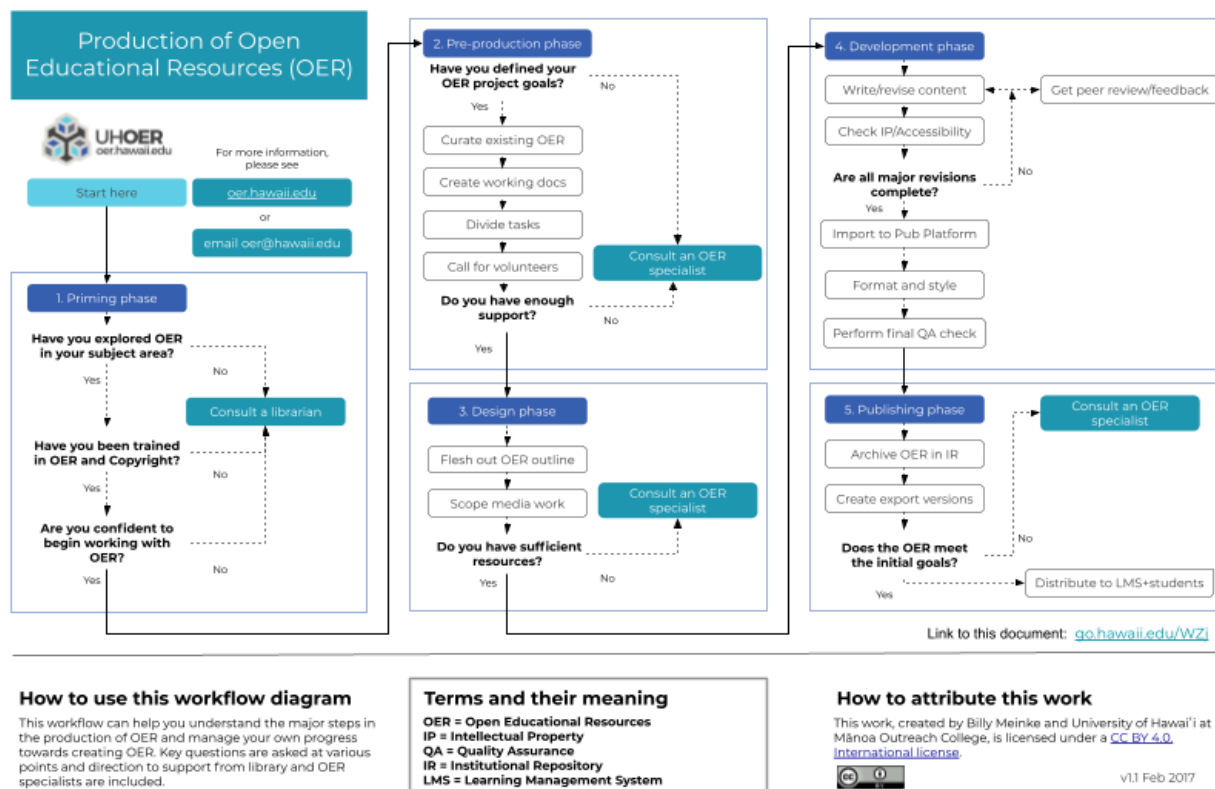


Figure CS5.1. OER Training Book Cover

## Making OER production workflows clear

Part of this process required the demystification of OER production, exposing tangible methods for both adapting existing content, and producing new works. Building off of traditional instructional design frameworks, I first outlined the start-to-finish process one would expect to go through when adapting or creating OER (Meinke 2017). The workflow went through several early iterations internally (within the UHM Outreach College) and then was released for comment via several OER interest groups and membership organizations. The workflow became a foundational piece of instructional content used in OER workshops, and was designed to orient potential OER reusers to the tasks, roles, and steps through a project.



**Figure CS5.2.** You can access a higher quality version of the Workflow and download a copy via [Google Drawings](#).

During this process, I referenced OER-specific production workflows, especially that of OERu, and the [CORRE model](#), which provide zoomed-out views of content production, revision, and reuse (Meinke 2016). The arrangements and sequencing of steps lent to my thinking on how collaborative projects reach milestones and produce new versions. However, they do not have an end per se because loops involving feedback and iteration are fundamental to taking advantage of OER. It is distinctions like this that make openly licensed and therefore openly modifying content so powerful, and so they were incorporated into our workflow for our faculty. Similarly to the *UH OER Training* guide, adapted versions of the UH OER Production Workflow diagram have been developed at higher education institutions across the United States. These tools were designed to be most useful internally at UHM, but designing for creative reuse was emphasized from the beginning.

## What we've accomplished

We offer OER training each semester using the training guide and production workflow at UHM, which transitioned to online delivery during the COVID-19 pandemic. Prior to this, our three-part training had been offered solely face to face, but fortunately transitioning online with this training was straightforward. Feedback collected after our workshops through the UHM Center for Teaching Excellence continue to be positive, and new projects take form consistently following

the training. OER development grants are offered each year at UHM as well, and these trainings have become a starting point for many projects later funded by the Outreach College.

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PART V

# SUPPORTING OER ADOPTION

# 11. Supporting OER Course Conversion

Marco Seiferle-Valencia

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OER program managers may find that a crucial part of their work is supporting faculty through the sometimes-difficult and intensive process of transitioning a course from a standard text to a free or very-low-cost solution. This can be challenging work for project managers who do not have formal training or experience in instructional design, especially if the conversion greatly impacts the syllabus and other course materials or assessments. What steps and skills do OER program managers need to take to successfully support faculty through an open course conversion?

## Defining the Program

Prior to engaging with faculty and others supporting course conversions, program managers should aim to define their program's goals, expectations, and limitations. Some common points of consideration include:

- Do materials created or used as part of this program need to be a particular level of open? For instance, must all materials be able to meet the 5R's of Retain, Revise, Remix, Reuse, and Redistribute?
- Do faculty need to share the materials they create under a Creative Commons (CC) license?
- If your program has a financial award or stipend, what are the expectations for faculty to have complete a project? Are there particular deadlines with respect to how and when program participants can be paid or undertake their work?
- Does your program or school allow you to support faculty seeking to redesign courses to be low cost but not free as part of open efforts?
- If your program has a financial component, how and when will participants be paid? Many grant programs pay in stages, with full payment only upon completion of the project. Make sure to consult with your supporting administrative teams to understand the particular restrictions in play for your institution. For example, in some cases, faculty may not be able to receive additional funds for terms they are already engaged in a full-time teaching position. This situation could potentially be remedied by dispersing funds in summer or other non-teaching terms.
- What are the deliverables participants must create to have fulfilled the grant or award?
- What specific digital systems are available through your institution to support OER creation? Examples might include content or learning management systems, institutional repositories, or support for systems like OER Commons.

Mini-grants, fellowships, and OER faculty incubators and cohorts often define collaboration on an open course conversion to a specific format or goal; at the most general level the goal is

to create a syllabus for a course that uses open, free, or low-cost materials. Each institution or program will have its own specific requirements, which program managers may be part of establishing. Program managers should strive for OER program requirements that support their institution's open goals while keeping the focus on student impact and success. Regardless of the specifics that define your program's vision of open, it is crucial to communicate your program's definitions of what meets the expectations clearly, up-front, and often. See [Chapter 5, Common OER Projects & Programs](#) for more specific ideas on open programs and project structure.

Because open initiatives on campus can take many forms, program managers should be thoughtful about communicating their particular program's unique opportunities. Calls for proposals, announcements of persons selected for open fellowships, and open forums showcasing work are all crucial venues of communication – both for the opportunity at hand, and as a general means of promoting open on campus. Since a course conversion can be as simple as a switch to an open text that can still use an existing syllabus, or as complex as creating a complete custom textbook created from scratch, it can be challenging to communicate the full range of open activity your program might embrace. Communicating to faculty often with online resources, learning opportunities, grant options, and campus professional staff assistance shows how your institution supports this endeavor. Readers interested in learning more about best practices for communicating with OER stakeholders should visit [Chapter 7, Marketing Your OER Program](#).

## Common Misconceptions

Faculty undertaking course conversions will often have misconceptions about open concepts and practices. Some common misconceptions and potential solutions include:

**Table 11.1: Misconceptions and solutions about open concepts and practices**

Misconceptions	Solutions
I will have to license my materials in a particular way.	Programs should grant as much flexibility as possible in licensing options. Program managers should be knowledgeable about CC licenses to help advise faculty in making choices that work within the program's goal.
I will have to write an entire textbook from scratch.	In most instances, some existing resources can be identified and used as a base for creating new materials.
No open materials exist for my topic.	Courses without texts available can assemble readers and syllabi from other types of OER such as websites, blog posts, and open access articles.
I don't know how to use a particular digital tool or publishing platform.	Program managers can develop or connect faculty to existing training on how to use the particular platform supported or required by the program.
I can't make my entire syllabus open so it's not worth it.	Think of open as a spectrum rather than a binary. Using course reserves may allow for faculty to retain some licensed materials in their course while having the majority of course materials be open and all be free for students to access.

## From OER Concept to Reality

To help readers think about OER course conversion, let's take a look at a few real-world examples of recent course conversions from standard (and expensive) traditional texts to OER solutions. One example describes adapting an existing text without major changes, another describes creating an innovative OER from scratch, and a third discusses adapting an existing open text with substantive revisions.

### Example 1: OpenStax Physics Course Conversion by a Graduate Student

A graduate student in the physics department wants to rewrite his courses to use a free and open textbook. The standard text costs students more than \$250, and since this is one of the core classes for this major, a significant number of students are impacted each semester.

A project might follow a process like this:

1. The graduate student establishes collaboration with the OER program manager, either through a fellowship, grant program, or consultation.
2. The graduate student and OER program manager work together to identify possible open text options—two are identified, one from OpenStax and the other from Open UBC.
3. The graduate student uses subject and course expertise to review the materials and plan for potential changes or updates as desired.
4. The graduate student obtains department approval as needed. This may be an essential step for the program manager to provide guidance and support in. Examples include advocating with knowledge on the general quality and capability of open texts, as well as identifying specific feedback and reviews on a particular title.
5. The graduate student creates a new syllabus where many of the core lessons from the previous text are easily adapted to the new text, given the similarity of the content.
6. The graduate student submits the syllabus and any custom or complementary materials to the OER program manager to complete the project.

## Example 2: Creating a New Music Theory Textbook

An experienced music professor wants a new digital, open textbook that allows her to support collaborative learning in her advanced music classes. She plans to custom write the content on a special platform created by the university library and hopes that students will be able to easily contribute updates in future iterations of the class.

This project would follow a different trajectory than *Example 1*, one that might be familiar to practitioners with experience in digital projects:

1. The faculty member establishes collaboration with the OER program manager, likely through a consultation, learning community, fellowship, or grant program. Intensive projects that require custom digital infrastructure may be supported outside of fellowships or grant programs; this will largely depend on your institution's resources and capability.
2. The OER program manager connects with other campus partners that can support the desired goals, in this case the library or the academic technology support unit. The program manager plays an essential role in establishing collaboration between the supporting technical teams and the faculty creating content. The program manager moves that collaboration along by setting meetings, establishing goals, and following up on action items.
3. The faculty member begins writing and drafting content while the technical teams build the supporting digital system or platform. The OER program manager facilitates this process and coordinates work among stakeholders.
4. The platform, or digital space, goes through iterative development where the OER program manager, designing faculty, and supporting team of librarians and instructional designers collaborate to create the digital textbook.
5. The faculty member creates a syllabus using the newly built textbook as the course material and submits both the syllabus and a link to their digital text to fulfill their OER program requirements.

### Example 3: Remix/Revision

An experienced professor in sociology is looking for a free solution to replace an expensive text for an Introduction to Gender Studies course. Because they've taught this course many times before, they have a syllabus that works well. They've identified a textbook, *Introduction to Women, Gender and Sexuality Studies*, through the Open Textbook Library but it's missing a few key concepts. What might revising this text look like in practice?

1. The faculty member establishes collaboration with the OER program manager, either through a fellowship, grant program, learning community, or consultation.
2. The faculty member reviews the existing open text and identifies key areas for revision, change, or substitution.
3. Depending on the digital platforms involved, the project manager might facilitate creating a digital edition of the existing text that can be edited, remixed, and revised.
4. The faculty member and OER program manager work together to identify possible open solutions for areas where the book needs changes. In some instances, chapters may be edited or a whole section may be submitted using OER from a different source.
5. The faculty member uses subject and course expertise to review the materials and create a syllabus.
6. The faculty member submits the syllabus and any custom or complementary materials to the OER program manager to complete the project.

These three examples are just a few of the many ways OER course conversion can look in practice. Across this wide range of possible activities, OER program managers will do well to develop skills and expertise in: identifying key players and program goals, time and project management, instructional design, identifying OER, and creating new OER. Read about each of these topics below.

## Identifying Key Players and Program Goals

Savvy OER program managers will have a short list of partners on campus that can support faculty undertaking course conversion programs. As discussed in [Chapter 3, Building Your Team](#), this list might include faculty librarians (including subject experts who are not experts in open), instructional designers, and even faculty and graduate students who have successfully championed OER at your institution. In the absence of a campus-wide open initiative, program managers might set modest expectations for either the number of courses converted, or in the level of support available for customization. For instance, they may only take on course conversions that transition from a traditional publisher's text to an existing open textbook. Similarly, program managers should evaluate the resources available on campus that might

support the work of open course conversion—for instance, those operating on campuses with robust instructional design centers will likely have many more willing collaborators to support faculty than those working in smaller or less resourced contexts.

## Time and Project Management

One significant challenge of OER conversion work is determining the amount of time any particular project will take. Some faculty may be expert OER users who need only minimal assistance with specific topics or items, such as choosing the right Creative Commons license. Others may need intensive support, even technical development of software platforms, as well as training on how to use various OER repositories and formatting systems such as OER Commons or Pressbooks. A recent survey of librarians supporting OER conversion showed it took 82 hours on average to convert a course from a standard text to open (West, Hofer, and Coleman 2018, 17).

Many program managers working in OER are not doing so exclusively and have significant time obligations outside of OER. This can present an obvious challenge when combined with the wide-ranging variability of the intensity and time commitment required to support any given OER conversion.

To help manage these challenges, program managers assisting faculty with course conversions might explore techniques borrowed from software development that are intended to support teams working on complex projects. Examples include adapting processes like agile sprints, which combine shorter focused work periods with frequent touch points for collaboration. Program managers at well-resourced institutions might have access to project management software like [Jira](#), while those working without budgets might explore tools like [Trello](#) or [Todoist](#). Program managers who prefer more analog tools might rely on tricks such as setting recurring meeting times with participants, using shared Google or Outlook calendars to track deadlines, and attempting to implement standard time frames for project sections or deliverables.

Regardless of the specific process or tools used, it's most crucial for the program manager to set expectations (e.g., that faculty will meet their deadlines and complete regular or required check-ins as needed to advance the project). In return, program managers should be prepared to help faculty troubleshoot problems as they arise and help faculty work through the implications of any delays. While processes and tools can help with tracking the deadlines and details necessary for this work, equally important is a strong, communicative relationship between the program manager and the participants.

## Instructional Design

While some faculty may have an existing strategy of course design that allows them to simply slot in using open materials, others may require or desire more in-depth strategies and support. Ideally, OER program managers will have a strong team of instructional designers available on campus to help support faculty and instructors in redesigning courses to use open materials.

Other program managers working with less substantive instructional design support may find that they need to skill up in the basics of instructional design to successfully support faculty through a course conversion process. A number of resources are available to help.

Faculty who are still developing their course design skills might enjoy resources like Zhadko and Ko's *Best Practices in Designing Courses with Open Educational Resources* (2020). This comprehensive book covers all key elements of course design with OER at the forefront. Faculty new to course design will benefit from learning about strategies like backward course design, which identifies key learning goals and works backward to learning experiences and instructional content (Zhadko and Ko 2020, 52). A program manager collaborating with a faculty member might use a backward design model to first identify the learning goals for each section and then work backward to identify open resources that support those goals. Gaining familiarity and competence with foundational instructional design strategies can help OER program managers build confidence and competence in supporting course conversion.

This webinar, [Instructional Design and Course Planning for OER](#), may be particularly helpful for those seeking to build instructional design skills.

## Identifying OER

Program managers should be prepared to help faculty with identifying the course materials that will form the base of their new low-cost or open syllabus. This could be a single open textbook, or it could be an open course reader with many items from different sources. Program managers should also be prepared to discuss the basics of open licensing and help instructors verify that the proposed materials are compatible with the intended use and potential sharing and reuse goals. For more in-depth information on identifying and searching for OER, see [Chapters 12, Managing OER Consultations](#) and [13, Searching for Open Content](#).

## Creating New OER

Program managers may find themselves supporting faculty who want to create totally new course content, such as a new digital textbook or a website. Program managers should be prepared to connect faculty to subject experts, such as content specialist librarians. The process of creating new content is also a great time to consider diversity, equity, and inclusion (DEI), and to address systemic limits in the representation of marginalized people and perspectives. Ideally, OER program managers can advocate for the inclusion of narratives typically excluded in traditional publishing.

## DEI Opportunities

Program managers are in a unique position to advocate for the increased representation of historically marginalized people as both authors and subjects in the identification of new course



materials. By setting DEI as a key program goal, program managers can search for new materials that more meaningfully include the contributions of historically marginalized people.

In her 2018 article, open scholar Sarah Lambert puts forth three key concepts for evaluating the social justice impacts of open practice. They are summarized as follows:

- **Redistributive:** This refers primarily to the financial and material impacts of an open text. Most OER are by default engaged with this concept of social justice because of the focus on free or low-cost materials.
  - **Key question:** Is the material free or very low cost?
- **Recognitive:** Lambert defines this as “socio-cultural diversity in the curriculum” (2018).
  - **Key question:** Are historically marginalized people well represented in the new content selected?
- **Representational:** Is content about marginalized people created by those people or *about* them? Ideally, open allows for a greater representation of authors, meaning more content can be told by the groups they are about, rather than created without their input and collaboration.
  - **Key question:** Are historically marginalized people represented as authors and creators in the new content selected?

OER program managers who are keen to seize the social justice affordances of OER might create a rubric or curriculum that helps to evaluate newly identified course materials along these three social justice principles, or through a similar framework that resonates with a particular program’s mission or broader college or university goals.

For more on OER and DEI, see [Chapter 2, Open Education](#). As mentioned there, [Open at the Margins](#) is also a great resource for thinking critically and expansively about the DEI potentials of open.

## Accessibility

Equally important is making sure any materials created through a formal OER collaboration with faculty meet current accessibility standards at the time of publication, and are available in the widest array of formats to meet the needs of those with limited internet access. Program managers should also develop the skills or connections needed to support and advise faculty on accessibility best practices to help ensure that any newly created content is accessible. Many institutions provide these services and/or training through their distance learning, instructional design, or disabled student services programs. For more on creating accessible OER, see [Chapter 18, Universal Design, Accessibility, and Usability for OER](#).

## Conclusion

Collaboration with faculty to create OER-based courses is an exciting opportunity for OER program managers. This work can expand consultation and liaisonship into new directions to touch upon course design, pedagogy, custom technical solutions, digital publishing, and more.

Regardless of the specific form a particular course conversion might take, program managers should make sure to emphasize their program's vision and the affordances of open throughout the course conversion process. A big part of the magic and potential of OER course conversion is helping faculty expand their thinking in terms of how students' identities and experiences are reflected in course materials, and the radical possibilities presented by open content to more thoroughly and accurately engage those historically omitted. By engaging around these topics, program managers can help faculty create new open course content that is more accessible, impactful, and engaging to students in dimensions that extend well beyond cost. Helping faculty explore and expand possibilities for who is represented, including integrating student participation into an OER, is where many of the most profound social justice *and* student success-oriented impacts of open pedagogy can be found.

## Recommended Resources

- [Librarians as Open Education Leaders: Responsibilities and Possibilities](#) (West, Hofer, and Coleman 2018)
- [OER Self Paced Modules](#) (San Bernardino Valley College, n.d.)
- [Best Practices in Designing Courses with Open Educational Resources](#) (Zhadko and Ko 2019)
- [Instructional Design and Course Planning for OER](#) (Online Learning Consortium 2020)
- [Accessibility in Your Course](#) (Iowa State University, n.d.)

## Key Takeaways

1. Program managers should collaborate with librarians and instructional designers to support faculty on the sometimes-onerous course conversion process.
2. Converting a course to open can involve using an existing text, writing something completely new, or something in between. Think iteratively and encourage faculty to start with what's doable.
3. Program managers supporting faculty on intensive course conversion may benefit from learning more about formal project management and instructional design best practices.
4. Program managers can work with the faculty and collaborating partners to ensure new OER materials bring a breadth of perspectives and identities, and allow all students to access them equitably and easily.
5. Program managers must facilitate technical and detail-oriented work, as well as build strong relationships with collaborating faculty/instructors and support staff.

## References

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## 12. Managing OER Consultations

Abbey K. Elder

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OER program managers are often asked to locate OER as part of their daily work. This work is usually supported through **OER consultations**, meetings with faculty that inform the content and subjects that the OER support staff will seek out.

The OER consultation process is similar to research consultations, which the librarians on your team may already be familiar with. Locating and sharing content may be a simple exchange over email, or it may be a more involved process that requires the support of go-betweens like subject liaison librarians or other OER support staff. To help you consider how you might implement this work at your institution, a basic guide for structuring an OER consultation is provided below.

There are four basic steps to every OER consultation:

1. The preliminary message or meeting, where you gather course-level information.
2. Follow-up meetings, which dig deeper into the needs of the instructor.
3. The identification of content that fits the parameters identified in steps 1 and 2.
4. Sharing content you identified with the instructor.

### Gather Information

Before you can start looking for open content, you first have to gather information about the course in which it will be used. An easy way to do this is through a standard OER consultation request form. Create a form that faculty must fill out to request a consultation with you or another support person at your institution for help locating OER. When sharing a form like this, be sure to place it prominently in a place that is easy for faculty to find. A form that people can't find isn't of much use to you!

A basic OER consultation request form should contain at least three things:

1. Instructor's contact information
2. Course code and number
3. Details about the current textbook(s) and/or readings currently assigned

In addition to these three items, you can also ask for a copy of the instructor's syllabus and/or course schedule, though this will require a "file upload" option within the form itself, which is not possible on every platform. You will need this information later, but you can request it from the instructor directly if necessary.

Although consultation request forms can be as simple or as complex as you'd like, we recommend keeping the forms as short as possible to lessen the burden on faculty filling out the form. A good example of a basic [OER Consultation Request Form](#) is provided below, from Florida State University Libraries:

**Last Name \***

**First Name \***

**Email \***

**Courses Taught**

**Current Course Materials**

**Please describe your goals for this consultation**

**Submit**

**Figure 12.1.** This example sticks to the basics, with one exception: the textbox for “goals for this consultation” (Florida State University Libraries, n.d.). Asking the instructor to consider what they want to get out of the meeting can provide you with more detail about the instructor’s interest in OER.

Once a form has been filled out, you or another member of your team will need to follow up with the instructor for the next step of their consultation. For example, you may ask that a student worker on your team conduct the initial OER search for the instructor, or that the subject liaison librarian for your instructor’s department meet with them for the initial consultation. Some project management tools (e.g., [Smartsheet](#)) can alert members of your team when a consultation request form has been filled out so they can be prepared to follow up with faculty as well. If you prefer to handle the preliminary consultations and information gathering yourself, you can connect your form to your calendar app of choice.

## Set Expectations

In addition to setting up a consultation request form, it is useful to set expectations for your OER

support early by letting instructors know when you will get back to them for follow-up, how soon you can meet, and what kind of support they can expect from you and/or your team. Setting expectations may be done over email, during the first consultation meeting, or laid out on the same website where your consultation request form is housed.

This example from the [University of Missouri Libraries' OER Guide](#) is particularly in-depth and covers expectations for communication and the support staff who may work with the instructor during and after the consultation:

“Complete the A&OER Team Consultation Request Form. Your answers to this simple, one-page questionnaire will help your support team understand your specific needs.

We will form a small support team (3 to 5 people) of librarians, instructional designers, and bookstore administrators who are familiar with your course, department, and materials in your discipline.

Team members will review your request and begin identifying open textbooks, affordable (<\$40) textbooks, government documents, library materials, and items in the public domain that might meet your needs.

Your team may ask for a copy of your syllabus, titles and ISBNs of texts that have been required or recommended for your course in past semesters, and / or any A&OER titles or repositories that you are familiar with or have already reviewed.

A representative from your support team will work with you to identify a good time to meet in person or virtually. In this meeting, your team will present you with open, freely available, and / or affordable educational resources that could be a good fit for your course. By the end, you and your support team will have identified your next steps for evaluating materials, integrating them into your course, and reporting them to the campus bookstore.

A team member will be selected to stay in touch with you after the meeting to answer follow-up questions and to ensure that your needs are met.” (University of Missouri Libraries 2020)

A boilerplate explanation about the OER consultation process is particularly useful to have on hand when your consultation workflow requires the support of multiple staff. It not only reviews what kind of support instructors can expect to get from your team, but also provides examples of the types of staff members who will be supporting them.

### **Program Manager Tips: It's Okay to Do Less**

Not every OER program manager will have a team to back up their work. Be clear about what you can do to support your instructors' needs, and what is outside of your job's scope. This will help you manage your workload and balance instructors' expectations accordingly.

## Ask Deeper Questions

Once you have enough information to understand your instructor's basic needs, you can set up an initial consultation meeting with them. If the course being reviewed has good examples of OER available, you may want to send these to your instructor ahead of your meeting. This will prepare you both for the conversation ahead and, if the instructor replies to the content prior to your meeting, will help you better understand the types of materials your instructor is interested in.

The consultation meeting should focus on the needs of the instructor. Begin building trust with the instructor you are meeting by exploring what they want from the consultation and reviewing what you and/or your team can provide for them. Faculty members may come to the consultation without a clear idea of what they would like to do. As an OER program manager, it is your job to help them chart a path for their course's redesign process. During this stage, set expectations for the outcomes of your consultation, and come to an agreement on what the final goal(s) for your work will be.

### How familiar are you with OER?

Discuss the instructor's history with OER and what made them want to consider OER for their course now. This may be a great opportunity for you to learn more about your program's reputation on campus and how you might improve your work's visibility. If the instructor is wholly new to OER, explain the variety of formats that OER can be found in, and the affordances that come with an open license (See [Chapter 1, Introduction to Open Educational Resources](#)).

### What is your goal for your course?

Discuss what kind of change the instructor is looking for. Do they want to rebuild the curriculum for their course from the ground up, or are they looking for materials that follow the same structure as their current course content?

### What kinds of materials do you prefer to use in your courses?

Identify what kind of materials the faculty member is interested in learning more about. Do they want to find open textbooks, or are they more interested in activities, videos, and modular OER content they can compile to meet their course's needs?

Having a few print OER examples in your office can be helpful at this stage, as it may pave the way for conversations about the various format options for OER (See Figure 12.2).





**Figure 12.2.** A set of open textbooks printed in bulk are featured in this photo. Open textbooks from the Open Course Library, picture by Tom Caswell, CC BY 2.0.

## What tool(s) do you typically use in your course?

Ask whether the instructor utilizes your institution's course management system (Canvas, Blackboard, etc.), or a separate course website to communicate and share content with students. This may affect the tools and practices you recommend.

## What supporting materials do you utilize for this course?

If the instructor relies on self-grading homework platforms or ancillary presentations and lecture notes from publishers, you will want to discuss the various free and low-cost options available to replace that content (See [Chapter 15, Finding Ancillaries for OER](#)).

Alternatively, does the instructor already supplement their course materials with course notes or materials they have personally created? Often, when traditional materials are lacking or require supplement, instructors will create notes, reading lists, or other content to “back up” any traditional, commercial content used in their course. This instructor-created content can be reused with OER as well, or even adapted into a new open resource in the future.



## Would you be able to adapt content if we find something close to your needs?

This question may be concerning for some instructors, so be thoughtful in the way you choose to broach this topic. Explain that OER can be adapted in various ways, and that the time commitment for this work may vary based on the materials you identify. An effective adaptation may be as simple as rearranging chapters or as complex as creating a new open textbook from multiple resources. Tools like the [LibreTexts Remixer](#) can make adaptation work easier, but that doesn't mean that adapting OER is "easy." Make sure that any work your instructor would need to do to get their OER ready for their course is known to them, and that any support you or your team can offer is clear and addressed up front. The last thing you want in this new relationship is to promise more than you can deliver, or to offload unexpected work onto your instructor.

## Would you be interested in an open pedagogy approach?

For instructors who are engaged and interested in learning more, discuss the flexibility and potential of open pedagogy for adding value to their course and supporting student learning outcomes (See [Chapter 2, Open Education](#)). In addition to adding a more interactive component to the course, open pedagogy projects can help build on the OER used within the course. For example, students might develop test banks to supplement their open textbook, or comment on and even edit open readings implemented in a course. Review some examples with the instructor and tools available that can support these processes, like [Hypothesis](#) for social annotation. As with previous topics, though, you will want to acknowledge in your discussion that open pedagogy is not something they can implement quickly or easily. It is often a process that changes over time, to account for the interests and needs of students and address feedback from past courses.

## What is your timeline for this project?

Ask how often the instructor teaches the course(s) in which they want to use OER, and when they will be teaching the course(s) next. How soon would they like to have a set of resources to review, and what does their current workload look like, for reviewing and potentially adapting content? Make it clear that the open content you share will take time to review and integrate into the instructor's course. Additionally, depending on your institution's course adoption reporting process, the instructor may need to determine their next term's course materials only two or three months into the current term. This may affect your timeline if the instructor you are working with wants to use OER in their course quickly. Help the instructor plot out a timeline that is feasible for both of you to handle, even if this means they might not adopt OER until the following year.

## Would funding help you complete this work?

Finally, if your institution has an OER grant program, gauge the instructor's interest in applying for a grant to support the adoption, adaptation, or creation of new content. Tread carefully here,

though. OER consultations should always lead with the instructor's interests and needs. Do not push for projects that would require additional work from the instructor until and unless the instructor has shown interest in this type of work. A grant can be incredibly helpful for faculty who are on a 9- or 10-month appointment and lack summer funding for their work, but if your grant only covers OER adaptation or creation, this may be beyond your instructor's interest.

### **Program Manager Tips: Plan Alternate Paths**

Discuss the possibility with your instructor that you may have difficulty locating enough content or content in the specific areas covered by their course. Figure out what the minimum requirement would be for your search to be considered a "success." Conversations about failure are never easy, but they are important to have, whether they take place during your first meeting with an instructor or later on.

## Searching for Content

The person searching for OER may be you, a subject librarian in the faculty member's field who has been trained on major OER repositories, an instructional designer, or another member of your team. Because of the proliferation of repositories and search tools available, it's important that those helping you are trained on how to search for OER and the peculiarities of this process. [Chapter 13, Searching for Open Content](#), will go into this process in more depth. If you've talked about searching for content with the faculty member, they may want to go out and search for content on their own as well! Consider sharing a worksheet or guidance document to help faculty through this work, such as the [OER Treasure Hunt Worksheet](#) (Elder 2020).

## Sharing Content with Faculty

Once you have located some potential resources, it's time to share them with the instructor. This part of the process can feel like one of the simplest, but there is plenty of room for things to go wrong. For example, you could overload the instructor with potential resources that they will not have time to review or you could present the materials in a way that makes it feel like they are only a collection of links. It's important at this stage to keep up the same level of professionalism, care, and candor that you've presented throughout your OER consultation process.

How do you ensure that the resources you are sharing are presented in an organized fashion and easy for your instructor to navigate? An easy way to get around this is by sending content in a template, such as the [OER Content Sharing Template](#) (Smith and Elder 2021). Having a template for sharing content can be useful for presenting OER in an attractive way that highlights the pros

and cons of each resource alongside basic information about it, such as description, content level, and license. The depth of information you include will depend on your instructor's needs and the amount of content you've found. For example, if you've located a plethora of smaller resources, you may want to include "sections" in your template for specific types of material to further organize the results (e.g., readings, modules, exercises, images).

Another option for ensuring that the OER list you send is easy to understand is by being selective in what you send. Rather than including everything you found that might fit your instructor's needs, limit your list to the items that seem like the best fit, based on your knowledge of the course and the resources you found. In your consultation meeting, you will have learned about the topics covered in the instructor's course and what they want from their course materials. A cursory review of content and tone should help you determine what materials are most likely to meet your instructor's needs.

## Sharing a Lack of Content

Keep in mind that unlike commercial course materials, which have existed for decades, OER are still a fairly new concept and they have not fully saturated the market yet. There may be gaps in the OER available for some fields, and you may not be able to find anything open for your instructor. Be positive and frank with your instructor if this is the case. Here it's incredibly useful if you've built a rapport with your instructor, since it will help you discuss any roadblocks you encountered in your search and how the instructor would like to proceed.

If there is a lack of OER for your instructor's course, review possible alternatives available through your library's collections (e-books, article indexes and databases, streaming videos, etc.) and course reserves system, or even commercial content that is more affordable than the previous resources they used. Setting up a regular check-in might be useful as well, so you can check in with the instructor as new OER are published that might be a good fit for their course. In the next chapter, we'll dive into the process of locating OER in more depth.

## Conclusion

The OER consultation provides a chance for OER program managers and instructors to meet and discuss their mutual interests. The specific process for managing these consultations differs from institution to institution. However, these meetings typically involve a review of the course being supported, a discussion about the course's content and needs, and the identification and sharing of potentially relevant OER with the instructor. While it might seem like a wholly transactional process, if you manage these discussions well, OER consultations can be an excellent tool for getting to know the instructors on your campus and better supporting their needs.

## Recommended Resources

- [Course Mapping and Librarians](#) (West 2015)
- [Search for OER: Helping Faculty Find OER](#) (McKernan 2015)
- [Faculty, Are You Ready to Free the Textbook? Flowchart](#) (College Libraries Ontario, n.d.)

### Key Takeaways

1. Setting up a formal process for consultation scheduling and management can help lessen your workload and streamline the process for instructors who want to get in touch with you and/or your team.
2. When providing consultations for faculty, manage expectations for the outcomes of the consultation, and outline the process and timeline for locating content. This demystifies the process and helps programs avoid issues where an instructor's expectations cannot be met.
3. During your consultation, it is important to learn more about the instructors' specific needs. Relationship building is an important part of this process, and will help both you and the instructor feel more confident in your ongoing discussions about OER identification, evaluation, and integration.
4. Using a template to share open content mapped against course needs is one way that OER programs can provide a more professional-looking outcome for OER consultations. These mappings can be saved and reused for other courses in the same discipline as well.

