

Opening up Education in South-Mediterranean Countries

OPEN EDUCATION: FUNDAMENTALS AND APPROACHES.

A learning journey opening up teaching in higher education





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Training Course Content



About OpenMed

OpenMed is an international cooperation project co-funded by the Erasmus + Capacity Building in HE programme of the European Union during the period 15 October 2015 - 14 October 2018 involving five partners from Europe and eight from South-Mediterranean countries (Morocco, Palestine, Egypt and Jordan).

The overarching goal of OpenMed is to raise awareness and facilitate the adoption of Open Educational Practices (OEP) and Open Educational Resources (OER) in the S-M countries, with a particular focus on Higher Education (HE) in Egypt, Jordan, Morocco and Palestine.

OpenMed fosters the role of Universities as knowledge providers not only to their on-campus students but also beyond the walls of institutions, especially towards disadvantaged groups (e.g. low-income peoples, disabled students, people living in rural areas, learners at risk of low achievement, and refugees).

Members of the OpenMed Consortium

- <u>UNIMED, Mediterranean Universities Union,</u> Italy (coordinator)
- POLITO, Politecnico di Torino, Italy
- UNIR, Universidad Internacional de La Rioja, Spain
- US, University of Seville, Spain
- COV, Coventry University, UK
- CU, Cairo University, Egypt
- AU, Alexandria University, Egypt
- UCA, Cadi Ayyad University, Morocco
- <u>UIZ, Université Ibn Zohr</u>, Morocco
- BZU, Birzeit University, Palestine
- ANNU, An-Najah National University, Palestine
- AArU, Association of Arab Universities, Jordan
- GJU, German Jordanian University, Jordan
- PSUT, Princess Sumaya University for Technology, Jordan

Associated Partner

• EDEN, European Distance and E-Learning Network, UK



The online version of the course is at:

course.openmedproject.eu



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Welcome to the OpenMed course

Open Education: fundamentals and approaches

A learning journey opening up Teaching in Higher Education

1. Introduction to the course

The course 'Open Education: fundamentals and approaches', produced within the OpenMed project with the support of the Erasmus+ programme of the European Union, aims to build capacity on Open Education and Open Educational Resources (OER) among universities in the South-Mediterranean region.

The course targets primarily university teachers with an interest in learning more about Open Education and with a motivation to adopt Open Education approaches and OER into their teaching.

2. Key learning outcomes

After having taken this course, learners will be able to:

- Understand the potential advantages of adopting OER and open education approaches in different contexts.
- Understand how content released under different kinds of open licences can be reused and apply open licences to your content.
- Search for, reuse and remix OER.
- Understand what MOOCs are and how to produce MOOCs.
- Adapt OER and MOOCs to your specific context.
- Incorporate open educational practices into your daily teaching.



Course overview

In the first 10 weeks of the course, learners will go through five Modules (one module every two weeks), where they are expected to read the content and to perform some learning activities (tests, forum discussions, etc.). At the end of each Module learners will have to draft a Step of their project work, defining the different components of their project. The estimated needed time for this phase is 40 hours in total.

In the following two months, learners will focus on their **Project Work**, planning how they will transform their teaching practice by adopting open approaches. The project work will be defined through the 'Steps' that learners will design at the end of each module, and will represent the main outcome of the course for every learner, on which the achieved competencies will be evaluated. The estimated needed time for this phase is 40 hours in total.

