University Libraries Presentations

University Libraries

10-4-2024

Being Open about OER: Perceptions, Use, and Impact

Treasa Bane
Washington University in St. Louis

Dorris Scott
Washington University in St. Louis

Follow this and additional works at: https://openscholarship.wustl.edu/lib_present
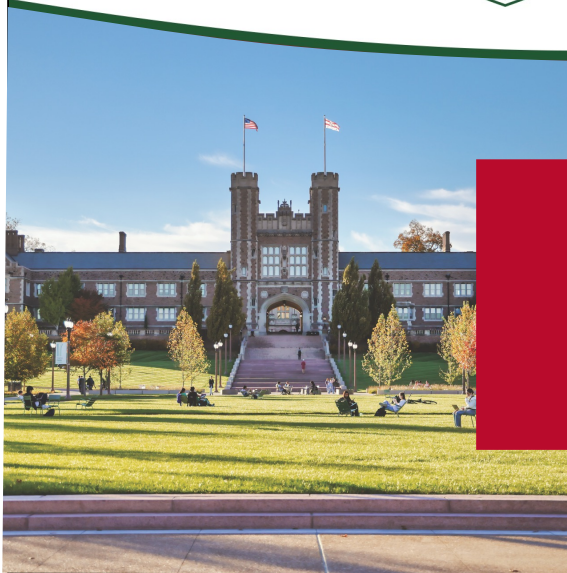
Part of the Curriculum and Instruction Commons, Geographic Information Sciences Commons, Higher Education Commons, and the Library and Information Science Commons

Recommended Citation

Being Open about OER

Dorris Scott, School of Continuing and Professional Studies

Treasa Bane, University Libraries

Image Description: The image depicts a large, symmetrical collegiate Gothic-style building with a central archway entrance flanked by two tall towers. Above the archway, the building has a high parapet with decorative battlements. Twin flagpoles atop the towers each fly flags against a clear blue sky. The building is composed of light-brown and reddish-brown bricks with white stone details outlining the windows and archways. It is surrounded by a well-manicured lawn with scattered autumn-colored deciduous trees and evergreen trees. Several people are on the lawn; some are sitting on the grass, others on benches, and a few are walking towards the building. White lamps line the pathway leading up to the entrance, and the atmosphere appears to be serene and studious.
Alt Text: Gothic-style building with two towers and an archway entrance, people on a lawn with autumn trees in foreground.
Texts within the Image: There is no visible text within the image.

Open Educational Resource

"Teaching, learning, and research materials – including textbooks, tools, modules, tests, and software – that are free to use and modify under an open license. They allow no-cost access, adaptation, and redistribution with few or no restrictions."

Treasa

OER is not niche; What's the difference between course redesign and using or creating OER?

Advantages of OER

- Based on pedagogy
- Nimble to software changes

Treasa
- how to think critically about designing a course around using OER in a GIS (geographic information system) course aimed at continuing and professional studies students
- Perceptions of OER, misunderstandings, perceptions of value
- Has a pedagogical basis. Touches on the ADDIE model which is focused on materials-centered instruction. According to Reiber (2008), the advantage of materials-centered instruction is that it is reusable, replicable, and always available.
- many laud OER as a "cheaper" and more "cost-efficient" instructional tool, but both faculty and students learn how to use cutting-edge learning materials as well as how to evaluate said materials for quality.
- benefits of using OER for GIS can be applied and seen as beneficial to other fields where research, software, data, etc. changes and needs to be updated frequently
    1. Further developing student's data management skills
    2. Increasing students familiarity with the Census Data portal and Census website which are widely used sources for GIS work.

Image descriptions

Image description left image: UCGIS webpage on OER. This section is called "Extend, Enhance, Expand: GIS, GIScience, and Geospatial Content." Below that is the text: "Are you looking for online materials that will provide you and your students with new or supplementary knowledge around geospatial content? These **Open Educational Resources** may be useful additional and/or alternative resources, especially when you're unable to be meeting in-person. These focus on *what* is taught and learned during geospatial instruction.

The GIS&T Body of Knowledge is supported by UCGIS as an enduring and dynamic expression of our evolving domain.