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# 13. Searching for Open Content

Abbey K. Elder

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There are many reasons why OER might be difficult to locate, from content being locked in silos to a lack of consistency in the metadata used across repositories (See [Chapter 4, Talking about OER](#)). In this chapter, we outline a few places to start your search for OER and some tips for you to use during that process. The searching process may be handled by you, staff you supervise, or by faculty you have trained on the searching process. These tips can guide you through the search process, regardless of the individual executing the search.

## Planning Your Search

Start your search by planning ahead based on what you already know about the instructor and course you are supporting. Take note of the following:

- **Subjects covered:** weekly topics covered in the course, and which topics are of particular interest to the instructor you are searching for or with
- **Formats:** the material types or formats that your instructor prefers to teach with, and any formats the instructor is interested in exploring in more depth
- **Priorities:** the most important criteria that the OER you find will need to meet, according to the instructor you are working with (e.g., the instructor might need a resource that is ready to adopt, available in a specific format, or that includes a particular focus)
- **Minimum inclusion criteria:** the minimum criteria a resource should meet to count as a successful find, based on your conversations with this course's instructor

Much of this information may already be documented if you have had an OER consultation with your instructor, at which you should have received a copy of your instructor's syllabus (See [Chapter 12, Managing OER Consultations](#)).

## Search Tips

### Use the Right Tool for Your Needs

If you aren't sure where to start, use a metafinder that pulls in content from multiple repositories, such as SUNY's [Openly Available Sources Integrated Search \(OASIS\)](#). If you are looking for open textbooks, try the [Open Textbook Library](#) or the [Pressbooks Directory](#). If you are looking for videos, start with [YouTube](#) or [Vimeo](#), which you can filter to search specifically for Creative Commons-licensed videos. A more comprehensive list of OER repositories and referatories can be found in [Chapter 19, Hosting and Sharing OER](#).

## Start Broad, then Branch out with Subject-Specific Terms

Use basic keywords rather than highly specific terms (e.g., “psychology” or “abnormal psychology” rather than “obsessive-compulsive disorders”). As you keep looking, use alternate search terms specific to the discipline you are looking for. You can identify terms by looking at the course syllabus or schedule provided by the instructor you are supporting. Weekly topic lists contain singular topics, which it may be easier to find individual readings for.

## Save Useful Search Terms

Approach your search like you would approach research for an ongoing project. If a particular tool or search term provided you with good results, save those terms in your note-taking tool of choice so you can track back your results and try again later. New OER are being produced constantly, so you will want to check back for additional resources being shared online.

## Review as You Go

Check the OER you find for basic accessibility markers, and make note of any particularly well-crafted content you come across for later. Basics such as specific file types and accessible PDFs can be a good benchmark for initial evaluations. For items with clear and present issues, like PDFs lacking alt text on images, make note of those and how they could be overcome or adapted for future use.

## Where to Look

In this section, we’ve outlined a process for searching for OER based on where you should look first and how you can expand out from that starting point.

### 1) Use General OER Repositories

To get started and explore a wide range of potential resources, start by using general OER repositories. These contain a wide range of content rather than focusing on a single subject or format. Popular examples include [OER Commons](#), [LibreTexts](#), and [MERLOT](#). Each of these repositories comes with its own strengths and weaknesses, so explore each broadly before you narrow your search any further.

### 2) Check What’s Been Adopted Elsewhere

Many OER programs have also begun to share lists of resources adopted on their campus or in their community. These adopted resource lists may include both open textbooks and ancillaries that are aligned to a specific course and commonly used together. Adopted resource lists may be live, interactive, searchable lists or they may be found through an “adopted” tag in an institutional

repository for OER. For example, BCcampus includes a tag in its open textbook search tool for OER that have been adopted by instructors and a separate tag for resources that have been reviewed (See Figure 13.1).

## Concepts of Biology (OpenStax)

Author(s): Samantha Fowler, Rebecca Roush, James Wise

Updated: Dec 1, 2020

**Description:** Concepts of Biology is designed for the typical introductory biology course for nonmajors, covering standard scope and sequence requirements. The text includes interesting applications and conveys the major themes of biology, with content that is meaningful and easy to understand. The book is designed to demonstrate biology concepts and to promote scientific literacy.

**Reviewed** **Adopted** **Accessible** **Supplementary materials**

**Figure 13.1.** This textbook's listing has clearly marked tags to show that it has been adopted, reviewed, meets accessibility guidelines, and contains supplementary materials.

Most adopted resource lists, though, can be found in a tabular format. Some more established adopted materials lists include:

- **Open Oregon Educational Resources:** A searchable list of free and/or open content adopted by colleges in Oregon. The interactive table can be sorted by course, material title, institution, and instructor name. As the site explains, it is best to search within the table by course number or by singular keywords rather than a full course title or phrase.
- **USG Core Curriculum Courses:** The University System of Georgia has shared a list of core courses that have OER aligned to their needs. This simple table is organized by discipline. The list includes recommended OER as well as OER created through Affordable Learning Georgia grants.
- **Cool4Ed:** Cool4Ed, from California, provides two methods for locating adopted OER: Faculty Showcase, which highlights faculty who have adopted OER and the resource(s) they use; and Course Materials Showcase, which is searchable by Discipline and Course. Note that in this latter option, there are some disciplines for which 0 materials are identified. The number of resources available in each discipline and course is helpfully displayed next to the drop-down options in the search menu (See Figure 13.2).



#### Discipline

Biology (has 8 CIDs or courses with materials) ▼

Select

#### CID or Course [↗](#)

- Choose One - ▼

- Choose One -

BIOL 110 B - Human Anatomy with Lab (has 3 materials)  
BIOL 115 B S - Human Anatomy and Physiology with Lab (has 4 materials)  
BIOL 120 B - Human Physiology with Lab (has 6 materials)  
BIOL 130 S - Organismal Biology, Ecology and Evolution (has 6 materials)  
BIOL 135 S - Biology Sequence for Majors (has 1 material)  
BIOL 140 - Organismal Biology (has 3 materials)  
BIOL 150 - Zoology / Animal Diversity and Evolution (has 0 materials)  
BIOL 155 - Botany / Plant Diversity and Ecology (has 8 materials)  
BIOL 190 - Cell and Molecular Biology (has 10 materials)

**Figure 13.2.** In this example from Cool4Ed, courses under the Zoology area show has 0 materials.” This does not mean that no OER exist that could align with Zoology courses, only that they haven’t been adopted and reported in California. ([Cool4Ed Showcase](#))

Note that the featured resources on these lists are ones that have been used in the past, and may not include recently published OER or new editions of older open textbooks. Furthermore, the upkeep of these platforms depends on staff support and the accuracy and timeliness of instructor reports, which may be better on some platforms than others. If you use this method to locate potential OER for instructors, check other sources to see if the resource(s) you located have been adapted for other uses or if newer editions have been created.

### 3) Leverage Curated Resource Lists

Seek out lists of resources that have been compiled by instructors and OER professionals already. The number and depth of resources you find will vary widely, but it is a great way to quickly find any resources that have already been pulled together for a specific course. You can locate curated lists in a few different places. Keep in mind that the list’s location will likely reflect the person who pulled together the content to share. For example, Library Guides (LibGuides) are most likely created by librarians rather than instructors. A few places you can look for curated lists of content are provided below:

- **LibGuides:** As we discussed in [Chapter 5, Common OER Projects and Programs](#), LibGuides are mini-websites created by librarians, primarily intended to share information on services and tools for library users or to host lists of resources on a specific topic. OER LibGuides are often the first place that information about OER is shared, before an institution creates a website dedicated to marketing its OER program. OER LibGuides may contain a list of OER repositories, or they may break down items by discipline. To find guides containing curated

OER lists, use your web search engine of choice to look up “OER,” “LibGuides,” and keywords for your subject.

- **OER Commons Hubs:** OER Commons, a popular OER referatory and repository, provides two options for users to find lists of curated resources: Groups and Hubs. Hubs are smaller, searchable collections within OER Commons managed by statewide consortia, single institutions, and OER learning communities that have paid for their own presence on the platform. Groups are subsections within these Hubs, often used to house disciplinary or campus-specific content. You can browse or search the Hubs on OER Commons from the homepage, and you can bookmark specific Hubs for future use if you find some that are particularly useful for your context.
- **BCcampus OER by Discipline Directory:** BCcampus’ *OER by Discipline Directory* is an ebook that is regularly updated with new OER, categorized by discipline. You can browse through the book to find content in engineering, business, education, and more. Be aware, though, that this text requires manual updates and is not comprehensive for all resources in a given discipline.

#### 4) Dig Deeper with an OER Metafinder

You may have noticed that the past two places to look for OER are both curated lists managed and updated by staff. The next options don’t require as much constant, hands-on support, which makes them a better option for locating a wider breadth of content that is always up to date. OER metafinders are tools that pull together content from other OER repositories in one place. In other words, they search all of the tools so you don’t have to search each site individually.

- **SUNY OASIS:** SUNY’s Openly Available Sources Integrated Search (OASIS) searches across 114 different sources to locate OER. The tool includes filters for regular searches (type, subject, source, license, and review). We recommend using the **OER by Subject** tab to get the most out of your OASIS results.
- **Mason OER Metafinder (MOM):** MOM was one of the very first OER metafinders created and contains the greatest breadth of content. Unlike OASIS, MOM is a real-time federated search that crawls through a set of public domain and open licensed materials to retrieve a wide range of materials. While the starting page may look complicated, the depth of options also allows for more personalization as you look for content. We recommend starting with a search of only the OER-specific sites, and then expanding your results as necessary

Metafinders provide a method of locating open content of various types, from OER to public domain content and images. Using metafinders can be a great way to pull together a lot of OER all at once; however, be aware that you may encounter duplicate results when the same resource is housed on multiple repositories. Furthermore, you may have difficulty narrowing your results since the various repositories being searched may use different metadata standards. Experiment with your search terms and the filters you apply to your search as you look.

## 5) Try a Web Search Engine

You can also use a web search engine to locate OER that may not be included in other repositories. There are many reasons why OER might not be findable through a basic web search. Perhaps a faculty member shared their course materials openly on their personal website, or the institution producing OER has an institutional repository for open learning content that does not link to any other OER search tools for findability. To help you find OER that might be a bit hidden online, you have two quick and (somewhat) easy options:

1. Search for the course's subject and "OER" in your web search engine of choice to locate resource lists and other secondhand resources for locating OER. This may retrieve results like curated lists of existing materials, or it may bring up WordPress websites and other standalone OER that have been created for a course.
2. Perform an advanced search for the course's subject and filter to websites and items with usage rights consistent with CC licensing. In Google, this option would be under the "usage rights" drop-down in advanced search. This process can help you locate openly licensed content that may not be tagged as "OER." You can also use browser add-ons, like the [Openverse Browser Extension](#), to locate openly licensed content using the Openverse search interface.

### Program Manager Tips: Finding OER

If you are having trouble locating OER for a specific course, reach out to the open community over OER listservs for suggestions. The [LibOER](#) and [CCCOER](#) mailing lists are both commonly used for this purpose. New program managers (especially those who do not have a team of staff to support their work) should know that there is a wider community of OER experts available to help you navigate OER work.

## Evaluating Content

For most of this chapter, we have focused on locating OER for an instructor's course. However, there is a part of the OER search process that we haven't discussed in much depth yet: evaluating content. In our search tips at the start of this chapter, we mentioned that evaluating OER should be done during your search. What does this mean, though? Should you carefully review the content and course level of every item you find? Of course not! However, you should have a basic idea of what the course you are supporting needs, based on the early review you completed as part of your OER consultation process (See [Chapter 12, Managing OER Consultations](#)). You are probably not an expert in every discipline you will support in your time as a program manager. However, there are a few things that you and your team can do to ensure that the resources you

share with faculty meet basic requirements for use. Below, we've pulled together a list of things you can review in the OER you find, and resources to help you approach that work.

## Accessibility

Check OER for proper use of headers, alternative (alt) text, transcripts, captions, and other indicators of digital accessibility. Some platforms, such as BCcampus' Open Textbook Search, have resources that have been checked for accessibility and are tagged as accessible, but tagging isn't available on all platforms. Ideally, you should review each item for accessibility, because materials that are not marked as accessible may actually meet your requirements. Conversely, it is possible that materials marked as accessible may not meet your standards. If your institution has a department or staff member who works in digital accessibility, reach out to them to discuss your priorities and whether your institution has any policies specifically regarding accessibility evaluation. Checking resources and marking them takes staff time and effort, which is often in short supply. Resources to help you navigate OER accessibility are linked below:

- [BCcampus Open Education Accessibility Toolkit, 2nd Edition](#) (Coolidge et al. 2018)
- [Cool4Ed eTextbook Accessibility Reviews](#) (Cool4Ed, n.d.)
- [Floer Inclusive Learning Design Handbook](#) (Inclusive Design Research Centre 2017)

## File Format(s)

OER can be accessed in and adapted into multiple formats, but that doesn't mean they are available in multiple formats from the start. Check content to see what format(s) are available and whether content can be downloaded for offline access. For content available in only one format, check if alternate resources cover the same content in other formats. The availability of alternative materials can help meet the "multiple means of representation" aspect of the [Universal Design for Learning \(UDL\) Guidelines](#) (CAST 2018).

## License

When sharing content with instructors, ensure that the license applied to the content you have located is appropriate for the needs of the instructor. If adaptation is needed, ensure that the license applied to the content allows for the type of adaptation needed. For example, if the instructor needs to remix two or more materials by combining them, check that the licenses of materials are compatible using a tool like the [CC License Compatibility Chart](#) (Kennisland 2013)

## Diversity

A diversity check is important to prioritize content that displays the full range of humanity in its text and examples. When there is a clear gap between the content and the need to showcase

a diverse example, consider ways that adaptation could fill this gap. The resources linked below relate to the topics of equity and diversity for OER:

- [Equity & Openness: Perspectives from North American Colleges and Universities](#) (West et al. 2018)
- [Equity Rubric for OER Evaluation](#) (Grotewold et al 2021)

## Fit

Instead of trying to review content yourself, ask the instructor you are working with to review the content for fit in their course and for their teaching style. Instructional designers on your team or elsewhere on campus can help instructors review content to consider specific course needs such as consistency with a course's learning objectives, and how the OER meets or needs to meet those requirements.

### Program Manager Tips: Outline Responsibilities for Review

In [Chapter 12, Managing OER Consultations](#), we discussed the importance of setting expectations for your work supporting faculty. When supporting faculty in the location of content, you should outline how much of the content evaluation process you will be responsible for, and how much of this work will be delegated to the instructor. Below is a set of expectations for OER program managers and faculty which can be adapted for your needs:

#### Program Manager

A cursory review of content for key components or components that you are more qualified to review. This may include:

- **Accessibility:** Check that materials meet national and institutional accessibility guidelines.
- **File Format:** Note materials that are in a format the instructor prefers.
- **License:** Check that the materials are openly licensed and (if applicable) able to be adapted and remixed.
- **Fit:** Check that materials cover the subjects the instructor covers in their course.

#### Instructor

A more informed and in-depth review of the content for fit in their course. This may include:

- **File Format:** Check the format(s) of identified materials to ensure that there are enough to meet course needs.
- **Equity:** Check that the content represents a wide range of perspectives and creates space for learners to feel included.
- **Fit:** Check that the materials are closely aligned with their course learning objectives and can support their teaching style.

## OER Rubrics

If the instructor you are working with requests assistance in assessing the OER content you have

shared with them, you can offer a couple of established OER evaluation rubrics. Be aware that these rubrics are not the be-all, end-all of assessing OER, and you should discuss other paths for reviewing content with the instructor during this process. While having a goalpost to measure against can make some instructors feel more comfortable with the OER you have provided them, you should remind them that OER should be judged on the same merits as commercial content.

## Conclusion

In this chapter, we've outlined a general process for locating OER, from planning your search to sharing and evaluating content with faculty. Some of these tips will always be helpful. For example, looking at resources adopted at other institutions can help OER program managers advocate for OER adoptions in similar courses at your own institution. However, other tips may be contextual, and based on the makeup of your institution. As with much of the content in this book, this chapter should serve as a general guide, not a map. You can adapt and change these tips as you get more experience searching for content, and expand on them as well.

## Recommended Resources

- [CC License Compatibility Chart](#) (Kennisland 2013)
- [Faculty Guide for Evaluating Open Educational Resources \[PDF\]](#) (BCOER Librarians 2015)
- [Open Textbook Quality Criteria](#) (Affordable Learning Georgia 2019)
- [Open Textbooks Review Criteria](#) (BCcampus, n.d.)

### Key Takeaways

1. When searching for OER, start broad and then narrow to specific concepts covered in a course. You might locate a comprehensive list of content perfectly mapped against a curriculum, or you could find a range of materials that can be pulled together and become the base for a new OER.
2. Rather than searching every OER repository, look for content that has been adopted and implemented at other institutions already. This may give you a better understanding of the options available, though you could miss content that has been recently published.
3. As an OER program manager, hold yourself accountable for locating accessible, appropriately licensed content, and organize the content you find to make it easy for faculty to review for their needs.

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## 14. Finding Ancillaries for OER

Abbey K. Elder

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OER programs tend to focus primarily on open textbooks and the cost of commercial textbooks in relation to open alternatives. However, **ancillaries**, also referred to as supplementary or supporting content, are also an important part of the course materials landscape. When a faculty member adopts a commercial textbook from a major publisher, the publisher often includes a range of supplementary materials, such as lecture slides, homework and test banks, notes, and other materials to help the instructor coordinate their course. In contrast, OER ancillaries may take many forms, from full courses pre-built with OER slide sets and test banks to freestanding materials that can supplement a course without an accompanying open textbook. In a study of barriers to OER use, Carson (2020) found that interest in creating and working with ancillary content was high:

“The most discussed barrier to using OER within the survey data was not being able to find suitable OER, making the creation of strategic high-quality OER with ancillary resources an obvious solution to the barriers faculty face. Faculty would like to create OER on topics that do not currently have quality OER available or add on to the material by developing ancillary resources such as slide decks and assessments” (60).

It’s important for OER program managers to have a good grasp on the ancillary content required in courses at their institution and how OER can meet instructors’ needs. In this chapter, we will discuss ways to find open ancillary content, some popular OER ancillary software, and low-cost commercial ancillaries that are available to supplement OER.

### Types of Ancillaries

Ancillaries can take many forms, from static documents to interactive software. Below is a list of some ancillary types you will likely run into when talking about OER:

- **Question banks:** Banks of questions aligned to a course’s learning objectives that can be used to generate a quiz or exam for student assessment.
- **Lesson plans:** Pre-generated plans for guided labs, activities, or other interactive learning opportunities.
- **Lecture notes and slides:** Presentation slides and accompanying notes to guide and structure lectures around a specific module’s learning outcomes.
- **Videos:** Examples, animations, or lecture recordings that review one or more topics relevant to a course or module.
- **Homework platforms:** Automated systems for managing and grading practice exercises or other student assignments. These may be simple, grading against a basic answer key, or



they may be more complex, and include adaptive learning tools. **Adaptive learning tools** provide multiple versions of the same type of question so students can get more experience practicing the concepts they struggle with while studying (Posner 2017).

- **Workbooks and lab books:** Text-based collections of lessons or labs that walk students through topics related to their course.
- **Interactive content:** Simulations, games, or other activities that students can engage with to enhance learning.
- **Full courses:** Sets of course materials bundled to ease OER adoption for instructors. These might include a syllabus with mapped readings and slide sets, review questions, and quizzes or other course assessments.

## Locating Ancillary OER

Because ancillary OER are so varied in scope and format, ancillary OER may be difficult to locate for some courses. After all, not all OER ancillaries are part of a complete set tailored to a course. When ancillaries paired with open textbooks can be found, they are often part of projects supported by librarians, staff, and/or a network of peers, as with the open textbook *Scientific Inquiry in Social Work* (DeCarlo 2018). Alternatively, OER ancillaries paired with open textbooks may be intentionally solicited to support their textbook's ongoing use, as with the open textbooks published by OpenStax.

The variety in complexity and comprehensiveness for OER ancillaries does not indicate that these materials are lacking in substance, however. In a study of faculty perceptions of OER, Lantrip and Ray (2020) found that among faculty who had adopted OER, 76% rated their ancillary OER as the same or higher quality than commercial ancillary course materials. The challenge comes in locating the right kind of materials for your context. To help locate ancillary OER for your faculty, we've compiled a few search tips below. Some of these tips may seem familiar from [Chapter 13](#), but the processes differ in some respects due to the supplemental nature of ancillary content.

### Program Manager Tips: Start Small

Using OER as ancillary or supporting course material can be a great first step toward OER use for reluctant faculty, or a partial victory where OER are not available for certain courses. Beware of the "all or nothing" approach to OER. Encourage faculty to add optional OER to their courses, such as self-study resources, videos, and infographics that can supplement their existing course materials. Supporting faculty who want to test out OER and learn more about the open content available to them can help you build a sense of community at your institution and encourage more familiarity and interest in OER in the future.

## Planning Your Search

As we mentioned in [Chapter 13, Searching for Open Content](#), you should start your search by planning ahead based on what you already know about the instructor you are supporting. Review the instructor’s course schedule or syllabus and any notes you have from previous discussions with the instructor.

After consulting with the instructor about their priorities, consider narrowing your search to a specific topic and format, such as “problem sets that cover the content in chapters 5-8 of this open textbook” or “videos about the content covered in week 3 on the course’s syllabus.”

## Tips for searching

1. **Use ancillary-specific platforms.** Some websites and repositories specialize in openly licensed ancillary educational content. Popular examples include [PhET simulations](#), [SageMath](#), the [H5P OER Hub](#), and [MyOpenMath](#). Mathematics homework platforms were some of the first and most widely requested OER ancillary platforms created, due to the widespread use of expensive homework platforms for general education mathematics courses in higher education. For full courses, consider searching for “OER” in a platform like [Canvas Commons](#), which is used to share easily imported course modules which have been created and shared by other instructors.
2. **Search repositories that contain ancillaries.** In addition to using repositories that specialize in ancillary content, you can also locate ancillary OER in general repositories that include a wide range of resources. Popular examples include [OER Commons](#), [LibreTexts](#), and [SkillsCommons](#). Often, these repositories include Material type options in their advanced search or browsing menus to help you narrow your search.
3. **Check institutional repositories (IRs).** Often, OER ancillaries are developed by the faculty who use them and are shared via their institutional repositories (IRs). Two examples of IRs that contain OER are [GALILEO](#) (affiliated with the state of Georgia) and [UNI ScholarWorks](#) (affiliated with the University of Northern Iowa). Checking these repositories may yield surprising results! Tip: In some cases, IRs will have separate collections for OER materials, which can make searching for this material easier.
4. **Explore open courseware (OCW) repositories and adopted resource lists.** As we discussed in [Chapter 5, Common OER Projects & Programs](#), OCW repositories contain both ancillary OER and open textbooks aligned to a specific curriculum. These repositories, along with lists of adopted OER for specific campuses, may be able to fill the gaps in your program’s ancillary OER needs. Popular places to look include [MIT OpenCourseWare](#), [Open Oregon OER](#), and [eCampusOntario’s H5P Studio](#). Open Oregon OER even offers an option to narrow by courses with ancillaries available in their adopted resources list (See Figure 14.1).

COURSE	COURSE MATERIALS	LINKS	ANCILLARIES
ESOL 154	"Let's Get to Work!" Intermediate ESOL Communication Class Outline	<a href="https://docs.google.com/document/d/1LOEP45cpXNmmAtR1JrMX2-6Z7nWfuJjp05gPR6gtTK8/edit#heading=h.8v63qf4xkcy3">https://docs.google.com/document/d/1LOEP45cpXNmmAtR1JrMX2-6Z7nWfuJjp05gPR6gtTK8/edit#heading=h.8v63qf4xkcy3</a>	✓
ART 140	YouTube playlist of instructional videos	<a href="https://www.youtube.com/playlist?list=PLKuQbU2stJhlmj-2ATCTPHQG7y55jiWUv">https://www.youtube.com/playlist?list=PLKuQbU2stJhlmj-2ATCTPHQG7y55jiWUv</a>	✓

**Figure 14.1.** If ancillary content is reported as available for a resource, [Open Oregon](#) places a checkmark in the Ancillaries column for their table of adopted OER.

- Check for affiliated ancillary materials posted alongside the open textbook.** Ancillaries might be linked within the book itself or on the same website where the book is hosted. Sometimes, ancillary resources are linked in an open textbook or linked within the same listing in the institutional repository where its related textbook is listed. These types of connections are useful to have because ancillaries shared in this way are often created by the same instructor(s) or team that created the open textbook, ensuring that the ancillaries are aligned to the book for which they were created and follow the same tone. A good example of this type can be seen in [Professional Communications](#), an open textbook out of Fanshawe College (Smith et al. 2019). Other times, ancillaries might be linked within or near the description of an open textbook. The Open Textbook Library has an “Ancillary Material” section in its item records, for example, and OpenStax links to [free instructor resources](#) from its textbooks as well (OpenStax, n.d.). Keep in mind that because OpenStax textbooks have been widely reused and adapted, the ancillaries available on the OpenStax website represent only a selection of the ancillaries for its books.
- Search in LibGuides.** LibGuides are a great way to find materials that aren’t collected elsewhere. Searching “Libguides” and “[your topic]” in your web search engine of choice may yield some useful ancillaries in addition to open textbooks. Some, such as the California State University Dominguez Hills’ [Open Educational Resources LibGuide](#), even have a separate page specifically for ancillary materials (California State University Dominguez Hills, n.d.).
- Ask for help!** Reach out to the original authors of a text to see if they have recommended ancillaries or use a specific set of content for their course that is openly available somewhere online. Just because you can’t find it, doesn’t mean that it doesn’t exist. If the authors don’t have help for you, you can reach out to OER listservs for additional recommendations.

### Program Manager Tips: Can't Find It? Make It!

If you have trouble finding ancillary materials, your faculty may want to create ancillary OER instead. This is a great chance to share back with the greater OER community, and a project of this scope is much more achievable than a book-level creation project as well.

## Non-OER Ancillaries

While moving courses fully to OER is the goal for many OER programs, sometimes taking a step in the right direction is better than nothing. It's possible that instructors at your institution may be interested in adopting an open textbook where open ancillaries are not available or appropriately robust for the faculty member's adoption, but that doesn't have to be a bad thing. Ancillaries can come from a wide variety of venues and price points, and understanding the options available can make you more effective when discussing these options in your community.

### Free but not open ancillaries

The first type of non-OER ancillary you might want to recommend are free-but-not-open ancillaries. Widely known resources of this type are YouTube videos (the ones that aren't under a Creative Commons license). However, videos are only one example. Free online tools and applications, such as [LearnItFast](#), are also popular no-cost course supplements, and there are many you can find online.

Often, free-but-not-open resources make great ancillary materials for faculty. However, there are a few situations where OER may be preferable. For example, if an instructor wants to adapt and publish a new version of a free-but-not-open resource, they will need to get permission from the original creator in order to do so, whereas this type of remixing is inherent to OER.

### Ancillaries that are free for some users

The second type of non-OER ancillary resources you may encounter are the ones that are free for students but require an institutional fee and are not open. These might include library-licensed ebooks and materials provided through your institution's Course Reserves system. While e-books and other subscription content provided through your institution's library *do* have a cost attached to them for your institution, they are still a better investment than purchasing 10 copies of a course textbook that may have a new edition released next year.

## Paid ancillaries for OER from smaller companies

The third type of non-OER ancillary you may encounter are the ancillary resources intended to support open textbooks that require a fee to access. Often, these fees are minimal, generally less than \$20 per student. Examples of this type include companies like [Grasple](#), which offers interactive mathematics exercises to supplement OpenStax textbooks, and Lumen Learning, which offers both integration with your institution's LMS and homework software like their [Online Homework Manager \(OHM\)](#).

### Program Manager Tips: Understand Your Options

Yes, you can support ancillaries for OER that are not free or not open! There are multiple free and paid options available to help supplement and support the adoption of OER at your institution. However, as a program manager you need to be aware of the different models at play in the ancillary market and their values. Faculty may be solicited by publishers who develop OER ancillaries and have more expensive options pushed upon them if your institutional community is not aware of alternatives like the ones available through OpenStax, LibreTexts, or Lumen Learning. Make sure that all of these options are discussed at your institution and that you have information handy to help people understand the pros and cons of various ancillary sources, including fully open ones.

## Paid ancillaries for OER from commercial publishers

Fourth and last in this list, there are paid ancillaries for OER that were developed by traditional textbook publishers and companies that work in education technology, such as Cengage and Pearson. These ancillaries are often the most expensive, building off of the content and staff power of the companies managing them.

Paid supplemental materials for OER developed by traditional textbook publishers have come under fire for **openwashing** over the past few years, particularly in 2018 and 2019, when textbook publishers were first jumping into the “OER ancillary market” (Jhangiani 2019). Openwashing is defined as “[spinning] a product or company as open, although it is not” (Thorne 2009). As David Wiley (2016) once explained in a discussion of openwashing:

“Because the power, and ethics, and brand of ‘open’ are so universally admired and respected, many organizations want to be associated with it. If an organization can’t reshape its business model in order to actually be open (that is, provide free access and open licenses to its products), then the only way it can benefit from the public’s good will toward open is to redefine the word as describing something their business model actually permits.”

It is important to evaluate providers not just by their products but also by their alignment with your institution and program’s values. Both smaller and larger ancillary providers who work in the OER space can have ethical issues tied to their work. As a program manager, it is important that

you learn how to discuss the pros and cons of each platform that faculty may want to pursue. For example, you might want to discuss the overall cost of each platform and the aspects of their systems that might impact students, such as their privacy policies and their accessibility.

## Conclusion

This chapter largely focuses on ancillary content that pairs with an open textbook. These ancillaries are truly “ancillary” to a “primary” resource. However, not all ancillary OER pair with a specific book, nor should that be the only way we think of ancillary content.

An OER can be any resource that is used for education, free, and openly licensed. Open ancillaries are not adjacent to OER, they *are* OER. As program managers who are charged with educating and reaching out to those new to OER, it’s important that we not conflate the concept of OER with open textbooks alone. Yes, textbooks are often the focus of our work managing OER programs. Textbooks are in high demand from faculty and replacing traditional ones is where the bulk of OER savings for students comes from, which is a major driver of many OER programs. However, looking beyond the textbook is just as, if not more, important for the long haul.

## Recommended Resources

- [Commercial Platforms That Utilize Open Educational Resources](#) (Elder 2018)
- [The CARE Framework](#) (Petrides, Levin, and Watson 2018)

### Key Takeaways

1. As new platforms, tools, and resources are developed each year, OER ancillaries are becoming easier to access. Check back regularly to see if there is something new that meets your instructors’ needs.
2. Just because you cannot find any ancillaries for an OER doesn’t mean that nothing exists. Reach out to your network of peers online or to the author of the open textbook your instructor is using to see if there are ancillaries your instructor can access that aren’t openly available yet.
3. The range and complexity of OER ancillaries vary widely by discipline and topic. Be prepared to offer alternate options for faculty who need access to test banks for their courses, such as paid platforms like Lumen Learning.

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## 15. Making OER Available in Print

Apurva Ashok

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Surveys have shown a misconception among faculty that OER are digital-only materials, though this false belief has begun to wane over the years (Seaman and Seaman 2021). While most OER are created on the web, they can also be made available in print and at a low cost. Some non-text OER have benefits that print cannot override; however, most open textbooks can easily be optimized for print.

### Why Print OER?

There are several reasons why someone might require or prefer a printed alternative to digital OER: accessibility, connectivity, long-term access, print preference, and social legitimacy.

Ensuring accessibility may necessitate print OER. Readers with a learning or visual impairment, such as dyslexia or limited vision, may require a physical copy of the resource to improve comprehension and aid learning (Aesoph 2020). While screen readers and other technologies can work well to make materials accessible on computers, instructors can ensure they meet students' needs by having materials available in alternative formats. In some regions, this may also be a legal requirement.

People in rural areas, low-income households, and regions without fiber networks may face internet connectivity issues that make physical OER a necessity for them. Since OER aim to be global and widely usable, it is imperative that people can have equitable access to them regardless of their location. Even North American OER creators should remember that many students in rural towns and other remote areas will need to be accommodated so they have as much access to the material as others living in metropolitan areas. Additionally, issues with bandwidth mean that students are not able to download the assigned OER in a timely fashion, or at all. Some families may only own one computer, which means that at-home learners may not have enough time with the device to access the materials thoroughly or on a consistent basis. In other cases, such as accessing an OER textbook over the phone, the device may not be optimal for using the OER. In these situations, printed OER are an invaluable alternative to their digital-only counterparts.

Making OER more accessible is not the only reason to consider print versions. Being able to retain materials is one of the five essential components of OER (Wiley 2014). At the core of the idea of OER is that readers have the right to make, own, and control educational resources. Physical copies help fulfill this condition and offer more protection around privacy and surveillance. Moreover, whereas certain digital learning materials may become unavailable at the end of a term, print OER give students the freedom to easily retain physical copies well after the course is



over. It is also important to ensure that students have the ability to download and retain a digital copy of the open textbook (especially as digital OER are more frequently updated than their print counterparts). Print versions, on the other hand, are not affected by issues such as host server crashes, accidental deletions, or issues with the reader's own device.

Some students tend to prefer print copies given the ease of writing notes in the margins (Jhangiani et al. 2018). The physically annotated copy becomes a personalized resource for them to refer to and use in the future. This is one reason why it is important that learners have the choice between digital and physical OER instead of being compelled to use one or the other. Instructors in recent years have shown an increasing openness toward using digital OER (Seaman and Seaman 2021), especially given the large-scale turn to digital teaching in light of COVID-19. Research shows, however, that a large percentage of instructors still prefer physical textbooks for use in the classroom (Seaman and Seaman 2020).



**Figure 15.1.** Physical copies of OER make for excellent marketing tools to demonstrate the impact of your OER initiatives (Media Attribution: “[Print OER](#)” by [Rebus Community](#) on [Twitter](#) is licensed [CC BY 4.0](#)).

Print OER also have a social legitimacy that digital does not. For many instructors who are unfamiliar with open materials and how they are produced, print copies will signal the quality, efficacy, and credibility they find of value in commercially printed texts. By validating conventionally digital materials in the eyes of faculty, print OER can potentially encourage their adoption. A physical copy can also aid instructors during the course development process as they prepare lectures, plan assessments, complete grading, oversee online discussions, and more, without needing to switch between multiple screens. Sharing a physical copy that potential adopters can flip through creates a more engaged marketing approach that may improve the reception of OER. Publishing tangible books also reinforces the sense of achievement in producing OER. Physical books are both an encouraging reward for OER creators and a means for programs to showcase their work in very tangible terms. Printed OER thus have a range of benefits that make them a good complement to their digital counterparts.

