Open Educational Resources

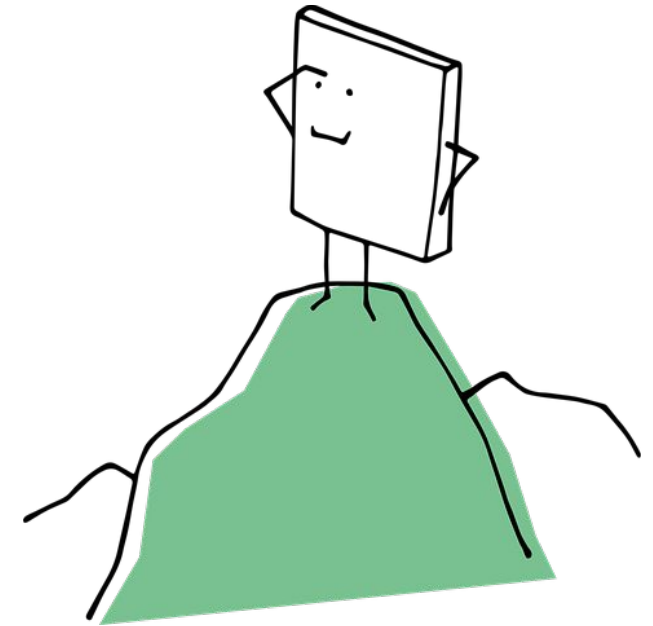On how to create, archive and distribute open content for educational purposes

A guide for HIIG and HBI by Katharina Mosene and Marcel Wrzesinski

Overview

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Defining OER
What are Open Educational Resources?

"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."

(UNESCO 2019)

→ **multi-stakeholder approach addressing the needs of a global community**

→ **integrated into the context of Open Science**

→ **added values for institutions as well as individuals**

UNESCO (2019): "Recommendation on Open Educational Resources (OER)", November 25, 2019.
<http://portal.unesco.org/en/ev.php-URL_ID=49556&URL_DO=DO_TOPIC&URL_SECTION=201.html>

OER can take many forms and shapes

- ... a video on <u>personal identifiers</u>

- ... a mindmap on <u>theories of intellectual property</u>

- ... a tool box on how to <u>make sense of the future</u>

- ... a game related to ...

- ... teaching modules on <u>'gender' in mint subjects</u>

- ...
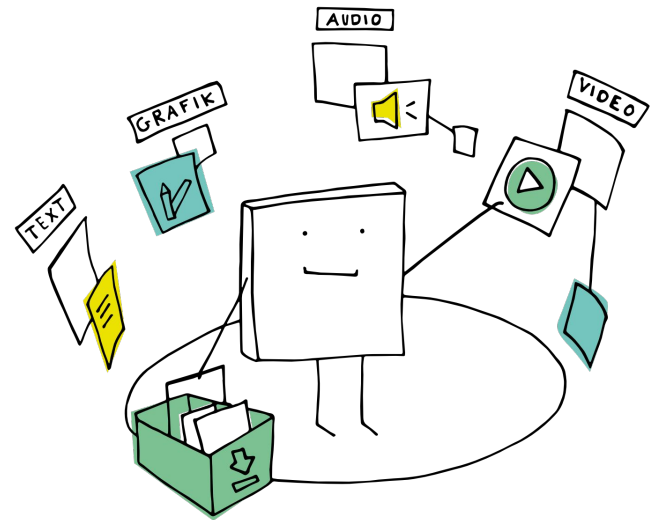
Core of the Openness Idea
What does that mean?

- Free access

- Sharing culture

    - Trackability of the development process

    - Customizable format

    - Collaborative method

- Copyright preservation and definition of fair use

- Capturing and maintaining standardized metadata
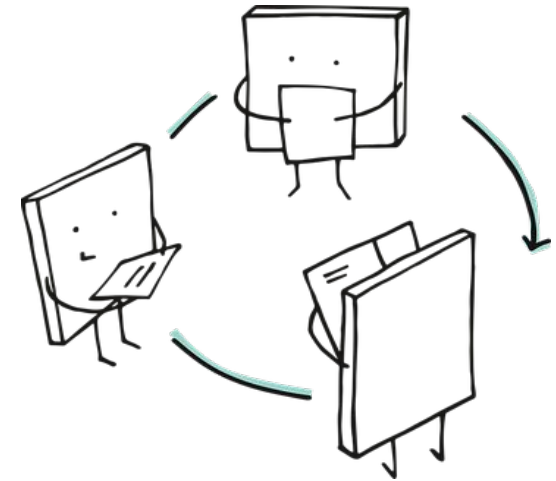
Where are we already?
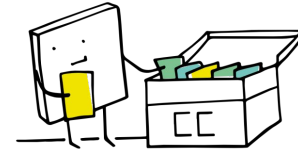
Openness at HIIG

Open science is an umbrella term for initiatives that aim to make academic research more accessible, inclusive, and transparent using digital technology. At the HIIG, we are committed to open science since the very beginning – in research and in practice.