	Modules	Activities
Week 1	Module 1. Introducing Openness in Education	Expert Webinar
and 2	Main author: <u>Fabio Nascimbeni</u> , UNIR	Activities Module 1
	Module 1 introduces the main concepts connected to Open Education, it presents some of the reasons why educators should use open approaches in their teaching, and presents the history and state of the art of the Open Education movement.	Project work (Step 1)
Week 3	Module 2. Open Licensing and Copyright	Expert Webinar
and 4	Main author: <u>Eleonora Bassi</u> , Politecnico di Torino	Activities Module 2
	Module 2 introduces the debate about open licences within education, presenting the most common open licences such as Creative Commons. Further, it introduces concepts such as Open Access to research, Open Data, and Open Science.	Project work (Step 2)
Week 5	Module 3. Opening up education through OER and MOOCs	Expert Webinar
and 6	Main author: <u>Daniel Villar-Onrubia</u> , Coventry University	Activities Module 3
	Module 3 goes in depth on Open Educational Resources, describing what an OER is and is not, providing examples of OER, and explaining how to search for open content. Further, the module focuses on MOOCs by presenting their history and typologies.	Project work (Step 3)
Week 7	Module 4. Localising OER and MOOCs	Expert Webinar
and 8	Main author: <u>Isidro Maya Jariego</u> , Universidad de Sevilla	Activities Module 4
	Module 4 addresses the importance of intercultural communication in Open Education, focussing on personal learning environments and diversity in open learning networks and discussing how to adapt existing OER and MOOCs to a different linguistic and cultural context.	Project work (Step 4)
Week 9	Module 5. Open Educational Practices	Expert Webinar
and 10	Main author: <u>Osama Mimi</u> , Birzeit University	Activities Module 5
	Module 5 explains how to open up teaching practices and how to experiment with Open and Networked teaching, presenting success stories of Open Educational Practices. Also, it provides an intro to Open Assessment and Open Badges.	Project work (Step 5)
Week 11	Project Works	Project Works space
to 18	During this period, learners will work on a/n (individual or group) project, aiming at planning how they will transform their teaching practice by adopting open approaches. The project work will be defined through the 'Steps' that learners will design at the end of each module, and will be deployed during this phase.	



Module 1. Introducing Openness in Education

Main author: Fabio Nascimbeni, Universidad Internacional de La Rioja (UNIR)

Introduction

The first Module of the course introduces the main concepts connected to Open Education: Open Content, Open Pedagogy, Open Assessment. Further, it presents some rationale on why educators should use open approaches in their teaching. Finally, it presents the history of the Open Education movement and provides some information on the state of the art of OER and open approaches usage globally.

Learning outcomes

- Recognise relevant concepts such as Open Educational Resources (OER), Open Educational Practices, Open Content, Open Pedagogy, Open Assessment
- Understand the potential advantages of adopting OER and open education approaches in different contexts
- Recognise key milestones of OE movement



Lesson 1.1. What is Open Education?

What does 'open' mean in an educational context?

Before presenting some concepts related to Open Education and discussing the benefits of working openly within universities, we need to ask ourselves what we mean when we say that a specific educational practice or an educational resource is 'open'. This depends on the personal understanding of 'open', but may also reflect the context in which we are working. To start thinking about openness, let's introduce some of the key characteristics usually associated with this concept: access, transparency, free, sharing.

Access. Openness is often associated with an increased access to resources. In particular, it is associated with Open Access (this concept will be presented in Module 2) and the drive to 'open up' academia by publishing research outputs and learning resources through open licences. Opening up access to research and teaching resources is made possible by the internet, and means that potential users such as researchers and learners do not need to pay to view or to use a specific resource.

<u>Transparency.</u> Openness is often associated with increased transparency, for example in relation to one's own practices or data. This is particularly the case when an academic shares data, research and materials with others and by doing so enables public scrutiny of processes, outputs and assertions. For example, making research datasets openly available (Open Data will be discussed in Module 2) allows other people to check for possible errors, and carry out further analyses towards ultimately developing and improving research results.

Free. The term 'free' is often used in relation to Open Educational Resources (OER). But what does 'free' mean within the context of 'open'? As noted above, increasing access to resources often involves removing the need to pay for a resource at the point of use. This type of 'free' has been described as 'gratis', as the user is not charged a fee to access or use the resource. In this case, the costs associated with resource creation and/or its maintenance are absorbed elsewhere, for example by the creator or funder. Another meaning of 'free' within the context of openness is 'libre'. If a resource is 'libre' it means it doesn't have limitations on the way in which it can be used. Within the context of openness this refers to the potential of openly licensed materials to be reused. However, different licences afford different levels of reuse, some of which are not considered to be 'free' in the 'libre' sense (open licensing is discussed in more detail in Module 2).