## Printing Options

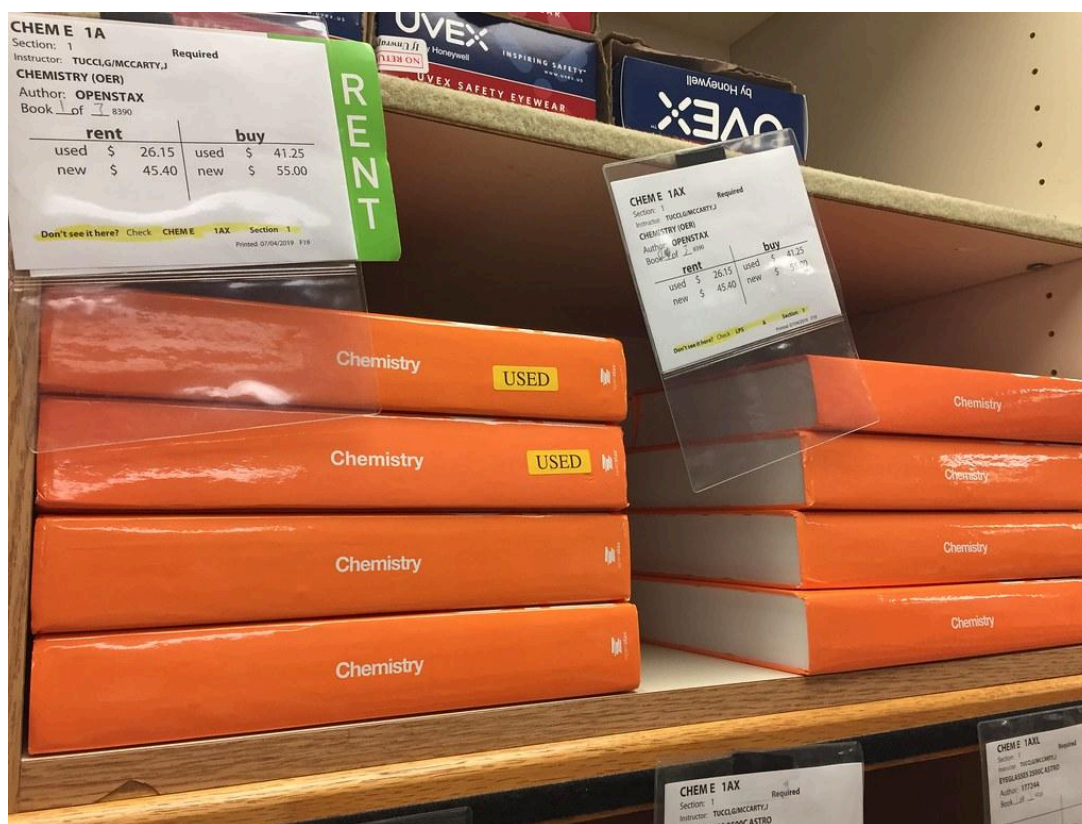
How you print your OER depends on a range of factors, including institutional connections, time constraints, content requirements, and design resources. Consider these three options to see which best suits your program's printing needs:

- Self-printing
- Print-on-demand (POD) providers
- On-campus print partners

### Self-printing

If your institution has limited resources, you can still encourage print OER by offering print-optimized files (preferably a PDF) that students can download. Students can use their campus printing services or credits to print the OER or relevant sections from it. They can also print at home or through stationery stores like Staples (Elder 2019). With this option, you can simply provide the pre-formatted print PDF file and do not have to create an accompanying print cover. This makes it ideal for small programs that do not have in-house design resources. However, creators should be mindful that certain print costs might be borne by students themselves, some of whom may not be able to afford them.

## On-campus Print Partners



**Figure 15.2.** Students can purchase physical copies of OER, new or used, at their campus bookstore much like a commercial textbook. Prices of print OER are significantly lower than their commercial counterparts. (Media attribution: “[OpenStax OER at Harvard University](#)” by [nfinkbeiner](#) is licensed under [CC BY 2.0](#)).

Some institutions may have more formalized processes for producing print learning materials such as coursepacks, workbooks, quizzes, etc. For instance, Hudson Valley Community College’s [Working with the Bookstore & Print Shop Library Guide](#) outlines how someone can order a print OER or work with the campus bookstore. Consider reaching out to your institution’s bookstore, library, or printing service to see whether they can facilitate the production and distribution of your print OER. Relying on this staff’s knowledge and services can reduce the work at your end. These offices know what the printing process entails and can guide you through the requirements of each step. Staff will carry out key steps like creating a cover, inputting metadata, and procuring ISBNs after requesting files and information from your end. They will also upload the book into the printing software, order copies for the bookstore, set a price, and ensure its availability in the campus catalogue.

## Program Manager Tips: Pricing Print OER

The price of print OER should be kept as low as possible to promote widespread use. Ideally, the consumer should only pay printing and shipping costs, though it might be necessary to add a small margin to cover the cost of preparing the OER for print. If the OER is to be distributed through a conventional bookstore, you may need to provide a wholesale discount to account for their profit margin and keep the price of the OER low. There may be other ways to keep OER printing costs and thus the price low—see more tips in the “Planning for Print” section.

## Print-on-demand Providers

Print-on-demand (POD) is “a service or process by which individual copies of a textbook or other resource that is usually available as a digital file can be printed upon request. This method allows [you] to provide books for a fixed cost per copy regardless of order size, be it one or one hundred copies” (Aesoph 2020). While some campus services may offer on-request printing, using an external POD provider can help you streamline and customize the process. POD providers increase the reach of your book by making it available to learners outside your host institution at the click of a button. These providers offer global distribution either through their own online portals or via international retailers like Amazon. They may also have in-house tools to simplify the cover design process. It is important to establish your fit with a POD provider. Some providers, because of their established management tools and high processing costs, are better suited for larger OER programs:

- [Lightning Source](#)
- [XanEdu](#)
- [Books International](#)

Others are more suitable for smaller programs or individual authors because of low costs and intuitive design:

- [Lulu](#)
- [Glasstree](#)
- [Kindle Direct Publishing](#)
- [IngramSpark](#)
- [PrintMe1](#)

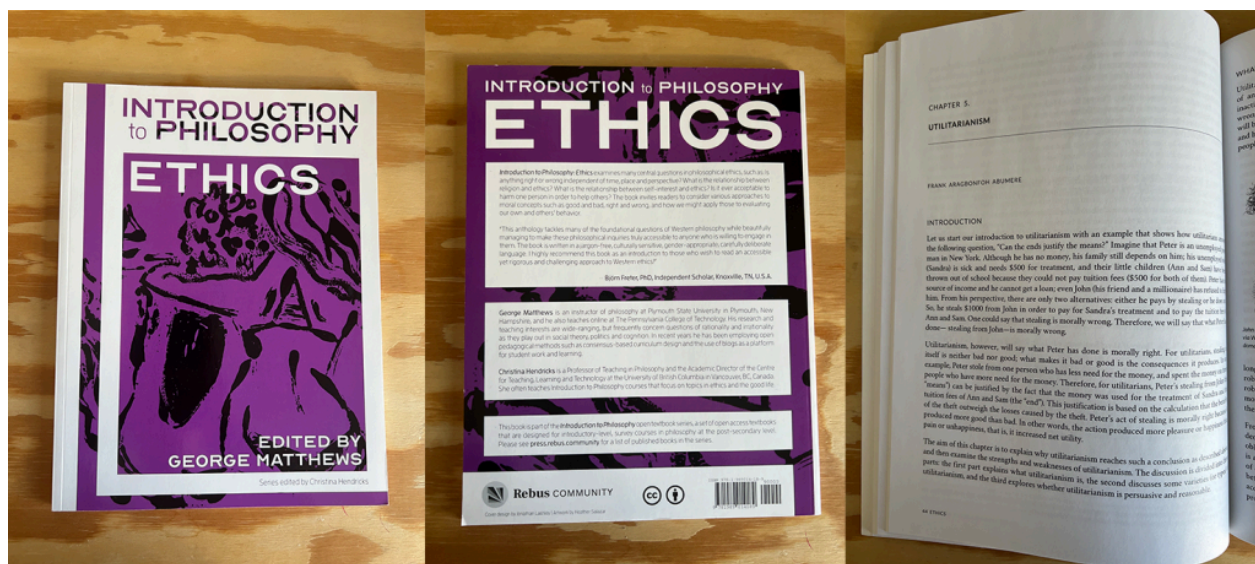


## The POD Process

The POD workflow typically proceeds as follows: You will gather requirements from the printer, select printing options, provide files to the printer, inspect the proof copy, and enable distribution.

To set up your book in POD, you will need certain information to catalogue, display, and distribute the book. Your printer will provide a full list of requirements. Typically, you will need to collect and provide the following details:

- Title
- Subtitle
- Collaborator details: author(s), editor(s), designer(s), etc.
- Subject
- Copyright holder details
- License
- Description
- Table of Contents
- Keywords
- Audience



**Figure 15.3.** Print OER can be engaging with a vibrant cover design and professional layout. This set of images shows three panels of the Ethics open textbook: the front cover with the contributor credits, back cover with book metadata and ISBN, and interior of the text. (Media Attribution: “[Introduction to Philosophy: Ethics Print Book](#)” by [Rebus Community](#) is licensed [CC BY](#).)

When setting up your book in POD, printers will also ask for (or provide) an International Standard Book Number (ISBN) to sell and distribute your print book. Some POD providers will give you an ISBN. Otherwise, you will have to purchase one—you can check with your library or campus services to see if they can assist. Buying an ISBN is country-specific. In the United States, ISBNs can be purchased individually or in bulk from [Bowker](#). Visit the [International ISBN Agency](#) to

identify relevant options for your region. There are an array of printing options that will determine both the look and cost of your book. To simplify these options, we have broken them down into six categories:

1. **Printing:** You can select between black and white (b/w) or colour printing. Note that printing in b/w is much cheaper, though may not be ideal for certain subjects, like biology, that rely on full-colour diagrams.
2. **Binding:** Hard-bound, perfect bound, saddle stitched, and coiled are four of the common types, in order of decreasing cost.
3. **Paper:** Publishers distinguish types of paper by weight (indicated by a # sign). Heavier paper is more expensive but more durable and aesthetically pleasing. Thinner paper, while cheaper, may result in transparency issues that impede reading and durability.
4. **Cover finish:** Matte and gloss are the two main options. Choose whichever fits your OER's aesthetic better.
5. **Page count:** Cost is proportional to page count. Printers may place conditions on the page count, for example, that it be an even number or a multiple of 8. Blank pages will be inserted to meet this requirement. Be wary of adjusting font size too much to achieve a lower page count, as it can hamper the readability of your OER.
6. **Trim size:** Common sizes include US Trade (6×9 inch) and US Letter (8.5×11 inch). The larger the dimensions of your book, the lower the page count and thus the cost. US Letter is one of the larger standard paper sizes and is ideal for OER printing. It is also the typical size of home printer paper, which makes it easier for students to print personal copies of texts.

Your POD provider or campus printer will need two files to create the print book: the interior file and the cover file. The interior file contains the main content of the book. The cover file includes the front, back, and spine as a single spread. Ideally, both files should be in PDF format, which is best for printing, but some POD providers may accept other formats like DOCX, JPG, etc. Some publishing platforms may offer print-optimized PDF interior files, which can simplify your workflow, especially if you as the OER program manager are liaising with other campus staff or external printers.

During the POD setup process, you should perform final checks on your book. Printers may flag low-resolution images, text that overflows the margins, and cover elements that exceed the page margins (or in printing terms, the “bleeds”). Order a proof copy to check that everything looks as it should in the print OER. Be conscious of how web interactive content, multimedia elements, and even hyperlinks appear to the print reader. Take care to reformat these sections for the print version. Make necessary revisions to your files, reupload them, and repeat the checks.

Once no further revisions are required, you are ready to open the book for public purchase! Remember that users will rely on different vendors to purchase their copies. Institutions order in bulk from the printer or e-retailer to stock their bookstores. Students can buy copies from the campus bookstore or directly from the printers' website and e-retailers like Amazon.

## Conclusion

Print OER are just as indispensable as their digital counterparts. Providing print alternatives demonstrates an awareness of the multiple contexts in which people access OER. Planning for print is a straightforward process that often requires collaboration with other units on campus. Proper planning is an opportunity to review your OER, ensure it meets accessibility standards, and grow the community around it. Ultimately, print is another avenue for you to share your OER with a wider audience.

## Recommend Resources

- [Print-on-Demand Guide](#) (Aesoph 2020)
- [Printing OER](#) (North Shore Community College 2008)
- [Guides and Templates](#) (Lulu 2021)

### Key Takeaways

1. Printed OER are critical alternatives for learners with accessibility or internet connectivity issues. Student and faculty preferences can dictate the need for print OER over solely web-based or digital formats.
2. Explore printing options on-campus with your bookstore or library, POD providers, or simply set your OER for students to make personal copies with their home printer.
3. Reformat your OER to ensure that URLs, multimedia, or interactive elements can be displayed or accessed in the printed version.
4. Create interior and cover files to provide to your printer or printing service. Familiarize yourself with printing options such as ISBN, trim size, page count, cover finish, and paper.
5. Review a proof copy of your print OER before making it available for purchase more generally.

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# Case Study 6: Supporting OER Adoption at College of the Canyons

James Glapa-Grossklag

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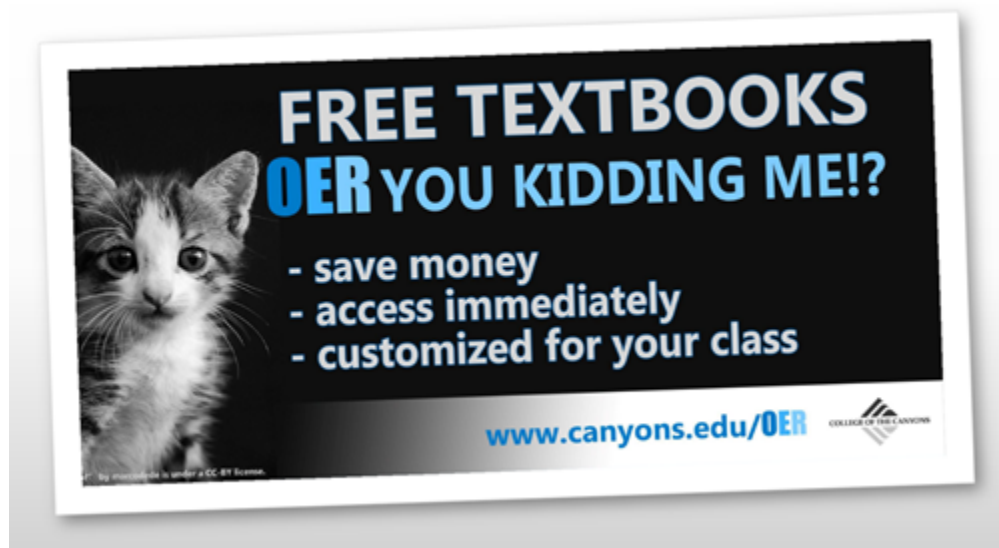
College of the Canyons is a California Community College and Hispanic Serving Institution in northern Los Angeles County. Our 22,000+ students attend classes at two physical campuses, with online classes accounting for 25% of our schedule (pre-pandemic). We offer 88 certificate and 95 associate degree programs in career education and transfer programs.

At the [2018 Open Education Global Conference](#) in Delft, the Netherlands, Natalie Miller, then a College of the Canyons student, received the [first Open Education Global Student Award](#). As proud of Natalie as I was for winning this international recognition, it also occurred to me that this focus on a student pointed to many elements of what made our OER program successful.

As Dean of Learning Resources at College of the Canyons, I have led our OER program since 2008. In the early years, I was the lone OER champion, delivered workshops on OER to nearly empty rooms, and counted OER adoptions in the single digits. Over time, however, I built an OER team and recruited allies. I tied OER efforts to larger institutional goals such as increasing student success and reducing equity gaps, which often led to funding. This was all helped by documenting the impact of OER and connecting to the larger OER community.

## Student OER Team

At College of the Canyons, OER adoptions soared once we began building our OER program around students, beginning with Natalie in 2016 and evolving into a team of student workers and recent graduates. We originally hired Natalie to help faculty locate OER materials. On her own initiative, she created a promotional campaign for our OER initiative (you might have seen our cat banner, pictured in Figure 1), she wrote for student publications, and she set up tables on the quad where she showed off our collection of OpenStax books. She connected me with our student government, which led to a formal resolution calling on faculty to consider OER.



**Figure CS6.1.** OER You Kidding Me!? Banner from College of the Canyons

Ultimately, Natalie passed the baton to other students. Today, the OER team typically consists of four current students and recent graduates. This is in addition to the Director of Online Education, who supervises their daily work. (More on the organizational structure, below.)

Crucially, when advocating for OER with faculty, a student voice has more credibility than someone with my administrative title. I have facilitated plenty of workshops at my college and can respond to most questions from faculty, but having a student speak about her own positive experience with OER quickly wins over an academic audience. I can cite research about financial hardships, while a student can describe her own hard choices with finances and textbooks.

Nascent OER programs sometimes encounter faculty who like the idea of adopting OER but say that they do not have the time to actually make the change. The core function of our student OER team is to remove the reasons faculty might give for not adopting or adapting OER.

Consider these scenarios:

- You have heard about OER but do not know where to start? Have a chat with this knowledgeable student who took your class last year, and she will walk you through finding and adopting OER.
- You cannot find any good openly licensed materials? No problem, we will search for resources that align with and support the learning objectives outlined in your syllabus.
- You cannot take time to polish a manuscript? No worries. Our English tutor reads every word and edits every page.
- Your discipline needs specialized images of gadgets and gizmos? Just wait while we run to the hardware store and photograph the gadgets and gizmos. (We can also take pictures in your lab.)
- You are concerned about remixing materials from different file formats and still having them look cohesive? That is why we created a style guide that provides consistent formatting.

- You want your materials to be accessible, but do not know how to format headers and alt text? Our accessibility team member has that covered—she uses a screen reader to review and format every page.

This approach not only provides faculty with local support, but also provides our students with employment, the opportunity to gain practical skills, and the pride of working alongside their professors.

Additionally, our student OER team helps us to remember the student view. Our student workers first brought to my attention the power of names in texts. “We’re changing the names,” they confessed years ago. “When we get a manuscript, the names in examples are usually *Joe* and *Karen*. We change them to *Jose* and *Maria*, since those are the names our students have.” (Now this conversation with faculty authors is a formal part of our workflow.)

To date, our small-but-mighty OER team has helped faculty develop open textbooks for 60 different courses. Many more faculty have adopted open textbooks published elsewhere. College of the Canyons students can complete six different Zero Textbook Cost (ZTC) pathways. In 2020–21 our faculty used OER in over 550 classes, equivalent to 26% of all class sections.

## Where Does OER Support Live?

Creating and selecting instructional materials are clearly the purview of faculty. However, at College of the Canyons we have found it helpful to centralize OER support within the Online Education Department. This department is led by an administrative Director, with two staff Coordinators, and a range of independent contractors. Making the OER team part of an established department provides several advantages. At some institutions, the same reasons apply to housing OER within a teaching center. In our context, the Online Education Department is:

- Viewed as a source of innovation and training.
- Led by an administrator experienced with hiring processes, time sheets, and budgets.
- Placed on the organizational chart, directs its own budget and program plan, and thus cannot be discontinued as easily as something labeled a *pilot* or *initiative*.

At my institution, an administrator is better positioned than a faculty member to implement OER-related processes because they have experience with similar institutional processes. Take the example of class scheduling and course marking. California state law ([Senate Bill 1359](#)) mandates that we mark each ZTC section in our schedule of classes. Deciding the appropriate point in the scheduling process when a section is denoted as ZTC requires a strong grasp of reporting processes and an understanding of the student information system (SIS). For example, does your SIS permit you to add symbols at the section level?

The Online Education Department, housing the OER team, falls under my supervision as Dean of

Learning Resources. My primary roles are to secure the funding needed to support the program and to advocate for OER with institutional leadership.

## Mainstreaming

OER discussions are mainstreamed throughout the institution. Our President asks about OER in final interviews for faculty positions. New faculty learn about OER during their orientation. Professional development credit is awarded for learning about OER. Our Board of Trustees approves sabbaticals devoted to OER. All of this sends a signal to new faculty that OER is a valued and uncontroversial component of teaching and learning.

Securing formal endorsement from key stakeholders has also helped mainstream OER. For example, our Board of Trustees, Academic Senate, and Associated Student Government all have adopted resolutions supporting OER. This arises not only from years of on-campus outreach about OER, but also from framing OER as a means to address larger institutional goals such as affordability and degree completion.

Another key to mainstreaming OER has been to strike a balance between having a strong advocate and engaging allies. Many OER programs start with one or two champions, but building a team across the institution can be helpful in the long term. When I could no longer keep up with faculty requests to help search for OER, we built our OER student team. When we joined the OpenStax Institutional Partnership program, another manager became the point person for OER on our campus. When a librarian wanted to complete the Creative Commons Certificate, I gladly found the money. When we host statewide conferences, our faculty and students are featured speakers, not me. In short, invite others to the open education party, not just as guests, but as hosts.

Linking your OER initiative to institutional goals is essential. For example, my college knows that students in classes using OER are succeeding, and this is particularly true for students from disproportionately impacted populations. We compare student retention rates in classes using OER with retention rates in non-OER classes. For both African-American/Black students and Asian/Filipino students, the retention rate is 3% higher in OER classes. Moving from a commercial text to an OER is fine; reducing the equity gaps faced by traditionally under-resourced populations is better.

Ask yourself, and tell your colleagues, why you want to adopt OER:

- Save students money
- Increase access and reduce equity gaps
- Improve student engagement and success
- Promote enrollment management
- Improve transfer readiness
- Increase degree completion

Each of these articulated goals will attract different allies and identify different sources of funding. Once upon a time, our OER initiative was accused of “wanting to get rid of books.” Today, our program is known as a tool to promote affordability and reduce equity gaps. As we have better articulated our impact, we have become more mainstreamed in program plans and strategic goals, leading to new sources of funding.

## Document OER Impact Early and Often

The importance of documenting your OER impact early and often cannot be overstated. This will help with everything from your elevator pitch to the last-minute grant application. Become good friends with your institutional researchers. Maybe you are capable of developing a survey on your own, but integrating your OER results into institutional metrics is another way to mainstream OER.

At my college, we know that textbook costs influence the enrollment decisions of 70% of our students—so OER is important for the enrollment management team. We know that the number of students satisfied with the quality of OER is 92%—so OER is important for our student retention efforts. We know that the success rate of LatinX students in OER classes is higher than that of similar students in non-OER classes—so OER is important for everyone who cares about equity.

Just as important as the quantitative data is the qualitative information you collect to tell your story. Some audiences are persuaded by data, and others are moved by stories. I find that grant applications require hard data, but when meeting potential funders in person, a compelling human story carries the day. Our activities have been included in [Case Studies](#) and [Student Impact Stories](#). Thanks to our Public Information Office, our stories are [captured in the local press](#).

While the data and the stories are gratifying, they are also useful—in grant applications and budget requests, in statewide advocacy and accreditation reports. If you are just starting an OER initiative, capture your students’ views of textbooks. Does your college conduct an annual student survey? Ask your students about their enrollment choices, barriers to success, and time to graduation, and make “textbook costs” a possible answer.

## Show Me the Money

Securing financial resources is important. But to what end?

1. **Hiring staff.** I am a fan of hiring current students. They learn practical skills, gain confidence by working alongside their professors, build a portfolio of work, and keep you honest with the student perspective. Additionally, employing students can be cost-effective since their hours might be subsidized by work-study programs or covered by existing department budgets.
2. **Expand your team.** You might have a team of employees who work directly with OER, or an extended team of OER supporters. In either case, it is important to bring more people into

your OER orbit. Sending people to conferences helps to develop your team. Hosting luncheons and giving awards inspires your team. Funding others to give workshops amplifies your team.

3. **Your salary.** Within the machinery of the institution, the budget matters. The grant proposal you are developing? Include it in the budget as a portion of your time. Literally, this can buy time for you to devote to your project, for example by releasing you from teaching one class. Also, buying your time demonstrates to the funders that you and your project bring value. When you deliver a workshop on OER, nobody in the institution's business office knows; when a portion of your salary is covered by outside funding, the business office knows.
4. **Stipends to adapt or author OER.** I am not in the business of deciding that you get a dollar more for writing a paragraph more than someone else. If you adapt or author OER to the extent that your students no longer have to use a commercial textbook, then you get a full stipend. The amount is often less important than the time. For my program, I have decided that the stipend is equivalent to the amount you would earn for teaching one class. This essentially says, "Don't teach that extra class this semester; *do* devote time to this OER project."
5. **Celebrating Success.** Adopting OER is lauded with thank you notes and luncheons. However, we do not pay faculty to adopt instructional materials, whether they are OER or commercial. Maintaining currency in the field—reviewing and adopting new instructional materials on a cycle appropriate to the discipline—is seen as a normal part of one's duties.

Our college budget does not include a permanent line for OER. As noted above, though, the Board of Trustees approves sabbaticals for OER development, which is a significant financial investment. Overall, we follow a model of braided funding, weaving multiple funding sources together into a whole. The advantage is that you do not depend on a single source of funds, which can go away. The challenge is that each new strand of funding takes time and effort to cultivate and manage.

Despite the fact that OER does not appear in my job description, I dedicate a large portion of my time to OER. However, many grants over the years have paid large portions of my salary, demonstrating value to the institution.

We have secured external funding from federal, state, and private sources. As we have linked our OER goals more clearly to student success and completion, we have identified funding from a variety of state initiatives:

- College Promise
- Guided Pathways
- Diversity, Equity, and Inclusion

An unexpected source of funding might be your college foundation or local business and industry organizations. The case is straightforward: Every dollar that students do not send to a commercial



publisher located far away from your community is a dollar that students can spend locally, in businesses owned and operated by your local donors.

## Don't Be Shy



My college encourages everyone to take on leadership roles in our professional organizations. When I had the honor of serving as board president for the [Community College Consortium for Open Educational Resources](#) (CCCOER) and then [Open Education Global](#) (OEG), my college did not expect to be reimbursed for my time and did regularly approve international travel. These roles brought [positive attention externally](#), and this increased credibility internally.

From 2016 to 2019, we supported colleges across California to [develop ZTC pathways](#) (together with our excellent partners at West Hills College Lemoore). We provided professional development across the state, hosting multiple [statewide conferences](#). While these conferences supported community colleges across the state, they also provided the opportunity to tell people on campus that OER is growing: “This is where the action is! Look how many people are interested!”

## Phone a Friend

Connecting with the larger open education community is essential. For example, I find that [CCCOER's community email](#) is invaluable. Many College of the Canyons faculty and staff have presented in [CCCOER's webinars](#), which has forced us to collect our thoughts and step up our game. We have partnered with CCCOER, under the leadership of Una Daly, on grant projects that have brought ideas and funding. California's [statewide academic senate runs an OER project](#), for which I serve on the advisory committee, and one of our instructors serves in a leadership role. Another great resource was the [OpenStax Institutional Partnership program](#). This helped us to improve our planning by asking us to complete a strategic plan template. All of these relationships take time and energy—and they all bring benefits both tangible and intangible.

## Conclusion

Seeing Natalie receive the global recognition she deserved was thrilling. Similarly, seeing our OER program grow to the point where OER adoptions are commonplace is also thrilling. College of the Canyons has embraced OER because it supports larger institutional goals such as increasing student success and retention, and also reduces equity gaps. This points to the importance of articulating your OER objectives, which can also lead to varied sources of funding. Funding is important not only to provide stipends to faculty authors, but also as a means to expand your team, whether that consists of student workers or faculty cheerleaders. Along the way, document your impact with both data and stories, and seek allies in the larger OER community.



PART VI

# SUPPORTING OPEN TEXTBOOK CREATION

# 16. Project Management

Apurva Ashok and Stefanie Buck

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Project management is integral to the role of a program manager. Broadly defined, project management includes “planning, putting the project plan into action, and measuring progress and performance” (Watt 2014). As the project manager, you must oversee each stage of a project’s development by applying relevant knowledge, tools, and techniques to meet given conditions and requirements (Watt 2014). These project management skills are also critical for anyone leading initiatives that support OER creation.

## Project Management for OER

OER projects are highly variable and require an adaptable management approach. Each OER project is unique and differs in its goals, outcomes, and team composition. A project can range in size and complexity. For example, you may have an author publishing an open textbook or creating ancillary materials for an existing book. Or you may have an author adopting a text or creating a new course using open pedagogy. Each of these projects is unique and requires different time and resource commitments.

OER projects are rarely the work of just one individual. OER teams typically consist of you, the project manager, the author(s) (both faculty and students), and possibly instructional designers, librarians, and/or technologists across multiple offices at an institution, hopefully with the support of at least one senior administrator. Your team members’ motivations are dynamic, converging on some points and diverging on others (Langille 2019). As a project manager, you will need to guide teams toward their desired results, introduce them to open concepts and approaches, supervise their work, help navigate the challenges of OER creation or remixing, and steer them toward project completion.

It is not our intention to create a complete project management chapter in this book; there are other resources that can help you with the stages of project management. We’ve gathered our best tips and resources based on our experiences as project managers to equip you with the skills to efficiently accomplish the tasks ahead, bring the project to fruition, and assess the results.

## Pause and Get Situated

Project management work can be very fast-paced and overwhelming, depending on the rhythm and number of the projects you are supporting. A good place to start is by taking a moment before initiating any projects to familiarize yourself with the network, tools, resources, and landscape of OER more broadly and within your institution. Conduct an environmental scan of your institution’s

relationship with OER, and learn about the key tenets of open education and OER (See [Chapter 8, Building Familiarity of Campus](#) for guidance on conducting an environmental scan). Familiarize yourself with the major OER repositories and referatories, such as [OpenStax](#) and the [Open Textbook Library](#), and the major support networks such as the [Open Education Network](#) and the [Rebus Community](#). At the same time, begin building networks and relationships with your colleagues and others in the open education community. Some opportunities for networking and professional development include campus mentorship programs, networking events, and library- and OER-related conferences such as [Open Education Global](#) or the [Open Education Conference](#). If your institution is developing an OER program, connecting with others who are doing similar work will help you build a professional support system and sounding board for challenges that you might face.

As a project manager, you are typically the first point of contact for most team members and will be the de-facto expert for intricate questions on all kinds of topics. This means that, at the very least, you need to be well-versed in the basics of open education, licensing and copyright, publishing tools, and the OER landscape. You don't need to be an expert on all these topics—in fact, one of the major skills of a project manager is knowing where to find answers and how to cultivate a good network so that you have the resources to answer such questions (Ashok and Wake Hyde, “Roles and Responsibilities,” 2019). A frequently requested topic, for example, is copyright and fair use. While you should have a basic understanding of both, connecting with your General Counsel or resident copyright or scholarly communications expert will make it easier to get the answers you need in a timely fashion.

## Planning Successful Projects

Project managers often oversee multiple projects at once and work to prove the impact and value of OER initiatives at their institutions. The key to managing a successful OER project is planning. Taking your time at the start of each OER project to lay down the organizational foundation will make it easier for you to spend more time working with the team to implement the project components and make sure that things are progressing smoothly.

If you're stepping into the role of project manager for the first time, start by identifying the communications and workflow management tools available online and via your institution. Familiarize yourself with the tools, and then begin setting up the organizational structure you need for each OER project. We also recommend that you take time to decide how and what services you can support and which you cannot. This will help prevent “scope creep” because you will have defined a set of options for your authors to choose from. You may not know what all you can offer if you are new to OER project management, so start small and scale up later. For example, you might not want to offer print-on-demand services right away (See [Chapter 15, Making OER Available in Print](#)).

## Managing Expectations

A critical component of project management is managing expectations. Clarifying expectations (who is responsible for what task or part of the project, the goals, outputs, outcomes, and impact) will make it easier to keep the project organized and on track. Discuss the project's scope and goals with faculty to create a common understanding. Consider what you want to achieve with each project and what is feasible. Fill out a [project summary template](#) or [project roadmap](#) and carefully think through key aspects, including the project's license, audience, structure, and measures of success (Ashok and Wake Hyde, "Roles and Responsibilities," 2019; Elder 2020).

When managing projects, you need to set the guidelines on how communication will happen, how work will be assigned, when parts of the project are due, and who is responsible for which aspects of the project. Ideally, these expectations are a part of your Memorandum of Understanding (MOU) or placed in a written document so that everyone is on the same page. Take a look at these templates and examples to reuse or adapt for your projects:

- [Contributor MOU Template](#) (Ashok and Wake Hyde, "Roles and Responsibilities," 2019)
- [Adaptable OER Publishing Agreement](#) (Creative Commons USA, Open Education Network, and Rebus Community 2017)
- [Service Level Agreement and Statement of Work Template](#) (University System of Georgia 2021; Gallant 2020)

## Get Acquainted with Your Tools

There are many free tools available if your budget is restricted, but these often have some limitations. When selecting a tool, think about the following:

- How many people need access? Who needs to see what stage the project is in and why?
- What data or information about a project do you need?
- How much can you afford?
- Are there any ethical considerations?
- What do you need the tool to do?

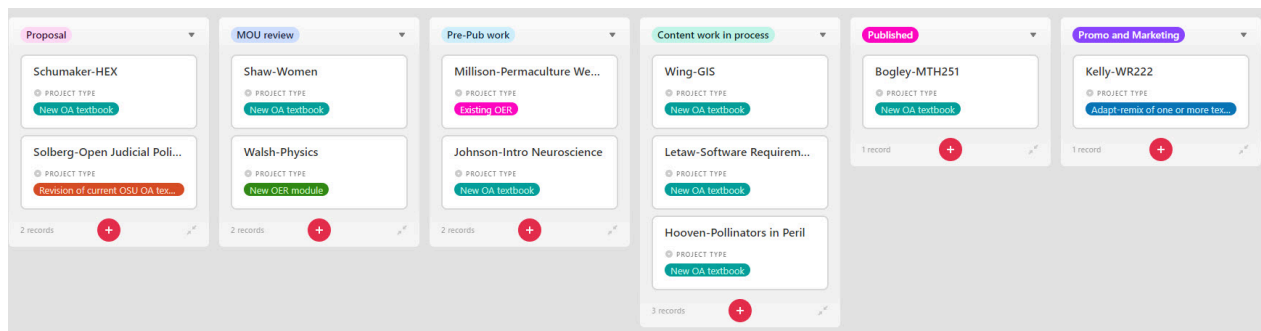
Then take an inventory of what is used on campus. You may have a selection of tools available to use, but you should limit your final choice to two or three. The more tools you use, the more complicated tracking your projects will be. However, you need to have enough tools to keep on track. The basics are a project management tool for each project, a communications tool, and a project overview tool. Let authors know which tools will be used. For example, if you prefer all communication go to your university email account, make that the standard.

