



OPEN EDUCATIONAL RESOURCES (OER)

HOW TO ADOPT AND USE THEM IN THE CLASSROOM

HELEN FARRELL, ACADEMIC ENGAGEMENT LIBRARIAN, MAYNOOTH UNIVERSITY

WE WILL COVER:

Defining OER

Pros and cons of OER

Finding suitable OER?

Using and adapting OER

Co-creation with your students

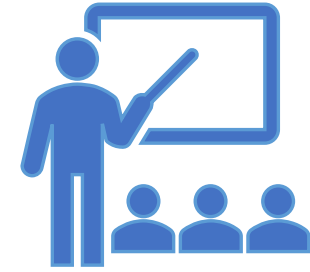
Copyright & licensing issues in OER

OER in MU

Disseminating OER

Q&A

DEFINING OER



"Open Educational Resources (OER) are 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."

- **Retain** – make, own, and control a copy of the resource
- **Reuse** – use your original, revised, or remixed copy of the resource publicly
- **Revise** – edit, adapt, and modify your copy of the resource
- **Remix** – combine your original or revised copy of the resource with other existing material to create something new
- **Redistribute** – share copies of your original, revised, or remixed copy of the resource with others"

[Source: Creative Commons (CC): Open Education <https://creativecommons.org/about/program-areas/education-oer/>. Accessed 10 Nov 2020]

OER's can include digital learning materials such as:

- open textbooks
- full courses / modules
- lectures
- videos / audio
- images / rubrics / diagrams
- case studies
- assignments
- quizzes
- lab activities
- games
- simulations



Retain

You can keep the work forever



Reuse

You can use the work for your own purpose



Revise

You can adapt, modify, or translate the work

The 5 R's of Open Education

WHAT IS AN OPEN EDUCATIONAL RESOURCE (OER)?

"For Free and Without Requesting Permissions"