Geographic Information Science & Technology Body of Knowledge (GIS&T BoK) (gistbok.ucgis.org)

Mixed collections of materials

UCGIS's Webinar collection

GISGeography.com
Project Geospatial
Open Geography Education
Tufts Student GIS Expo Explorer
Spatial Reserves, a data-focused blog maintained by Joseph Kerski
Ignite Education, a geospatial blog by Adena Schutzberg"

Right image: UCGIS webpage

Right image: UCGIS webpage on OER. This section is called "Read, Review, Deploy: Collections of Pedagogical & Instructional Materials." Below that is the text "Are you re-visiting and dramatically changing your instructional materials (course syllabus, lab exercises, tutorials, etc.) in response to shifting to an online or hybrid modality? Have you ever wondered, at 3 am, where to start or how to begin? These focus on how GIS can be taught and learned (the infrastructure around teaching and learning).

Course syllabi, lab exercises, and/or assessment ideas

-Closed campus, open source: Teaching GIS during the Covid-19 crisis (David Abernathy, Warren Wilson College)
-Geographic Data Science Lab's Teaching Links, including links to existing courses on spatial data science, GIS, and statistics. Maintained by Alex Singleton with the Geographic Data Science Lab, (University of Liverpool, UK).
-Bolstad's GIS Fundamentals (6th edition) materials; Designed to support his GIS Fundamentals textbook (6th edition), Paul Bolstad (Univ of Minnesota) shares linked lab exercises with data and videos for use both ArcGIS Pro and QGIS, plus exam & quiz questions for use directly with Canvas
-Geographic Information Systems in Decision Making Situations (Paul Cote)
-Geographic Data Science (Arribas-Bel)
-Assorted GIS Classes at the University of Minnesota
-GeoTech Center's Model Courses
-GeoTech Center's National Database for GIST & Geospatial Technology Syllabi
-Skills Commons, search for keyword "geospatial"
-University of Minnesota's StoryMap Curriculum Portal"

Website
UCGIS: https://www.ucgis.org/site/instructional-resources

Dorris

Image description: Kennesaw State University OER story map named "Intro to GIS with Open Education Resources." Below that is the text: "This is a collection of readings, videos, tutorials, and other resources about GIS - geographic information system or science. These materials are used at Kennesaw State University and the University of North Georgia in an Introduction to GIS course." To the right of the text are nine modules with various geographic imagery such as maps and data in each module picture. The modules are: What is GIS, Spatial Data Fundamentals, Displaying Geospatial Data, Attribute Data, Queries and Databases, Data Sources, Geoprocessing, Digitizing and Editing, GNSS and field collection, and coordinate systems.

Website
KSU OER Collection:
https://storymaps.arcgis.com/collections/982221c4ff4c4580a7aa21369e27 5acd
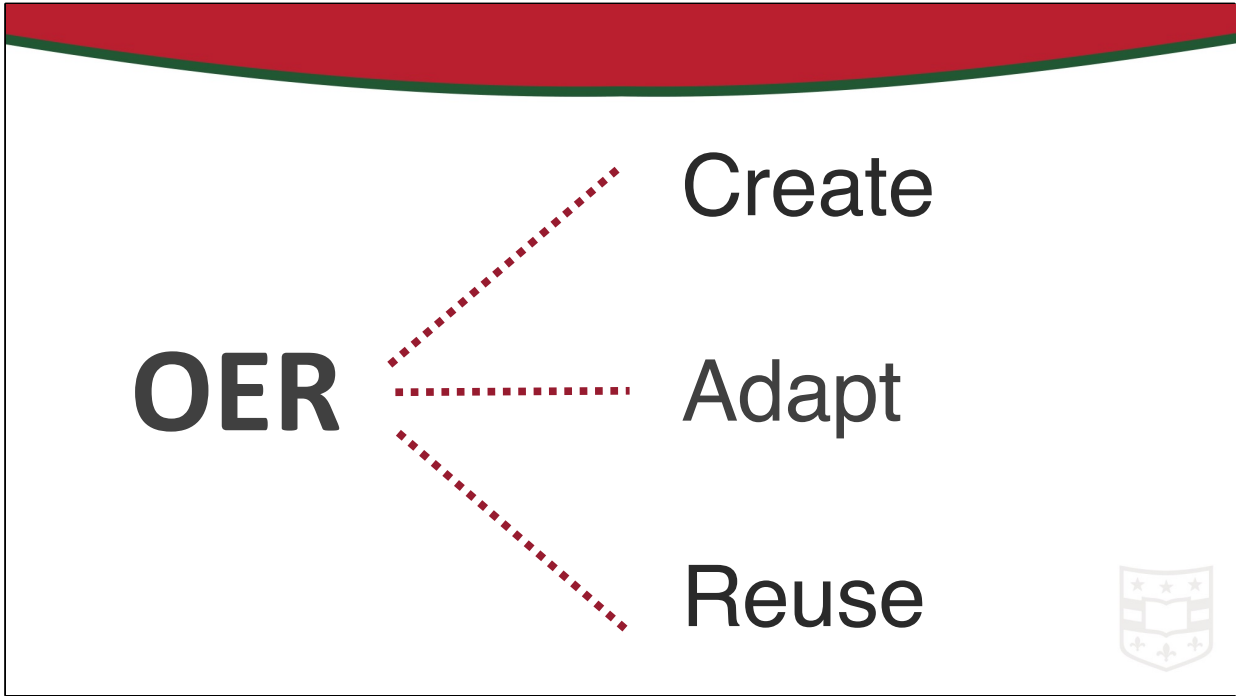
Treasa