Free trials are often a good way to start but don't spend too much time reviewing every product. Choose the tools you need and stick to them. Take the time to learn them, be aware of their limitations, and make the most of the features available to you.

## Tools Overview

An overview tool is useful if you are managing around 10 or more projects at once. Different projects will have different milestones or stages and due dates, so an overview tool is something that gives you an “at a glance” overview of each project’s status and stage. This helps to keep everything moving forward even though each project may be at a different stage. These milestones or stages can be broad but with enough detail to tell you in which stage the project currently resides. This will help you prioritize what you need to work on next and/or which projects need more attention than others, depending on the stage they are in. Some examples of tools include:

- [Airtable](#)
- [Asana](#)
- [Google Sheets](#) or [Excel](#)
- [Trello](#)



**Figure 16.1.** Example of an “at a glance” tool from Airtable using the kanban view. Image caption: If you have a category for each stage of your project, you can use kanban view to easily move a project from one stage to the next and get a good visual of all the stages your various projects are in. This is an example from Airtable.

Features to look for:

- Can you see multiple due dates on a timeline or calendar?
- Is there a way to sort projects by status, due date, or other milestones?
- Can you assign tasks to project team members?
- How does the tool integrate with others you are using (e.g., Outlook or Gmail)?

Use a [comparison chart](#) (e.g., Airtable vs. Asana vs. Trello) to evaluate the features, pricing, and value of different overview tools to see which one best suits your needs.

## Specific Project Tools

For each project, you may want to have a separate project management planner so you can track the details of an individual project. If you do not have too many projects (e.g., less than 10), you may be able to just use the overview tool discussed above to meet this need. However, some

projects may be more complex than others, with additional stages or milestones, and may need additional tracking to keep them on task. You can consider using the following:

- [Google Sheets](#) or [Excel](#), with one sheet per project
  - [Example content tracking sheet](#) (Hendricks and Rebus Community 2020)
- [Trello](#)
- [Basecamp](#)

You may also have additional guides or templates for each project to share with authors. Project-specific tools can help you organize and manage these resources.

## **Communications and File Management Tools**













You will undoubtedly communicate a great deal with your authors/adaptors and other project team members. Keeping track of correspondence is critical. You should create one folder per project, no matter which system you are using. Outlook, Gmail, and Slack are all suitable communication tools, but we recommend that you choose one and stick with it. It's tricky to follow a conversation that takes place across multiple tools. Ask your authors/adaptors to do the same.

You will also have many shared files and documents for each project. These could include drafts, guidelines, agreements, templates, and media. You should supplement your tracking tools with a file management system. These may include the following:

- [Microsoft Teams](#)
- [Box](#)
- [Google Drive](#)

Create one folder per project. You can break the content down into further subfolders. These folders are where all the documents related to a project must be hosted. Avoid emailing documents back and forth; it will be very hard to keep track of the document version if you do that. Ask your authors to make all changes in the master document in their project folder. Make sure you have ownership over all the folders and their contents; authors may leave the institution, so it is critical that you have access to the content.

All Files > Open Textbooks Works in Progress > +Templates > ☆ New project folder

Name ^	Updated
 Ancillaries	Sep 30, 2019 by Stefanie Buck
 Backup	Nov 13, 2019 by Stefanie Buck
 Customization	Sep 30, 2019 by Stefanie Buck
 Media 	Sep 30, 2019 by Stefanie Buck
 RFP-MOU	Sep 30, 2019 by Stefanie Buck
 Text 	Sep 30, 2019 by Stefanie Buck
 OSU OER Errata Sheet_Template_2019-11.xlsx	Nov 13, 2019 by Stefanie Buck
 OSU OER Glossary_2019-11.xlsx	Nov 13, 2019 by Stefanie Buck
 OSU OER Image Tracking_Template_2019-11.xlsx	Nov 13, 2019 by Stefanie Buck
 OSU OER Multi-source tracking sheet 2019-11.xlsx	Nov 13, 2019 by Stefanie Buck

**Figure 16.2.** Sample project folder organization. Image caption: It's helpful to plan your file structure before you start and create a basic template that you can copy over for each project. You can always adjust for the unique factors of a project. This is an example from Box.

The naming convention for projects is very important so that your Box folders, Asana, Outlook, Gmail, etc. all match and so that all your team members are on the same page and you can easily find all the components of the project. Create a standard for how to name projects before you start working on any. Ensure that these are descriptive and allow you to differentiate between projects easily and that the folder will automatically sort in a way that is meaningful to you. For example, you might standardize file names as Author-Title-Date or Cohort-Title-Author. Use this format consistently and ask your authors to do the same.

- Example 1: Jones-IntroNeuroscience-2019
  - Jones-IntroNeuroscience-2019-Text
  - Jones-IntroNeuroscience-2019-Media
- Example 2: Cohort4-IntroNeuroscience-Jones
- Example 3: 2019-IntroNeuroscience\_Jones

Every document should have a date when it was last updated. This is easy to do in Microsoft Office or Google Docs and will make life much easier when trying to find the latest version. Adding page numbers to all your documents and templates will make it easier to reference an exact page or section.



**Figure 16.3.** An example of a footer. Image caption: Your document footer should contain at least the following information: the project title, the date the document was last updated, and the page number. These can all be added to your document footer in Word or Google Docs.

Figure out your work style and adapt accordingly. For example, with multiple overlapping projects, it may be easier to organize by project rather than by the date of project creation (See Figure 16.2 above).

## What Data Do I Need to Track?

While this will vary across the board, it is helpful to keep track of basic project details, data around project progress, and data to report the impact of completed projects. Part 7 offers a deeper dive into data collection and reporting. Here, we'll discuss some key fields and data points that may be good to consider when setting up your project management tools. Conduct an inventory of these fields, tailor them for your needs, and be attuned to them from the start of your project management role.

In general, it will be helpful for you to keep basic project information handy. This can include details such as:

- Project title
- Author details (contact information, department, campus, etc.)
- Project start and due dates
- Creative Commons license
- Funding (total amounts, disbursement schedule, business office details)
- Courses and term when the OER will be used (include type such as Gen. Ed., Honours, dual enrollment, and number of students enrolled)
- Publishing platform

Once projects are underway, tracking their progress will be essential. We have outlined some major milestones in the following list:

- Manuscript drafted
- Images and ancillaries created
- Drafts copyedited
- Review complete (accessibility review, peer review, student review, and other quality assurance)
- Formatting complete
- Communications plan created



- Project complete (it is a good idea to have a common understanding with your faculty author about what “complete” means)
- Communications plan implemented

Finally, after a project is completed, you should gather some data to evaluate and report the impact as the resource is being used. During this phase, you can also review your own workflows and identify areas of improvement for future projects. The following markers can be useful to report the efficacy and success of your project:

- Downloads of OER (disaggregated by format type, device, etc.)
- Page visits, shares, or views of the digital OER
- Adoption numbers (on your campus or around the world)
- Student savings generated or cost avoidance
- Changes in graduation rates, withdrawal rates, and drop rates
- Student feedback
- Instructor feedback

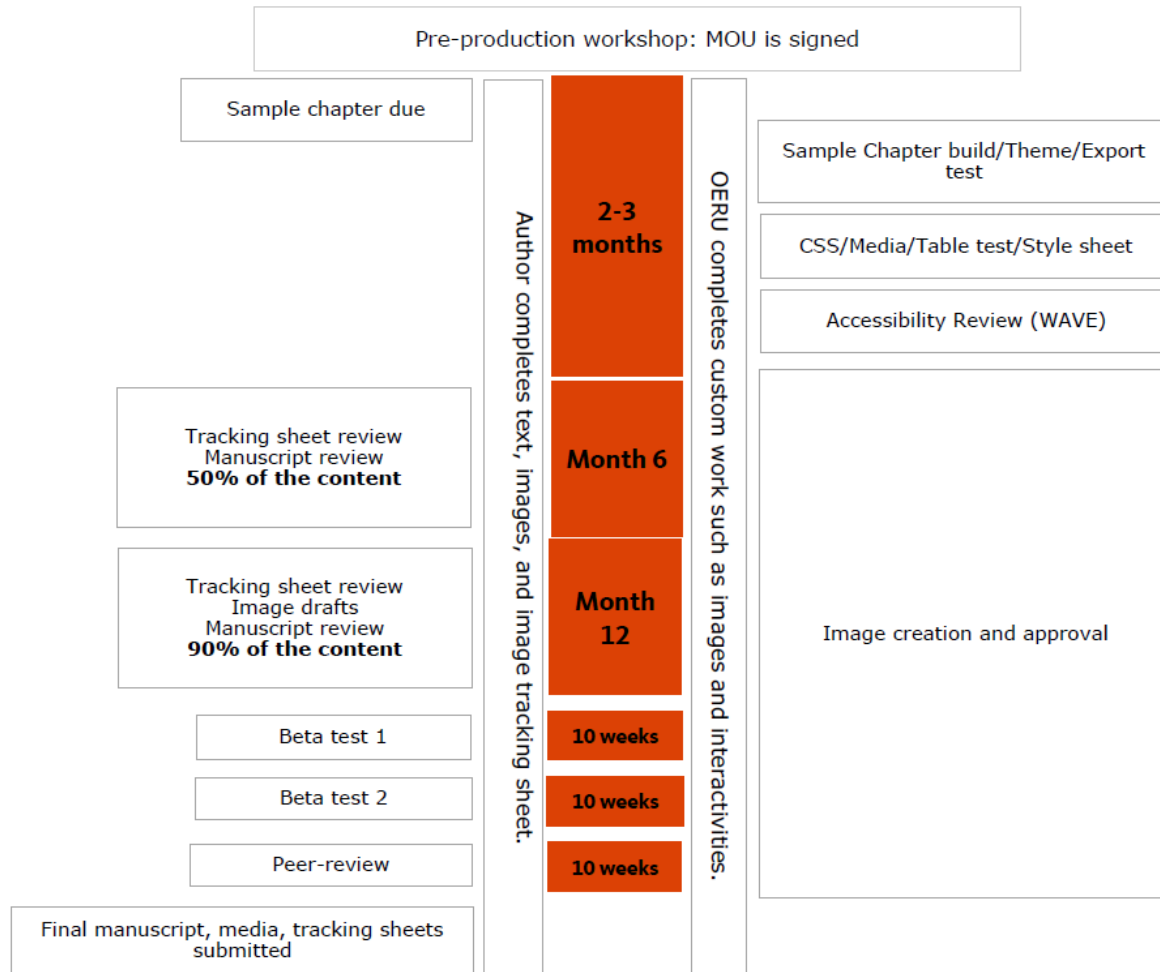
Your institution may provide other reporting requirements, so be sure to get a sense of what fields are necessary in order to set up your project tracking tool accordingly.

## Timelines and Scheduling

Be explicit about when things are due and what’s going to happen. Finishing the manuscript is a milestone, but implementing the OER is the larger goal. Give yourself some cushion when setting due dates so you have time to work with authors to transform their manuscript into a fully usable OER. With the final date for implementation in mind, work backward to set the deadlines.

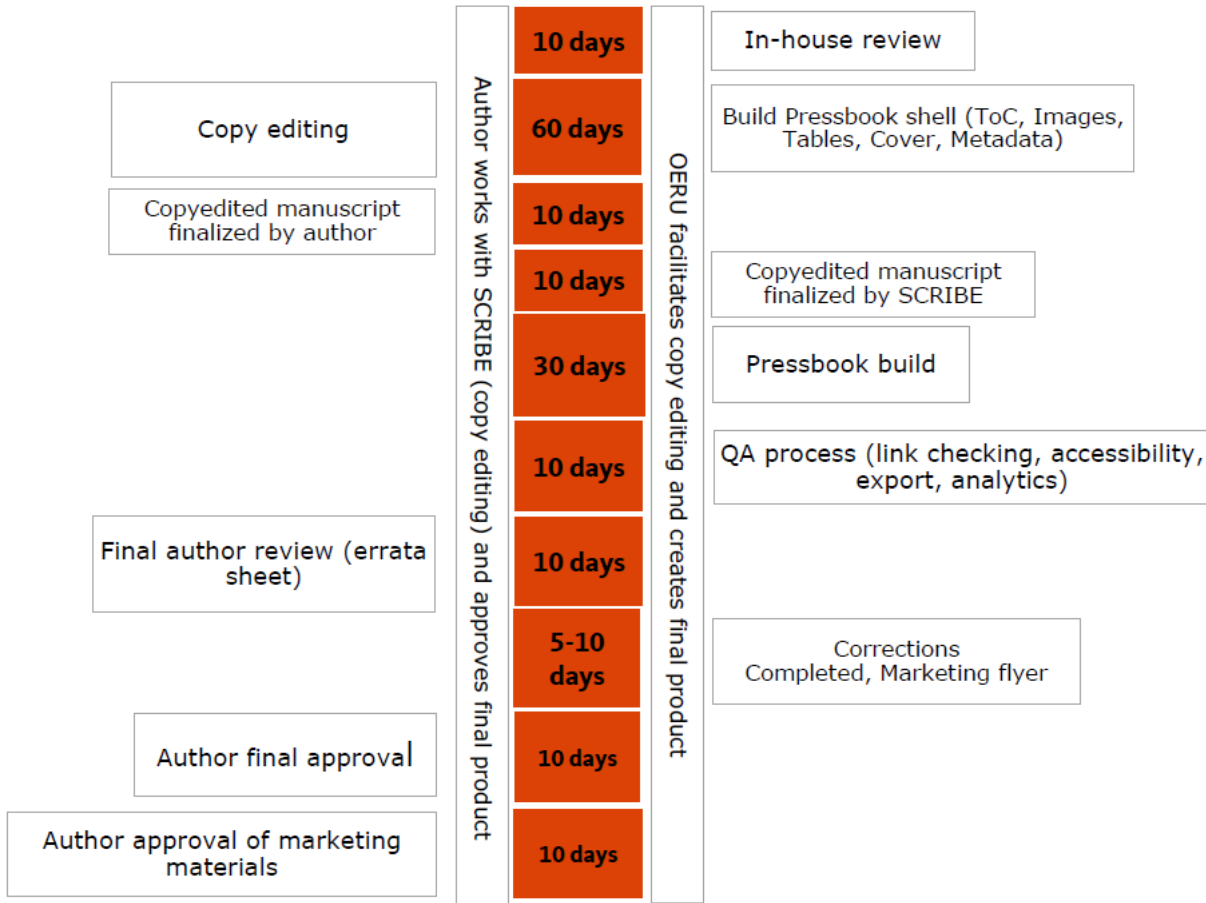
Give your authors a simple breakdown of the timeline, as it pertains to their deliverables. However, make sure you continuously reference a more detailed timeline that captures all the moving parts. By giving your authors an overview of specific due dates relevant to them, they can stay focused on their tasks. Reminders around due dates for milestones should also be simple, and will come in very handy as authors are often juggling multiple projects at once. You can always rely on your project management tools to assist with setting reminders to help your authors and team stay on track to meet these deadlines.

# OER Textbook Production General Process Overview



**Figure 16.4.** An example timeline for an OER textbook project from conception to completion.

## OER Textbook Production General Process Overview



**Figure 16.5.** An example of a timeline for a project. Activities along the timeline are divided by author responsibilities on the left and unit or program responsibilities on the right.

To manage an individual project and keep it on time and task, you will want something more specific and detailed. For example, you will want to map out each individual project timeline as each project is unique. You can use something like Excel to create a Gantt style chart to help you visualize the timeline.

A	B	C	D	E	F	G	H	I	J	K	L	M
2019												
TERM 1			TERM 2			TERM 3			TERM 4			
January	February	March	April	May	June	July	August	September	October	November	December	
RFP Out		RFP Workshops	Proposals Due Proposal Review	MOU Review	Grantee Workshop MOU signed	Content Development						
						Milestone 1						

**Figure 16.6.** Calculating your timeline. Image caption: The best way to set up your project timeline is to work backward. When does the faculty author want the project to be implemented? From there, you can lay out a chart or table with each step and clearly define the start and end dates. This is an example from Microsoft Excel.

For a new textbook creation project, you may want to calculate a timeline of around 18 to 24 months. The timeline can vary based on the complexity of your project. As project manager, you will need to make sure the project is completed in a timely fashion. As described earlier, you can use the date when the author wants to use the OER in a course as the final due date, and calculate backward from here to estimate other deadlines. For example, if the author wants to use the OER in the fall term, then you may want to have the manuscript due 4 to 6 months in advance to give you the time to complete steps like copyediting, review, formatting, and final checks.

Some deadlines can be more flexible while others need to be hard deadlines. You want to give yourself some leeway if the author needs to push the deadline back by a week or two, but in some cases, the deadline needs to be firm. If possible, this should be part of your MOU. If you do not have an MOU, work with the author to establish deadlines via a mutually understood and agreed-upon project timeline. Make sure the author understands that if they miss the hard deadlines, you may not be able to guarantee that the OER will be ready by the original due date or that any funding contingent on these deliverables will be released in a timely way.

## Overseeing Multiple Projects

Managing multiple projects is exponentially trickier than managing one or a few. Your projects will be at different stages, following different timelines, and will likely not be moving at the same pace. Juggling demands across projects can be overwhelming for both first-time and experienced project managers. This is when your preparation comes in handy. Maintain your project management tools so you can refer to them at critical points. Set aside some time in your workflow (be it a few minutes a day or week) to fill them in and ensure they are up to date. It's

important to build this into your work schedule. The most elaborate setup is useless if not properly maintained. Any setup is only as good as your investment in it, and your future self will thank you for it.

## Tracking Your Budget

For those managing grants or who have a grant budget, it's important to keep up to date with your funds. You need to make some decisions about when you will pay out the funds. Where should you spend your money (e.g., copyediting, contributing authors)? How much will you set aside for each?

Let's say you have a budget of \$5,000 for your project with two contributing authors:

**Table 16.1. Sample budget**

<b>Task</b>	<b>% of \$5,000</b>	<b>Cost</b>
Copyediting	20%	\$1,000
Contributing authors	20% x 2	\$2,000
Formatting	20%	\$1,000
Review honorarium	10%	\$500
Contingency (emergency funds)	10%	\$500

Set aside a bit for emergencies. For example, copyediting is something you can usually estimate based on word count. But if the work needs heavier copyediting than anticipated, you'll have a little set-aside. By setting your budget early, you'll have a clear sense of the project costs (including contributor honorariums) and how funding will be distributed. As the budget owner, you should review the budget regularly until the project is complete.

## Project Management Tips

1. **You're in charge.** As project manager, you negotiate with faculty members to plan out the project. People appreciate flexibility while being told up front what is needed. You might receive many requests over the course of the project, so carefully consider these and remember that, ultimately, you are the decision maker. Don't be afraid to call the shots and say "no" to certain requests to keep your project on track. Be clear about the resources and capacity you have, things you can't do or that are outside the project scope, and look for manageable alternatives.
2. **Get organized.** Keep running notes on each project and review them before you meet with authors. With multiple projects at different stages, it is easy to lose your place (Walz 2020). Notes will refresh your memory!
3. **Each project is different.** Share your project tracking sheet or dashboard with authors so they can monitor progress. Find ways to highlight priority items, indicate who is working on what, leave comments and questions, and generally identify what is done and what is left to do. Be prepared to tweak the dashboard to fit the project (Walz 2020).
4. **Communicate regularly.** Work with each project's lead author to identify a meeting frequency that is helpful to them. This will vary depending on the project stage. Use this time to listen to their progress reports and questions; celebrate achievements; update goals; encourage their progress; reassess needs; discuss issues and possible solutions; and discuss important upcoming decisions, milestones, or deadlines. This will help you keep the project moving even if something goes wrong (Walz 2020).
5. **Set expectations and timelines.** With your author(s) and other members of your team, establish a timeline for each project. Be clear about roles, expectations, schedules, and deadlines. You can discuss overlapping schedules and thus help plan your (and others') workload. Also, know and remind your team that timelines change, and that's okay (Walz 2020).
6. **Projects are more than a number.** Projects can start to blur together when you are managing multiple ones. However, for the faculty member involved in only one project, their project carries the most weight. Projects can be a lifelong dream for contributors, so try to treat each one with the care and attention that you would give your first.
7. **Process the emotional labour.** Managing multiple projects and people while giving all the due diligence they warrant can be overwhelming. It's okay to feel out of your depth at times. Know that you're not alone and that your gut instincts will often lead you down the right path. Trust yourself and lean on your support team as often as you need.

## Conclusion

Your primary goal as project manager is to see projects through to publication. Since collaborating

with others is an essential part of this process, a successful project manager balances tasks and deadlines with empathy and understanding. You should make sure teams enjoy the work of creating and publishing OER. Sometimes this will involve offering extensions when life gets in the way. Be kind and willing to renegotiate deadlines as situations demand. This will help make sure that your collaborators can contribute without compromising their mental or physical health. Remember that you will be viewed as an example and that your behaviour on projects models your expectations for the team. So heed your own advice and know that it's okay to step away from project work if you need a break. Your planning will ensure the projects run smoothly even during a brief hiatus.

Coordinating on a successful and engaged project can be one of the most fulfilling aspects of being a project manager. Even the pride of producing a large number of OER does not compare to the joy of the individual relationships you build with your team members, as this is what will be remembered with fondness later on. Moreover, yours is a unique position that connects distant offices and departments to create an OER network on campus. These newly established connections will outlive the initial project work and form the basis to sustain future OER efforts at your institution.

## Recommended Resources

- [Project Summary Template](#) (Ashok and Wake Hyde, “Project Summary Template,” 2019)
- [OER Mini-Grant Project Roadmap Worksheet](#) (Elder 2020)
- [Comparison Chart](#) (Capterra, n.d.)
- [Example Content Tracking Sheet](#) (Hendricks and Rebus Community 2020)
- [Contributor MOU Template](#) (Ashok and Wake Hyde, “Contributor MOU template,” 2019)
- [Adaptable OER Publishing Agreement](#) (Creative Commons USA, Open Education Network, and Rebus Community 2017)
- [Service Level Agreement and Statement of Work Template](#) (University System of Georgia 2021; Gallant 2020)

## Key Takeaways

1. The project manager is the main point of contact for faculty or staff working on OER projects and the de facto expert for any related question. To manage this work, you should conduct an environmental scan of your institution and region's work in OER, and cultivate a network that you can tap into for support.
2. Work with faculty to create a shared understanding of the project, including its goals, timeline, budget allocations, and individual expectations. Revisit all of these regularly to stay on target.
3. Review and select free or paid tools for tracking projects, file management, and communication. You may opt to use tools that are already part of your institution's digital infrastructure, which will make it easier to collaborate with colleagues and track multiple projects.
4. Think about what data to gather early on and build tracking into your project management workflow. Use this information in your regular reporting about the impact of OER.
5. Being a project manager not only involves adapting workflows to suit projects' needs and seeing them through to completion, but it also requires emotional labour to cultivate a motivated group of open practitioners. Treat your collaborators with respect and empathy, and they will do the same for you.

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# 17. Tools and Techniques for Creating OER

Stefanie Buck

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Whether adopting, adapting, or authoring OER, there is a spectrum of approaches you can take. One end of the spectrum is the “do-it-yourself” (DIY) approach. The other is the “program” approach, which offers full-support services to your authors and adopters. These are two ends of a spectrum where a variety of combinations and support services exist. As a project manager, you will need to decide which approach to take and develop the appropriate workflows to support it.

The most basic DIY approach generally means that the author is responsible for the majority of the content creation and the production of the OER. This could include some support from you and your team, or it could be as basic as offering a hosting platform, signing the check for the grant or stipend (where applicable), and/or writing out the Memorandum of Understanding (MOU). An MOU or similar agreement is highly recommended regardless of where on the spectrum you fall. On the other end is the full-service approach, which could mean anything from providing guidance on using the publishing platform, providing support services such as image creation or searching for OER materials, to building the actual OER itself. The program approach is more of a service, where authors are responsible for the content, but the editing, building, and/or managing the OER are benefits your team offers. Both approaches require a significant time commitment from the author and the project manager, even at the DIY level (See [Chapter 16, Project Management](#)).

## Choosing the Right Approach

The approach you choose will depend primarily on the resources that you have available to you, including funding and staffing. If your resources are limited to the funds for a grant but no additional funding for support services or you have no funding, then the DIY approach will serve you best. However, keep in mind that you will have less control over the final product, and your role will be primarily that of encouraging the faculty to keep the project moving and offering whatever level of support you have determined in your MOU. In the “program” approach, you will be providing more services and support to your author. You may be creating the content in the publishing platform or offering copyediting services to your authors. You may have a team, including a graphic designer or instructional designer, to assist in the creation of the final product. You will have more control over the final product since you and your team will probably be doing the actual build or creation of the OER. You will more easily be able to work accessibility and usability into the final product and have more control over quality, but it will take more time and effort on your part and that of your team.

## Services

Before taking on your first OER project, you should consider what kind of approach you want to take and what services you will be offering to assist authors in coordinating or creating their projects. Below are some examples of the types of services offered by other OER programs for authors, adaptors, and adopters:

- Consultations on locating existing OER materials or works under a Creative Commons license
- Cover design
- Disseminating the OER to various repositories and referatories
- Digital Object Identifier (DOI)/ International Standard Book Number (ISBN)
- Editing
- Funding
- Graphic design (e.g., images for the text and/or cover design)
- Hosting
- Indexing
- Layout and design of the final product
- Licensing the work with a CC license
- Marketing
- Peer review
- Permissions for use of third-party materials
- Print on demand
- Proofreading
- Publishing
- Training
- Accessibility testing
- Review for inclusivity and diversity

Your approach will likely be a mix of these services. No two programs look exactly alike. You may not be able to support all of these services, but it is a good idea to ask these questions up front so that you and your authors/adaptors can be clear about who will be doing what. A good approach is to start small and then grow your services. That way you can be sure your program will be sustainable (See [Chapter 20, Sustaining OER Projects](#)).

## Technology

### Content Building Platforms

There are multiple technology options for authors to use when creating their content. Your authors may be creating their OER from scratch (authoring) or they may pull content together from a variety of sources (adapting). They may be using a variety of tools to do so. Regardless of

the approach they are taking, supporting an author who is creating OER usually requires having a content building platform in place where authors can host the finished project. There are a lot of options to choose from and you may want to consider which tools you can and cannot support. Some examples of popular hosting platforms that also support text authoring include:

- [Pressbooks](#)
- [WordPress](#)
- Google Sites or Docs
- Website creation sites such as [Wix](#) or [Weebly](#)
- [LibreTexts](#)
- [OER Commons](#)
- Your institution's learning management system (Canvas, Blackboard, Moodle, etc.)
- Of course, the OER could also be a class syllabus or other ancillary materials. Then your primary concern will be how to share those materials so others can reuse, revise, and remix your content.

Then you need to make some decisions. For example, if your main publishing platform is Pressbooks, will you let faculty use other platforms as well? Do you want to (and do you have the capacity to) support multiple platforms? What will you do if a faculty member is using Overleaf (LaTeX) to write their book? Overleaf outputs only to a PDF format. What will your response be if your faculty author wants or needs to use something completely different for hosting because of certain software requirements? Keep in mind that platforms and the files created must be accessible, reusable, revisable, and remixable. While you may not support all these platforms, you should be familiar with them and the pros and cons of each tool. The recommendation here is to start with one publishing option and build up to additional options as time and resources allow.

The platform(s) that you or your authors will be using to create the content is a major consideration. In some cases, this will depend on how you are hosting your content (See [Chapter 19, Hosting and Sharing OER](#)) and how you are approaching content creation (DIY or program). Once you know which platform(s) you are using, check the specifications to see what is compatible so you can provide submission guidelines to the author. Faculty may want to provide you with a PDF of their material. Either discourage or prohibit PDFs at this stage. They are often difficult to convert to an online publishing platform and are also difficult to edit. It is more useful to have the Word or OpenOffice version so that others can build on your author's work (remixing content, for example).

If you are sending the work out for copyediting, there may be some requirements from the editor about the formatting. It is always better to keep it simple when it comes to the content because it will be easier to convert from one format to another (e.g., Word to HTML rather than PDF to HTML). If your authors are creating ancillary materials, such as PowerPoints or quiz banks, think carefully about the formatting and the accessibility of that format and how you will share it. An OER can have multiple parts (the text, the PowerPoint slides, the instructor manual) and you need to be able to tie all these together.

Another consideration when choosing tools is the level of your authors' technology skills or the skills of your team. You may need to provide training on the platform or processes, or you may want to build a community of practice. Some content creation systems are more complex than others and there are some platforms that work better for one discipline over another (e.g., math or physics). Something like Pressbooks will work for most disciplines and is a good starting point but is certainly not your only option. You can add other hosting options as you grow your program. Popular software for content creation include:

**Table 17.1. Content creation systems (free as of the date this manual was published)**

Software	Description	Price
Notepad (Windows)	Plain text authoring. Very limited formatting and organization options. No spelling and grammar checks. There are also free online notepad editors.	Free
<a href="#">Google Workspace</a> (previously G Suite)	Basic formatting and organization tools are available, plus more advanced tools (e.g., footnotes, table of contents). A good tool for shared authoring.	Free
<a href="#">OpenOffice</a>	Basic formatting and organization tools are available, plus more advanced tools. A good substitute for Word.	Free
<a href="#">Overleaf</a>	Advanced formatting and organization tools. Built-in support for LaTeX, used for displaying mathematical formulas.	Free
<a href="#">PreTeXt</a> (previously MathBook XML)	Advanced formatting and organization tools. Built-in support for LaTeX for mathematical formulas as well as HTML.	Free
Microsoft Word	Basic formatting and organization tools are available, plus more advanced tools (e.g., footnotes, table of contents). Importing from Word files may create formatting issues in some hosting platforms.	\$
<a href="#">Adobe InDesign</a>	Various detailed formatting options. Best for post-creation editing. May pose a barrier of entry for new authors and program managers.	\$\$\$

Another option is to have the content creation separate from the hosting. An example here is [Manifold](#), which will host your content but does not have a specific creation tool for writing and formatting content. Other examples include:

- [bepress](#)
- [dSPACE](#)
- [Greenstone](#)
- [EPrints](#)

If you are using the DIY approach, you can guide the authors toward a content and hosting service, such as [OER Commons](#) or [LibreText](#), where authors can pull together existing content and build an OER. If you take this approach, you will need to consider how much support you will offer for authors with technical questions. This is an especially important question for programs taking the DIY approach, since your authors will be writing and building their content with less hands-on support.

## ALMS Framework

The ability to reuse and remix an OER is important, but it's not always taken into consideration during the content creation phase and when choosing which platform to use. Here the ALMS Framework (Access, Level, Meaningfully Editable, Self-Sourced) by Wiley (2014) will be a good resource to evaluate the technology you are considering:

“The ALMS Framework provides a way of thinking about those technical choices and understanding the degree to which they enable or impede a user's ability to engage in the 5R activities permitted by open licenses.” (See also [Chapter 1, Introduction to Open Educational Resources](#)).

The ALMS Framework is comprised of four categories:

1. **Access to Editing Tools:** What is the format of the content and how easy is it to remix or reuse the content? Do you need some specific or proprietary software (like InDesign or Adobe Acrobat Professional) to make changes? Does it need to be done using a specific operating system? Make sure that the platform or tool you are using is as broadly compatible as possible. Otherwise, others may not be able to remix your content.
2. **Level of Expertise Required:** Would another author be able to remix or reuse your content with basic technology skills or do they need to have specialized skills? For example, most people can edit a Word document but not everyone is comfortable editing an InDesign document.
3. **Meaningfully Editable:** Many faculty authors may want to publish their final product as a PDF document. However, the PDF format is not easy to edit and does not allow for easy remixing and reusing. For a work to be meaningfully editable, the content needs to be published in a way that makes it easy for others to reuse it. Therefore, .txt is preferable over .pdf. Or, if the author wants the work in PDF, make sure the original editable Word version is also available. In some cases, such as Pressbooks, a PDF can easily be generated from the platform.
4. **Self-Sourced:** Is the format of the text you are presenting also the best format for remixing or re-editing content, or will it require conversion from one format to another in order for another author to reuse the content? It is preferable to not require content conversion as it tends to lead to loss of formatting or content.

Ultimately, you will want to choose the format that will allow the most people the most flexibility to reuse, remix, or revise the content (Wiley 2014). Simpler is generally better, whether you are publishing text, images, or videos. If you need to publish in a non-editable format (e.g., Articulate Storyline), consider how you can make an editable version (.docx or .ppt) of the content available.

## Layout and Design of Content

Most faculty are inexperienced with layout and design of textbooks. They may want certain features, such as callout boxes or multiple columns, which may not be possible in your chosen hosting platform. In some cases (e.g., Pressbooks), the formatting happens in the hosting

platform rather than in Word or Adobe. Unless you are planning to share your content in those file formats, you may end up doing a lot of cutting and pasting to get the desired look. You will want to be able to offer multiple outputs (print PDF, digital PDF, Word, plain text, XML, HTML) for one text. This makes it trickier to control the look and design of your text to the smallest detail. That does not mean your final product will not look good, but your authors may need to give up on some specific design features in order to make the final product more reusable and printable in a variety of formats. Your hosting platform may have some formatting restrictions, such as being able to create a complex table or require additional programming knowledge to complete the design. You may not always be able to provide these services. Learn about the specifications of your chosen platform. Ultimately, you are looking for a balance of design and usability, keeping accessibility in mind as you choose.

When receiving content from authors, simpler is generally better since it is likely that the content will need some kind of conversion (from .docx to .xml, for example) before it can be uploaded to the hosting platform. Layout and design can be lost in the process. Then you or your authors need to try and replicate it in your chosen hosting platform. Instead of a completed PDF with double columns and images interspersed, request a simple Word or similar document. Ask the authors to indicate where they want two columns or where a table should be with a simple note in the document (e.g., [Insert Table 6 here] or [Start two-column layout here]).

One option is to provide your authors with templates indicating how chapters and content should be laid out or to provide them with some training on the platform itself. A style sheet is also a good tool to have. Style sheets, similar to templates, let the authors know if you need them to use headings or how they should mark content that needs to be formatted differently. Many journals have style sheets for authors and can be a good place to look to develop your own. Keep in mind that you or your authors may not be able to carry through all the desired design elements, but that this flexibility benefits those who want to reuse or remix your content. If you have an instructional designer as part of your team, this is a good place to get them involved. Authors are excellent subject matter experts but they may not have the expertise around learning design that can be useful during formatting. Questions that an instructional designer could help answer include:

- What elements should be in tabular form for easier comprehension?
- Are there other structural elements to consider?
- What kind of scaffolding needs to be built into the text to support learning?