Remix

You can combine it with another resource to make a new work

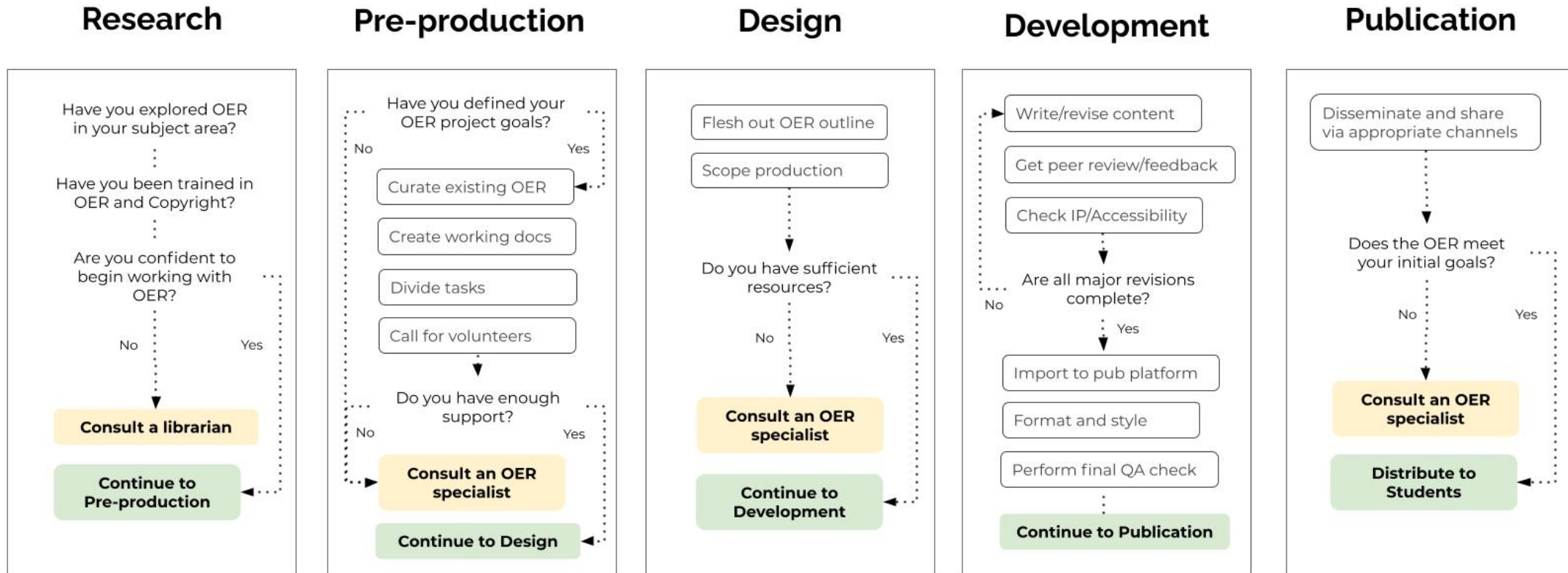


Redistribute

You can share the work with others

[*"Open Educational Resources (OER) Program: Overview* by Michigan State University (MSU) Libraries OER Program Guide" <https://libguides.lib.msu.edu/oer> is licensed CC BY <http://creativecommons.org/licenses/by/4.0/>]

A Framework for Creating OER



How to use this framework

This framework can help you understand the major steps in the creation of OER and manage your own progress in your project. Key questions are asked at various points and directions to support are included.

Key Terms

OER = Open Educational Resources
IP = Intellectual Property
QA = Quality Assurance

License and Attribution



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This work was adapted from [A Production Workflow for OER Projects](#) by Abbey Elder, Iowa State University, and [Production of OER](#) by Billy Meinke and University of Hawai'i at Mānoa Outreach College, both licensed [CC BY](https://creativecommons.org/licenses/by/4.0/).

Interdisciplinary business decision making assignment

Carolyn LaMacchia, Ph.D.
Bloomsburg University of Pennsylvania

Jacob Kehres, M.Ed.
Bloomsburg University of Pennsylvania

ABSTRACT

This article presents an assignment for students to apply interdisciplinary business decision-making skills to a series of tasks in support of a small business. The assignment contributes to the preparation for a career where businesses of any size respond to opportunities not restrained by organizational silos. Interdisciplinary knowledge of business specializations is developed through coursework and experiential learning. Learning pedagogies that incorporate hands-on assignments and quantitative data analysis skills are considered a successful technique to both motivate and prepare learners. The interdisciplinary business competencies addressed in this assignment are consistent with AACSB Standard 4: Curriculum.

Keywords: business education, data analysis, decision making, interdisciplinary curriculum, technology in education



LEINSTER HOUSE, DUBLIN.

London, Published and Sold by G. G. Malton, and R. Evans, Dublin, 1790.

PROS OF OER:

- **expanded access to learning.** Students anywhere in the world can access OERs at any time, and they can access the material repeatedly.
- **scalability.** OERs are easy to distribute widely with little or no cost.
- **augmentation of class materials.** OERs can supplement textbooks and lectures where deficiencies in information are evident.
- **enhancement of regular course content.** For example, multimedia material such as videos can accompany text. Presenting information in multiple formats may help students to more easily learn the material being taught.
- **quick circulation.** Information may be disseminated rapidly (especially when compared to information published in textbooks or journals, which may take months or even years to become available). Quick availability of material may increase the timeliness and/or relevance of the material being presented.
- **less expense for students.** The use of OERs instead of traditional textbooks or course packs, etc. can substantially reduce the cost of course materials for students. Choosing OERs makes accessing essential reading fairer for all.
- **less expense for the University.** In times of budget-cuts, libraries and departments are trying to decrease cost but increase availability. OERs are a way of expanding access to material without the cost.
- **showcasing of innovation and talent.** A wide audience may learn of faculty research interests and expertise. Potential students and donors may be impressed, and student and faculty recruitment efforts may be enhanced.
- **continually improved resources.** OERs can be improved quickly through direct editing by users or through solicitation and incorporation of user feedback. Instructors can take an existing OER, adapt it for a class, and make the modified OER available for others to use.