Openness at HBI / Leibniz-Gemeinschaft · Open-Access-Policy

Features such as free access to scientific publications (Open Access) and research data (Open Data), as well as the opening of scientific practice to society (Citizen Science), contribute to the quality assurance and credibility of scientific knowledge.

Relevance and impact of OER
Why is OER important?
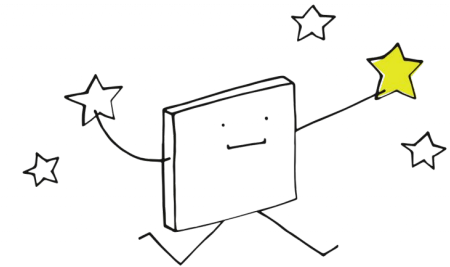
Educational impact and effectiveness

- **Adaptability:** Balancing individual learning requirements, accessibility, inclusion
    - Supporting active learning & improving learning outcomes
    - Promoting individualised learning
    - Increasing learner efficiency & improving teaching practice
- **Free licensing:** more opportunities to use material in line with intellectual property protection
    - Encouraging localisation and translation of content
- **Long-term Effects:** Increase in learner performance, reduction in teachers' working time, increase in digital literacy, higher quality of teaching materials.
    - Offering equal access to knowledge for all
- **Accessibility:** Equal education and opportunities

Hoosen, S. & Butcher, N. (2019): "Understanding the Impact of OER: Achievements and Challenges", UNESCO Institute for Information Technologies in Education, Moscow. <https://iite.unesco.org/wp-content/uploads/2019/04/Understanding_the_impact_of_OER_2019_final.pdf>

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OER as institutional and individual effort
What does OER do for us?

OER for Institutions

- Reputation & Funding, Exchange & Outreach
- Public money = public goods (reputation, impact, contribution to society); Openness = strong argument for receiving further state funding

OER for individuals

- Reputation: if OER material is used by someone else, the authors name spreads, similar to what happens with open access publications. OER publications are thus a way of generating public awareness by also opening up teaching as a second field alongside research for publications

    TIP: Include your OER portfolio in your next job application!

- Community, Cooperation & Exchange: OER can promote exchange between producers and users as well as among teachers in different departments and institutions

    TIP: Build you own OER network!

- Reach & visibility: institutions & individuals benefit from the increased visibility

    TIP: Tell everyone!

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Open licensing
Legal aspects of open materials

All rights reserved

- Reuse requires licenses
- Multiple copyright instances
- Copyright status and holder probably opaque

Some rights reserved

- Free reuse
- Creator's copyright protected
- Transparent criteria and levels of applicability for reuse

All rights granted

- Free reuse
- No restrictions
- No attribution

⇩   ⇩   ⇩

Copyright Law   **Creative Commons Licenses**   **Public Domain**

What open licensing can do for you…

- Define conditions for proper reuse of OERs

- Protect your rights as a creator of OERs

- Enable collaboration and development for OERs

- Extend options for reuse beyond fair-use doctrines and copyright exceptions

- Always attribute works to their creators – credit where credit is due!
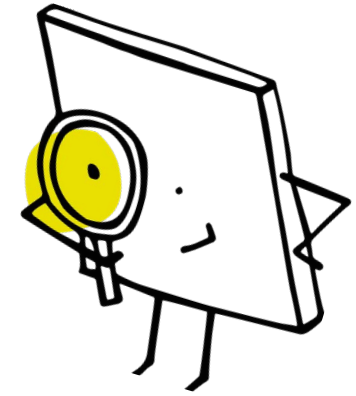
TIP: Assign open licenses to your work to increase their reuse and visibility!

TIP: Consider using only OERs with open licensing to be on the safe side!

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Using OER
Finding and creating open materials

You need images, audios, videos or any other type of media to include it into your presentations, textbooks, publications or (online) course? OER are the answer!

Using OER = Finding existing OR creating new OER

Finding OER

- Use repositories and databases to find what you need (cf. next slide)
- Keep licenses and your audience in mind!

Creating OER

- Add or edit OER to match it to your needs and enrich the OER materials out there
- Define what others can do with your OER and secure proper archiving (cf. ARCHIVING)

TIP:
Integrate the finding and creation of OER as part of your transfer activities in your next research grant application – funders will love it!