An instructional designer can provide this view, and a template would be a fantastic way to show faculty how/why this structure is ideal.

## “Markup” your text

Use a simple “markup” where the authors can still note what content they want in a callout box or how they want the text aligned. For example, <<insert table 06.02>> and have the table as a separate file.

An example of a style sheet and template to create a style sheet is included in Aesoph’s *Self-Publishing Guide*, Chapter 19, [Create a Style Sheet](#) (2018).

If you don’t have instructional designers on your team, a template can help authors design their content for the best learning. For example, you may want to encourage faculty to start with learning outcomes, include reflections or activities, and have a summary of important points at the end. An excellent resource for this is the [Open Textbook Publishing Orientation \(PUB 101\)](#) course. The section on [Developing a Textbook Structure](#) goes into more depth about good layout and design for open textbooks.

If faculty want a specific layout, you should encourage them to give you one chapter or module in advance to test the layout/design they want. Otherwise, a great deal of time may be spent taking apart the work they did. A sample should be sufficient to know what layout and design the author wants and if your platform can accommodate their design wishes. Again, be clear up front about what can and cannot be offered or multimedia elements that can and cannot be supported (e.g., H5P).

Another valuable partner at this point will be your disability access services unit. Accessibility needs to be built in from the beginning, not as an afterthought. If there is such a service where you are, ask them for some advice or guidelines on how to make the OER accessible.

You may also be asked to help design the OER (e.g., choosing fonts and colors, layout, and structure). If this is not your area of strength or something you can support, this should be clear up front. A few samples can be helpful. For example, in Pressbooks, there are about 20 different themes. Choose three to four that you can support and provide faculty with example layouts early in the process so they can easily visualize what their text will look like in that theme. If you are lucky enough to have graphic designers around, offer some standard features such as custom image creation but be careful of offering to do everything the author wants. You may spend a great deal of time on formatting. Have some guidelines—you can always make an exception if it is warranted (e.g., special Cascading Style Sheets needed for formatting computer code).



## Simplify submissions!

Ask authors to provide you with one chapter in Word or PDF so you can see what layout they want. Subsequent submissions of chapters should be in the simplest format possible.

## Media Creation

If you are offering the services of a program, there may be additional technology considerations, such as graphic design software, that you will need in order to support your authors. Then you need to consider who can assist with finding or creating images, videos, or other multimedia? While there is a lot of content out there that can be used in an OER, there will invariably be an image or graph that cannot be used for legal reasons and where no OER substitute can be located. If there is no suitable OER alternative, what services can you offer or recommend to help? The [Code of Best Practices in Fair Use for Open Educational Resources](#) (Jacob, Jaszi, Adler, and Cross 2021) is a valuable resource here to help you in making a fair use determination.

It's possible your authors have the skills to create the required graphics but not necessarily. Quality and consistency of the images and graphics make the textbook more professional, so you will want to make sure you let authors/adaptors know about any standards or requirements. There are many options for creating graphics and media. If you are using the program approach, choose one or two tools that you will support but know enough about others to make recommendations.

Ask faculty authors to provide images and media along with full citations and source URLs in separate files and not embedded in the Word file. Depending on the platform, you may have to strip all this out and the image will lose quality. Just like in journal publishing, the authors should reference where each table, chart, image, or graph goes in the text. Have faculty include the wording for the alternative (alt) text of the image as well, for accessibility purposes. You can use an [image tracking spreadsheet](#) for these purposes.

You will also need to take your hosting platform into consideration. If you are building or including some kind of ancillary materials or creating a stand-alone OER, the platform that you choose needs to support this format as well or have a way to get the person to the appropriate content. A popular choice here is [GitHub](#) or [Google Drive](#) but there are many other options. [Bepress](#) and [dSPACE](#) can house multiple formats so if you have access to these, you should consider this option.

## Workflows

Your development and production process needs to have a clear workflow. There are some

different frameworks that can help you design the workflow that works for you. See [Discovering OER Production Workflows](#) for a summary of the following workflow models:

- [OERu Workflow](#) (OER Foundation 2014): Select, Design, Develop, Deliver, Revise
- [CORRE](#) framework (Witthaus et al. 2011): Content, Openness, Reuse and Repurpose, Evidence
- [OER Workflow Diagram](#) (Rogers, n.d.): Creation, Quality Control, Technical, IPR [Intellectual Property Rights] Negotiation, Cataloguing
- [Production of Open Educational Resources](#). Another workflow example comes from the University of Hawai'i (Meineke and University of Hawai'i at Mānoa Outreach College 2017). It combines many of the elements from the workflows above. The five phases are: Priming, Pre-Production, Design, Development, Publishing

## Campus Partners

Look for campus partners who can assist you. In addition to your accessibility services unit, you may want to reach out to other units at your institution. For example there may be graphic design assistance available on your campus. If the authors or adaptors need illustrations created or need help remixing openly licensed images, you might try to find a unit at your institution that can provide that service. Some institutions have graphic design degree programs and students who are looking for opportunities to do some professional work. Consider exploring the possibility of a capstone project for a student to help with the layout and design of a text.

If you are fortunate to have a university press at your institution that is willing to work with you, they can be a great resource for advice and possibly support. See if they can help you address such issues such as copyediting and layout. Many university presses are small and may not have the resources to assist you but might be able to advise you.

Other partners may include the instructional designers on your campus or the instructional technologists (who host the learning management system) or the library (for dissemination). In addition, you can seek out your teaching and learning support services, such as a campus center for teaching and learning, for pedagogical support or your printing services for print-on-demand services, as well as your disability services unit to ensure accessibility of your materials. In Carson's (2020) study of barriers to OER, one interviewee proposed a process for working with faculty on the creation of OER, explaining that having a team of experts is integral to a project's success:

"It goes back to hitting the content, the quality, and the design, all at the same time in one resource to really make it worth the user's time and attention. I think by assigning a team that would collaborate, one subject matter expert, one instructional designer, and one content developer and designer, we would have the ideal combination of a team to work on any OER material" (61).

## External Partners

Once again, the good news is that you are not alone. There are many external partners you can turn to for advice and assistance. Rely on the discussion groups and customer support offered by the platforms you've chosen:

- [Pressbooks Community](#)
- [Manifold Community](#)
- [Rebus Community](#)
- [Open Education Network \(OEN\)](#)
- [OpenStax FAQ](#)
- [LibreText](#)
- [OER Commons](#)

In addition, reach out to external partners such as OEN and Rebus, The Community for College Consortium for OER ([CCCOER list](#)), [SPARC LibOER list](#), and [Library Publishing Coalition](#) for guidance and support. Some support can only be accessed if you're a paying subscriber/member while other resources are free to anyone.

## Technology Considerations

Keep in mind that not everyone has access to the same content creation software or that they may have personal reasons for not wanting to use certain software. Flexibility and planning are key. Have these conversations early on. Set a policy (e.g., all manuscripts must be in Word) but be prepared to be a little flexible (e.g., if an author only has access to OpenOffice). Set the expectations of who is responsible for what early on. This is a good thing to spell out in your MOU or other form of mutual understanding.

A primary consideration is the reusability, revisability, and remixability of the project. If your process is to publish your authors' texts in PDF, which is often the case in the DIY model, then make sure you also provide access to the Word or text files since PDFs will not easily support future remixing or revising.

## Diversity and Inclusion

Another hallmark of quality in the text is how inclusivity and diversity are addressed. This is one of the beauties of OER. A textbook that does not represent different groups or geographies can be edited to make the work more inclusive. The best approach, however, is to build diversity and inclusivity into your project right from the beginning. In 2020, OpenStax published the [Improving Representation and Diversity in OER Materials](#) framework for reviewing textbooks. You may want to share this guide with your authors at the beginning of the process so they can create inclusive and diverse content from the start rather than going back later.

## Creating OER with Students

If you are in the United States and your project includes student-created content, then the [Family Educational Rights and Privacy Act \(FERPA\)](#) must be taken into account. FERPA governs what kind of information about a student is private and what is not. Student privacy always needs to be taken into consideration. You will need to be sure that:

1. Students understand their work may be published in an open text.
2. You have a release form from each student whose work is included. Students generally retain copyright of their work, so a release form is essential.
3. The instructor offers an alternative project for students who do not want to make their work public.

You may want to consult Rebus Community's [A Guide to Making Open Textbooks with Students](#) for more guidance on how to work with students creating OER (Mays 2017). Even if you are not in the United States, there might be other legislation in your location that regulates this type of OER creation.

## Conclusion

There are many things to consider when starting up your OER program or services, and this chapter asks many questions. From choosing the right approach to selecting a content creation platform, there are many choices you will need to make as the project manager. These questions are better answered earlier than later in your project management plan because they will impact what you will be offering to your authors and adaptors. Engage with your partners on campus to help you determine the best approach for your program.

## Recommended Resources

- [Authoring Open Textbooks](#) (Falldin and Lauritsen, n.d.)
- [The Rebus Guide to Publishing Open Textbooks \(So Far\)](#) (Ashok and Wake Hyde 2019)
- BCcampus Open Education [Self-Publishing Guide](#) (Aesoph 2018)
- [Production of Open Educational Resources](#). (Meineke and University of Hawai'i at Mānoa Outreach College 2017)
- [Faculty OER Toolkit](#) (Moist 2017)
- [OERu Workflow](#) (OER Foundation 2014)
- [OER Workflow Diagram](#) (Rogers, n.d.)
- [CORRE](#) (Witthaus et al. 2011, slides 9–17)

## Key Takeaways

1. Choose the creation tool carefully and don't become overwhelmed with trying to master too many tools at once. Keep it simple and then scale up your service.
2. Work with a team whenever possible. There are many people on your campus, such as instructional designers and accessibility technologists, who can bring specialized skills to the table.
3. Create your OER in a way that makes it as reusable as possible. Simpler is better.
4. Document your workflows. There are many examples for you to review and adapt.
5. Reach out to the community. You can find lists and discussion groups to help support your endeavors.
6. Build accessibility, diversity, and inclusivity into your process from the beginning.

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# 18. Universal Design, Accessibility, and Usability for OER

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As a project or program manager, you must consider the accessibility and usability of the works that are being created. In addition, you may want to perform some usability testing to make sure your OER meets institutional and national guidelines or standards.

## Universal Design for Learning (UDL)

You should take UDL principles into account when designing OER. UDL differs from accessibility (see below) in that there are no standards and no legal requirements, such as with accessibility, but rather that it is “performance-based.” A well-designed resource using UDL principles will address many of the accessibility issues that commonly arise in the design of OER and can create barriers to learning. The idea behind UDL is to design something that works for everyone. UDL should not be an afterthought but a basic set of principles on which to build your OER content.

UDL means there are:

- Multiple means of representation—to give learners various ways of acquiring information and knowledge
- Multiple means of action and expression—to provide learners alternatives for demonstrating what they know
- Multiple means of engagement—to increase motivation by giving learners choices on how they want to engage in their learning (CAST 2018)

UDL means thinking of all the users and potential users of the OER. Then ask yourself, does this OER meet UDL principles? Who might be excluded from your OER? The benefit of UDL principles is that they improve the usability and accessibility of your OER even for learners who do not fall into the category of “disabled.” For example, having closed-captioning or a transcript of the video benefits not only people with hearing issues but also students whose native language is not English or students with certain learning disabilities. Under the principles of UDL, you design with all your users in mind from the very beginning and thus you greatly improve both the accessibility and usability of your end product without a significant increase in cost. It also helps to reduce the need for design modifications if you have a situation where you need to make an OER accessible (e.g. for a particular student). Retroactively turning an OER into something that meets accessibility guidelines is expensive and time-consuming. Applying UDL principles will make your OER available to as many people as possible, regardless of their circumstances.

## Accessibility

Accessibility is one of the primary—but not the only—benefits of using UDL principles from the beginning. An OER that is created correctly from the beginning will significantly reduce the barriers to anyone using the OER. There is, moreover, also both a legal and moral impetus for creating accessible resources. Both accessibility and usability need to be built into your development process and should not be an afterthought, as is often the case (Navarrete and Luján-Mora 2018).

According to the World Wide Web Consortium (W3C):

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, people can:

- perceive, understand, navigate, and interact with the Web
- contribute to the Web

Web accessibility encompasses all disabilities that affect access to the Web, including:

- auditory
- cognitive
- neurological
- physical
- speech
- visual (W3C, n.d.)

Another useful definition comes from the Inclusive Design Research Centre (IDRC):

The IDRC reframes disability within the design context. Rather than a personal characteristic or a binary state (disabled vs. non-disabled), disability is framed as: a mismatch between the needs of the individual and the design of the product, system or service. With this framing, disability can be experienced by anyone excluded by the design....Accessibility is therefore the ability of the design or system to match the requirements of the individual. It is not possible to determine whether something is accessible unless you know the user, the context and the goal. (IDRC, n.d.).

## Best Practices Checklists

In this section, we will summarize some of the tools available to you to test for accessibility. It should be noted, however, that a checklist isn't the only way/standard to gauge if something is accessible. Since accessibility is about an overall intentional approach and design, a best practice checklist can be a useful place to start, but there will be other techniques you can use to test for accessibility. According to the W3C (2021), accessibility is organized into four success criteria: perceivable, operable, understandable, and robust. Any guidelines and best practice checklists you use should address these four principles.



As a starting point, you will want to acquaint yourself and your authors with the basics of web accessibility and Universal Design. Fortunately there are many lists and guides that can help you do that. Some basic guides include the [W3C Content Accessibility Guidelines](#). These guidelines contain the full spectrum of accessibility standards but they can be a little overwhelming at first. Some pared-down guidelines include the [Checklist for Accessibility \(Coolidge et al. 2018\)](#), the [Top 10 Tips for Making Your Website Accessible](#) (University of California, Berkeley, n.d.), and the [Campus IT Accessibility & Usability](#) (University of Wisconsin, 2020), which is especially helpful when learning about accessibility in the Pressbooks platform. In addition, your university may also have web accessibility guidelines for you to use.

Like UDL, having a basic accessibility checklist or guide will make it easier for your authors to build accessibility into the work right from the beginning. It can be difficult and cost time and resources to retrofit a work. See “Improving the Digital Accessibility of OER: A Reflective Guide” (Anastasi 2020) for a readable story about retrofitting OER works for accessibility.

When you conduct your accessibility review will depend on your program type, the support you can offer, and how much control you have over the content. You will need to consider who is responsible for the accessibility review and how it will be documented. The best thing to do is to run an accessibility check on the content delivered by your authors early on in the process, but that may depend on your staffing levels and capacity. One suggestion is to have your authors deliver a chapter or module to you at the beginning of the project. This way you can run an accessibility check and head off any problems that may be appearing, such as improper use of headings or a lack of alternative (alt) text for an image.

## Tools to Review Accessibility

Because much of our OER content is viewable on a web page, using a tool to review it can be very helpful to catch any error that may have crept into the work. Fortunately, there are a number of free tools that you can use to check. These tools include:

- [WAVE Web Accessibility Evaluation Tool](#)
- Microsoft Word built-in accessibility review
- Adobe Acrobat built-in accessibility tool
- [Grackle Suite for Google](#)

Keep in mind that these tools are not perfect. Some tools check only for certain aspects of accessibility (e.g., [color contrast](#) or font size). However, they are an excellent place to start when assessing technical accessibility. The W3C maintains a complete list of [web accessibility evaluation tools](#).

Also keep in mind that once the errors or problems have been identified, someone will have to address them. Will that be you, your unit, or the faculty author? You should be clear about this up

front and even include it in the MOU. This will introduce the concepts of accessibility and UDL to your authors early on.

## Accessibility Statements

While all OER authors should strive to make OER accessible, not all OER can be made 100% accessible, even with the best efforts. It is important to acknowledge this with an accessibility statement in the OER. In open textbooks, this usually appears in the front or back matter and includes a checklist of accessibility features. In other types of OER, this information might be included in the description. This information will be useful to anyone using special software to navigate the OER; they will know immediately what issues they might encounter. This makes the process a little less frustrating for the user.

### What Is an Accessibility Statement?

An accessibility statement lets your users know the work has gone through a review process and that issues with accessibility are documented so readers know what to expect. A good accessibility statement includes a way to contact the authors if there are issues.

Accessibility review is for everyone, not just readers with special needs. Just like closed-captioning benefits those with hearing loss and those with certain types of learning difficulties, integrating accessibility into your workflow will benefit all your users/readers.

### Writing an Accessibility Statement

Here are tips for writing a useful accessibility statement from the *Open Education Accessibility Toolkit* by Coolidge et al. (2018):

1. Use clear and simple language, avoiding jargon and technical terms
2. Include information about how people can personalize their experience. This might include information about:
  1. features of the platform used for the resource (e.g., if a book is in Pressbooks, mention the ability of users to increase the font size in the web book)
  2. the ability to change browser settings
  3. a link to each available file format
  4. assistive technologies
3. Outline specific accessibility features and how to use them when relevant
4. Do not make false claims or ignore known accessibility issues. Be as transparent and open about accessibility barriers as possible. This means:
  1. describing what is being done to fix the problem and a timeline
  2. providing any temporary workarounds
5. Include information about who is responsible for the accessibility of the content and their

contact information so people can submit issues, suggestions, or complaints related to accessibility.

6. Describe the organization's accessibility policy, and the work that has been done to make the resource accessible. Here, you can provide information like:
  1. accessibility guidelines you are following (e.g., WCAG 2.0)
  2. any federal, provincial, or state legislation you are conforming to
  3. any user testing you performed (Gray, 2018)

It is important to keep your accessibility statement page up to date as you make updates to the content, or if the software itself is updated to be more accessible. Conduct an annual review if possible.

Here are some sample accessibility statements that you can adapt for your own purposes:

- [OpenStax Accessibility Statement](#) (OpenStax, n.d.)
- [BCcampus Accessibility Statement](#) (Sheppard 2020)
- [Nomensa: How to Write an Accessibility Statement](#) (Watson, n.d.)

Your accessibility statement should also include contact information in case there are any issues that need addressing.

## Accessibility and Audio-Visual Materials

One area that is easily overlooked when creating an OER is the accessibility of videos, images, or other media either embedded in the OER or as the OER itself. Media is an important component of UDL because it offers the content in another format for users to engage with but only if they can hear or read the media. For videos to be accessible, they need to at the very least be closed-captioned and/or have a transcript available. Doi, Lucky and Rubin (2022) point out that one of the easiest and most impactful ways to improve the accessibility of your OER is to include closed-captioning. Not only does it help learners with a hearing loss, but it allows users to watch the video content in a noisy environment. Images need at a minimum to include alt text, which is a brief description of the image a screen reader can read aloud to the user. Questions about appropriate font sizes and contrasting colors/patterns in graphs and charts, like all accessibility, need to be built in from the beginning of the content creation process. It is important to clarify these expectations up front. For example, if the OER includes a video, who is responsible for the closed-captioning? Will you accept media that is not accessible? How will you document this in your Accessibility Statement?

## Collaboration Across Campus

If your campus has a department or unit that serves students with specific needs (e.g., the unit that supports students with disabilities or an academic learning center), these may be good

partners to engage with and ask for support when determining the accessibility of a text. They will also, most likely, have guidelines already established for making web, Word, PDF, and other document formats accessible that you can share with your faculty authors.

## Usability

Usability is a way to measure how easily and well a user can navigate a specific site to complete a task. You have probably heard of usability testing on websites or may have participated in a usability test yourself. According to Nielsen, a leader in usability studies,

“Usability” is defined by five quality components:

1. **Learnability:** How easy is it for users to accomplish basic tasks the first time they encounter the design?
2. **Efficiency:** Once users have learned the design, how quickly can they perform tasks?
3. **Memorability:** When users return to the design after a period of not using it, how easily can they reestablish proficiency?
4. **Errors:** How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
5. **Satisfaction:** How pleasant is it to use the design?

There are many other important quality attributes. A key one is **utility**, which refers to the design's functionality: Does it do what users need?” (Nielsen 2012)

There are many resources available to help you understand the importance of usability, such as the [What is Usability](#) website that explains how to design for optimum usability (Interaction Design Foundation, n.d.). It is a good basic overview of the concepts and principles for creating usable websites, and many of the concepts can be applied to OER.

There are also some rubrics you can use to validate the usability of your OER. For example, the [Washington State University web communication page](#) (Wood 2015) includes a 25-point list for how to design for optimum usability and a printable rubric for reviewing your website.

## Tools for Usability Testing

Usability testing does not require any fancy equipment, although some is available. Primarily you need a tester, notetaker, your subject, and most likely a computer. However, if you want to try and automate your process and capture more detail, you can screen record the test using [Camtasia](#), [Screencast-O-Matic](#), or something similar so that you can review it later. There is also a [host of software](#) out there to assist you in your usability testing, although most is not free. Options include recording capability and built-in analysis tools. Keep in mind that usability testing is one tool in your toolbox and one way of getting feedback on your OER. It's not a definitive process and takes some practice.

## Usability of OER

Optimizing the usability of OER is still a challenge. OER usability covers everything from content to user interface to navigation. A key factor is knowing your audience. As Whitfield and Robinson (2012) point out:

“One of the first questions that should be asked when repurposing resources for open access is, ‘who are the resources meant for?’ When producing OERs, the audience/users of the resources are inevitably unknown and there may be multiple potential end-users, ranging from students, to self-learners, to educators of different levels and disciplines. A distinction can be made between a teaching resource (of use to a teacher in disseminating information, e.g. lecture outlines) and a learning resource (used directly by students and acting as a surrogate for a classroom teacher) with different instructional design and content requirements.”

Doing a usability review or audit, if not an actual usability study or audit, can help you identify the pain points in the OER. You may not have control over some things, such as the hosting platform not being completely accessible or you cannot integrate certain functionality. In other cases, you may be able to catch problems early and correct them before the development process goes any further. Keep in mind that a usability review is not a definitive process but one tool that you can use to make the OER as user-friendly as possible. For more guidance on doing a usability review, see [A Quick Guide to Conducting a Usability Review](#) (Interaction Design Foundation 2016).

Beta testing is one way to determine the usability of your product (Dennen and Bagdy 2019). Rather than publishing the OER or releasing the module to the public and then using it in the classroom, do some beta testing by using the text in the classroom before actually publishing it. Instructors can use the text in a PDF or Word format in the classroom and get feedback from students about the content, layout, and design before creating the work on its final platform, where it might be more challenging to edit the content later. Another option is to have colleagues review the content before rollout (a peer review of sorts) or engage the students and authors in focus groups about the text to make improvements. All of this information will help in the creation of a usable final product. Once published, you will still want to be open to additional feedback from students and other users, but the majority of the feedback from your students should happen pre-publication.

Usability may also refer to the usability of the repository in which your OER resides. If you are using an institutional repository or something locally created, you will want to ensure the usability of the discovery tool. This is where good metadata comes into play. (See Chapter 19: Hosting and Sharing OER for more on metadata) How easily and quickly can your users find what they are looking for in the repository? Usability for people with special needs is often overlooked and should be part of your review when deciding where to host or represent the content (Navarrete and Luján-Mora 2020).

## Conclusion

OER that follows accessibility guidelines and Universal Design principles will help all of your users, not just the ones with a disability. If you follow Universal Design principles from the beginning, you will already go a long way toward meeting those needs. Taking the time to include an accessibility statement somewhere on your OER will also alert your users to any issues or special software they might need to access your resource. It will save a lot of time and frustration. If you are able, conducting regular usability testing of your OER is also highly beneficial to make sure it meets the accessibility needs of your users.

## Recommended Resources

- [Top 10 Tips For Making Your Website Accessible](#) (UC Berkeley | IST – Productivity and Collaboration Services, n.d.)
- [What is Usability?](#) (Interaction Design Foundation, n.d.)
- [The UDL Guidelines](#) (CAST 2018)
- [A Quick Guide to Conducting a Usability Review](#) (Interaction Design Foundation, n.d.)
- [Usability.gov](#) (U.S. General Services Administration Technology Transformation Service, n.d.)
- [World Wide Web Consortium](#) (W3C 2021)
- [How to Ensure Accessibility for Educational Videos](#) (Davis, 2018)

### Key Takeaways

1. Think about UDL, usability, and accessibility early on in your process.
2. Determine who will be responsible for the usability and accessibility of the OER and how this will be done.
3. Let authors know what the standards or guidelines are that you expect them to follow early on. That way they can build accessibility and useability into their product rather than having to “retrofit.”
4. Consider asking each author for a chapter sample early on so you can review it for accessibility and catch any issues early in the process.
5. Include an accessibility statement in your final product and in the project MOU.

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# 19. Hosting and Sharing OER

Stefanie Buck

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Your OER project will need a home or “host,” which is someplace where you can store your OER project files so others can access, reuse, and remix them, and so that repositories or referatories can link to them for discoverability. You will need to consider what technical formats you will offer the OER in so you can determine where and how to store them. Discoverability and reusability of your OER content are central to being open and can prove to be challenging for OER creators (Amiel 2013; Ovadia 2019).

## Where Will You Host the Project?

How and where the OER projects reside and are delivered for use once they are completed is a decision that needs to be considered sooner rather than later (Cuillier et al. 2016). It will impact what you are able/willing to host (and how) and may also have implications for the formats you can accept from your faculty authors. For example, if you are using Pressbooks as your hosting platform, it may be easiest for faculty authors to provide a Word, XML or ePub format. PDF documents, on the other hand, won’t translate well into Pressbooks and should be avoided. And don’t forget about ancillary materials such as videos, slide decks, and question banks, which will need a home as well and in some way connect to the original OER.

OER delivery mechanisms can be divided into three categories:

1. Repository: A centralized site that stores the OER locally (e.g., an institutional repository)
2. Referatory: a portal or directory that links to the OER and provides the metadata to help locate these resources (e.g., Open Textbook Library)
3. A combination of the two (Brahmin, Khribi, and Jemni 2018; McGreal 2017)

## Reusability and Revisability of Content

Making content available as well as reusable and revisable are major tenants of the open movement. Ovadia (2019) notes that there are technical challenges to overcome. As project manager, you will want to take these into consideration. One is the reusability of the content (can it be downloaded as opposed to just viewed) and if the file format is editable (remixable and revisable) by anyone, not just individuals who have access to proprietary software (Ovadia 2019).

## Storing OER Locally

There are many options when considering where to host, but working with what you already

have at your institution is certainly a good place to start. Hosting requires technical support and possibly financial support, so rather than starting from scratch, checking with your institution on what is already available can save you time and money.

Local hosting means that the server storing your content is located and managed by you or someone at your institution on site. It could also mean having to manage a server where your content lives, including running system updates and security patches. Hosting locally gives you control over the content but also means you are potentially responsible for everything to do with the server maintenance.

One option is to use your local institutional repository (IR). IRs are quite popular at academic institutions for hosting locally produced materials, usually papers, theses, dissertations, etc. created by the faculty and student authors at the institution. Often, these IRs are managed by the university library. An institutional repository can offer some advantages. One is that it's often possible to customize metadata (the information that describes your OER). Another advantage is more access points (e.g., your content is findable by title, author, content type, etc.). An IR also needs care and maintenance, although that will not necessarily fall on you. One place to begin is to check with your institution's library to see if you can use the IR to host your content. This can get tricky if you have many different types of media in your OER, but most IRs can handle the better-known formats.

Examples of institutions that use their university's IR for their OER include:

- [Portland State University](#)
- [UConn Library OpenCommons](#)

Some also create separate OER repositories using the same IR software but not necessarily mixed in with other IR materials such as open articles. Examples of this include:

- [GALILEO Open Learning Materials](#)
- [SUNY Digital Repository](#)

Another option is to use LibGuides as your hosting platform. Many academic libraries have access to this resource and it's WYSIWYG content development interface makes it easy to create new sites. However, there may be [limitations](#) to using LibGuides so this solution may not work in all instances (Georgia Southern University).

## Hosted Solutions

A publishing platform like Pressbooks can act as a hosting space, whether or not the server itself is maintained in-house or if you are outsourcing. The term for this type of hosted service is Software as a Service, abbreviated as SaaS. SaaS is usually built on a licensing model where the access to the necessary software (e.g., Pressbooks) is provided on a subscription basis. The software itself is located on external servers. Platforms that offer hosting are useful because they

provide the front end—search function, metadata, search engine optimization—to not only store your content but also make it accessible and discoverable. In many cases, you can either host the platform on-site on a local server or have the platform publisher manage the server for you (usually for a fee). One advantage, however, is that the care and maintenance of the server are done by someone else. Sometimes, as with other software, you can get a free trial or use a free version of the hosting solution as a way to test which platform/hosting solution will work best for you.

There are some institutions that use shared storage services to host their content; Google Drive, Box, and GitHub are among the more common ones. For other media formats, Kaltura, YouTube, Slideshare, or similar platforms can be used. These have the advantage of being open, and many universities have a shared storage solution already in place. However, these solutions may not allow for search engine optimization (SEO), metadata, and search engine functionality, such as being able to search by author or title, unless specifically created. There still needs to be a way to find this content, even if it is stored on a local server.

## Portals and Directories/Referatories

There are other ways to host the content elsewhere if you do not have the technical support to do it in-house. There are a few repositories that will actually host your content and/or act as your content creation system.

Platforms and repository combinations:

- [LibreTexts](#)
- [OER Commons](#)
- [Open Humanities Press](#)
- [MERLOT](#)
- [Pressbooks](#)

Outsourcing your content also has some potential drawbacks. One thing to consider is what will happen to your content should the repository go away or no longer be maintained. A recent example is Florida's Orange Grove, which lost funding and was shut down in 2020. If you are hosting locally, you should be OK as long as the server support is there. But if you are hosting somewhere not under your control, it is something that you need to consider (and always have a local backup).

Remember that the hosting platform, whether it is local or external, can inadvertently create a barrier to access (e.g., needs too much bandwidth, material is hard to download or discover), so consider those issues as you select your platform. Simple is usually better or you might consider offering a low-bandwidth version of your OER if you find it necessary. Remember that in order for your OER to be remixable and revisable, they need to be in an editable format and the user needs to be able to download editable source material. Without this ability, a “license offers only theoretical rights” (Ovadia 2019).

## How Do You Share What Has Been Created?

Most repositories or portals don't actually host your content; they just point to it. These types of platforms might more precisely be called referatories since your content actually lives elsewhere. An example here is the [Open Textbook Library](#), which is a very large referatory of OER content. It provides the search interface and metadata to make your OER findable. Another is [OER Commons](#), which both hosts and points to OER resources. Both referatories ask you to submit content for review; you need to actually submit a link to where your content is stored to these referatories, since it won't find its way in there automatically.

If one exists, you may also want to consider submitting your metadata to a subject-specific repository, such as [Humanities Commons](#). These are a little harder to find and may not be as well-known, but specialists in the field or discipline may know of or already use these. Most likely you will want to submit your content to several repositories or referatories for maximum exposure. Keep track of this in case you need to upload a new edition or version of the OER.

## Metadata for OER

"Metadata are the key elements for repositories to represent and organize educational resources" (Mouriño-García et al. 2018). The term "metadata" refers to the descriptive data about your OER, such as the author, title, date created, format, length, license (e.g., Creative Commons), etc. Keep in mind that most people use a basic search engine to find OER and few people use the advanced search functions to refine their searches (Dichev and Dicheva 2012). Currently, there are no agreed-upon metadata standards for OER repositories. Different repositories may have different metadata standards, although there are some better-known schemas, such as IEEE Learning Object Metadata (LOM), ISO/IEC MLR, or Dublin Core Metadata (Mouriño-García et al. 2018). Because each repository is unique, you will likely use the metadata standard of the hosting platform. Be sure to fill in as much of the metadata as you can. It will improve the discoverability of your resources.

Filter By

- Education Standards ▼
- Subject Area ▼
- Education Level ▼
- Material Type ▼
- License Types ▼
- Content Source ▼
- Primary User ▼
- Media Format ▼
- Educational Use ▼
- Language ▼
- Providers ▼

**Figure 19.1.** Refining a search using metadata. The filter options will only work if the metadata provided is accurate and complete. OER Commons has its own metadata schema.

Keep in mind that you will need to generate some of the metadata for your resources, such as determining the appropriate subject headings. This can take some time and should be a part of your workflow (Mouriño-Garcia et al. 2018).

## Dissemination

Dissemination for use and reuse is a key element of OER. Yes, there are faculty who have created wonderful free course materials but have them behind a firewall (e.g., a learning management system). OER created within your program (e.g., potentially funded by a grant) need to be openly available to be truly OER. How will you get the OER out into the world? This is where large repositories and referatories like OER Commons or the Open Textbook Library and meta-search engines like [Mason OER Metafinder \(MOM\)](#) are very useful. While there is, at the time of this writing, no place that stores/hosts/amalgamates all the OER out there into one easy-to-use

searchable database, there are some larger repositories, referatories, and search engines that are serving that purpose in an ad hoc way. In order for people to find your content, you will want to make sure your OER materials are represented in these repositories or referatories.

Unfortunately, using Google to search for OER is less than satisfactory, although there is search engine optimization you can do to improve how your OER displays in a Google search. But if you have ever tried a search like “Analytical chemistry OER” (559,000 results as of this writing!), you’ll know how overwhelming the results can get. A major faculty complaint is that they cannot find viable OER for their course (chances are they are searching Google). A repository or referatory generally allows for more refined searching and therefore more satisfactory results, so you will want your content to be well represented in the repositories/referatories your faculty might use to find OER content.

## Getting OER into the Library Catalog

It is also helpful to consider your local library catalog or discovery system. This is where users search for content that is available to them, and having your OER materials—especially textbooks—included in the library catalog is one way to help students and faculty discover what is available to them. Work with your library’s course reserves services or technical services department (cataloging) to make your OER findable. Here again, there will be metadata requirements, so it’s best to know what you need before you start. Sobotka, Wheeler, and White (2019) highlight some of the challenges of getting OER into a library catalog, and their article is worth reviewing if you plan to do this.

## Metrics

When you add your material to a repository or referatory, check to see what kind of usage statistics or metrics you can get. Downloads, shares and views are one good indicator of the impact the OER is having outside the institution. Faculty will appreciate having this information available to them to improve their content but also demonstrate the impact of their work, especially in the promotion and tenure process. Most repositories or referatories will provide you with the number of views and/or downloads but some will also provide your faculty author with alt-metrics, such as the number of times a resource has been tweeted and retweeted. You may not always know how the OER is being used but you can certainly find out where and when it is being used. It will also be useful for you to collect this data for reporting purposes.

