



Open eLearning Content Observatory Services

Introduction: PLAN of the use of Open Educational Resources (OER)

December 2007

About the tutorials:

Please note, that this tutorial (December 2007) is based upon web based information (<http://www.olcos.org/tutorials/>). It could be that the contents and links in this tutorial change, e. g. for technological changes. The latest version of the tutorial can be found on the Internet: http://wikieducator.org/Open_Educational_Content



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Open Educational Content – Introduction and Tutorials

A collaborative development with the OLCOS project consortium (www.olcos.org).

The term **Open Educational Resources (OER)** stands for are educational materials and resources offered freely and openly for anyone to use. The OLCOS Tutorials intend to support students and teachers in the creation, re-use and sharing of eLearning material. Management staff will find information about how to implement open learning policies and activities in their institution.

OLCOS (Open eLearning Content Observatory Services):

This tutorial is based on the work of people within the project OLCOS (www.olcos.org). The project aims at building an (online) information and observation centre for promoting the concept, production and usage of open educational resources, in particular, open digital educational content (ODEC) in Europe. OLCOS was co-funded by the European Union under the eLearning Programme (Duration January 2006 - December 2007). Please feel free to contact info@olcos.org if you have suggestions for, or questions about the tutorials.

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PLAN open learning practices by means of open educational resources

In this tutorial, we introduce you to our definitions, and to important general planning of general/macrodidactical, technical and legal aspects. We illustrate our introduction with some practical examples.

1. Open content for open learning

When defining open educational resources (OER) one discovers that an authoritatively accredited definition does not yet exist. However, at the UNESCO-IIEP Forum (http://www.unesco.org/iiep/eng/training/virtual/hiv_rep_2001.pdf) it was a common agreement that OER include:

- open course content;
- open source development tools;
- open standards and licensing tools.

Experts who understand OER as a means of leveraging educational practices and outcomes will propose definitions of OER based on the following core attributes:

Definition:

Open educational resources, mean

- that access to open content (including metadata) is provided free of charge for educational institutions, content services, and the end-users such as teachers, students and lifelong learners;
- that the content is liberally licensed for re-use in educational activities, is free from restrictions to modify, combine and repurpose; and consequently, that the content should ideally be designed for easy re-use in that open content standards and formats are being employed;
- that for educational systems/tools software is used for which the source code is available (i.e. Open Source software) and that there are open Application Programming Interfaces (open APIs) and authorisations to re-use Web-based services as well as resources."

(Geser 2007: OLCOS Roadmap 2012; <http://www.olcos.org/english/roadmap/download/2007-03-20>;))

These are rather demanding principles and, in fact, repositories of educationally relevant resources often do not fully abide by them. Hence, readers should be aware that when in the following tutorials and collections we refer to "open" resources or interesting projects, there may be several criteria that these do not meet while still being developed in the spirit of the current Open Access movement.

Delivering OERs to the still dominant model of teacher-centred knowledge transfer will have little effect on equipping teachers, students and workers with the competencies, knowledge and skills to participate successfully in the knowledge economy and society. These materials emphasise the need to foster open practices of teaching and learning that are informed by a competency-based educational framework.

It is widely accepted that certain core competences are essential for individuals to participate successfully within a knowledge-based society. These core competences, which learners' should strive to acquire, are: self-direction and creativity, critical thinking and problem-solving skills, collaborative team-work and communications skills. These competences are not always fostered and encouraged when educational institutions and teachers base their instruction on a model in which teachers are perceived as dispensers of knowledge.