Finding OER

Repository / Database	Comments
OERsi	Search index for Open Educational Resources in higher education
Twillo	Portal for free and openly licensed educational materials that can be explicitly used and shared
OER Commons	Public digital library of open educational resources
Open Textbook Library	Open textbooks are licensed by authors and publishers to be freely used and adapted
OpenStax	Free and flexible textbooks and resources
Merlot II	Provides access to curated online learning and support materials and content creation tools, led by an international community of educators, learners and researchers
OASIS	Openly Available Sources Integrated Search (OASIS) is a search tool that aims to make the discovery of open content easier
The Mason OER Metafinder (MOM)	Real-time federated search for OER content
OER Contentbuffet	OER for OER: Material for OER introduction, training and community work
OERinfo	Information portal for OER basics, materials, events and networking opportunities in Germany

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Assessing the quality of OERs – Key questions

- Who is operating the site/platform the OERs are from?

- What is the main purpose of the site/platform?

- How recent is the material you intend to use?

- Does the OER material match your target audience with regard to…

  … accessible language?

  … addressing them correctly?

  … overall (web) accessible design?

  … the age, status and educational background?

  … file format and quality?

  … right to reuse?
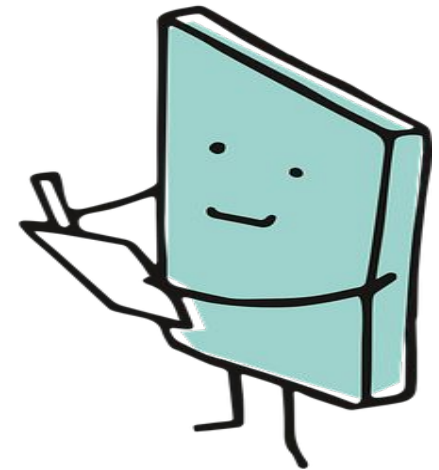
Creating OER

You cannot find what you are looking for and want to get creative yourself? Add or edit OERs!

Adding new OER

- Tools like Powerpoint, Tutory and H5P enable creative use of digital formats
- Rethink modes of teaching with digital methods that include your audience
- Collaborate with other people and request support from your respective library

Editing existing OER

- It's easy because of free and open licensing that define reuse options
- Adapt it to your needs and enrich the OER materials out there
- Start a discussion by building on the work of others

TIP: Define what others can do with your OER and secure proper archiving (cf. ARCHIVING)

TIP: When choosing pictures or other media, be mindful of social diversity, e.g. with regard to gender, race, disability, bodies, age

OER Tools (selection)

Powerpoint (widespread and easy to learn)

- Learn new skills
  (embed screen recording, videos and audios etc.)

- Use add-on and plugin

- Easy to learn, many tutorials available

Tutory (intuitiv/ schnell neu gelernt)

- Creating, licensing and publishing content

- Intuitive UX and administrative functions

- Customizable templates save time

H5P (powerful, complex tool)

- Many interactive formats

- Work and create content digital first

- Free and open source
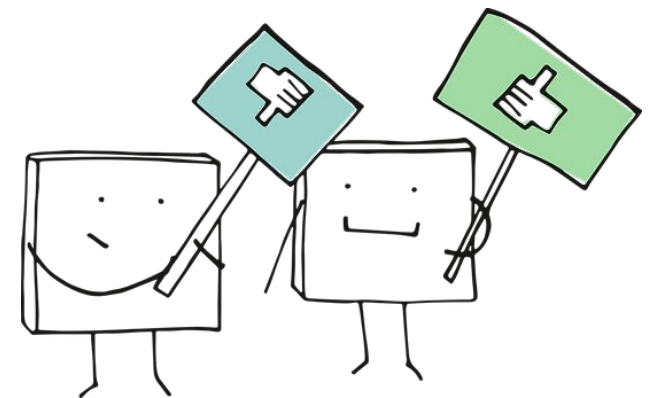
Picture / Media databases

Some database where you can find fairly open media content. Double checking the license is recommended!

- [Creative Commons Licensed Content](#)
- [The Gender Spectrum Collection](#)
- [Disabled And Here](#)
- [AllGo Plus-Size](#)
- [Images of Empowerment](#)
- [Nappy](#)
- [PICNOI](#)
- [The Noun Project](#)
- [Smithsonian Open Access](#)
- [Unsplash](#)
- [Pixelchen Illustrations (used in this guide)](#)
- https://blush.design/de (free version available)
- https://www.canva.com/free/ (free version available)

