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PRINTeL
Promoting Innovative Teaching & Learning

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Open Educational Resources: what, why and how ?

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University
Satisfaction
Content
Assessment
Feasibility
Objectives
Change
Cost
Flexibility
Innovation
TEACHING
Ownership
New
Creativity
Course
Ambition
efficiency
Open
SMART
Design
Study
Choices
Finances
Plans
Goals
Educational
Resources
Time
ICT
OER
Limits
Education
Culture
STUDENT
LEARNING

What are Open Educational Resources?

The William and Flora Hewlett Foundation defines OER as:*

*"**teaching, learning, and research resources in any medium that reside in the public domain or have been released** under an intellectual property license that permits **no-cost access, use, adaptation and redistribution by others** with no or limited restrictions.*

*Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques **used to support access to knowledge**".*

* https://hewlett.org/wp-content/uploads/2019/05/The-rich-global-landscape-of-OER.pdf

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What are Open Educational Resources?

Do not confuse:

Open Educational Resources (OER)

and

Open Education (cf.: Open University)

are structurally and functionally different !

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What's the meaning of "Open" in OER

5R activities/permissions proposed by David Wiley

https://opencontent.org/blog/archives/1123)

- **Retain** - the right to make, own, and to control copies of the content (e.g., download, duplicate, store, and manage)
- **Reuse** - the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)
- **Revise** - the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
- **Remix** - the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
- **Redistribute** - the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

Intended profits by using OER

The evidence base suggests OER can transform education by providing greater access:

- **Educators** ../.. **can leverage OER to improve their pedagogy and engage students.**
- **OER broadens access to educational opportunities for diverse students.**
- **OER can produce strong student learning outcomes.**
  ../.. Study evaluators cite a shift in teaching approaches to *make trainees' learning experience more relevant* as well as the availability of OER materials promotes *activity-based, reflective learning* ../..
- **Teachers and students report OER is valuable.**
  ../.. A strong majority also agreed or strongly agreed that OER helps develop learners' independence and self-reliance (72%) and increases learners' satisfaction with the learning experience (68%). ../..
- **Cost savings for institutions and individuals using OER result in greater access and learning.**

https://hewlett.org/wp-content/uploads/2019/05/The-rich-global-landscape-of-OER.pdf

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Consequences of publishing OER

- PROs
  - Authors can keep their intellectual property rights.
  - Wide use of good courseware
  - Continuous improvement of OER
- CONTRAs
  - Once published, materials escape from the author's control.
  - No financial profits can be made by publishing OER.
  - ../..

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OER: Educational feasibility

EDUCATIONAL FEASIBILITY:

A study programme is feasible from the student's point of view when it ***is geared to the aptitudes, prior knowledge and learning potential of the student*** *and* ***to his or her personal goals, and when factors relating to the learning environment have been taken into proper account****.*

This means that in the absence of negative external factors, a student can probably complete all the requirements within the time the programme is supposed to take.

(https://www.nuffic.nl/en/nuffic-glossary/studeerbaarheid/)

