

Unlocking Openness: Is Our Infrastructure Ready for OER and Open Educational Practices?

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The question for this input talk is: Are infrastructures ready to support the ideas or open educational resources (OER) and open educational practices (OEP)?

Understanding of OER

- Much about licensing material
- Sharing files
- Creative Commons most known

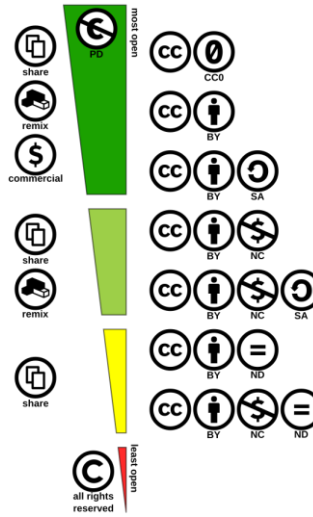


Image by Shaddim from https://commons.wikimedia.org/wiki/File:Creative_commons_license_spectrum.svg

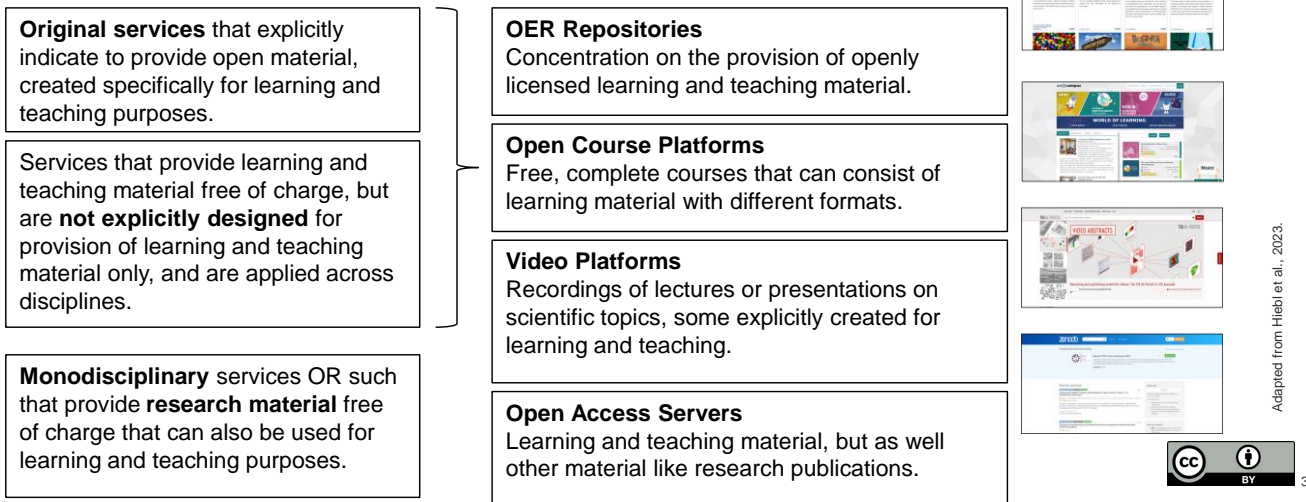


The debate in OER is much concerned with licensing and sharing the final developed material. A common licensing model are the Creative Commons with different licensing options.

As such, infrastructures providing OER concentrate on those resource files and the visibility of their access and use.

Infrastructures for sharing OER

- For sharing OER, common infrastructures are used



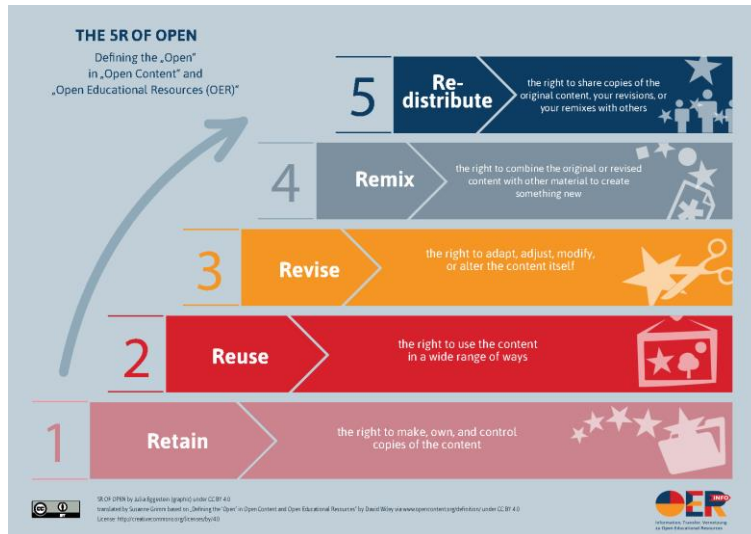
Adapted from Hiebl et al., 2023.

In our project study we analyzed German OER infrastructures and found four discriminating services: First, original services that explicitly indicate to provide open material, created specifically for learning and teaching purposes. Second, services that provide learning and teaching material free of charge, but are not explicitly designed for provision of learning and teaching material only, and furthermore are applied across disciplines. Third, monodisciplinary services and fourth services that provide research material free of charge that can be used for learning and teaching purposes.

The original services can be divided in four categories: OER repositories focusing on the provision of openly licensed learning and teaching material, open course platforms that offer free and complete courses that consist of learning material with different formats; video platforms containing recordings of lectures or presentations on scientific topics, with some explicitly created for learning and teaching, and open access servers that provide learning and teaching material, but as well other material like research publications.

The services from those four categories mainly provide searching and helping functions typically for search system services.
But what about supporting the actual idea of OER?