Image description: OER in black text and three red lines go to Create, Adapt, and Reuse. Create and Reuse is in black text and Adapt is in black text.

Reiterate benefits of using OER for GIS can be applied and seen as beneficial to other fields where research, software, data, etc. changes and needs to be updated frequently

Dorris

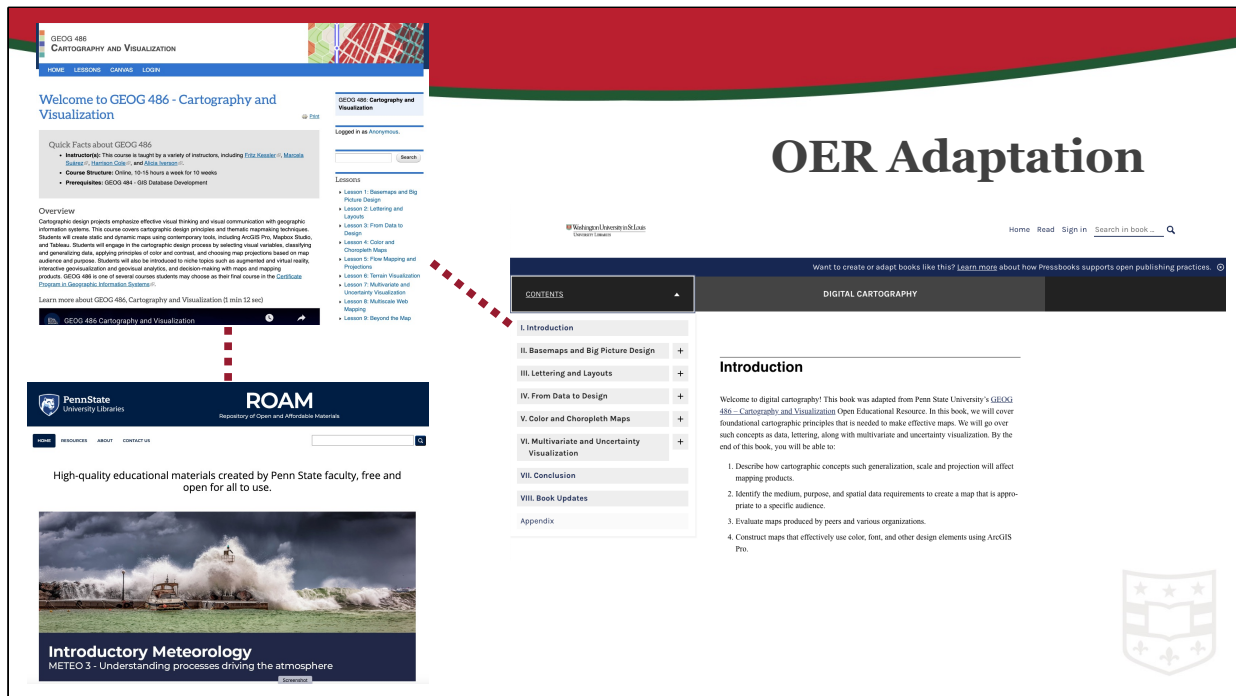Top left image: Penn State University GEOG 486 – Welcome page which has the name of the instructors, course structure, pre-reqs, and overview. A green dotted line is going town to the ROAM website and another line is going to the right to the WashU Digital Cartography OER.

Bottom left image: Penn State University ROAM open education resource repository. On the website is dark blue text that says "High-quality educational materials created by Penn State faculty, free and open for all to use." The main image is of a wave crashing into a pier and there is a boat docked to the pier. Below that is "Introductory Meteorology, METEO 3 – Understanding processes driving the atmosphere."

