Ancillary OERs

What could I create as an OER, other than a textbook?

Learning Objectives

- Identify the OER ancillaries an author may want to create, and why
- Explore examples of those ancillaries
- Locate online repositories of OER ancillaries
- Delve into further readings to learn more about creating OER ancillaries

Introduction

Taking on the creation of an OER textbook is a project that, for many college instructors, is either too big or unnecessary because good textbooks already exist in their discipline. An alternative project is to create OER ancillary materials. These supplemental items make important contributions to the academic community by providing free, shareable, and high-quality teaching and learning materials that offer competitive alternatives to paid commercial publisher packages.

Choosing to "go OER" is facilitated by sites like <u>OER Commons</u>, whose mission is to help us "Explore, create, and collaborate with educators around the world to improve curriculum."

This PowerPoint presentation identifies many types of OER ancillaries, offers examples of each type, points you to online repositories of existing OER ancillaries, and provides further readings.

Course Building Materials

These items help instructors design, build, and organize the content of their classes.

Examples of Course Building Materials

- Syllabus Introduction to Sustainable Energy (2010, MIT OpenCourseWare)
- Full Course <u>Electrical Troubleshooting</u> (2020, Linn-Benton Community College), <u>Introduction to Mass</u> <u>Media</u> (2013, Open Washington)
- Lecture <u>Air Pollution: A Global Threat to Our Health</u> (University of Copenhagen)
- Lecture Notes Adolescent Health and Development (Johns Hopkins University)
- Lesson Introduction to Financial Accounting (2016), Mitosis and Microscopy (2020, Allen Institute)
- Lesson Plan <u>Electrical Power Drives</u> (2016, Delft University of Technology)
- Module <u>23 Things for Digital Knowledge</u> (University of Edinburgh)
- PowerPoint Slides <u>Biology II PowerPoint Lectures</u> (Lumen)
- Unit of Study <u>3D Modelling with Processing</u> (2021), <u>CTE Online</u> (2020, California Dept. Of Ed.)

Active Learning

These supplementary items engage students with hands-on learning opportunities.

Examples of Active Learning OERs

- Activity/Lab <u>Interactive Physics Demos</u> (2019, USMA for OpenStax), <u>Experiment Problem in</u> <u>Kinematics</u> (2014, SERC)
- Game <u>Stax Investing Game</u> (2021), <u>Mutation Detective</u> (2020), <u>Medicine Games: Blood Typing</u> (2013, Nobel Foundation)
- Homework/Assignment <u>Agriculture Math Packet</u> (2020), <u>Anatomy & Physiology Lab Homework and</u> <u>Reference Materials</u> (2017), <u>Engaging Students in Biology Using Animations</u> (2016)
- Interactive <u>Citizen Science Association</u>, <u>Biomechanics WeBWork Problems</u>, <u>Sustainable Facilities Tool</u>
- Simulations <u>Engineering Technology</u>, <u>PhET</u>
- Teaching/Learning Strategy <u>10 Things You Can Do with ArcGIS Online and Story Maps</u>

Readings, Visuals, and Audio-Visuals

These ancillary items support in-class and out-of-class teaching and learning. Some sites include a mix of Creative Commons-licensed, public domain, and copyrighted materials. As with any OER material you intend to reuse, revise, or remix, verify the license of the works you are incorporating into your new creation before you redistribute.

Examples of OER Readings, Visuals, and Audio-Visuals

- Case Study <u>Business Case Studies</u> (guide from University of BC), <u>U.S. Climate Resilience Toolkit</u> (NOAA)
- Data Set <u>Analyzing Community Issues Through the Flint, MI Water Contamination Crisis</u>, <u>Our World in</u> <u>Data</u>, <u>Project Open Data</u> (U.S. Gov)
- Demonstration/ Video Physics Demonstration Videos (2012, MIT OpenCourseWare)
- Diagram/Illustration <u>Today in Energy</u> (U.S. Energy Information Administration), <u>Learning Normal Distribution</u> with MS Excel (2020)
- Lecture <u>Air Pollution: A Global Threat to Our Health</u> (University of Copenhagen)
- PowerPoint Slides <u>Biology II PowerPoint Lectures</u> (Lumen)
- Primary Source <u>Experimentation and Innovation: Building the Hale Telescope</u> (2020, Rockefeller Archive Center), <u>NASA Image and Video Library</u>
- Simulation Engineering Technology, PhET
- Student Guide <u>Black Lives in Astronomy</u> (2020, Univ. Of San Francisco), <u>College Physics I: BIIG Problem-Solving</u> <u>Method</u>

Assessments

When intended for grading, answers to these problem sets and test banks are typically available only to verified instructors. Other assessments are for student self-checks to evaluate mastery of a topic.

Examples of Assessments

- Pre-test <u>Math for Manufacturing</u> (2018)
- Rubric <u>Persuasive Speech Evaluation Form</u> (2016)
- Student self-check exercise <u>Bio 101 Quizlet Tutorials</u> (2019), <u>OpenStax</u> Student Resources (ex, "Try It" Exercises) for individual textbooks
- Tests and quizzes Instructor Resources for OpenStax Anatomy and Physiology

Repositories of OER Ancillary Materials

Where can you find ancillary materials? *OER Commons* is a great first stop, but it is not the only option. Your curriculum team librarian is available to help in your search.

Ancillary Repositories

- <u>OER Commons</u> is, as stated on its website, "a public digital library of open educational resources."
- <u>Creative Commons Search</u> indexes 500 million+ images, and helps you "Find content you can share, use and remix," but also warns its users to verify licensing on search results.
- <u>SOL*R</u> freely available online learning resources from BCcampus
- <u>OpenStax Hub</u> sign up to share ancillaries for OpenStax textbooks
- <u>MERLOT</u> Multimedia Educational Resource for Learning and Online Teaching (not exclusively Creative Commons licensed)
- <u>SkillsCommons</u> from the U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training program
- Need more? Talk to your team librarian!

Further Reading

- Abbey Elder's OER Starter
 Kit: Ancillary Content <u>https://iastate.pressbooks.pub/oerstarterkit/chapter/ancilla</u> ry-content/
- Abbey Elder's OER Starter Kit: Tools & Techniques for Creating OER <u>https://iastate.pressbooks.pub/oerstarterkit/chapter/tools-</u> <u>creating-oer/</u> - includes 5-minute video
- OER Activity Sourcebook: An Interactive Resource Guide (by N. Salmon) guide to making Pressbooks interactive with assignments, quizzes, polls, etc., at <u>https://wisc.pb.unizin.org/oersourcebook/</u>
- Faculty OER Toolkit (S. Moist, BC Campus) ch. 3 "Types of OER (and where to find them)" at <u>https://pressbooks.bccampus.ca/facultyoertoolkit/chapter/typesof-oer/</u>