[Adapted from: **Open Educational Resources: Pros and Cons [Updated]** University of Maryland Global Campus: Library.
<https://libguides.umgc.edu/c.php?g=23404&p=138771> **CC-NC-SA 4.0 International** license.]

CONS OF OER:

- **quality issues.** Since many OER repositories allow any user to create an account and post material, some resources may not be relevant and/or accurate.
- **language and/or cultural barriers.** Although efforts are being made to make OERs available in multiple languages, many are only available in English, limiting their usefulness to non-English speakers. Additionally, not all resources are culturally appropriate for all audiences.
- **technological issues.** Some students may have trouble using some OERs if they have a slow or erratic internet connection. Other OERs may require software that students don't have and that they may not be able to afford.
- **intellectual property/copyright issues.** Since OERs are meant to be shared openly, the "fair use" exemption in Copyright law that allows for quotation or limited extraction ceases to apply; all content put online must be checked to ensure that it doesn't violate copyright law.
- **sustainability issues.** Since OER creators generally do not receive any type of payment for their OER, there may be little incentive for them to update their OER or to ensure that it will continue to be available online.

[Adapted from: **Open Educational Resources: Pros and Cons [Updated]** University of Maryland Global Campus: Library.
<https://libguides.umgc.edu/c.php?g=23404&p=138771> [CC-NC-SA 4.0 International](#) license.]

The above doesn't fully cover the required time investment, possible need for upskilling for faculty, levels of support for OER implementation within the organisation, absence or presence of dedicated project team support for OER....

FINDING SUITABLE OER

- In the absence of a dedicated OER platform in your university (such as PressBooks (in NUIG) or Arrow (TU)) you still have lots of repositories to search in, for suitable OER.
- One very simple way to locate OER is to use Google Search (using the Advanced Search page) and type in the keywords or phrase you are looking for. Specify "*usage rights*" as "*free to use, share or modify, even commercially*". This lacks subject-specificity.
- A better way is to **use one of the dedicated OER repositories**. Look at my LibGuide with the section on "Finding OER" here which contains lots of suggested repositories of OER: <https://nuim.libguides.com/c.php?g=654727&p=4904791#s-lg-box-wrapper-18172437>
- Use this **excellent list of OER Repositories & Platforms List** from Open Book Publishers to search for suitable OER: <https://oer-obp.pubpub.org/pub/wacoy6kx/release/12>
- One of the OER Repositories listed is **Open Textbooks Library** – search for "Geography" or "Adult Education" to see the textbooks available to you. <https://open.umn.edu/opentextbooks/>



USING OER

- Using OER can be as **simple** as finding a useful OER textbook and, including it or including chapters from it in your Reading List, or as a link in Moodle.
- It might also be **relatively simple** such as using OER images and editing them slightly for reuse in your publication or course material.
- It can be as **complex** as creating your own OER material from scratch or adapting an existing textbook for use by your module.
- **You'll need to assess your OER for suitability.**
This <https://open.bccampus.ca/files/2014/07/Faculty-Guide-29-mar-15.pdf> rubric is simple, but excellent. For more examples of OER assessment rubrics, look at these:

Faculty Guide for Evaluating Open Education Resources

With so many freely available resources online, choosing OER can be overwhelming. This checklist contains some suggestions for faculty when choosing resources for in the classroom.

RELEVANCE

- Does the information directly address one or more of the class objectives?

ACCURACY

- Is the information accurate? Are there major content errors or omissions?
- Are there spelling errors or typos?
- Has the material been peer reviewed?

PRODUCTION QUALITY

- Is the information clear and understandable?
- Is the layout and interface easy to navigate?
- Do the design features enhance learning?
- For multimedia resources, are the audio/video quality high?

ACCESSIBILITY

- Is the resource available in alternative formats (e.g. .doc or .odf)?
- For audio or video resources, is there a transcript or subtitles?

INTERACTIVITY

- Does the resource encourage active learning and class participation? If not, are you able to add that to the resource?
- Are there opportunities for students to test their understanding of the material (e.g. a video with embedded questions)?

LICENSING

- Does the license allow for educational reuse of the materials?
- Does the license allow modifications or adaptations of the materials? If so, can you modify the resource to better fit the class objectives or encourage active learning?