In the 1990s, the role of the teacher and educational staff has been revisited. The teaching of students and arrangements which enhance their learning are the focus of much theorisation; ie., constructivism. For them, open learning as self-determined, self-directed learning plays an important role. Nevertheless, the model of open learning practices (open education) and the importance of self directed learning is not new. As a teaching model, it is based on the work of Célestin Freinet (1896-1966) and Maria Montessori (1870-1952). Open learning in classrooms means, that the individual learner's interest in a subject and general learning interests of the students decide on the learning path. Over and above, the learning and social interactions between the students are managed on their own. Obtaining information and materials is a part of the working process. Not surprisingly the role of the "teacher" changes, (s)he is a "counsellor". On the practical side, the Internet can be used as database, to organize learning and to publish learning processes and results. For teacher and students media literacy and competence is needed. And it means, that learning outcomes are possible, that are not mentioned in the schoolbooks.

In an overall view, open practices with open content means to confound traditional ways of learning in schools and normally induce a change of the whole learning organization and workflows.

2. Expected benefits of open educational resources

It is expected that adherence to the principles outlined above can bring about tremendous benefits for education and lifelong learning in a knowledge society, not least of which is to eliminate many inefficiencies and bottlenecks in the current provision of e-learning opportunities. More specifically, among the expected benefits of open educational resources as seen from the viewpoints of educational networks, teachers and students are the following.

The following is an excerpt of the OLCOS Roadmap 2012 (OLCOS Roadmap 2012, p.20, 2007-03-20; <http://www.olcos.org/english/roadmap/download/>):

"From the viewpoint of educational networks (European, national, regional) and institutions, OER can:

Provide a long-term conceptual framework for alliances in the creation, sharing and provision of educational resources based on a strong emphasis of reusability;

- Allow for a higher return on investment of taxpayers' money (public funds) through better cost-effectiveness when reusing resources (e.g. sharing development costs among institutions or professional communities);
- Promote digital competence for the knowledge society beyond basic ICT skills through making available tools and content that allow learners to develop their critical thinking and creativity;
- Enrich the pool of resources (content and tools) for innovating curricula and teaching & learning practices, including resources from public sector information agencies, libraries, museums and other cultural organisations;
- Lead to a leverage in the educational quality of content through quality control, feedback and improvements within content alliances, communities and networks who share content (quality control through networks of developers and users has often been shown to bring good results);
- Foster lifelong learning and social inclusion through easy access to resources that may otherwise not be accessible by potential user groups.

From the viewpoint of teachers and students, OER can:

- Offer a broader range of subjects and topics to choose from and allow for more flexibility in choosing material for teaching and learning (i.e. content that can be easily modified and in-

tegrated in course material);

- Save time and effort through reusing resources for which IPR/copyright issues have already been resolved;
- Allow for engaging teachers in leveraging the educational value of resources through providing their own personal assessments, lessons learned and suggestions for improvements;
- Provide learning communities such as groups of teachers and learners with easy-to-use tools to set up collaborative learning environments (e.g. group Wikis or Weblogs, social networking, content feeds, etc.);
- Promote user-centred approaches in education and lifelong learning; users not only consume educational content but develop their own ePortfolios, and share study results and experiences with peers."

This overview of possible benefits of Open Educational Resources may seem overly optimistic. In fact, there are many unfavourable conditions that constrain a much stronger move towards open educational practices and resources. However, there are also various supportive trends and enablers for achieving real breakthroughs in teaching and learning, and we hope that the OLCOS roadmap and recommendations are supportive in making informed decisions on how to gain the greatest benefit from open educational practices and resources. For more information about that, we recommend the "OLCOS Roadmap 2012" (<http://www.olcos.org/english/roadmap/download/>).

3. Show cases

Here you find show cases in which open content was used for the process of open learning in different educational settings:

- schools (different subjects)
- academic learning
- professional learning

(Show Cases: <http://wikieducator.org/Olcos/casestudies/ShowCases>)

4. How to start?

There are some questions, you should answer before you design your open practice and educational resources:

- What is the target group, their needs and competence?
- What are the concrete topics and learning goals, as described e. g. in a curriculum?
- How the instructional design and respectively the learning strategies, e.g. are the students involved in the creation of the open content?
- What is about the technical equipment?