## Marketing Your OER

Once your project is complete, you may want to provide your faculty with some marketing tools to help them share their work. For example, a one-page flyer announcing the publication of the work or a notice to a list such as LibOER or subject-specific lists can help spread the word about the new resource. If your library or institution has a social networking presence or even a marketing

department, an announcement here will raise awareness of the resource as well as the work of your unit or department.

## Conclusion

There are many ways to host and share your OER. You can either host your resources locally or have them hosted for you. Either option will probably incur some costs, so keep that in mind as you decide on the hosting solution that is best for you. Dissemination of your OER is also key to making your content findable and reusable. You will want to make your OER as widely available as possible. You can do this by submitting it to a variety of referatories and repositories so that they are easily found. Remember that these referatories and repositories generally require that you submit the OER to them; they won't automatically add your content. It's also useful as the project manager to think about how you might market your OER. This is often overlooked but is important to get as wide a reach as possible. And don't forget to add your OER to the library catalog or discovery system at your institution.

## Recommended Resources

- [Leveraging Cataloging and Collection Development Expertise to Improve OER discovery](#) (Sobotka, Wheeler, and White 2019)

### Key Takeaways

1. Think about how and where you want to make your OER available. This could be locally, for example, in an institutional repository or in a repository/referatory such as OER Commons. A good strategy will likely consist of a bit of all these suggestions. For maximum dissemination, submitting to multiple repositories and referatories as well as hosting your own gives you maximum exposure. One of the advantages of OER is that many copies can be created and live in multiple spaces so don't limit yourself to only one.
2. People need to be able to find your resources before they can use them. Think about including your OER in your library's catalog or discovery system.
3. Make sure you have enough metadata to make your OER findable. Metadata requirements will differ from repository to repository or referatory to referatory. Learn about what metadata is needed for each repository/referatory where you plan to submit your OER.
4. Market your OER. Send out announcements and flyers. For example, you could have a book launch. After all, you've worked hard so you want as many people as possible to know about your work.

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## 20. Sustaining OER Projects

Stefanie Buck

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Sustainability in OER can take on many dimensions. As Downes (2007) points out, it's important to look at the big picture of sustainability and the “total cost of ownership” of OER which includes not just the creation of the OER but the ongoing upkeep and maintenance. Sustainability refers in part to the longevity of the program-how will you use the funds that you have to create and maintain OER? There are other considerations too. Wiley's (2007) *On the Sustainability of Open Educational Resource Initiatives in Higher Education* is an excellent resource that summarizes some of the challenges around the sustainability of OER.

Wiley (2007) defines sustainability in OER initiatives as:

“... the ability of a project to continue its operations. And certainly, the idea of *continuing* is a critical part of the meaning of sustainability. However, we cannot place value on the simple ongoing machinations of a project and staff who produce nothing of value. So the definition of sustainability should include the idea of *accomplishing goals* in addition to ideas related to longevity. Hereafter, **sustainability will be defined as an open educational resource project's ongoing ability to meet its goals. [emphasis added]**”

### Institutional Support

First, it is important to acknowledge that without institutional integration on all levels, an OER program cannot be sustained (OECD 2007). One of the main components of a sustainable OER program is having the support and infrastructure in place to help these projects develop (Desrochers 2019). It is recommended that an institutional OER policy be developed to affirm the institutional commitment to OER as well as lay out the purpose and expectations for creating and implementing OER in the classroom (Desrochers 2019). Having these supports in place will make it easier to encourage faculty to experiment with OER.

### Resources

Funding is usually the first thing people think about when they hear the word sustainability (Wiley 2007). Free-to-use resources are not free to create. As the project manager, you are likely aware of this. It is not, however, always obvious to everyone else just how much goes into creating and sustaining OER. Even projects that have an enthusiastic institution that provides “start-up” funding can falter without additional or sustained support (Annand 2015).

There are many potential funding models out there, but funding typically comes from the institution or a government or non-governmental organization (NGO). Examples of funding models include:

- Community-based donations
- Institutional (which may be at the institution level, department level, or from a specific support office such as Academic Affairs)
- Government
- Philanthropic/NGO
- Endowment
- Commercial (e.g., Lumen Learning)
- Partnerships (e.g., OpenStax's strategic partnerships with commercial partners)

One additional and more unusual model is the Increased Tuition Revenue through OER model described by Wiley, Williams, DeMarte and Hilton (2016) which essentially works on the premise that if fewer students are dropping out or withdrawing because of the cost of textbooks, having an open textbook in a course should increase the number of students who enroll and persist. This translates to increased tuition revenue; revenue which could be used to fund OER initiatives.

Lashley et al. (2017) wrote an excellent article about many of these different funding models that are possible. In this section, we will not go into each model but instead, list some areas of sustainability to consider when you are budgeting for projects and the program.

## Funding for Projects

Each project will likely have its own budget and the funding may come from different or multiple sources, such as institutional funds or a grant or both. However, in many cases, these are one-time funds, and the bulk of the funding goes toward faculty incentives. (See Lashley et al. [2017] for more on sustainable means of incentivizing faculty). Faculty incentives can range from \$500 to several thousands of dollars. Financial incentives are important to many faculty as it allows them to buy out of their course time or hire assistance on the OER project.

However, it is not just faculty incentives that need consideration. Financial incentives are only one type of cost that an OER project has. Ancillary costs need to be factored in, and you may want to build the sustainability of the project into the grant in order to keep up the quality of your product. For example, your project budget may include the following:

1. Author fees/Other Payroll Expenses (OPE), such as fringe benefits
2. Copyediting
3. Honorariums for peer reviewers/contributors
4. Funding to keep the project up to date
5. Travel to conferences, etc.
6. Software or technology costs for production and/or hosting
7. Media production (audio, video, graphic design)

Wiley (2007) points out that there are other ways of sustaining an OER project or program

besides money. For example, he notes that many open software projects are created and maintained by volunteers. This may prove challenging but is worth consideration.

## Funding for Programs

What happens when the money runs out? Will your program be dissolved? Grants and funds are available from federal agencies and institutions, but those are not necessarily guaranteed year to year. As you develop your program, consider the funding models available to you and how they can sustainably support your program over time. Keeping track of your project expenses will help you determine your annual budget.

You will most likely be the person not just charged with managing the money but also may be charged with finding the money to keep the program going. To do this, you want to build a culture of sustainability, which is discussed elsewhere in this text, through partnerships and relationship building at your institution. Sustainability is not an afterthought but needs to be built into your program from the beginning.

Budget considerations:

- **Technology infrastructure:** Even within institutions of higher education, the department or college often has to “pay” for the technological support it receives. Or you may be hosting on a platform like Pressbooks. In either case, if this is going to be a recurring cost, it needs to be accounted for in your master plan.
- **Professional development and training:** for your team or your authors. Things change and you need to keep up, or you may need to provide some training for your authors. You may want to support faculty travel to conferences.
- **Graphic design and media support:** If you do not have the capacity to do this in-house, then you may have to outsource some of this work or you may need funding to purchase a specific program for graphic design or media support.
- **Special projects:** Sometimes a unique opportunity comes along. You may want to set aside a little of your funding to cover it and it may be helpful to keep copies of unfunded project proposals in case there are some unexpected resources made available in the future.

## Technical Sustainability for Use and Reuse

Technical sustainability refers to both how the creation of the items is accomplished and how they are distributed and made available for reuse. OER are only open if they can be edited, updated, revised, remixed, and shared (Amiel 2013). Technological issues can get in the way, not only when choosing the content creation tool but also in the method of distribution. For example, you may create a video as part of your OER and post it with an open license on YouTube, but unless the actual raw video footage is available, it may be difficult for others to revise or remix the video. Proprietary formats can cause issues with the openness of a resource. If the item needs

specialized software to be edited, it can limit the reusability of the work in the future (Ovadia 2019).

Interoperability is key, as is the ability to update works using different tools and to reformat a work if the file format is no longer used (technological obsolescence). When an OER is created, it should be made available in at least one format that is easily editable. This can be facilitated by providing users the ability to download local copies of an item in multiple formats. The technology you use to create and distribute an OER should not prevent the 5Rs from happening with your content (Ovadia 2019). See the ALMS framework for help when considering which tools/platforms to use (Hilton et al. 2010).

PDXOpen, the OER program at Portland State University, for example, provides both the PDF and the Word versions of the work for easy editability. Other institutions use GitHub or Google Drive to offer editable versions of a text or other resource.

## PDXOPEN: OPEN EDUCATIONAL RESOURCES

### Community Resilience to Climate Change: Theory, Research and Practice

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**Figure 20.1.** An example of an OER available in a variety of formats. Caption: PDXOpen supports the 5Rs by making its content available in editable and reusable formats.

Sometimes it is necessary to have a technological barrier to your content, and it's important to

consider how individuals can access the work if there is a restriction. For example, an instructor has provided the answer key to an OER lesson. The lesson can be downloaded by a student or instructor, but you may not wish to give students access to an actual answer key. How will other instructors who use the work gain access to the answer key? Will they email you or be able to gain access to a shared folder? How will you regulate this? If your OER becomes popular, you might be fielding many emails from instructors asking for the answer key. Each institution will have a different solution to this problem. Working with your IT department can help you set up a system that works for you.

## Archiving

When a new edition is released, create a review process to determine when works are out of date or no longer being updated and need to be archived. This is called a retention schedule.

1. Make it clear the text is a new edition or version.
2. Put a link to the new version somewhere in the old version.
3. Indicate somewhere in the old version that this (old) version is no longer being updated/corrected/fixed and refer users to the new edition/version.
4. If the new version will be replacing the old version, consider keeping copies of the old version in a repository for posterity. Keep in mind someone may be linking to the old version.

To be sustainable, your technology needs to be stable, maintained, and available. In order to allow others to use and reuse your content, you need a reliable platform. What if the hosting platform goes away? This is a very real possibility. You should have a contingency plan in your strategic planning document in case the university decides it no longer wants to pay for your Pressbooks account, or the open-source software you are using is suddenly no longer being updated. Use the technology available to you, but keep this potential issue in mind as you plan. One way to help mitigate this problem is to host your content in several places, not just one.

This can all sound quite daunting and like a lot of work, which it is. But these are the questions/things to consider when trying to create a new system for publishing/knowledge dissemination/education, and it's much better to anticipate these situations early on than having to deal with them once your program is in place.

## Creating and Sustaining Quality Content

Among the issues that often crop up at the end of a project is how will this project be updated or maintained? It's important for the quality of the content and the sustainability of your program that the text be accurate and up to date. Many initially enthusiastic authors get bogged down with other projects and do not return to the textbook to make important updates or improvements. Production encompasses many aspects, but one of these is proper workflow. Proper workflow

can lead to a sustainable product or program. Below are some examples of areas where well-developed workflows will help you sustain your project or program.

## Currency of Content

One of the great things about OER, which are usually digital, is that they are easy to update and keep current. It's one reason why many authors want to create an OER; their discipline is changing rapidly and they want the most current textbook or OER they can get. But someone has to do the actual work. Make it clear early on who is responsible for this work and how it will be done. If you do not, the project is likely to disintegrate.

You may want to set up a form (e.g., Google Form) linked from within the OER and your website where errors can be reported. If the author is correcting the content, then you need to think about versioning (see below). Review this form on a daily basis and make the easy changes quickly (within 24 to 48 hours). This includes errors in spelling or grammar, missing captions, formatting, or layout issues. If the change is more significant, you will need to work with the author to determine how to fix the issue. If authors are responsible for correcting errors in their textbook, you need to be clear that they have this responsibility and set some expectations. For example, you may want to write into your MOU what the sustainability plan of the author is (e.g. review content for updates once a year) but then you also need to hold them to it. It is likely that you will be the one reaching out to authors asking them if they want to update their OER rather than the other way around, although some creators are very careful to keep their content up to date. You may want to set up a calendaring system with reminders of which OER requires a review so that you can reach out to the author in a timely fashion.

## Link Checking

Many open textbooks contain links to relevant content or additional resources. Those links need to be maintained and checked regularly. You can ask your authors to take on that responsibility or you can take it on. Either way, make that clear in the Memorandum of Understanding (MOU). An automated link checking system is invaluable here. You can work with your local IT department to see what options are available. Authors frequently make their text up to date and relevant by including outside sources, such as journals or news articles. In these cases, it may be better to link out to those resources, especially if they are not openly licensed, rather than trying to bring the content into the OER. However, it is best to consult the *Best Practices for Fair Use in OER* for when to link out and when to incorporate third-party materials (Jacob et al. 2021). If the articles are behind a firewall, make sure to indicate this somewhere in the citation to avoid frustration on the part of the user. Materials behind a firewall (e.g., a list of resources) should be optional and not required. For quality purposes, keeping the links working and accurate is just as important as keeping the content up to date and accurate.

## Versioning

Another reason faculty authors like OER is that it's easy to create a new edition without additional costs to the students. However, there is considerable effort that goes into creating a new edition or doing major updates to a work. Once again, you need some clarity about who will do this and what will happen if the responsible party does not make updates or changes. In some cases, you may wish to include a clause in your MOU that permits you (the publisher) to make necessary changes—even without the author(s)' permission—if you deem it necessary. For example, the [Adaptable Open Educational Resources Publishing Agreement](#) (OEN, n.d.) includes the following statement; “11. [Updates and Revisions] The Authors agree to keep this OER up to date on terms mutually agreeable to the parties. The Publisher shall have the right to update the OER should the original authors fail to update on a reasonable schedule.”

The flexible nature of OER, especially the ability to reuse and remix content, means that it is important to track versions of your OER. Imagine an instructor downloading your OER at the beginning of the summer, planning their course, and then asking the students to download your OER in the fall, only to find that there have been significant changes. Version control can help prevent that problem, as it informs readers not only when the resource has been updated, but also in what ways it has changed.

Small errors (typos) that don't change the meaning of the text can be corrected without creating a new version of the text, but anything more significant (such as an update to the text or a new image or corrected quiz question) requires version control and needs to be tracked. Many open textbooks do this in the back of the text—see [BCcampus for an example](#). Will your authors be willing to do the version control? If not, it may be better to handle these issues in-house, if you have the staff.

You should also consider when you plan to make more significant changes or updates. The whole point of version control is so that people know they have the most up-to-date version of the text. You may want to update on a rolling basis or ask faculty to gather the feedback and changes and do these at a specific time each year (e.g., summer).

## Sustainability of Programs

The ultimate goal is to create a viable and sustainable program that meets its objective: to create and share freely available reusable resources. Of course, this is just an overview and there are many areas of sustainability that you need to consider, but always keep the end goal in mind.

Wiley (2007) sums up the sustainability issues surrounding OER and offers the following advice:

- Be explicit in your goals and be tenacious about focusing on them. If you do not have goals, you cannot sustain your project or program.
- Decide what type of organization you want to be. Will you be a more centralized, coordinated organization with a specific agenda in mind (e.g., put all of our courses online for free) or will

you be more decentralized where the projects are taken on one at a time with no specific end destination?

- Decide which resource types you will offer and what media formats you can support. This may limit the types of projects you can take on and sustain.
- Decide how much support you can provide reusers of your content.
- Find other non-financial incentives for your potential authors or adaptors.
- Keep an eye on your costs and try to reduce them when possible. (Wiley 2007, 19)

Whatever decisions you make about how you will maintain and update the OER, sustainability should be built into your strategic plan. There is no one model of how to do this, so be intentional in your approach.

## Conclusion

Sustaining an OER program or project is not an easy task (Wiley 2007). There will always be trade-offs to consider. For example, if your program relies heavily on volunteers, you can save some money, but your resources may be unreliable. Sustainability, like most other aspects of OER, needs to be built into your planning at an early stage. For each project, make a sustainability plan. Build this plan into your MOU or another form of agreement. Take the time to think about project and program sustainability even before you begin.

## Recommended Resources

- [\*OER Field Guide for Sustainability Planning: Framework, Information and Resources\*](#) (Desrochers 2019)
- [\*RLOE Sustainability Guide\*](#) (Regional Leaders of Open Education, n.d.)
- [\*On the Sustainability of Open Educational Resource Initiatives in Higher Education\*](#) (Wiley 2007)



## Key Takeaways

1. Sustainability can refer to both the longevity and effectiveness of the program and the maintenance and upkeep of an individual project.
2. Build a sustainability plan into your project from the beginning. For example, make sure your authors understand that they will need a plan to keep their content current.
3. Determine what actions you will take to keep a project up to date (e.g., regular link checking) and what actions the authors need to take (e.g., review for currency, update readings).
4. Develop a plan for archiving materials that are no longer being kept up to date.
5. Sustainability of a program requires funding and resources. Build sustainability into the strategic plan for your program.

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# Case Study 7: Evolving Manifold Scholarship: From Monographs to OER

Jojo Karlin; Krystyna Michael; and Robin Miller

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The City University of New York (CUNY), the United States' largest urban public university, comprises 25 campuses that range in size from 1,000 to 30,000 enrolled students and include two-year community colleges, four-year senior colleges, and graduate and professional schools. At CUNY, OER support is distributed across campuses and resides variously within libraries, educational technology offices, and/or centers for teaching and learning. In this case study, we present ways Manifold has been used at CUNY to support open textbook creation and open pedagogy.

Manifold is a digital publishing platform developed through a collaboration between the University of Minnesota Press, The City University of New York Graduate Center, and Cast Iron Coding. It was originally designed for academic publishers, but has increasingly been used by colleges and universities as both a platform for publishing open educational resources and an OER repository. Manifold was built with a dual focus: to bridge the gap in scholarly publishing between primary sources and the supplemental multimedia materials that contextualize and inform these sources and to bring scholarly conversations into the margins of monographs. Manifold is a web application that allows users to publish dynamic projects that are usually centered around a main open access or public domain text—or a series of texts—and supplementary multimedia resources. Each institution's Manifold instance organizes its projects in a library of OER that are available for others to use and remix.

At CUNY, Manifold lowers barriers of cost and accessibility to students. Manifold publications are freely and easily available to students, who can read without signing in and can adjust margins, select light or dark mode, and adjust font size and serif to suit their optimal reading. Manifold is deeply committed to accessibility and has partnered with a team at the University of Washington to thoroughly test the app and optimize it for accessibility, particularly as it relates to screen reader users. All actions to create and read on Manifold can be done with either a mouse or a keyboard. As with Hypothes.is and other online tools, Manifold has grappled to solve the issue of accessible annotation and will release new fixes in version 7.

CUNY has a single instance of Manifold that serves as a central location for OER; CUNY Manifold features texts and course readers created by individual instructors, textbooks authored by grant-funded teams, and student publications. What follows is a series of examples that illustrate how CUNY has utilized Manifold in various ways.

# 1. Common Open Access Course Texts

A 19th-century American Literature graduate student instructor found that his students were often reading different versions of varying quality of the public domain texts he assigned. This made references to the text in class and in student essays difficult to follow. Since some students had abridged versions or supplementary materials, he was unable to ensure that all students had read the same content. To provide access to a high-quality text, and with financial support from CUNY, he led a group of graduate student instructors in building model [CUNY Student Editions](#) of texts that are commonly taught in undergraduate literature survey courses across the 25-campus CUNY system. They have completed or begun work on 15 titles, and their work has been publicly archived in a [GitHub repository](#) that includes style sheets and instructions for adoption by other instructors across the humanities. This project serves as a model for the production of open access versions of a text that have been vetted by an editor, that ensures all students are reading the same text, and that rewards graduate student labor. CUNY Student Editions also encourage instructors to assign social annotation activities that teach valuable close reading skills and provide students who are often reticent to mark up their physical copies with a way to make digital annotations and highlights.

This case study highlights the issue of obtaining and formatting course content. Manifold can be used by people with a broad range of technical skills. There are two kinds of materials that make up a Manifold project: texts and resources. As of this writing, Manifold can accept five different file types to build a text: EPUB, HTML CSS (Cascading Style Sheets), Markdown CSS, Google Docs, and Word files of the .docx variety. This variety of file types makes Manifold accessible for a wide range of skill levels. A user with a background in HTML or Markdown can fine-tune the appearance of their text, but a beginner can also make a polished publication from an EPUB or simple Word or Google Doc without any programming.

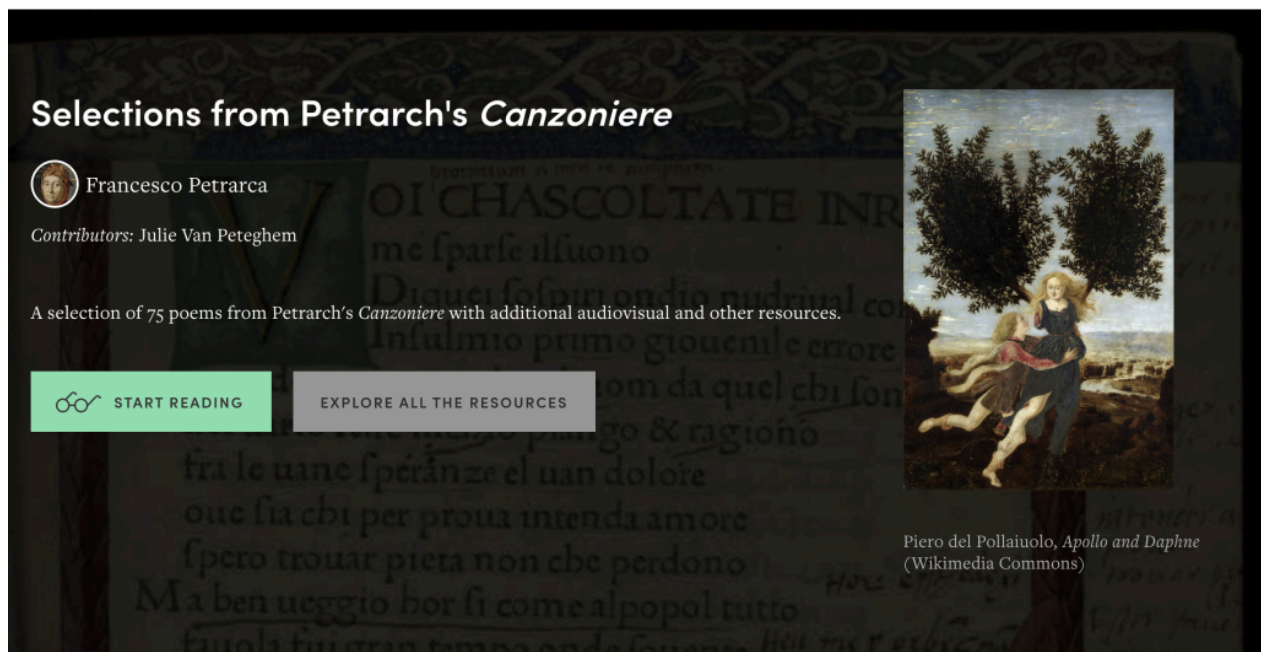
Manifold is able to synthesize a single text from multiple sources and file types, giving instructors the ability to repurpose content for different readers and situations. For instance, an instructor may have a series of chapters in HTML and a few chapters in Markdown. When properly packaged together in a ZIP archive, Manifold can combine these into a single text for use as a course reader. Because it is possible for each of those source files to be accessed by other instructors on the same Manifold instance, text sections from one course reader can be adopted to suit the needs of other classes or sections<sup>1</sup>. It is important to note that Manifold does not accept PDFs as a way to create a text. Typically we see institutions that use Manifold converting PDF to Markdown due to the user-friendly nature of the Markdown format. This approach has the added benefit of providing more opportunities for reuse, and if the source PDF is of high quality, it only requires a minimal investment of time, typically ranging from one to two hours.

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1. It is also important to stress that Manifold does not currently include mechanisms for authoring or editing documents in the system. Instead, Manifold is designed for users to compose or prepare source files (EPUB, HTML, Markdown, etc.) in their customary editors before uploading or “ingesting” them into the system. Any user who has assembled manipulable files (HTML, Markdown, Word, or Google Doc) can quickly publish their text, but users assembling PDFs may require extra support to convert to a more flexible format from whoever is maintaining the Manifold instance, whether it be the library or a discrete department.

## 2. Custom Edited Course Texts

An Italian professor at Hunter College, CUNY, has used Manifold to create a custom edition of [Petrarch's \*Canzoniere\*](#). She has included only the poems she teaches and has embedded multimedia, including audio recordings of the poem read aloud in Italian, links to scholarly articles about the poem, and images of related artwork and of the original manuscript with annotations, into each page. This dynamic anthology addresses the range of learning styles found in any classroom by providing several different entry points (audio, visual, textual, etc.) into the text. Presenting the text in different formats also helps students develop a critical perspective because comparing the same work in different media highlights aspects of the work's form and structure that may otherwise be more difficult to isolate. Listening to the recordings aids both students' language skills and their understanding of the oral tradition of Classical poetry, and modeling how a scholar annotates a poem teaches close reading skills that students can practice on their own.



**Figure CS7.1.** Homepage for the project Selections from Petrarch's 'Canzoniere' on Manifold.

This case study emphasizes a core component of Manifold: its resources, which are the ancillary multimedia files that enhance and inform the core texts. These can be curated into collections, serve as standalone objects of inquiry, and/or they can be embedded into a Manifold text to become a direct part of the reading experience. Resources can be as basic as a URL link, a YouTube video, or an MP3, or as complex as a downloadable app, a data visualization, an interactive quiz, or a three-dimensional map. These resources allow instructors to customize a text for their own purposes and to meet their students where they are. They can be added individually or as part of a bulk process using a comma-separated values (CSV) file or spreadsheet that includes all of the needed metadata.



### 3. Edited Text as a Student Project

An American Studies and Liberal Arts professor at the CUNY Graduate Center created a collaborative assignment on Manifold around a long-neglected and out-of-print text, Hubert Harrison's *The Negro and the Nation*. The professor converted Harrison's text into Markdown language based on the archival page images from Archive.org in order to create the Manifold edition. Students in the course were tasked with media and annotations to the Harrison text. Over the course of the semester, the class customized the publicly accessible digital text with media resources and annotations in the form of citations, questions, and observations developed from class readings and discussions. Collaborative scholarly editions like the Harrison text allow students to gain digital literacy while participating in both the field of American Studies and the knowledge creation by customizing an edited version of the text.

This case study is an example of how teachers are using Manifold to empower students to participate in vetting, uploading, and placing ancillary content. This offers a means not only of surfacing unexpected materials but also of allowing students to bring their own experiences to bear on their chosen field of study.

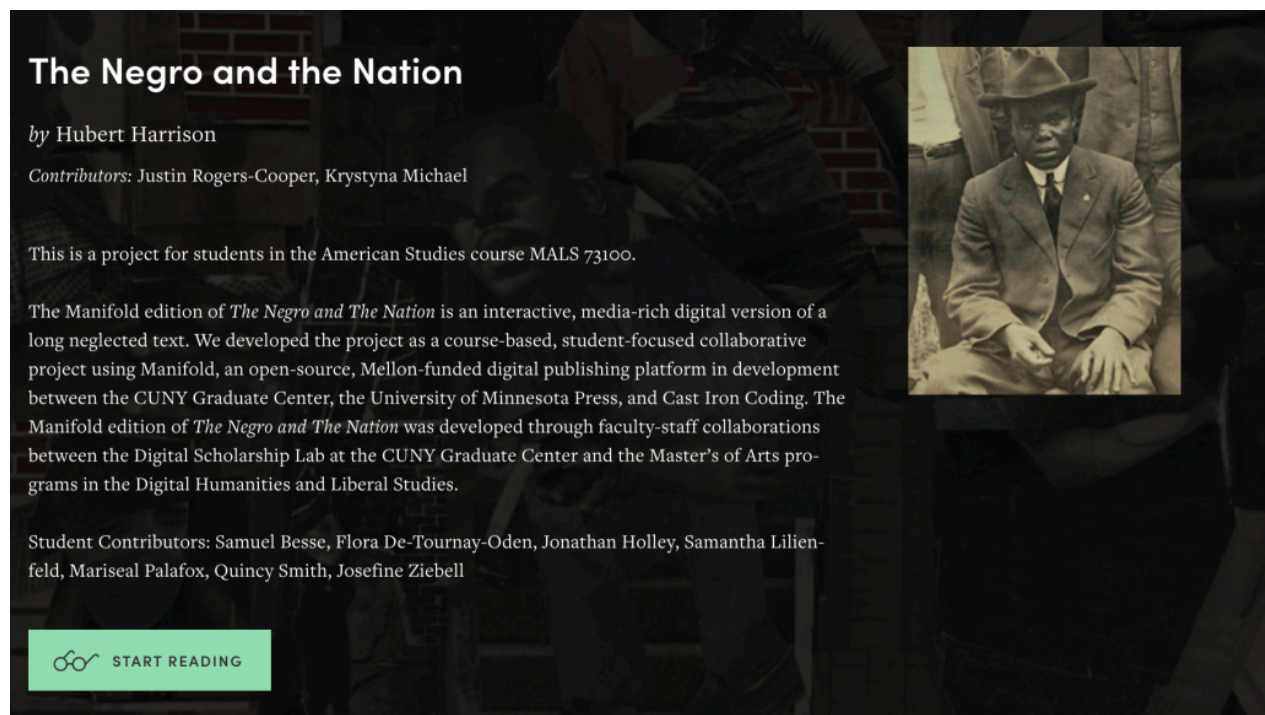


Figure CS7.2. The home page for the text *The Negro and the Nation* on Manifold.

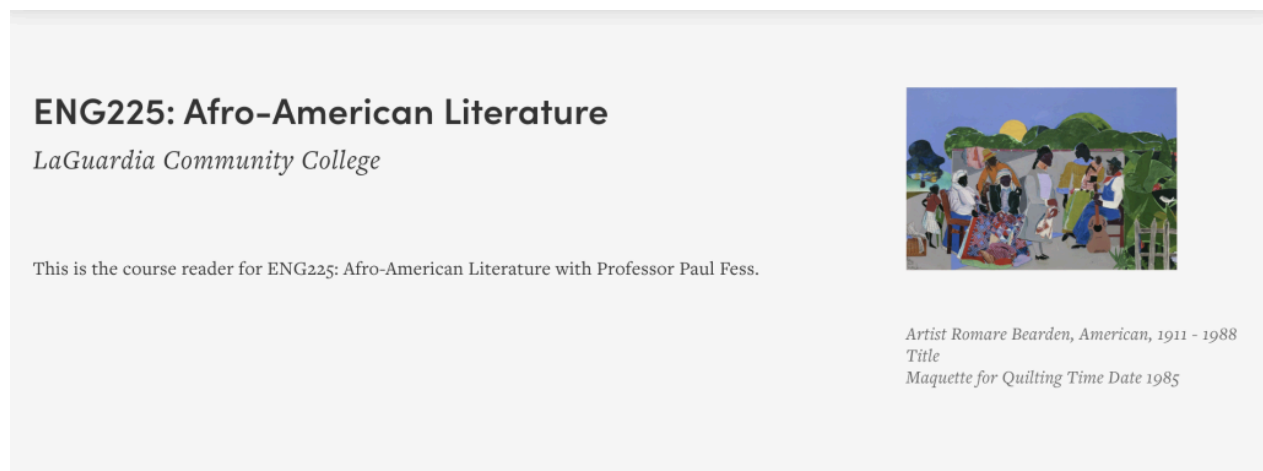
### 4. A Course Reader with Social Annotation

Several CUNY English professors have used Manifold to create course readers containing the public domain texts they teach, including [a Literature and Composition course](#) at Hostos Community College and [an Afro-American Literature course](#) at LaGuardia Community College. These projects bring together all of the public domain texts for the course and host weekly assignments in which students answer questions posed by the professor in annotations, post their own annotations and

questions, and respond to classmates' annotations. These projects showcase the way Manifold can be used as an alternative to discussion boards.

These projects show how instructors have been using Manifold's social annotation feature as an opportunity to teach annotation as a skill. Designing activities that make use of Manifold's annotation feature helps students develop crucial skills and experience with close reading, inter-textual analysis, and collaborative scholarship. Manifold's annotation feature also presents the possibility of engaging open pedagogy methods that link to the community beyond the classroom and ask students to think critically about the affordances and risks of openness on the web.

Instructors start with a discussion of what the goal of annotation is in a given context, different types of annotations, and what makes an annotation particularly productive. Instructors can introduce annotation as gloss, question, rhetorical analysis, close reading, and a means to make connections to other course materials and the broader world. Then, instructors can assign a number of annotations and a number of responses to classmates' annotations.