What do infrastructures need to offer?



The 5R of OER: Image from <https://open-educational-resources.de/5rs-auf-deutsch/>



The actual idea of OER is that users have five rights, i.e. to retain, reuse, revise, remix and redistribute the material. These are the 5 R's discussed by Wiley. The question is if current infrastructures do support these rights properly?

What do infrastructures need to offer?

User rights	Obligatory functions	Supporting functions	Technical implementations	Aspects to consider
Revise and Remix	A: Download and upload for OER OR B: Web editor or commenting option	Versioning for OER; Open formats; Unique identifier for OER; OER collection	Download and upload button or web editor; unique identifier for OER supports identification; solution for versioning problem	Various (open) formats have to be attended; Anonymity of users; Versioning can influence search Problem of mixing incompatible licence types affects legal aspect



Adapted from Heck et al., 2020



To support these rights, infrastructures need to have specific functions. We conceptually discussed these functions in our work. For example, to revise or remix OER, the infrastructures needs a download and upload function, or a web editor. At least, for suggesting revising changes for an OER, a users needs a comment option. Other relevant functions and current challenges for revising and remixing are proper versioning of OER, open formats for easily revising and remixing, and unique identifiers.

Other aspects to consider are e.g. that versioning can influence the search (users do not want to get very similar versions of an OER in their result list), and remixing can be problematic of licenses of material are incompatible.

To summarize, infrastructures would need to consider a lot more aspects and offer more functions to make the 5 R possible.

Moreover, we can go one step further, beyond OER and the final material to open educational practices (OEP).

What do Open Educational Practices (OEP) mean?

- Participatory technologies -> enable participation
- Sharing ideas and resources -> knowledge
- People, openness and trust -> collaboration
 - How do you create your teaching material?
- Innovation and creativity -> spontaneity



Acht Attribute einer offenen Pädagogik (angelehnt an HEGARTY). Grafik: Jonathan Christian, CC BY 4.0, <https://open-educational-resources.de/keine-oer-ohne-offene-paedagogie/>

Open educational practices go beyond the pure sharing of OER, but adapt principles of open pedagogy. Hegarty (2015) describes eight attribute of OEP.

Participatory technologies in infrastructures shall enable participation of teachers and learners.

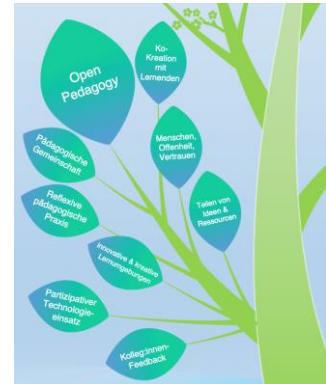
Sharing ideas and resources is about creating a common knowledge

People, openness and trust is concerned with collaboration, not only among teachers, but learners as well. Here you can ask yourself: How do you create your teaching material? And is it a collaborative process, or rather a very individual.

Then Hegarty names innovation and creativity which she describes with spontaneity of creating and learning.

What do Open Educational Practices (OEP) mean?

- Connected community -> discipline-specific
 - Are you discussing teaching and learning with your peers?
- Learner generated -> involve them!
 - Can students contribute to your course design?
- Reflective practice -> expand your peer group
- Peer review -> quality check



Acht Attribute einer offenen Pädagogik (angelehnt an HEGARTY). Grafik: Jonathan Christian, CC BY 4.0, <https://open-educational-resources.de/keine-oer-ohne-offen-pedagogie/>

The other four attribute are:

A connected community, which can be very discipline-specific. You may ask yourself: Are you discussing teaching and learning with your peers?

Further, and a relevant aspect is the learner generated or learner focused perspective. Learners should be involved in material and knowledge creation. For example, you may ask: Can your students contribute to your course design? At last, we have reflective practice, which among other aspects includes to expand one's peer group, and peer review for quality check.

This is just a very quick overview of what OEP and their operationalization can mean. There are other descriptions and discussions as well.

However, as you can see on this single example, enabling OEP via infrastructures would mean a lost of effort.

What are the take aways?

- For making the 5R-activities of OER visible, an infrastructure needs to offer different functions
- OEP evolve attitudes and activities that go beyond creating and sharing OER and which cannot be indicated via infrastructures, however, infrastructure might foster activating OEP
- Current infrastructures need to be expanded and connected to support this new teaching and learning development
 - Finding the right OER (might concern quality) -> [retrieval issue](#)
 - Interacting in the right community -> [community and capacity building](#)



So, what are the take aways?

First, for making the 5R-activities of OER visible, an infrastructure needs to offer different functions. Current infrastructures do not provide them for several reasons, amongst them their complexity.

Second, OEP evolve attitudes and activities that go beyond creating and sharing OER and which cannot be indicated via infrastructures.

However, infrastructure might foster activating OEP.

Therefore, current infrastructures need to be expanded and connected to support this new teaching and learning development.

Two crucial aspects are:

Finding the right OER, which might concern quality aspects. This is a typical issue of information retrieval.

And interacting in the right community, which means we need to engage more in community and capacity building.

Unlocking Openness

Where can I find support and engage myself?

- To what can it contribute?
 - Didactics
 - Digital education
 - Inclusion
 - Quality



Snippets from <https://open-educational-resources.de/>

Community and capacity building is one of the foci of our national OERinfo hub. Moreover, the topics around OER are steadily evolving, concerning e.g. didactics (relating to OEP), digital education etc.

If you want to know more, I recommend our website: <https://open-educational-resources.de/>

Thank you for your attention.

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