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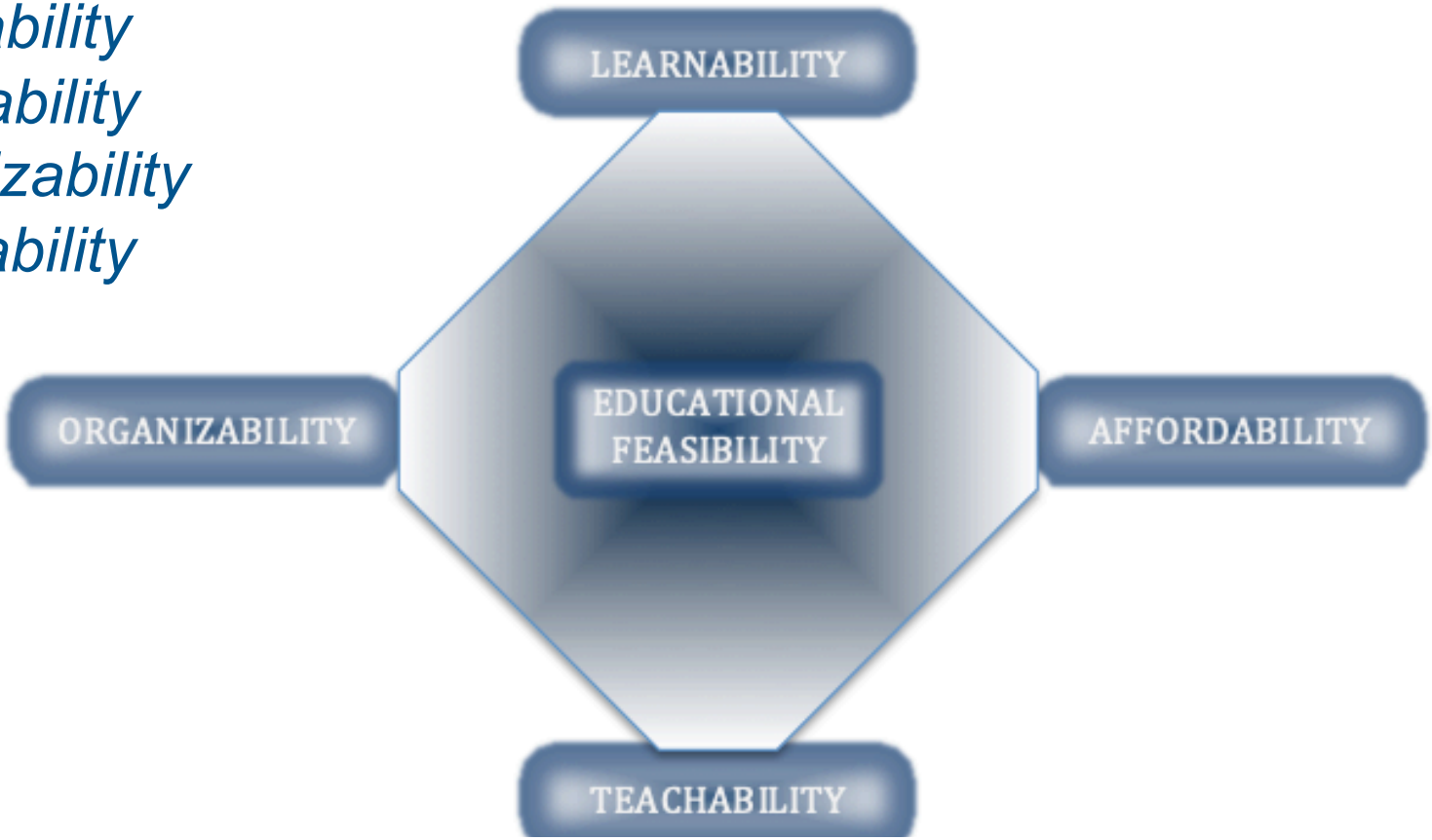
OER: terms and conditions

Educational Feasibility of a course or program is defined by its:

- *Learnability*
- *Teachability*
- *Organizability*
- *Affordability*



OER: Educational feasibility

LEARNABILITY:

- content related,
- linking educational value and feasibility

TEACHABILITY:

- Linking didactical and methodical value

ORGANIZABILITY:

- Can OER effectively be used given the educational goals and available education logistics

AFFORDABILITY:

- Can OERs effectively be used given the available organizational means (human, technical, financial means)

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What are Open Educational Resources?

- Designing, preparing and executing educational projects are difficult tasks, requiring a sense of detail and reflection, method and rigor, and also constant attention to social and economic developments.

  (Magnen A., s.a., 087069engo.pdf, UNESCO – International Institute for Educational Planning, Part 38 – *Education Projects, elaboration, financing and management*, pg 32)

- Avoid common pitfalls in teaching methods:
  - Unmotivated take-over and accumulation of materials
  - Neglecting prior achievements of students' learning
  - Unclear or false operational goals or not-affordable teaching/learning objectives.

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What are OER?

Examples of OER, include:

- Full university courses, complete with readings, videos of lectures, homework assignments, and lecture notes.
- Interactive mini-lessons and simulations about a specific topic, such as math or physics.
- Digital textbooks that are peer-reviewed and supported with ancillary materials.
- Elementary school and high school (K-12) lesson plans, worksheets, and activities that are aligned with state standards.
- Adaptations (including translations) of previously-published OER.

(http://discourse.col.org/t/what-are-examples-of-oer/27)

OER: where to find it?