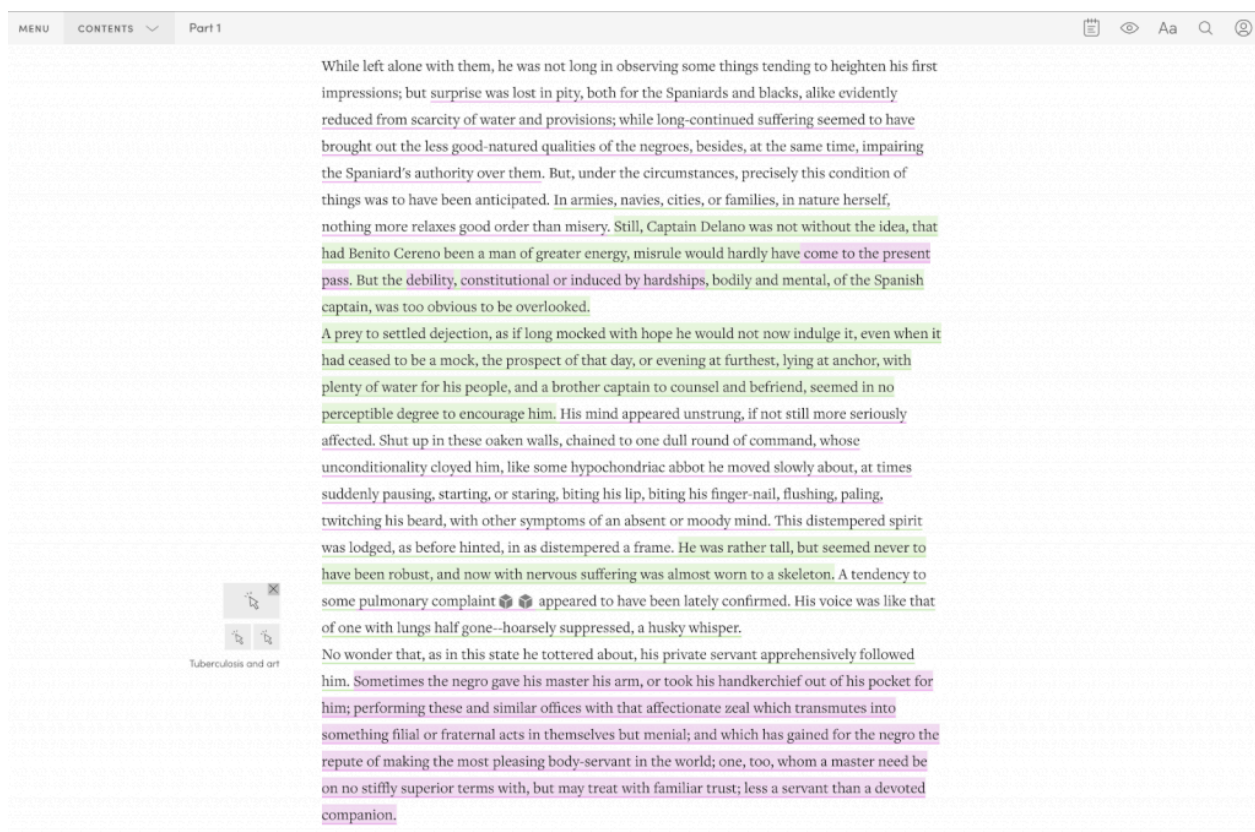


## Annotation Assignment

### Overview:

**Figure CS7.3.** The home page for the course ENG225: Afro-American Literature on Manifold.

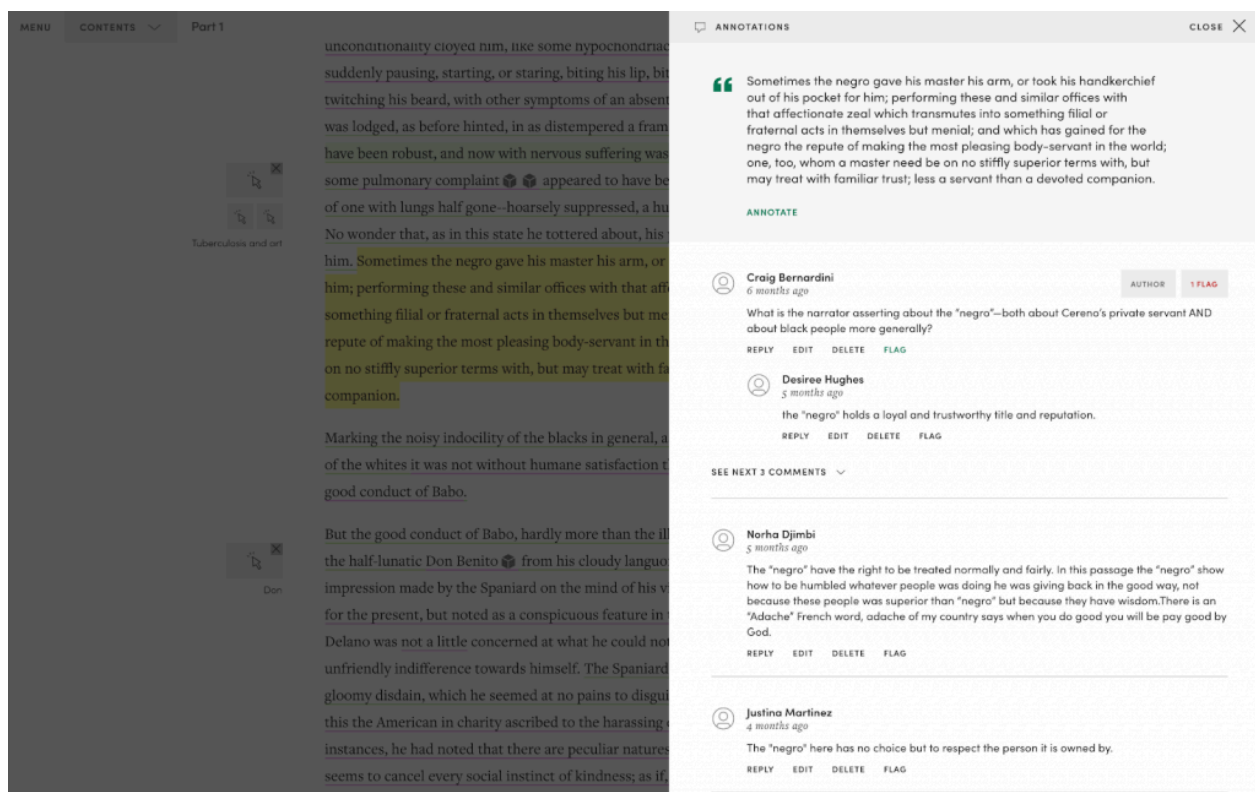
Having students collaboratively annotate readings before a class meeting produces a heat map of where students were most engaged and where they were not. This can be valuable for leading class discussion; areas that are not annotated at all are often as expressive as heavily annotated sections. Unannotated areas tend to indicate passages that confused students or made them uncomfortable. Both following up on a cluster of comments and asking why no one commented on a particular passage can help shape class discussion.



**Figure CS7.4.** A selection of text that has been highlighted and annotated in the Manifold reader.

Manifold's annotation tool can also be used as a text-anchored discussion board. You can leave discussion questions as annotations in the text and ask students, or groups of students, to respond to them in threaded replies. Alternatively, you could ask a student or a group of students to lead a discussion in the text by posing questions as annotations and requiring the rest of the class to respond in threaded replies. You can then either have the discussion leaders begin class by expanding on the conversation that occurred in the margins, or you can begin class by pulling up the discussion and pushing it further.





**Figure CS7.5.** Annotations and comments in the Manifold reader.

It is also worth considering social annotation as a means of teaching important digital literacy and civic engagement. Social annotation is being used more and more as a part of the way we interact with digital media in our interactions online as well as in the public spheres of digital reading, politics, and journalism. Browsing Kindle's popular highlights reveals that thousands of users are highlighting texts as part of their regular digital reading practices. Twitter and Facebook are often used as social annotation tools meant to generate conversation. In the realm of politics and journalism, examples of social annotation include the use of web annotator Genius by Barack Obama's administration to mark up State of the Union addresses on the White House website, and by *The Washington Post* and *The New York Times* to fact check and process executive orders and speeches that came from Donald Trump's White House.

Prolific comments sections of articles published online can be thought of as annotations. Social annotation helps teach students how to engage with the digital public sphere, which is becoming the primary public sphere in which they will engage beyond the classroom. One of the most important things we teach is how to become an engaged citizen in the world, and social annotation can give students a sense of what that means and to get started in responsible and productive ways. While social annotation can be a powerful tool for engagement in the digital sphere, not all conversations need to be public. The classroom should be a safe space for student discussion and exploration. With Manifold, instructors have the option to create reading groups that are public or private. This gives instructors and students the opportunity to engage in meaningful discussions about digital engagement, privacy, and student data.

## 5. A Collaborative Original Textbook

A group of sociology professors at Guttman Community College used grant funding to write an open-access textbook, *Ethnography Made Easy*, which they are publishing on CUNY's instance of Manifold. Each professor wrote one chapter and one member of the team is responsible for editing and compiling the finished product. To date, they have a working draft up and will be using their project to catalog older versions as they produce new ones.

While a simple text can be created with limited technical skills, creating an original text out of multiple texts or with particular stylistic features like unique chapter headings requires some additional skills and familiarity with plain text editors. We train faculty in how to create Manifold projects for themselves and offer trouble-shooting services, and also employ a train-the-trainers strategy in which we train key staff members in programs at colleges so they can train faculty and help with any issues that arise.

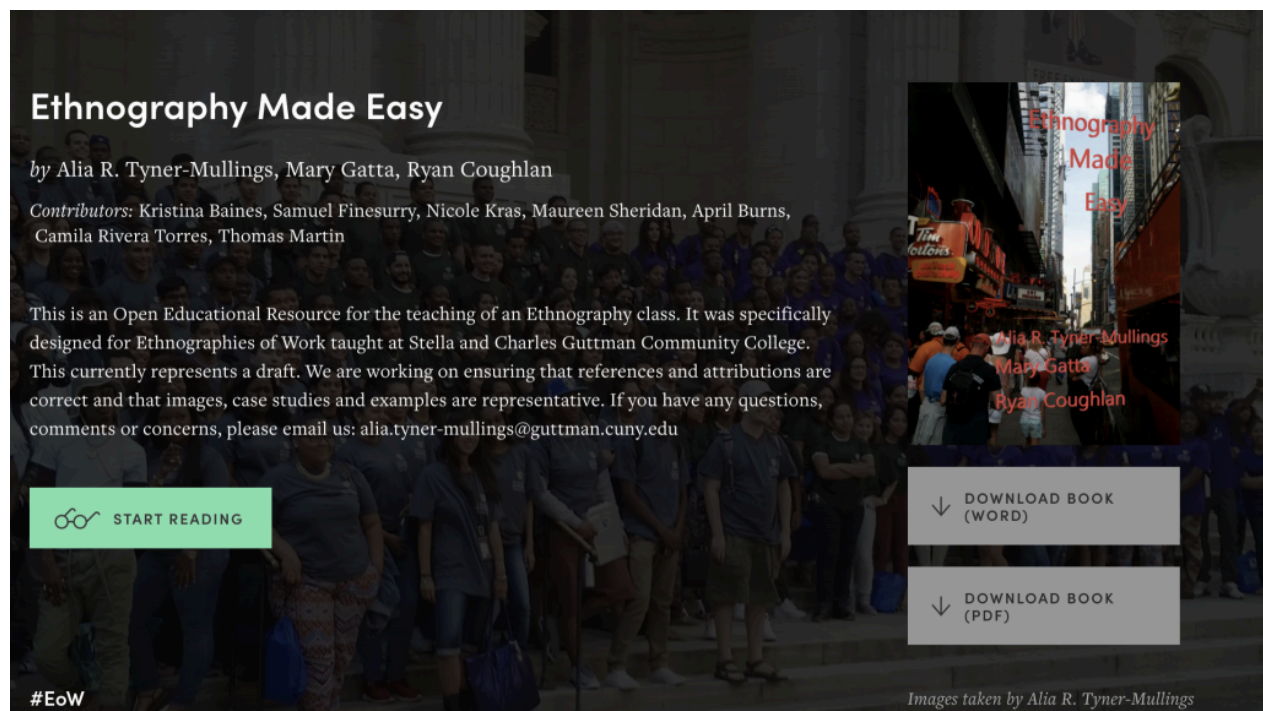


Figure CS7.6. The home page for the textbook *Ethnography Made Easy* on Manifold.

## 6. Featuring Student Writing

A humanities and pedagogy professor at the CUNY Graduate Center used Manifold to publish an *edited volume of her students' final papers* on equity in the university classroom. Each student's final paper was published as a chapter in the edited volume and one student served as editor by writing an introduction and building the project. Manifold allowed these students to participate in the production of an OER, raising the stakes of their coursework and providing an avenue for their ideas to be engaged in discussions occurring in the broader CUNY community.

# Structuring Equality

*A Handbook for Student-Centered Learning and Teaching Practices*

by The Graduate Center Learning Collective

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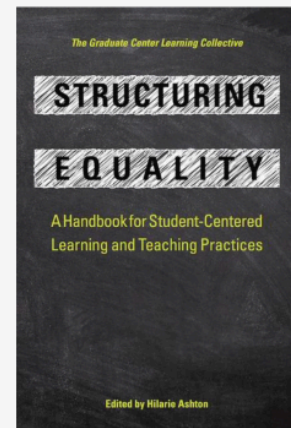
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#fight4edu

**Figure CS7.7.** The home page for the Structuring Equality handbook on Manifold.

## Final Considerations

Manifold has been a great tool for CUNY to use in advancing OER work. It is a good choice for program managers who need a platform that processes basic file formats to publish polished, annotatable course texts, readers, and textbooks. It can be used by individual instructors to create custom versions of course texts from existing open access and public domain texts, or it can be used to publish original writing under an open license. It is not an authoring platform, but it provides projects composed of documents and/or resources a well-designed interface for distributing course content to their classes.

PART VII

# COLLECTING AND REPORTING DATA

# 21. Data Collection and Strategies for OER Programs

Jeff Gallant

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## Why Collect Data?

When running an OER program, time can often be scarce, and a program manager may wonder why data collection needs to occupy a significant portion of this always-limited resource. Besides extrinsic motivators such as a demand for data in a report to stakeholders, data is also the peripheral nervous system of your program's organization; it is the way a program can assess successes, failures, emergent ideas, and urgent issues to address.

## How Can Data Help?

Data collection, analysis, and reporting can yield multiple benefits for your OER program. Data can guide strategic decision-making when a program wants to adjust, adapt, and move forward. A report based on collected and analyzed data can help tell the story of why your program has the potential to, or already is, making a difference in your institution or system. Data can also indicate a need for targeted open education programming and funding, such as data on high textbook costs, students' financial needs, or faculty awareness of OER.

## Data Collection and Ethics

Before collecting data, be sure to keep some basic ethical guidelines in mind:

### Privacy

Data privacy may be a priority at your institution already, given the potential for cybercrime and the existence of legal requirements for data privacy, such as the Family Educational Rights and Privacy Act (FERPA) in the United States. Alongside these, be sure that you have a reason to collect and/or report any personal identifiable information (PII) before doing so. For example, if an awarded grant proposal requires an institutional email address (which is likely already displayed on their campus website), this is likely enough contact information; including a phone number or a physical address may not be necessary.

### Consent

Anyone who is submitting data to you, or getting data collected passively via web or platform

analytics, should know who this data will be submitted to and why it's being collected. When someone has informed consent in submitting data to you, not only do they acknowledge that their data is being collected, but they know your intent in collecting and using this data. Transparency in your data needs pre-collection and your reporting post-collection will help.

## Anonymity

Alongside data privacy, be sure to anonymize, or “de-identify,” the data you collect whenever necessary. For example, in the United States, institutions often meet FERPA guidelines in collecting student data by replacing PII with an anonymized identifier with no meaning to anyone except the data collectors and analyzers (OECD 2016).

## Equity

Equity is often an implicit goal in OER programs; any program that attempts to close the gap in educational materials costs and barriers to access is essentially addressing educational equity (DOERS3 2021). Therefore, be sure to collect, analyze, and report your data through the lens of educational equity; if you can analyze how the implementation of OER affects marginalized demographic groups at your institution, that analysis will help your initiative tell a more focused and comprehensive story of how your program works. See the Disaggregating Your Data section later in the chapter for more details.

### Data Collection and Institutional Review Boards (IRB)

Institutional Review Boards are essential for ensuring that research taking place complies with both legal and institutional guidelines. In the United States, institutional review boards are built into federal regulations and ensure protections for all human research subjects. In the United States regulations, educational research on the effectiveness of instructional strategies, curriculum changes, and classroom management methods are typically exempt, so long as the research does not impact students' ability to learn and instructors' ability to teach (U.S. Department of Health and Human Services 2018).

Surveys, interviews, and focus groups can be exempt, but the more easily identifiable the subjects are on a personal level, the more likely that this research will not be exempt. Keeping privacy, consent, and anonymity in mind will help with this, as will awareness and transparency of any third parties that may be responsible for the collection and/or protection of your data.

This will likely cover most open education research, but it is still good to do due diligence with your IRB; there may be an outstanding issue with a particular study or further institutional guidelines which need to be met. Once you have a plan for a research study or a large data collection effort, contact your IRB for your institution's own details and guidelines.

## An OER Data Workflow, From Strategy to Collection

When you are starting your OER program's data collection, don't start at the collecting part: instead, start with figuring out exactly why you need data and how you'll use it once it's collected. Then, move to the *what* with actual data collection. To model this process, this chapter will work in chronological order and discuss data collection at the *end* of the chapter. You may encounter some data-specific terminology in the examples that you're unsure of at first, and this is okay; data terminology is discussed in the Data Collection section at the end.

### Step 1: Creating a Critical Questions List

Because the needs of your stakeholders should drive your decision-making in an OER program, start with these needs when determining what type of data you want to collect. You can do this by looking at each stakeholder group for the program and determining a list of critical questions that your key stakeholders will ask, therefore determining a need to collect the necessary data to answer these questions (see Step 3).

Please note that you first need to *know* your stakeholders and their environments. See [Chapter 8, Building Familiarity on Campus](#), for ways to familiarize yourself with the needs of diverse stakeholders at your institution. This familiarity will also help you know how to obtain data from different departments or offices at your institution, and possibly how easy or difficult that process will be.

### Stakeholder Example: Executive Administration

- How much in textbook cost avoidance have you saved students over the past academic year?
- How many students has this program affected?
- What are the savings numbers for last semester?
- Has the implementation of OER affected student retention at a course level? A degree program level?
- Has the implementation of OER affected student success? Is this effect larger for first-generation students?
- How long should we expect savings to continue due to one award? Do faculty turn to commercial resources after a certain period of time? Why do they, if so?
- How do faculty feel about OER? Does that differ by department or if they're teaching introductory / advanced courses?
- Do students think that the cost of materials is an important thing for our institution to address?



## Stakeholder Example: Instructional Faculty (Instructors, Instructional Designers)

- Has the implementation of OER affected student success? Is this a same-instructor comparison, or an aggregate of all instructors?
- Has the implementation of OER affected student success in the College of Arts and Sciences?
- Has the implementation of OER affected student success in our IT degree programs?
- For all the OER used in the Biology department, which textbook is used most for Concepts of Biology?
- How do students feel about the OER materials they've used?
- Do enough of us know about OER to get started with implementation? How do faculty feel about OER once they get to know it?

## Stakeholder Example: Students and Student Government Associations

- We are looking to support the implementation of OER campus-wide. Which faculty already are adopting OER?
- If all of our World History I sections had no-cost OER instead of commercial textbooks, how much would this save students over the next academic year?
- Is a student who takes an OER course in Electrical Engineering at our technical college more or less likely to be hired directly after graduation?
- What's keeping our faculty from adopting OER? How can we help with any barriers they're facing?
- How do students feel about OER once they've used it?

## Stakeholder Example: Campus Stores

- What percentage of students on campus are interested in a print-on-demand program for OER?
- Do bookstore employees know about OER? What do they think about it?
- What do students think about our new low-cost mathematics platform?
- How are students performing due to our new low-cost psychology adaptive platform?
- If we do a print service for open textbooks, what percentage of students in the course would want a printed textbook?

## Step 2: Exploring Data Types

Once you have a comprehensive list of critical questions, turn these lists into tables with a column for the data you need to collect. The table can set the standards for how and when you collect various data for each project within your OER program, along with partnerships that need to be made to gather data outside of your direct access and/or control.



Because data collection may be a new practice to a first-time OER program manager, we will first discuss some basic data methodologies and ways to gather useful, analyzable OER-related data at your institution or system.

## Quantitative Methods: Getting Impactful Numerical Data

Quantitative methods of data collection result in data that can be represented by and condensed into numbers (Blackstone 2012). Quantitative data may have a reputation for being a less human way of looking at a program, as it's often seen as the “hard” or “objective” kind used exclusively on impact or accountability reports. This isn't the whole story for OER program managers; quantitative data can find the magnitude of the effect of particular OER programs or projects, the most pressing needs of an institution or a department when selecting course materials, or how different introductory courses at your institution have adopted OER at different rates.

OER programs are, by default, focused on educational equity, and these programs can be sidetracked by the perceived “objectivity” of quantitative data. All quantitative data, including OER program data, will have its flaws, and too much reliance on quantitative data may steer a program into the illusion of pure objectivity (Armor 1998). Be sure to take into account how power, privilege, and inequity could interact and intersect with your data and how you analyze it. Qualitative data can also help with this, as discussed in the next section.

### Quantitative Surveying

A form with answers which can be quantified is sent to instructors, staff, and/or students. Quantitative response formats include numerical responses, multiple choice responses, rating scales, and rankings.

Examples of quantitative survey data gathered and analyzed for OER programs include:

- Percentage of higher education faculty who are aware of OER (Seaman 2018, p.11)
  - Keep in mind: How aware is “aware” when it's self-reported? Are you asking this question and defining terminology first? Do faculty know that awareness goes beyond knowing these definitions?
- Ranking of the most serious barriers to adopting OER (Seaman 2017, p.30)
  - Keep in mind: If you have a “quality” item ranked in here, how do faculty define what quality is? Open-ended qualitative responses will help here.

### Web Analytics

If you have a website for your initiative that offers impactful opportunities like professional development, grant applications, or OER discovery assistance, analytics can help you understand where your stakeholders are visiting, what they are prioritizing, and how long they are spending on the site. Analytics may also be available from third-parties in your web-based OER repositories and textbook platforms. Be sure to take privacy into account when addressing analytics: are you (or third-parties) over-collecting what you need?

Examples of web analytics data gathered and analyzed for OER programs include:

- Number of unique users visiting a web page per time period (day, week, month, etc.)
  - Keep in mind: These are often anonymized, but they're based on unique internet protocol (IP) addresses. Are these IP addresses deleted, or are they stored somewhere? This could be personal identifiable information (PII) that would need to be protected.
- Top regions/countries with OER downloads or views in a repository
  - Keep in mind: Are these places more likely to use your OER because they have English as a first or second language? What would happen if you offered translations?
- Most-downloaded open resources in a repository
  - Keep in mind: This may be because of one gigantic supersection adoption, or it may be many individuals downloading a particular resource from all walks of life. It's possible that due to protecting PII, you may never know the difference. An adoption survey can help, but it's tough to get a high response rate on those surveys

### No-Cost and Low-Cost Designators in Course Schedules

OER program managers have been considering the implementation of no-cost and low-cost course materials designators in student registration systems since 2013, when Maricopa Community College's Maricopa Millions program implemented its OER designator and shared this practice with the larger community (Maricopa Community College 2013). Multiple states have now mandated no-cost, low-cost, and/or OER designators, and both individual institutions and university systems have moved these programs forward in recent years (SPARC 2021). There are many factors to keep in mind when using designator data: see the Further Reading section in this chapter for a comprehensive resource on designators to assist with this.

Examples of no-cost and low-cost course materials designator data include:

- Percentage of sections with no-cost course materials designators in a course
- Number of student course enrollments affected by no-cost and low-cost course materials designators

### Qualitative Methods: Getting Meaningful Perspectives and Experiences

Qualitative data has a reputation for being the “soft” or subjective data that, at first glance, may appear to not be as helpful in determining the impact of your program or informing future decisions. As an OER program manager, it's a great idea to throw this reputation out entirely: qualitative data collection is extremely helpful in illustrating the meaning behind quantitative data, understanding the overall emotions and opinions surrounding various goals and projects within your program, and identifying emerging trends which your more deterministic quantitative questions could not have anticipated.

Qualitative data can be intimidating, as extra time and skills are required to manage and analyze open-ended qualitative data. Still, the outcomes of this extra time and effort can impact the

quality and sustainability of your program heavily, and getting to know qualitative data is highly recommended.

## Qualitative Surveying

Often within the same form as quantitative questions, qualitative survey questions demand answers which can be categorized and interpreted at a semantic level. Qualitative responses in surveys are typically open-ended short responses and open-ended paragraph/essay responses, along with the “Other” text box option for quantitative multiple-choice questions.

Examples of qualitative survey data gathered and analyzed for OER programs include:

- Quotes which are illustrative of corresponding quantitative OER findings (Bell 2018, p.14)
- Emerging trends and issues in OER which quantitative survey questions did not anticipate (Gallant 2018, p.25)

## Interviews and Focus Groups

Interviews and focus groups are in-depth, largely qualitative data collection methods which normally involve a conversation with someone, or a group of people, in order to dive deeper into a particular topic than quantitative research can usually cover (Bhattacharjee 2012). One salient benefit of these methods is that trends and potential issues often emerge naturally from these conversations.

Unlike surveys, interviewing and running focus groups require building a rapport with participants, listening actively, handling emotions during conversations, and managing issues of inclusion, such as the hidden cultural and power dimensions of a conversation (McGrath 2018). Having more than one researcher working on the project can help keep interview and focus group analyses from skewing in the direction of one researcher’s line of thinking. Focus groups may also include more methodical activities to start a focused conversation, such as card sorting for usability and user experience topics (Babich 2019).

As one person or group cannot reliably represent an entire group of people, more than one interview or focus group is often planned when gathering data about the efficacy of an OER program. Examples of interview data gathered and analyzed for OER programs include:

- Emergent ideas from students on the usability of an OER text or platform (Cooney 2017, p.169)
- Emergent issues regarding registration deadlines and faculty textbook adoptions from groups of students (Freed, Friedman, Lawlis, and Stanton 2018)

## OER Data Examples

The following table includes some examples of key impact indicators, data kept for analysis and calculations, data that disaggregates other data into various groups, methods used by grantees or overall instructional faculty, and perceptions of various course material-related topics by overall instructional faculty. Please feel free to add to, remove, or revise this data list for your own program's needs and contexts.

[OER Data List Spreadsheet](#)

## Disaggregating Your Data to Address Equity Directly

A focus on equal, day-one, no-cost access to resources is inherently a focus on equity; equity should be within an OER program manager's mode of thinking at all times, and therefore measures focusing on equity should be integral to every OER program's overall goals and strategies. When addressing student success with OER, measuring only the total aggregate data for all students can be a quick way to gauge overall effectiveness, but it is not a way to find out if equal access to quality resources is leading to more success specifically for students with barriers to that access. In fact, only looking at the data of all students affected by an OER course transformation will likely lead to an analysis that isn't measuring your intended equity-focused outcomes (Grimaldi, Mallick, and Waters 2019).

To bring equity into your data collection strategy, plan to collect disaggregated data (data categorized by various groups) from your institution which reflects various equity groups being addressed primarily in an equity-focused program: those with barriers to educational materials access and those for whom traditional materials tend to exclude. Examples of disaggregated-data studies on OER efficacy include a same-instructor, multi-year analysis which breaks down efficacy results by Pell eligibility, race/ethnicity, and enrollment status, which found disproportionate effects for marginalized groups (Colvard, Watson, and Park 2018) and a two-semester study of a calculus course with and without OER in 2014, which found no effect for all students but positive effects for marginalized groups (Delgado, Delgado, and Hilton 2019)

- Demographic groups that should be considered in OER data disaggregation include but are not limited to (DOERS 2021):
- Socioeconomic status of the student or student's family (Pell Grant eligibility)
- Race/ethnicity of the student
- Gender of the student, including self-reported gender identities
- Indigenous status, if applicable in your region
- First-generation status
- Enrollment status and teaching/learning modalities (part-time, full-time / in-person, online, hybrid)
- Accessibility needs / students with varied abilities

## Step 3: Assigning Specific Data Collection to Your Critical Questions

Now that you have your critical questions from stakeholders across your institution and a working knowledge of the fundamentals of OER data collection, it's time to plan your actions. By assigning the types of data required by your stakeholders to answer their questions, you'll have a framework for exactly what you need to collect, along with the stakeholders for which the reports on this data will be intended.

**Table 21.1. Stakeholder Example: Executive Administration**

<b>Critical Question</b>	<b>Data Required</b>
How much in textbook cost avoidance have you saved students over the past academic year?	Student OER/zero-cost section enrollments affected this academic year, cost savings per student per course
How many students has this program affected?	Section enrollments affected cumulatively at the semester level
What are the savings numbers for last semester?	Section enrollments affected at the semester level, cost savings per student per course
Has the implementation of OER affected student retention at a course level? A degree program level?	Institution's preferred method of measuring student retention per each OER section, e.g. Drop/Fail/Withdraw or D/F/Withdraw (DFW) rates
Has the implementation of OER affected student success? Is this effect larger for first-generation students?	Grades and/or learning outcomes/competencies data per student affected, disaggregation of data by demographic groups
How long should we expect savings to continue due to one award? Do faculty turn to commercial resources after a certain period of time? Why do they, if so?	Checks on sustainability of an OER implementation for each instructor and each course/section, survey responses if OER use is discontinued
How do faculty feel about OER? Does that differ by department or if they're teaching introductory / advanced courses?	Qualitative data from surveys, focus groups, and/or interviews with instructional faculty
Do students think that the cost of materials is an important thing for our institution to address?	Qualitative data from surveys, focus groups, and/or interviews with students

**Table 21.2. Stakeholder Example: Instructional Faculty (Instructors, Instructional Designers)**

<b>Critical Question</b>	<b>Data Required</b>
Has the implementation of OER affected student success? Is this a same-instructor comparison, or an aggregate of all instructors?	Grades and/or learning outcomes/competencies data per section, disaggregation of data by instructor of course before and after OER implementation
Has the implementation of OER affected student success in the College of Arts and Sciences?	OER sections per college, grades and/or learning outcomes/competencies data per section
Has the implementation of OER affected student success in our IT degree programs?	OER sections per degree program, grades and/or learning outcomes/competencies data per section
For all the OER used in the Biology department, which textbook is used most for Concepts of Biology?	OER sections per department, open textbook(s) or other OER adopted per section
How do students feel about the OER materials they've used?	Qualitative data from surveys, focus groups, and/or interviews with students
Do enough of us know about OER to get started with implementation? How do faculty feel about OER once they get to know it?	Qualitative and quantitative data on the participation in / impact of professional development programming on OER at the institution

**Table 21.3. Stakeholder Example: Students and Student Government Associations**

<b>Critical Question</b>	<b>Data Required</b>
We are looking to support the implementation of OER campus-wide. Which faculty already are adopting OER?	Instructional faculty in each OER section, colleges/ departments/degree programs per section
If all of our World History I sections had no-cost OER instead of commercial textbooks, how much would this save students over the next academic year?	Annual OER projections, projected number of enrollments in next AY, average savings per student per course
Is a student who takes an OER course in Electrical Engineering at our technical college more or less likely to be hired directly after graduation?	OER section enrollment per student per degree program, hiring data per student
What's keeping our faculty from adopting OER? How can we help with any barriers they're facing?	Qualitative data from surveys, focus groups, and/or interviews with instructional faculty
How do students feel about OER once they've used it?	Course evaluations, surveys

**Table 21.4. Stakeholder Example: Campus Stores**

<b>Critical Question</b>	<b>Data Required</b>
What percentage of students on campus are interested in a print-on-demand program for OER?	Qualitative data from surveys, focus groups, and/or interviews with students
Do bookstore employees know about OER? What do they think about it?	Qualitative data from surveys, focus groups, and/or interviews
What do students think about our new low-cost mathematics platform?	Qualitative data from surveys, focus groups, and/or interviews with students
How are students performing due to our new low-cost psychology adaptive platform?	Platforms adopted per section, grades and/or learning outcomes/competencies data per section, same-instructor comparisons before and after
If we do a print service for open textbooks, what's the average percentage of students in the course who would want a printed textbook?	Qualitative data from surveys, focus groups, and/or interviews with students

## Step 4: Creating a Place for Your Data Collection

Now that you have identified which data you need to collect based on stakeholder needs, categorized and defined each type of data, and determined the methods for data collection for each, it's time to create one place where all of this data resides. Whenever possible, keep this data together in one file; questions will inevitably arise which will require you to bring data points together that may have seemed entirely disconnected at first.

There is no one correct method or platform to host your data. When considering where this place for your data will reside, consider the following:

- Which methods are you most familiar with?
- Which methods allow you to sort by any data point easily?
- Which methods allow a quick search of your data?
- Which methods can manage multiple years of data? Does the system get overloaded when you have too many columns or rows?
- Will you keep any data considered personally identifiable information? In this case, which methods allow for you to comply with all FERPA guidelines and manage personal data ethically? What should you *not* share with the public due to privacy?
- If some data needs to be protected (e.g. in the event of gathering PII), how secure are the methods and platforms from cyberattacks?
- Which methods allow for accessible data visualization? This will allow you to make your data more usable and readable to stakeholders.

Here are a few examples of places for OER data. All of these examples have internal data storage tools that are linked directly to their external reporting structures:

- [Affordable Learning Georgia](#) uses Microsoft Excel for one large ALG Tracking sheet. This sheet is hosted in a shared drive and able to be edited by anyone in ALG. Microsoft Power BI links with Excel to create data visualizations and export to PDF for institution-specific reports.
- [Kwantlen Polytechnic University](#) visualizes their live Zero Textbook Cost program data through Tableau.
- [Open Oregon Educational Resources](#) stores their data in a Google Sheet and visualizes this data in a searchable web table.

By this point in the planning process, you should have a solid data strategy and plan in place for your OER program. This plan should evolve over time as stakeholder needs and data platform capabilities change and/or expand.

## Conclusion

Data collection allows an OER program manager to analyze program activities, determine the impact of projects, and report on this impact to governments, executive administrators, faculty and staff, students, and the public. Determining how you will measure the impact of your OER program early in the building process is a crucial part of creating and sustaining a successful program. Be sure to refer to your Environmental Scan (see Building Familiarity on Campus) in determining who, other than you and your team, collects and shares this helpful data.

## Recommended Resources

[Marking Open and Affordable Courses](#) (Hare, Kirschner, and Reed 2020), an open text published by the University of Texas at Arlington, is a comprehensive guide to no-cost and low-cost



designators, containing analyses of the policy and practices behind OER/affordable course markings and nine case studies from diverse higher education institutions and systems.

Getting to know the basics of quantitative and qualitative research is an essential task for new OER program managers. [Social Science Research: Principles, Methods, and Practices](#) (Bhattacharjee 2012) is an open textbook that dives into the theories behind both quantitative and qualitative research; be sure to check out the full chapter on qualitative analysis (p.113).

This text only addresses the collection of data as immediately relevant to OER Program Managers. For a more in-depth look at OER research methods (for example, as meant to be published within a peer-reviewed journal), please read the [OER Research Toolkit](#) (Open Education Group 2016).

### Key Takeaways

1. Use quantitative data to find the magnitude of the effect of particular OER programs or projects, the needs of your institution and its departments when selecting course materials, or how different introductory courses at your institution have adopted OER at different rates.
2. Use qualitative data to illustrate the meaning behind quantitative data, gain an understanding of the overall emotions and opinions surrounding various goals and projects within your program, and identify emerging trends which your more deterministic quantitative questions could not have anticipated.
3. OER programs are inherently focused on equity. Planning on collecting disaggregated data by groups with barriers to quality educational resource access will help measure the effect your program has on the students who need it most.
4. Reporting data will be largely based on what your key stakeholders want to know. Use information from your environmental scan to further plan the data you will collect.
5. Stakeholder needs and the capabilities of platforms to keep and analyze data will change over time at your institution. Be sure that your plan evolves alongside these changes.

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## 22. Calculating and Reporting Student Savings

Jeff Gallant

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As discussed in the Data Collection chapter, before you begin collecting data, you should have a plan for what you need to collect, why you need to collect it, and how you will collect it for the purposes of decision-making and reporting. That's not all, though; the second step in your data strategy is to decide how larger measures, like student savings, are calculated, presented, and analyzed.

### Calculation Principles

When you are calculating any savings data to present to the public or to your stakeholders (see [Chapter 8, Building Familiarity on Campus](#), for more on getting to know your stakeholders, and see [Chapter 21, Data Collection and Strategies for OER Programs](#), for more on gathering data to answer stakeholder questions), consider a few key principles in processing this data:

**Be able to say “it’s at least this much.”** Take every caveat into account when calculating and presenting savings data and report conservatively. An example of this is using only the *direct* reported savings from OER program grantees in calculations instead of a reported potential for more savings if the entire department adopts the resources. If your actual savings are higher than your reported potential savings, that’s great news for all if it’s revealed later on!