These are the everyday didactical considerations. Above that, there are some special requirements for open educational practices and resources.

5. Find and evaluate existing open content

After answering these questions, you should start to search for existing open content! For that, you have to look for open content materials.

Activity:

You will find tips and guidance in our Tutorial: SEARCH & FIND OER

[\[pdf\]](#) [\[wiki\]](#)

Are the results meeting your requirements? Perhaps you have found a course module or learning unit which exactly fits your requirements.

Mostly, you want to create your own materials by mixing, re-using, and adapting your findings to suit your needs.

6. Create Open Content with open source tools

It is not a must, but open content is very often a collaborative process, which means, that more teachers and learners who want to create learning materials work together. It is not a must, but a good and easy way is to use an open source tool for creating open content in an open format.

Activity:

You will find more tips and guidance about the creating process in our Tutorial: PRODUCE & REMIX OER: author and modify and Tutorial: USE open source tools [\[pdf\]](#) [\[wiki\]](#)

7. Publish and Share the Content

There are many possibilities to publish and to share the open educational content. Please be aware, that your employer could have some own interests and rights on your work. Perhaps that means, that you have to ask before publishing your work.

Activity:

You will find more tips and guidance in Tutorial: SHARE OER: publish and re-use [\[pdf\]](#) [\[wiki\]](#)

8. Technical Considerations and Planning

To create open content, there are some technical requirements needed.

Per definition, open content means that the content is made available in an open standard format. For that, you should look for an open format, which fits to the type of learning material you want to create (e.g. an audio file) and to the possibilities of your existing software-tools.

Activity:

You will find more information in our Exemplary Collection of Open eLearning Content Repositories and tips and guidance in our Tutorial: PRODUCE & REMIX OER: author and modify [\[pdf\]](#) [\[wiki\]](#)

9. Legal/License Considerations and Planning

Before you publish your content or before you start to build up a collaborating community creating open content you should decide about the legal conditions for reusing that content.

This is needed, because in the E.U. everybody has to ask the owner of the copyright of learning materials before using, copying, modifying the learning content and so on, and to enter into a contract.

- With an open content license, you could profit from
- clear descriptions of the rights of the author(s) and the users,
- licensing formulations which are proved by legal practitioner,
- the awareness level of the license,
- the possibility (for others) to more easily discover content with most of the search-engines, that allow you finding content that is licensed under the open content licence you use.
- and (if you use such a license) you can users of your content know that you maintain it to be attributed to you and that all materials, that are based on your work are published under the same conditions (share alike.)

Activity:

You will find more information in our tutorial CHOOSE a license [\[pdf\]](#) [\[wiki\]](#)

10. Further Materials

Below you find further OLCOS tutorials. The materials are available in PDF format [\[pdf\]](#) or can be found online on the OLCOS wiki [\[wiki\]](#) .

Because the content of the OLCOS wiki (http://wikieducator.org/Open_Educational_Content) will be updated we recommend you to visit the wiki.

- Overview [\[wiki\]](#)
- Introduction: PLAN the use of OER [\[wiki\]](#)

- Tutorial: SEARCH & FIND OER [[pdf](#)] [[wiki](#)]
- Tutorial: PRODUCE & REMIX OER: author and modify [[pdf](#)] [[wiki](#)]
- Tutorial: SHARE OER: publish and re-use [[pdf](#)] [[wiki](#)]
- Tutorial: CHOOSE a license [[pdf](#)] [[wiki](#)]
- Tutorial: USE open source tools [[pdf](#)] [[wiki](#)]

- ORGANIZE: Collections
 - Exemplary Collection of Open eLearning Content Repositories [[wiki](#)]
 - Exemplary Collection of institutions with OER policy [[wiki](#)]
 - Exemplary Collection of open content licensing approaches [[wiki](#)]
 - Exemplary Collection of open formats, educational standard and tools for producing open educational content [[wiki](#)]