Here are some well-known examples of OER to explore:

- Khan Academy https://www.khanacademy.org/resources
  Offers online practice exercises, instructional videos, and a personalized learning dashboard.
- OpenStax CNX https://cnx.org
  A dynamic non-profit digital ecosystem serving millions of users per month in the delivery of educational content to improve learning outcomes.
- Open Textbook Library https://open.umn.edu/opentextbooks/
  A curated and peer-reviewed collection of open textbooks that have been adopted at multiple institutions of higher education.
- Curriki https://cnx.org
  It's online community of educators, learners and committed education experts works together to build and share quality K-12 materials that benefit teachers, parents and students globally.
- Wikipedia https://en.wikipedia.org/wiki/Main_Page
  The largest free encyclopedia in the world built collaboratively using wiki software.

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OER: where to find it?

Here are some well-known examples of OER to explore: ctd.1

- Wikimedia Commons https://commons.wikimedia.org/wiki/Main_Page
  An online repository of free-use images, sound, and other media files.
- Saylor.org https://learn.saylor.org/course/index.php?categoryid=2
  Creating and curating open educational resources (OER), piloting innovative credentials, and deploying open source technology, all toward supporting learning opportunities for all who seek them.
- MIT OpenCourseWare (OCW) https://ocw.mit.edu/courses/
  OCW makes the materials used in the teaching of MIT's subjects freely available on the Web.
- Peer 2 Peer University (P2PU) https://www.p2pu.org/en/
  Learning for everyone, by everyone, about almost anything.
- CK-12 https://www.ck12.org/student/
  Education non-profit. Improving K-12 learning globally.

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OER: where to find it?

Here are some well-known examples of OER to explore: ctd.2

- Open Course Library http://opencourselibrary.org
  A collection of high quality, free-to-use courses that you can download and use for teaching. All content is stored in Google docs making it easy to access, browse and download.
- OpenLearning https://www.open.edu/openlearn/free-courses/full-catalogue
  Free learning from The Open University – Free courses

Butcher, N. (2015). A basic guide to open educational resources (OER). Commonwealth of Learning, Vancouver and UNESCO. Retrieved from http://oasis.col.org/handle/11599/36

- In addition many renowned universities offer free online courses and MOOCs (offered periodically). E.g.:
  - https://www.classcentral.com/course/independent-understanding-dementia-981
  - https://www.edx.org
- Several websites compile data on open online resources. E.g.:
  - http://www.openculture.com/free_textbooks

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OER: How to start?

… got the same risky feeling ?

Making OER work

Logical steps to make (1)

- Define the course or program wherein to integrate OER
- Given the **educational goals** of the course/program, define the **operational goals** for using OER.
  Keep it simple **when chosing tools to realize operational goals** and **select affordable learning objectives**.
- Keep the **logical structure** of the course:
  - define the **learning goals**
  - collect the learning **content** and **teaching methods**
  - include a **self-check for the student's understanding**
  - from the very early start, prepare the **final assessment** of the course
- Take due account of the **didactic value** and **methodical characteristics** of the materials that you use.