FURTHER INFORMATION

JISC. (n.d.). Open Educational Resources infoKit [wiki]. Retrieved from <http://bit.ly/oeinfoKit>.

MERLOT. (n.d.). MERLOT Faculty Development Portal: EVALUATION CRITERIA. Retrieved from <http://facultydevelopment.merlot.org/ReviewCriteria.html>.

Shank, J. D. (2014). *Interactive open educational resources: A guide to finding, choosing, and what's out there to transform college teaching*. San Francisco: Jossey-Bass.

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OER EVALUATION

Learning outcomes are the most important thing to measure, when evaluating OER.

Achieve Rubrics for Evaluating Open Education Resource (OER) Objects. 2011
<https://www.achieve.org/files/AchieveOERRubrics.pdf> CC 3.0 International

“The seven key factors listed below –

- [metadata](#),
- accessibility,
- standards,
- bias,
- efficacy-based research,
- assessments, and
- visioning –

are critical to consider when developing the content of an OER, as these will impact its quality and integration in interconnected instructional ecosystems [5].”

[Source: CAST- Accessibility and Open Educational Resources; http://udloncampus.cast.org/page/media_oer]

ADAPTING OER: 1 OF 3



- Useful 5:17 min video on the adaptation process here [Source: "Creating Open Educational Resources" by Abbey Elder <https://www.youtube.com/watch?v=DV-HiWtMq1U&feature=youtu.be> Licensed CC BY 4.0 International license]
- **Adapt for use for students, or adapt for co-creation with students**
- **Adapting with students can increase accessibility of materials, add to their digital literacy skills, enhance communication, increase their understanding of review and increase their sense of agency.**

[Five Steps to OER Adoption](#) by Community Colleges Consortium for Open Educational Resources licensed under a Creative Commons Attribution 4.0 CC-BY International License.

ADAPTING OER 2 OF 3

- **Faculty OER Toolkit** by Shannon Moist, BC Open Education [Creative Commons Attribution 4.0 International License. https://pressbooks.bccampus.ca/facultyoertoolkit/](https://pressbooks.bccampus.ca/facultyoertoolkit/)
- **Authoring open textbooks** by Melissa Falldin and Karen Lauritsen, Open Education Network [Creative Commons Attribution 4.0 International License. https://press.rebus.community/authoropen/](https://press.rebus.community/authoropen/)
- **Modifying an Open Textbook: What You Need to Know** This guide provides an overview of what you need to consider in remixing/creating an OER, including licensing, identifying formats, determining access, and more. It also provides guidance on the accessibility and ease of use of different formats.
- **Video: OSW2021: Creating, Reusing, and Remixing Open Educational Resources with H5P** [Hardy Schwamm](https://nuigalway.mediaspace.kaltura.com/media/OSW2021A+Creating,+Reusing,+and+Remixing+Open+Educational+Resoures+with+H5P/1_gxte7li1) on May 13th, 2021, https://nuigalway.mediaspace.kaltura.com/media/OSW2021A+Creating,+Reusing,+and+Remixing+Open+Educational+Resoures+with+H5P/1_gxte7li1

ADAPTING OER: 3 OF 3

- **Poster: Adaptable Course Materials: Creating an Open Textbook for Electromagnetics**
<https://vtechworks.lib.vt.edu/bitstream/handle/10919/82147/CHEP%20Poster%202018%20%282018.02.15%29.pdf?sequence=4&isAllowed=y>
- **4 min YouTube Video** on [Creating OER and Combining Licenses Part 1](#) by [TheOGRepository](#) licensed under [CC BY ND](#) . US-examples for some OER repositories, but the process described is very clear. MS Word is not a freely-accessible format (used as the editing software).
- [Rebus Community Office Hours](#) is a series of webinars on OER-related topics including thinking about peer review for OER, adapting OER for your unique context, and much more.