<u>Sharing.</u> In all the above-mentioned cases, increasing access to resources happens through sharing, particularly when a material is shared digitally, and often means that resources can go beyond the original contexts and boundaries intended by their creator. Sharing stands at the very foundation of open education, since an Open Educational Resource that is not properly shared, could remain unknown and therefore its usage would be minimal. In Module 5 we will see how Open Educational Practices depend on the sharing attitudes of teachers and students: the more willing we are to share, the more the learning process will become open.





https://www.flickr.com/ photos/ comedynose/ 4058757916/ in/ photostream/ Public Domain Mark 1.0

Defining Open Education

Open Education is an 'umbrella term' under which different understandings of 'open' can be accommodated. More and more, experts and practitioners are adopting an understanding where opening up education does not refer exclusively to Open Educational Resources or to the availability of Open Access research in repositories. Here we provide a short and a longer definition:

Open Education encompasses resources, tools and practices that employ a framework of open sharing to improve educational access and effectiveness. By combining the traditions of knowledge sharing and creation with 21st century technology, Open Education wants to create a vast pool of openly shared educational resources, while harnessing today's collaborative spirit to develop educational approaches that are more responsive to learners' needs. Open Education seeks to scale up educational opportunities by taking advantage of the power of the internet, allowing rapid and essentially free dissemination, and enabling people around the world to access knowledge, connect and collaborate. Open allows not just access, but the freedom to modify and use materials, information and networks so education can be personalized to individual users or woven together in new ways for diverse audiences, large and small¹.

The expression 'Open Education' is subject to multiple interpretations and its meanings have significantly changed over time. In the second half of the 20th century, the concept was associated with the idea of using mass media channels such as the telephone or the TV in order to enhance distance education, as exemplified by the UK's Open University² (established in 1969) and other universities around the world based on similar principles and pedagogical approaches, such as Athabasca University³ (Canada), the National University of Distance Education⁴ (Spain) or Indira Gandhi National Open University⁵ (India). Unlike the traditional institutions bound to physical campuses and rigid timetables, these new universities were designed to open up education to widening up to segments of the population and to address the needs of those traditionally

¹ https://www.openeducationweek.org/page/what-is-open-education

² http://www.open.ac.uk/

³ http://www.athabascau.ca/

⁴ http://portal.uned.es/

⁵ http://www.ignou.ac.in/



excluded from higher education. With the rise of the internet and online communications, the idea of Open Education soon started to be connected with Information and Communication Technologies (ICT) and elearning. In order to understand the practices and the phenomena usually associated with Open Education as connected to e-learning, it is important to consider other concepts such as Open Access, Open Data, Open Content or Open Licences - all of which are based on, or directly inspired by - the ideas of Free Software and Open Source. All these concepts are influenced by the underlying idea that - thanks to the possibilities offered by the internet - knowledge can be reproduced at minimal or sometimes zero cost, but nevertheless, some barriers still exist in terms of, for example, copyright.

Open Education is not synonymous with online learning or e-learning, although many people use the terms interchangeably. Openly licensed content can in fact be produced in any medium: paper-based text, video, audio or computer-based multimedia. A lot of e-learning courses may harness OER, but this does not mean that OER are necessarily e-learning. Indeed, many open resources being produced currently – while shareable in a digital format – are also printable⁶. Given the bandwidth and connectivity challenges common in some developing countries, it would be expected that a high percentage of resources of relevance to higher education in such countries are shared as printable resources, rather than being designed for use in e-learning⁷. Likewise, many e-learning courses do not involve the creation, or even use of OER. Indeed, many courses advertised as open (such as certain Massive Open Online Courses - MOOCs) are built around copyrighted content that do not comply with the key criteria of most OER definitions, as learners can only have access to it, but reuse and modifications are not allowed.

The promise of Open Education is that each and every individual, at any stage of their lives and career development, can have appropriate and meaningful educational opportunities available to them. These include access to content, courses, support, assessment and certification in ways that are flexible and that accommodate diverse needs. Barriers, for example those related to entry and cost, are reduced or eliminated. Today, this vision has not been yet realised, and most academics still teach in a traditional way using 'closed' resources, but progress has been made and especially Open Education approaches are becoming increasingly popular. As Professor Martin Weller puts it, 'there is undoubtedly still a lot more that open education needs to do before it affects all aspects of practice, but the current period marks the moment when open education stopped being a peripheral, specialist interest and began to occupy a place in the mainstream of academic practice' (Weller⁸, 2014 p. 9).