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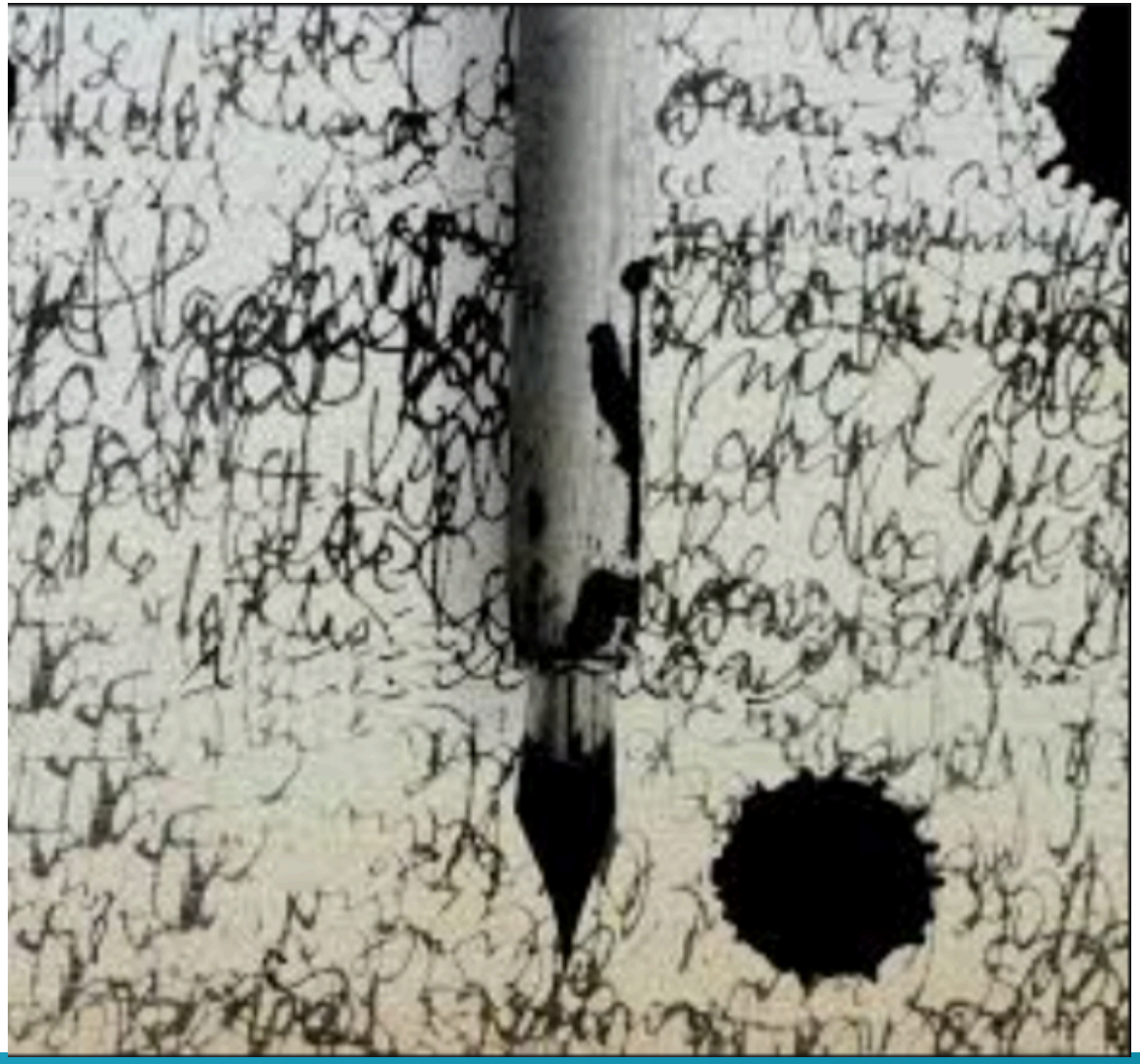
OER … preferably, keep it simple and clear



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Making OER work

Logical steps to make (2)

- Do you want to adopt and integrate a complete OER program or **course**? Maybe you're interested in MOOCS.
- You're looking for a **course tekst** or handbook?
- You're looking for **course text fragments** or **illustrations** (photos or videos) to integrate into your course?

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Making OER work

Logical steps to make (3)

When you've made your choice, are you going to:

- **Extract text fragments** from course texts?
- **Translate** course texts or tekst fragments?
- **Elaborate** further OER course texts or fragments?
- Use **video** recordings
- Collect **fotos and illustrations** from several sources?

- Please note: **the most common mistake is to overload the course with all kinds of new electronic materials, making it incomprehensible for the students and bringing down the educational feasibility of the course.**

Open Educational Resources: e.g.

Some examples

- An <Openstax> textbook on biology with good content and hyperlinks to illustrating video fragments
  https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/ConceptsBiology-OP.pdf
- <Openstax> textbooks including: learning objectives – learning content – check of understanding
  https://openstax.org/books/microbiology/pages/1-1-what-our-ancestors-knew
  https://openstax.org/books/university-physics-volume-2/pages/1-6-mechanisms-of-heat-transfer#51769https://openstax.org/books/university-physics-volume-2/pages/1-6-mechanisms-of-heat-transfer#51769
- An e-book with fully integrated reference system
  https://conservancy.umn.edu/handle/11299/204551 Handbook ecology 299/204551 h//conservancy.umn.edu/handle/11299/204551

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Seminar/workshop on Wednesday afternoon and Thursday morning (2019-10-16 and 17)

- Wednesday, 16/10. Afternoon session. Instruction and forming of workgroups; start of the exercise
- Thursday, 17/10.
  - Morning session at LIMEL studio – Video takes
  - Afternoon session: OER-presentations

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Questions? Suggestions?

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