Right image: WashU's Digital cartography OER. On the left is a table of contents which are: I. Introduction, II. Basemaps and Big Picture Design, III. Lettering and Layouts, IV. From Data to Design, V. Color and Choropleth Maps. VI. Multivariate and Uncertainty Visualization, VII. Conclusion and VIII. Book updates. On the right is the Introduction section which has the text: "Welcome to digital

cartography! This book was adapted from Penn State University's GEOG 486 – Cartography and Visualization Open Educational Resource. In this book, we will cover foundational cartographic principles that is needed to make effective maps. We will go over such concepts as data, lettering, along with multivariate and uncertainty visualization. By the end of this book, you will be able to:

1. Describe how cartographic concepts such generalization, scale and projection will affect mapping products.

2. Identify the medium, purpose, and spatial data requirements to create a map that is appropriate to a specific audience.

3. Evaluate maps produced by peers and various organizations.

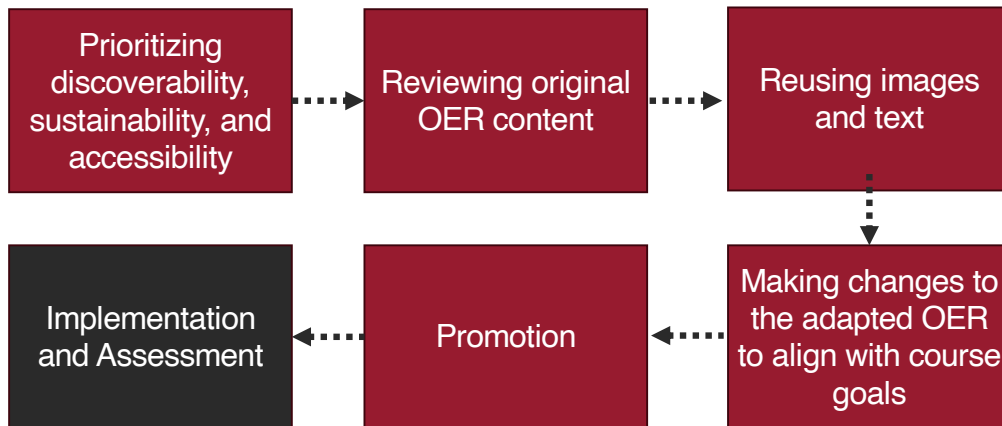4. Construct maps that effectively use color, font, and other design elements using ArcGIS Pro."

GEOG 496: https://www.e-education.psu.edu/geog486/welcome
Roam: https://roam.libraries.psu.edu/
Digital Cartography:
https://wustl.pressbooks.pub/digitalcartography/part/introduction/

Steps Taken

Prioritizing discoverability, sustainability, and accessibility	Reviewing original OER content	Reusing images and text
Implementation and Assessment	Promotion	Making changes to the adapted OER to align with course goals

Dorris

Image description: Six boxes with black arrows going to the right, then down from the third box, and then to the left from the six box. The sixth box is black. Text in the boxes:

1. "Prioritizing discoverability, sustainability, and accessibility" in white text.
2. "Reviewing original OER content" in white text.
3. "Reusing images and text" in white text.
4. "Making changes to the adapted OER to align with course goals" in white text.
5. "Promotion" in white text"
6. Implementation and Assessment" in black text.

(Treasa) Discoverability, sustainability, and accessibility valued at the outset
   1. Choosing the PressBooks platform
   2. Reusing the same open license (CC BY NC SA)
   3. Applying alt text and image descriptions to all images

   (Dorris) A chapter-by-chapter selection of text that remains relevant to

course/student needs

(Dorris) Making changes to or adding new text to apply to course/student needs (embedding students' interests and scaffolding) as well as currency and accuracy (GIS software changes)

1. Lab
2. Exercises
3. Screen shots

(Dorris) Reusing existing images

1. Copyright permissions
2. Adobe Illustrator

(Dorris) Result: https://wustl.pressbooks.pub/digitalcartography/

1. Completed in 1 summer vs. 2 years

(Treasa) Assessment & Impact on Student Outcomes

1. OER Starter Kit
2. Open Pedagogy Roadmap

(Treasa) Promotion

1. Digital Transformation
2. Email lists
3. Open October ; this conference!

Think – Breakout – Share

https://docs.google.com/document/d/1pUKUUDpCmCXiqGL6wv-7zXJ188NGRbtYtSv2TOwuw7I/edit?usp=sharing

Q&A