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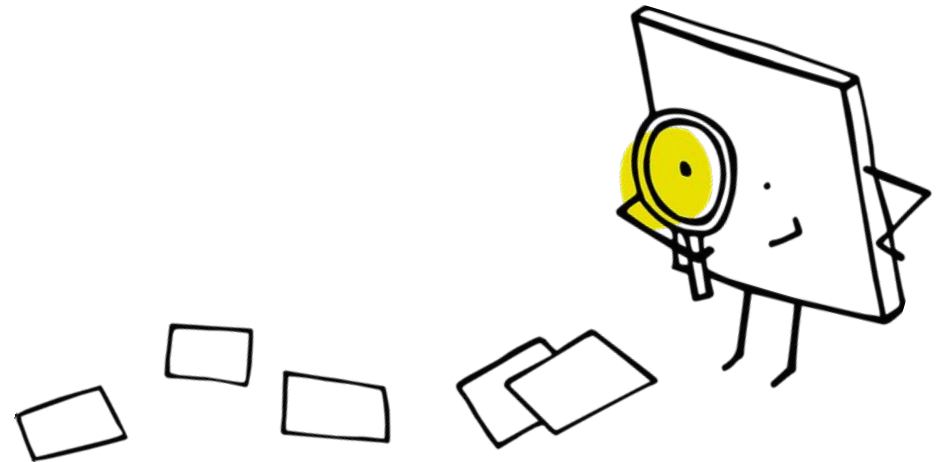
Archiving OER
Ensuring long-term availability and findability

You have created or edited OERs and now want to make them available? Archive them appropriately!

- Archiving your OERs is essential for proper dissemination and distribution (cf. distribution slide)
    - Both the OERs and corresponding, standardised metadata needs to be archived
    - Repositories for OERs offer counseling and advice on formats, workflows and licenses
- How to archive? Three basic steps
    - Identify your sample
    - Check your funding guidelines
    - Pick a repository
- Archiving is NOT …
    - Uploading things to a website (not even the HIIG/HBI website)
    - Saving things locally or via a cloud service

TIP:
Integrate the creation/archiving of OERs in your next research grant application – funders will love it!

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Archiving OER

Suggestions for repositories/databases to deposit your OERs.

Repository / Database	Comments
MERLOT	Provides access to curated online learning and support materials and content creation tools; materials can be 'contributed' or added to the MERLOT collection by registered Members of MERLOT.
OER Commons	Public digital library of open educational resources
OER Contentbuffet	Material for OER introduction, training and community work
OERTX	Public digital library of open educational resources for higher education
Twillo	Portal for free and openly licensed educational materials that can be explicitly used and shared
Zenodo	Catch-all repository welcoming research from all over the world, and from every discipline

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How can I use OER as part of science marketing?
Individually: One's own reputation in the science community & collecting funding
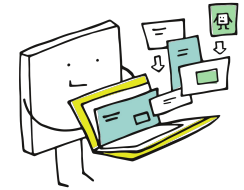
- When your OER material is used by someone else, your name and reputation as an author/scholar automatically spreads.
- OER publications also thus consolidate your expert status in certain subject areas and help you to get invited to talks, discussion, panels etc.
- OER can foster your exchange, community and collaboration with other teachers in different departments and institutions (Your own network of other researchers/institutions is the most important tool for your own science marketing).

TIP: Funders love OER – use them to show that you are working with your research findings in a transfer-oriented way and translate them into formats for different target groups.

TIP: OER are your calling card as a transfer scientist and are the perfect highlight for your next research grant application.

How can I use OER as part of science marketing?

Institutionally: Expertise for cooperations and major funding lines
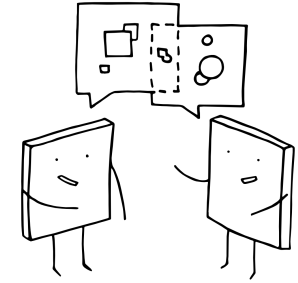
- Your own institution establishes itself with OER formats
  as a contact point for cooperation with public institutions, schools and universities.

- Cooperation events (e.g. hackathons with OER material at schools) are a good way to gain public
  interest in the media while researchers establish themselves as experts on a certain topic.

- OER is a calling card for the institute: it shows that the institution not only does research on
  specific problems, but at the same time thinks about how the new knowledge can be translated and
  made applicable to civil society.

- With a knowledge transfer expertise and strong communication in the media, the institute can
  apply for major funding / tenders that will ensure its continued existence and therefore provide
  new research opportunities for its researchers.

How do I reach a large number of people with my OERs?

- The **type, quality and transfer orientation of the OER must always be taken into account**:

  - Thrown-together texts, videos and collections of information are poorly suited for widespread distribution.

  - In contrast, elaborated content with tasks and guidance for teachers and learners is excellent for enhancing reputation, funding, exchange & outreach.

- The **following always applies here**:

  - Only those who disseminate their OER widely and make them findable themselves will reach a large number of people.

  - Submit your OER to suitable repositories (cf. slide on archiving), this is where the OER community is particularly active.

  - In general: Building your own research network is essential to ensure that all your publications reach many people. The more contacts you have and maintain on Twitter, LinkedIn and mailing lists, the more people you will reach with your work.