CO-CREATION OF OER WITH STUDENTS

OER CO-CREATION WITH STUDENTS IN PRACTICE:

- Excellent document that details processes and a variety of real-world examples. **Promoting Open Education through Gamification OpenGame:** handbook of successful open teaching practices, USA, 2020. <https://opengame-project.eu/wp-content/uploads/2020/07/OpenGame-IO1-HandbookOfSuccessfulOpenPractices.pdf>
- Open Practice and Co-Creation in the University of Edinburgh (interesting Geoscience's project) <https://open.ed.ac.uk/4883-2/>
- My Open Textbook: pedagogy and practice by Robin de Rosa <http://robinderosa.net/uncategorized/my-open-textbook-pedagogy-and-practice/> (excellent practical project information)
- <http://www.cocos.education/> The CoCOS project aims to make course co-creation accessible and user-friendly for teachers and students by drawing on open-source methods and tools – including an online course editor.

CO-CREATION WITH STUDENTS

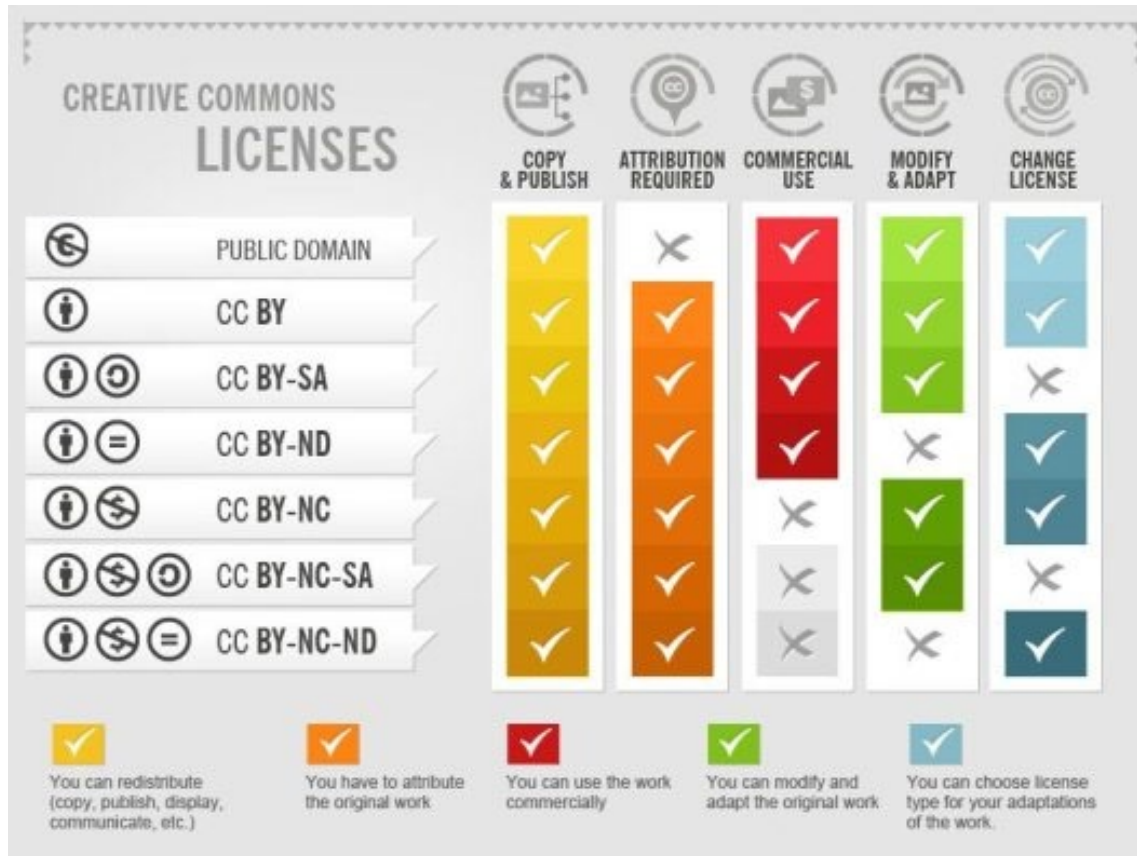
EXAMPLES OF OPEN PEDAGOGICAL PRACTICES:

- Anna Andrzejewski - Art History professor at the University of Wisconsin-Madison - outlines the [assignments](#) building to the co-creation of an open textbook about houses built by Frank Lloyd Wright in Madison
- Robin DeRosa's [process of syllabus co-creation](#) with students for a first-year seminar course

FURTHER READING:

- Bovill, C. Co-creation in learning and teaching: the case for a whole-class approach in higher education. *High Educ* **79**, 1023–1037 (2020). <https://doi.org/10.1007/s10734-019-00453-w>

CC LICENSING



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License	Copy & Publish	Attribution Required	Commercial Use	Modify & Adapt	Change License
PUBLIC DOMAIN	✓	✗	✗	✗	✗
CC BY	✓	✓	✗	✓	✓
CC BY-SA	✓	✓	✓	✓	✗
CC BY-ND	✓	✓	✓	✗	✓
CC BY-NC	✓	✓	✗	✓	✓
CC BY-NC-SA	✓	✓	✗	✓	✗
CC BY-NC-ND	✓	✓	✗	✗	✓

Legend:

- Yellow checkmark: You can redistribute (copy, publish, display, communicate, etc.)
- Orange checkmark: You have to attribute the original work.
- Red checkmark: You can use the work commercially.
- Green checkmark: You can modify and adapt the original work.
- Blue checkmark: You can choose license type for your adaptations of the work.

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COPYRIGHT & LICENSING ISSUES



https://wiki.creativecommons.org/wiki/best_practices_for_attribution and **TASL = title author source and license!**



If using other people's work, then you'll need to make sure that you are legally incorporating this material into your OER. These suggestions may assist you with the process:



Use CC-licensed material in your OER: check *your* obligations under the CC-license level. Ensure that copyrighted material (images/graphs/figures/illustrations etc.) that were included in the OER (and given permission for reproduction in the OER) are not included in your work in turn, without seeking the relevant permission.



Seek direct permission for specific use of any copyrighted material in your OER from the copyright owner.



In preference, link to online content (ensure it's a "deep link"), rather than reproducing it, and in the case of material within a subscription-only product, flag this as such for users outside your university.



If material is open access or copyright-free material then you can use it, but still attribute sufficient ownership and source attribution in your OER.



If the reprographic rights are protected (for out of copyright source-material) consider creating your own version – consider typing out the content (subject to Copyright legislation limits) and create your own reprographic version. Sufficiently acknowledge original source.

DISSEMINATING YOUR OER

- Ensure you deposit your OER in MU's Institutional Repository or you own **Institutional Repository (MURAL)**: <http://mural.maynoothuniversity.ie/> - it gives benefits for a global reach for your work and maximises the chance of your OER being reused.
- Promote your **OER via Social Media** channels and use **#OER**.
- Once your OER is ready to publish and be shared, make sure to map your involvement on the **OER World Map** [here: https://oerworldmap.org/](https://oerworldmap.org/)



OER IN MU AND HIGHER ED

- MU OER developments are in their infancy. The MU OER LibGuide was created in 2020 to begin the process of OER awareness and to support the module for MU Teaching staff TL517/TL517X: Digital Technologies in Higher Education.
- Some issues encountered by MU faculty so far have been in finding suitable OER for their subject, and how exactly to use them.
- With no dedicated OER project funding or infrastructure OER adoption is down to individual faculty.
- NUIG has a fascinating project page with savings to date and lists of OER publications, see <https://libguides.library.nuigalway.ie/oer/projects>

CONCLUSION

- We want to get MU feedback on OER adoption over the next year!
- Upcoming module for MU teaching faculty module TL517/TL517X: Digital Technologies in Higher Education, Dr Morag Munro, Office of the Dean of Teaching and Learning
morag.munro@mu.ie
- **OER LibGuide:** <https://nuim.libguides.com/4Staff/OER>
- "For Staff" MU Library LibGuide: <https://nuim.libguides.com/4Staff/home>
- **MURAL LibGuide:** <https://nuim.libguides.com/mural>

Helen.farrell@mu.ie

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