**Use transparent methods whenever possible.** Some of the numbers you have will be directly taken from surveys, reports, and faculty-reported savings estimates, but others (such as applying an average textbook cost savings estimate per student in one course) may have to be taken from external sources. If possible, use external sources who report their own data and estimates openly, and link to those sources within your reports and shared spreadsheets.

**Adapt your methods to the needs of your stakeholders.** If you notice an emerging critical question that you did not anticipate in your collection strategy, try to adapt your calculation methods. For example, in its first year, Affordable Learning Georgia started tracking annual savings estimates from its faculty teams; when it was clear that administrators needed semester-by-semester data to answer their questions about OER use on campus, we changed our new grantees’ reporting methods to include semester-by-semester estimates and checked in with our past grantees on this as well.

### Reporting Principles

**Be as transparent as possible, whenever helpful.** While many of your stakeholders will just need a summary report to keep up-to-date on your program, providing all of the important data in its

primary form (spreadsheets, a database) and sharing your methodologies will help in “sharing the work” on how you reached the numbers in your report and assist others in answering their more complex questions. Try to avoid sharing extraneous and/or sensitive data: in your tracking sheets, you may have things like grants office contacts, invoice and purchase order numbers, or personal identifiable information (PII) that does not need to be shared.

**Balance this transparency with up-front simplicity.** Media outlets and administrators do not have exorbitant amounts of time to parse your data, so while having unprocessed or highly-technical data available is a plus, providing data in only a non-usable or jargon-heavy way is like having a layer of opacity on top of your intended transparency. If your own communications office or upper administration wants to know about your numbers, consider giving a “short version” in reports and communications first, and then put the details below that or in an attachment for reference.

**Provide a slow-moving metric for the public.** Similar to keeping things simple up-front, media outlets and administrators will be confused by a constantly-moving set of impact numbers. For example, if you are adding student savings being reported by faculty on a rolling basis, and then removing student savings immediately when faculty say they have discontinued using OER, newer reports and articles will start looking “wrong” and creating confusion. In this case, you may want to provide consistent numbers annually in reports and keep per-semester numbers in your shared spreadsheets for those who want to dive deeper into the data.

**Reach out with good news.** You may have wonderful reports that share great news about your program through your website or a newsletter, but sometimes you need that to go further. While much of this chapter focuses on the *creation* of reports to suit various stakeholders and media outlets, be sure to use all possible channels to market your program’s successes. Provide appropriate visuals: if you’re sharing savings across multiple institutions or departments, use tables; if you’re tracking student savings across a period of time, use line graphs or bar charts; if you’re showing the percentage of your grant teams that saw positive, neutral, or negative changes in outcomes, use pie charts. For more on marketing, see [Chapter 7, Marketing Your OER Program](#).

## Using Direct Data from Grants

After planning your data collection strategy for course redesign / OER implementation grants and confirming a fully-completed round of projects, using the collected savings data or savings estimates from grant projects seems far simpler than having to find an overall per-course or per-textbook average for an entire institution. However, the complexities within using direct project data from grants are in the details:

**What if a grant project is discontinued?** Not every grant team will use OER or no-cost or low-cost materials forever, due to either individual decisions, changes in leadership, or changes in

the commercial market. How will you find which projects have discontinued the use of these materials?

**What if grantees expand their use of OER beyond your estimates?** Similar to discontinuations, how will you find out which projects have proliferated the use of OER within the department? ALG addresses this through annual sustainability checks, which are explained in detail further in this chapter.

**What if grantees start using different OER materials?** Can you ascribe the savings being generated from a team using different OER or no-cost or low-cost materials to a grant if the team moves to a *different* set of OER? The grant project most likely introduced them to OER, and they're now undergoing improvements to their course on their own with that work in mind. ALG does report these same-course cost savings if grantees move to different open materials.

**What if grantees expand their use of OER to new courses?** Can you ascribe the savings being generated from a team using OER in a different course that wasn't part of the grant project? As with the different materials issue, there's no easy answer. ALG does not report on this expanded use of OER in new courses directly, but this expansion could be measured through accurate no-cost and low-cost course markings.

**What happens when grantees, especially project leads, leave their institution?** ALG's discontinued projects have largely been caused by turnover, whether it's a project lead leaving for another institution (the most likely) or a new Department Chair mandating the use of a particular set of resources for a course (far more rare). Not only are projects discontinued due to turnover, but data is far harder to collect when the Project Lead for a grant team suddenly disappears. How will you manage turnover in grant projects? ALG checks with Project Leads yearly in sustainability checks, but due to Project Lead turnover complicating who is able to respond for a team, we are looking at department-focused methods via campus advocates moving forward.

## Adoption Data and Campus Store Partnerships

The [University of Missouri's Affordable and Open Educational Resources Program](#) has an integrated partnership between the program and the Mizzou Stores, the bookstores for the University of Missouri. Beyond the potential for bookstores to provide print-on-demand services for open textbooks, the Mizzou Stores actively reach out to faculty to report OER and no-cost material adoption within their collection of textbook adoption data. This is an example of a highly-effective campus partnership between what at first seems like an unlikely pairing but is actually an alliance with a common goal: student success (Bell, 2018).

Partnerships like the one at the University of Missouri have a common goal: collecting textbook adoption data per the nationwide mandate for higher education institutions within [Section 133 of the United States Higher Education Opportunity Act](#) (HEOA). Section 133 is not just a mandate for collecting adoption data: the section encourages institutions to work together to find ways to reduce the cost of textbooks to students. While campus store partnerships are not always

prevalent or possible, it stands to reason that the common goal of reducing textbook costs and the mechanics of reporting adoption data would foster some partnerships between adoption-data collectors (often campus stores) and OER program managers (Stocker, 2018).

## Adoption Data Caveats

Like nearly all data collected for reporting, adoption data will come with caveats:

**Incomplete Adoption Data:** By far the most common issue with using textbook adoption data is getting adoptions reported for 100% of courses. In practice, this is quite difficult to do, depending on the data collection methods, how mandatory it is to report textbook adoptions within policy, who reports the adoptions (instructors, chairs, deans, administrative assistants), and how departments account for last-minute instructor assignments to sections and low-enrollment cancellations.

**OER Knowledge:** If faculty are asked if they adopted an open textbook and haven't received any training on what "open" means, it stands to reason that this OER adoption data will only be as accurate as each individual faculty member's own knowledge of what it means for something to be open. Even if textbook adoption data at an institution is at 100%, a faculty knowledge gap on OER will render this data inaccurate.

**What's Actually Required or Optional:** If syllabi are being analyzed for adoption data, this can be a more accurate, if more time-consuming, way of collecting textbook adoptions; however, what materials are labeled as "required" and "optional" may differ in practice, and there isn't a way to determine this from just looking at syllabi.

**A Hidden Cost of "Free:" Student Privacy:** Just because a resource does not come with a dollar amount does not mean it's open or even zero-cost. For example, some seemingly zero-cost proprietary platforms might require the student to create an account, and the platform's company may give this student account data or even behavioral data to a third-party company for monetary compensation. The cost to the student, in this case, would be privacy; truly open educational resources, or even those marked as zero-cost, should not require this.

**Print Versions of Open Textbooks:** The same print-on-demand advantages of a campus store partnership can complicate adoption reporting as well:

- If an OpenStax textbook is available as a print copy for \$50 but it's optional due to the digital version being open, does every instructor know and report this as a \$0 course material? Do they have guidelines on what to do in this situation?
- Do some instructors require the printed version of an open textbook?
- Does the Campus Store make it clear to students at registration and when shopping for texts that a free digital version is available?

Your campus store may be just one example of a partner on-campus that can share helpful data



and analysis advice. Affordable Learning Georgia partners with the Research and Policy Analysis office for enrollment data and course marking reports. Departments and offices with a goal to provide good data stewardship can help strengthen your data collection, analysis, and reporting.

### **A Common OER Calculation Issue: Using an Average Materials Cost per Course (or Course Section)**

When you have institution-wide or system-wide data on how many courses are using OER, or how many courses have zero-cost or low-cost resources, you will often have *only* this data – not how much it would have cost to use a commercial textbook (Open Oregon Educational Resources 2018). When possible, use actual cost savings as reported by the faculty teaching the course or by your bookstore's data. Arriving at a total savings estimate for this data would be extremely difficult without an average per-student per-course savings estimate. Various groups have modeled how to arrive at an estimate:

- The Student PIRGs used reports of per-course savings when transforming a course from using a commercial textbook to OER to reach an estimate of \$100 average cost savings per course (Student PIRGs 2015).
- Nicole Allen and David Wiley presented at the 2016 Open Education Conference on multiple cost-savings studies and concluded that \$100 was a reasonable per-course savings estimate (Allen and Wiley 2016).
- In 2018, SPARC and Lumen Learning came to a more specific estimate using disaggregated IPEDS data to reach an estimate of \$116.94 per course (Nyamweya 2018).
- The National Association of College Stores provided an average textbook cost using college store data to reach an \$82-per textbook average. This is slightly different from a per-course average, though, as the average includes low-cost scholarly monographs, novels, and trade publications, which are often assigned in a group of required resources for one course (Open Oregon Educational Resources 2018).
- OpenStax used the 2015-2016 NCES National Postsecondary Student Aid Restricted-Use Data File and an internally-calculated average of 7 courses per year that would likely require a textbook to reach a \$79.37-per-course textbook cost average (Ruth 2018).

Affordable Learning Georgia used the NCES 2016-2017 Baccalaureate and Beyond Codebook, the latest national report available, for the average textbook costs per student per year (NCES 2021). ALG took the average student-reported expenditures per year on digital textbooks and print-only textbooks from the NCES report ( $222.75 + 523.04 = 745.79$ ) and divided this per-year average by 7 per OpenStax's average for 7 courses per year, arriving at a per-course savings number for zero-cost materials courses of \$106.54.

Because Affordable Learning Georgia also has a low-cost designator for course sections with materials costing \$40 and under, we subtracted the maximum cost for a low-cost designator from this average to get \$66.54 in savings for low-cost materials courses.



## Sustainability Checks: An Example from Affordable Learning Georgia

In order to keep our reports as accurate as possible, ALG distributes an annual survey to ensure that grant teams past one year of the final semester of the project are still using OER and/or no-cost or low-cost materials. If a project has discontinued the use of these materials and have returned to using commercial materials, the project is marked as Discontinued in a sustainability check column for that year and savings, therefore, need to be zeroed out for the year. To keep these methods conservative, groups that have not responded are marked as “unknown” and are also zeroed out, even though there is a possibility that OER are still being implemented.

To eliminate having to manually zero-out discontinued projects or fill in continued projects for each semester’s savings estimates, ALG uses data validation and if-then formulas.

## Example: ALG Sustainability Checks and If-Then Mechanics in Excel

### Sustainability Check Status Column

Use one column for your annual sustainability check that contains the status of each project. There should only be a few different statuses to each sustainability check, such as continued, discontinued, in-progress, and unknown. Depending on your situation, you may have a few extra statuses as well (for example, we have Continuous Improvement grants which do not generate student savings). ALG uses one row per grant project and track savings in semester columns.

Eliminate the potential for typographical variations or errors through the Data Validation option in Excel. Make a list of the terms you want included in the sustainability check column in a different sheet, and let the Data Validation refer to that list. You can even toggle a drop-down box option for the column, where you can select one of the terms from the list in each cell's drop-down menu.

### Other Columns

A Sustainability Check may be the appropriate time to update other data in your spreadsheet. Other columns used in a Sustainability Check may include:

- Average Students Affected Per Semester (updated data)
- Cost Savings Per Student (updates to commercial textbook prices, updates to low-cost resource prices)
- Reason for Discontinued Projects (Turnover, Quality Issue, Departmental Mandate, etc.)

### Integrating Sustainability Checks into Savings Data with If-Then Formulas

Once your sustainability checks are complete, in the corresponding semesters' data columns, select one of the multipliers, such as the number of students affected. Instead of just grabbing the per-semester student count, put an if-then formula in the cell:

=IF([the cell in your Sustainability Check column]="Continued", [the cell in your Students per Semester column], 0)

This formula looks at the Sustainability Check cell in your grant project's row. If the cell says it's Continued, the formula puts the Students per Semester (as reported by each grant team) into the formula's cell. If the Sustainability Check cell says anything else, the formula will place a 0.

By using the formula above for all the cells in the column, you have a sustainability check-dependent student count for the whole semester, without the need to fill in individual cells with student numbers.

What's great about if/then formulas is that your data can be automatically updated if something changes. For example, if you haven't heard from a Project Lead for two years and therefore had an

“Unknown” cell for them, but suddenly they get back to you and say that the whole team has been using OER for all those years and it’s still going. Great! Set the Sustainability Check cells for those years to “Continued,” and those savings will automatically update because of the if/then formulas in each students-per-semester cell.

## Conclusion

The way you calculate and report savings data is essential for running and evaluating your OER program. These ongoing tasks let you see the impact of your and your team’s hard work, and they give you a clear indicator of the milestones your team has achieved. Reporting your data is a way to celebrate the successes of the program and your contributions to the open movement broadly. Starting from a set of calculation principles can help you get started, as can existing models from successful OER programs. Whenever you can, look to other departments within your institution or system to build on previous reporting and avoid duplication, and knowing how externally reported data is collected and analyzed will be crucial.

## Recommended Resources

The [Grants Tracking Sheet Demo](#) is a CC BY 4.0-licensed Excel file demonstrating many of the above techniques and principles in action. While the savings and student numbers in the file are random numbers within a given range, the formulas are set up to function in the same way as the described methods above.

## Examples of OER Data Reporting

- [CUNY: New York State Open Educational Resource Funds Annual Reports](#)
- [Kwantlen Polytechnic University: Zero Textbook Cost Program](#)
- [North Dakota University System: Performance Audit Report on Open Educational Resources](#)
- [Open Education Network Data Dashboard \(restricted to community members\)](#)
- [Open Oregon Educational Resources: Continuing Savings from Past OER Grants](#)
- [University System of Georgia: Affordable Learning Georgia Data Center](#)

## Key Takeaways

1. Balancing transparency and simplicity is an essential reporting principle to keep in mind when analyzing your data and constructing reports.
2. Giving frequently-updated or live statistics can be helpful for key stakeholders who are close to your program, but the public and media outlets need a solid set of slow-moving numbers in order to effectively tell the story of your program.
3. Instructors and departments will occasionally discontinue the use of OER due to various factors, especially faculty turnover. Be sure to regularly check on the sustainability of each grant project or reported OER adoption in order to provide accurate impact estimates in your reports.
4. Keep your estimates for average costs as transparent as possible, and be prepared to explain how you estimate these savings.
5. If possible, partner with the departments and/or organizations which have course materials adoption data, such as a campus store or auxiliary services department.

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# Case Study 8: Collecting and Reporting Statewide Student Savings Estimates in Oregon

Amy Hofer

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## Background

[Open Oregon Educational Resources](#) promotes textbook affordability for community college and university students, and facilitates widespread adoption of open, low-cost, high-quality materials. I'm the Statewide Open Education Program Director for Oregon's public higher education institutions, which comprise 17 community colleges and 7 universities that are not in a system. This means that our 24 community colleges and universities coordinate with the statewide program on an opt-in basis. Each institution has at least one OER adoption, a designated OER point person that I communicate with regularly, and participates in professional development opportunities. However, each institution also has its own unique culture and is in a different place with textbook affordability implementation, which adds complexity when it comes to collecting data about OER impact on each campus.

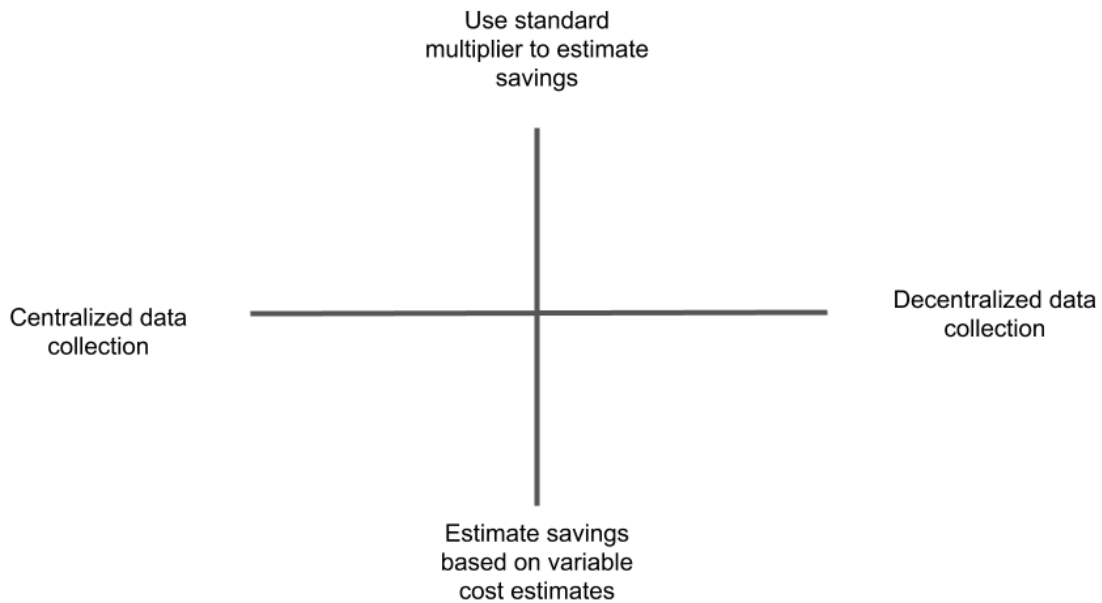
Open Oregon Educational Resources provides impact reporting on the effectiveness of the statewide OER program in order to show that we are effectively using the public dollars that fund the program. In my case, I'm accountable to the statewide Higher Education Coordinating Commission and the state legislature. They want to know about student savings that result from statewide investment in textbook affordability at least once a year, so that's the kind of data that I usually focus on gathering and reporting, and that's what I'll write about here.

## The Messiness of Data Collection and Reporting

Open Oregon Educational Resources reports on several different policies and professional development programs that relate directly to student savings, and each one is assessed differently. Generally speaking, student savings reporting is simpler when the assessment is centralized and uses consistent metrics to calculate impact. It gets more complex when the assessment is decentralized and includes multiple methods.

Here's an illustration of what I mean. Figure 1 below represents four quadrants where your data collection and reporting might fall based on two foundational characteristics of the program. Plot your program on the X axis according to how centralized your data collection is, and use the Y axis to show how much your savings multiplier varies per course in your program. While this model borrows loosely from math concepts in order to make a visual representation, it doesn't map onto ideas about positive/negative, values, etc. In other words, pulling your data into a more centralized system might not make its management easier, and standardizing your calculations might not

make your results better. Rather, the model may be helpful in clarifying how the tools and methods you use will enable you to tell an effective story about your program. The narrative accompanying your data provides context where you can explain the methodological decisions you made and/or highlight the impact of your program.



**Figure CS8.1.** “Visualization of Data Collection & Reporting With Quadrants”

In some ways, the least complex type of data that I gather is for the Open Education Network (OEN) OER Review Workshops, because the workshops are run centrally, at the statewide program level, and use a standard multiplier of \$100 per student, per course, to estimate student savings if faculty participants go on to adopt OER. A dot representing this program would go in the upper left corner of the graphic.

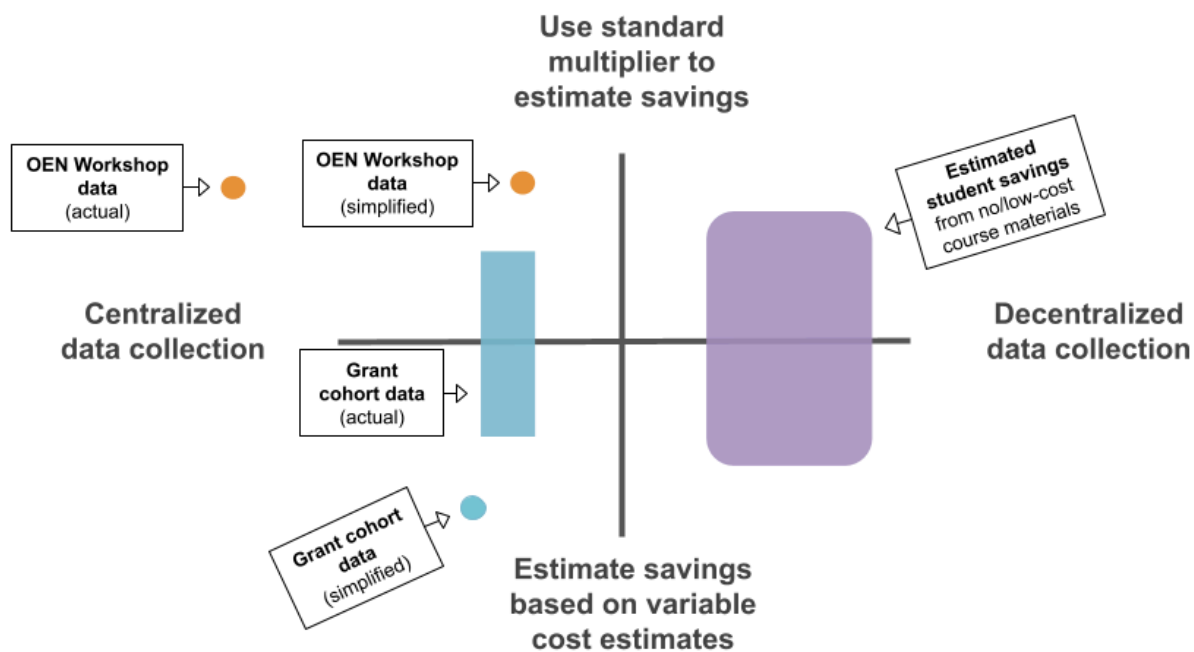
I do a somewhat more complex assessment to estimate student savings resulting from the different grant cohorts that have run since 2015. While this program is run centrally, at the statewide program level, the student savings calculation is based on the actual cost of the previously assigned textbook, new, at the campus store. When faculty apply for course redesign grants, they record the cost of their current textbook. That’s the number that I use to multiply by enrollment when I report on grant program impact. A dot representing this program would go in the lower left corner of the graphic.

In reality though, these explanations are simplifications. For example, returning to the example of estimating savings resulting from OEN’s OER Review Workshops, when it was time to report on these savings in 2019, Open Oregon Educational Resources beta-tested the OEN’s Data Dashboard. This different level of centralization changes the model – either by making the X axis extend further to the left, or by moving the dot for the program further to the right. Complicating the example of the statewide OER grant program, lots of faculty don’t enter a single number when

I ask the cost of their current textbook. Instead, they'll enter a price range, list different prices at the different institutions on the proposal, state \$0 if they already use no-cost course materials, or enter \$100 as an acceptable estimate if it's a brand-new course or they don't know the answer. In other words, different grants within the cohort might need separate dots on different parts of the Y axis, or the program might be represented by a blob.

That caveat gives me a running start to describe an even more complex research project: estimating student savings, or cost avoidance, represented by the no-cost/low-cost schedule designation mandated by Oregon's HB 2871. In this case, I reach out to all 24 of my point people at Oregon's community colleges and universities and ask them to develop a method to calculate this, if they haven't already, so that they can share data with me. I aggregate and report the total. This approach acknowledges that any student savings number will be an estimate, while prioritizing local needs and expertise regarding campus-level decisions about data. The resulting report includes a range of different methods covering both of the right-hand quadrants in the graphic.

Figure 2 below shows the simple and messy ways to think about data collection and reporting.



**Figure CS8.2.** “Simple and Messy Visualization of Data Collection & Reporting With Quadrants”

What the messy model shows is that all student savings estimates are the result of decisions you made, which you might explain in more or less detail depending on your audience. There are many valid ways to arrive at an estimate, and they can coexist even when you're reporting on a single program. Yet the big-picture takeaway remains the same: saving money has a big impact on students, regardless of the method used to calculate the amount.



## Scaling Past Spreadsheets

Open Oregon Educational Resources runs many different professional development programs that result in redesigning courses with OER, and are therefore associated with student savings. Since proposals and registrations usually start with a Google form, I already have a spreadsheet to track participants as each program begins, and then I can continue collecting student savings data in that same spreadsheet. Using multiple spreadsheets makes it simple to keep program participants and data separate among the current programs that are running at any moment (consult Chapter 22 for more considerations on collecting and reporting student savings with spreadsheets).

However, as time has passed, the “multiple-spreadsheets approach” has started to be a “too-many-spreadsheets problem.” Gathering historical data for past programs means opening many files and then copy/pasting calculations into a cumulative spreadsheet. I also don’t have a way of easily understanding impact when faculty participate with Open Oregon Educational Resources across professional development programs. For example, they can begin by writing a review of an open textbook, then receive a grant to redesign their course when they adopt the book that they reviewed, and then receive a follow-up grant to create ancillary materials for that same course. At this scale, a relational database will handle the data better.

I identify as an experiential learner, my tech skills are only okay, and I don’t have access to institutional support for the tools I use. Here are some of the options that I explored given these constraints:

- Retrospective data collection spreadsheet
- Tableau
- MS Access
- MySQL
- Airtable
- LibreOffice Base

I looked into these alternatives by doing just enough experimentation to figure out that I didn’t have the time or setup to use most of these options effectively. For now, and partly through the process of elimination, I’m using a pro Airtable account because Airtable looks a lot like spreadsheet software, which I’m already very comfortable with. You don’t have to run Windows to use it, you don’t need to do any programming, and it’s in the cloud. Despite the easy entry, though, I pretty quickly got stuck on advanced functions between linked tables, so I reached out to a local nonprofit I’ve volunteered with that uses Airtable and hired one of their employees as a contractor. We’re still working on the best way to enter new data and documentation of how to get all the data back out for reporting.

## Community support

Part of my research process involved asking different communities for help. I sent a message to three OER listservs and learned that a lot of other people were running into similar questions and thinking about the same options. I called a friend who is a retired database manager to see whether she wanted to come out of retirement for one freelance job. I also talked with the OEN Data Dashboard development team about whether their tool could meet my program's needs.

It has been illuminating to talk to all the different people that I've dragged into my problem. My open education colleagues instantly understand what data I collect and how I want to report on it, but have less expertise with database tools. The database experts that I've talked with are leaps and bounds ahead of me in terms of the potential for a design, but need me to break down definitions for programs, projects, course numbers, cohorts, and all the other terms I use to talk about how I interact with faculty.

As of this writing, I've identified three-ish options that are emerging in the Open Ed field for solving the "too-many-spreadsheets problem" with databases. As I mentioned above, I'm testing an Airtable database. The OEN's Data Dashboard is a promising membership-based solution that also may lead to the creation of a multi-institutional data set. Third, the Virtual Library of Virginia (VIVA) is developing a custom MySQL database to track their OER program data.

## Accepting Uncertainty

Looking back at spreadsheets from the mists of time makes me realize how much information about Oregon's OER program I've collected while still learning about what data – and what *data structure* – I need in order to do good reporting. Applying what I've learned will entail a lot of cleanup as I'm transferring data currently stored in old spreadsheets and my unreliable memory into a new database. Tackling this problem will make Oregon's program more resilient because the data will be easier for other people to work with. But changing how the data is stored doesn't simplify decisions I make about how and what to report on in order to tell an effective story about the student savings impact of Oregon's OER program.

For other program managers approaching the work of tracking and reporting data on their program's impact, I have two potential recommendations based on what I've learned.

**Recommendation 1:** Collect data about your program for a couple of years in a way that works for your needs and capacity. Then step back and figure out whether you need to change your model based on what you know now about your program. Maybe your organically-grown system will keep working for you as-is or with minor changes. If it has grown to the point where you need to scale up from spreadsheets to a database...

**Recommendation 2:** There are several sharable solutions that are almost ready to be adopted or adapted at the time that I'm writing this. That means that you may have the option of establishing

a system in advance of collecting your data, or changing your approach with the benefit of existing tools.

I'm excited by the possibilities of having my data stored in a relational database and I think it's a scalable solution, but more than that, I hope that other program managers reading this case will feel validated in trying out different options without knowing the outcome in advance. My data collection experiences so far have been messy, follow-your-nose processes that have nonetheless enabled me to keep the program moving towards our vision that high quality, low-cost learning materials will be thoughtfully integrated into teaching and learning in Oregon's higher ed institutions. Sharing data about student savings along the way creates opportunities to celebrate and thank the faculty, point people, and other OER champions whose work makes the impact possible.

## Additional Resources

### Methods

- [Estimating student savings from no-cost/low-cost course materials](#)
- [Support for a Local Approach to Statewide OER Data Collection](#)
- [One Ton of OER Impact Data](#)
- [Too Many Spreadsheets? Relational Databases for Open Ed Program Data Collection and Reporting](#)

### Examples

- [2021 OER Review Workshop Report](#)
- [Continuing Savings from Past OER Grants \(Second Report\)](#)
- [Estimated 2019-21 Student Savings in No-Cost/Low-Cost Courses](#)

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# Review Statement

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The *OER Starter Kit for Program Managers* was produced with support from the [Rebus Community](#), a non-profit organization building a new, collaborative model for publishing open textbooks. Critical to the success of this approach is including mechanisms to ensure that open textbooks produced with the Community are high quality, and meet the needs of all students who will one day use them. Rebus books undergo both peer review from faculty subject matter experts and beta testing in classrooms, where student and instructor feedback is collected.

This book has been peer reviewed by eighty-six subject experts. The full-text received an open review from the reviewers, based on their area of expertise.

The review was structured around considerations of the intended audience of the book, and examined the comprehensiveness, accuracy, and relevance of content, as well as longevity and cultural relevance. Further review by the lead authors and the three copyeditors focused on clarity, consistency, and grammatical errors. See the [review guide](#) for more details. Changes suggested by the reviewers were incorporated by lead authors and editors.

Editors Abbey K. Elder, Stefanie Buck, Jeff Gallant, Apurva Ashok, and Marco Seiferle-Valencia and the team at Rebus would like to thank the reviewers for the time, care, and commitment they contributed to the project. We recognise that peer reviewing is a generous act of service on their part. This book would not be the robust, valuable resource that it is were it not for their feedback and input.

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Clint Lalonde	Ben Rawlins	

# Accessibility Assessment

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## A note from the Rebus Community

We are working to create a new, collaborative model for publishing open textbooks. Critical to our success in reaching this goal is to ensure that all books produced using that model meet the needs of all students who will one day use them. To us, open means inclusive, so for a book to be open, it must also be accessible.

As a result, we are working with accessibility experts and others in the OER community to develop best practices for creating accessible open textbooks, and are building those practices into the Rebus model of publishing. By doing this, we hope to ensure that all books produced using the Rebus Community are accessible by default, and require an absolute minimum of remediation or adaptation to meet any individual student's needs.

While we work on developing guidelines and implementing support for authoring accessible content, we are making a good faith effort to ensure that books produced with our support meet accessibility standards wherever possible, and to highlight areas where we know there is work to do. It is our hope that by being transparent on our current books, we can begin the process of making sure accessibility is top of mind for all authors, adopters, students and contributors of all kinds on all our open textbook projects.

Below is a short assessment of eight key areas that have been assessed during the production process. The [checklist](#) has been drawn from the [BCcampus Open Education Accessibility Toolkit](#). While a checklist such as this is just one part of a holistic approach to accessibility, it is one way to begin our work on embedded good accessibility practices in the books we support.

Wherever possible, we have identified ways in which anyone may contribute their expertise to improve the accessibility of this text.

We also welcome any feedback from students, instructors or others who encounter the book and identify an issue that needs resolving. This book is an ongoing project and will be updated as needed. If you would like to submit a correction or suggestion, please do so in the [Rebus Community forum](#).

# Accessibility Checklist

**Accessibility Checklist**

Category	Item	Status
<b>Organizing Content</b>	Content is organized under headings and subheadings	X
<b>Organizing Content</b>	Headings and subheadings are used sequentially (e.g. Heading 1, Heading 2, etc.) as well as logically (if the title is Heading 1 then there should be no other Heading 1 styles as the title is the uppermost level)	X
<b>Images</b>	Images that convey information include Alternative Text (alt-text) descriptions of the image's content or function	X
<b>Images</b>	Graphs, charts, and maps also include contextual or supporting details in the text surrounding the image	X
<b>Images</b>	Images, diagrams, or charts do not rely only on colour to convey important information	X
<b>Images</b>	Images that are purely decorative contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information)	X
<b>Tables</b>	Tables include column headers, and row headers where appropriate	X
<b>Tables</b>	Tables include a title or caption	X
<b>Tables</b>	Tables do not have merged or split cells	X
<b>Tables</b>	Tables have adequate cell padding	X
<b>Weblinks</b>	The weblink is meaningful in context, and does not use generic text such as "click here" or "read more"	X
<b>Weblinks</b>	Weblinks do not open new windows or tabs	X
<b>Weblinks</b>	If weblinks must open in a new window, a textual reference is included in the link information	X
<b>Embedded Multimedia</b>	A transcript has been made available for a multimedia resource that includes audio narration or instruction	X
<b>Embedded Multimedia</b>	Captions of all speech content and relevant non-speech content are included in the multimedia resource that includes audio synchronized with a video presentation	X
<b>Embedded Multimedia</b>	Audio descriptions of contextual visuals (graphs, charts, etc.) are included in the multimedia resource	—
<b>Formulas</b>	Formulas have been created using MathML	—
<b>Formulas</b>	Formulas are images with alternative text descriptions, if MathML is not an option	—
<b>Font Size</b>	Font size is 12 point or higher for body text	X
<b>Font Size</b>	Font size is 9 point for footnotes or endnotes	X
<b>Font Size</b>	Font size can be zoomed to 200%	X

# Version History

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This page provides a record of edits and changes made to this book since its initial publication. Whenever edits or updates are made in the text, we provide a record and description of those changes here. If the change is minor, the version number increases by 0.1. If the edits involve substantial updates, the edition number increases to the next whole number.

The files posted alongside this book always reflect the most recent version. If you find an error in this book, please let us know in the [Rebus Community forum](#), where reported errors will be visible to others.

We will contact the author, make the necessary changes, and replace all file types as soon as possible. Once we receive the updated files, this Version History page will be updated to reflect the edits made.

## Version History

**Version History**

Version	Date	Change	Affected Sections
<b>1.0</b>	April 30, 2022	Original	
<b>1.0</b>	June 3, 2022	Small edits for clarity on Creative Commons licensing and attribution.	<a href="#">1. Introduction to Open Educational Resources</a>