<u>Defining Open Educational Resources</u>

The concept of Open Educational Resources has heavily influenced how the idea of Open Education has been understood during the first two decades of the 21st century. This concept and its acronym (OER) were first coined after a forum organised by **UNESCO** in 2002, which focused on the potential of OpenCourseWare (OCW) for learning in developing countries. OCW was an initiative launched by the Massachusetts Institute of Technology (MIT) in 2001, with the aim of making resources available on the internet developed by lecturers for students enrolled in courses at that institution. While OCW refers to whole courses (i.e. modules), the term OER is more generic and can refer to smaller elements. According to the seminal definition formulated after the 2002 forum, the term OER refers to:

'The open provision of educational resources, enabled by ICTs for consultation, use and adaptation by a community of users for non-commercial purposes.'

UNESCO 2002

⁶ https://oerknowledgecloud.org/content/oer-same-e-learning

⁷ http://wikieducator.org/A_Basic_Guide_for_OER/A_Basic_Guide_to_Open_Educational_Resources:_FAQ

⁸ http://www.ubiquitypress.com/site/books/10.5334/bam/



Another widely quoted definition of the term was suggested by Atkins, Seely Brown and Hammond in their report on the OER Movement published by the Hewlett Foundation in 2007. Their revised definition describes OER as:

'teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others. 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.'

Atkins et al. 2007

The original definition was much more restrictive than this one, as it excluded non-electronic materials and did not consider the possibility of repurposing resources for commercial use. On the contrary, Atkins et al's (2007) definition detaches the concept from particular technologies and is more flexible from the legal point of view. Within this definition, the key characteristic of resources which are described as OER is that they can be used and repurposed without any cost to users, no matter whether they do so for commercial or non-commercial purposes.

In 2012, ten years after the term OER was coined, **UNESCO** proposed a revised definition of the concept within the OER Paris Declaration:

'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 2012

The word 'open' within the notion of OER is usually interpreted as the absence of – or limited – legal (but also technical) restrictions for users to utilise, repurpose and share scholarly resources.

While the definitions of OER above refer explicitly to scholarly (i.e. learning, teaching, research) materials, the **educational** nature of resources is not determined by their creators, but by the context of their use. That is, content released under open licences or in the public domain are not only relevant to educators and learners when they have been specifically created for educational purposes. For instance, a news article, a song, a picture or a film might be extremely valuable in facilitating learning within a given discipline, despite not being created for that purpose. In this regard, OER are not just created by educators or learners.

Resources are assets that can enable some function or activity, and when we refer to resources that support learning and teaching we usually think of content (for example, textbooks, videos, podcasts). However, materials that qualify as resources for teaching and learning might include a much wider range of tools, such as software, data or techniques (as recognised by the definition in the Hewlett report). A broader interpretation of the term could include spaces for either formal or informal learning, and even people as resources for learning.

Thanks to **Creative Commons (CC)** and other similar licences (for example, the GNU General Public License) – that will be explored in Module 2 – copyright owners can easily grant permission so their works can be used by others without them having to ask for explicit permission. However, not all CC licences comply with the minimum criteria that content must fulfil in order to be regarded as OER.



Openness in Open Educational Practices beyond OER

Open Educational Practices (OEP) are the next phase in OER development which will see a shift from a focus on resources to a focus on open educational practices being a combination of open resource use and open learning architectures to transform learning into 21st century learning environments in which universities, adult learners and citizens are provided with opportunities to shape their lifelong learning pathways in an autonomous and self-guided way.

Two definitions of OEP are proposed:

- The <u>Open Educational Quality (OPAL) Initiative</u> defines Open Educational Practices as 'the use of Open Educational Resources to raise the quality of education and training and innovate educational practices on institutional, professional and individual levels'.
- The <u>International Council for Open and Distance Education</u> (ICDE) states that 'Open Educational Practices are defined as practices which support the production, use and reuse of high quality open educational resources (OER) through institutional policies, which promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path'.

Some authors restrict the use of the term OEP to teaching and learning that make use of content that qualifies as OER. For instance, David Wiley has defined Open Pedagogy as 'the set of teaching and learning practices only possible or practical in the context of the 5R permissions⁹. Or, to operationalise, open pedagogy is the set of teaching and learning practices only possible or practical when you are using OER' (Wiley 2017). On the other hand, other authors have made the case for a less restrictive interpretation of OEP. For instance, Martin Weller suggests a definition according to which 'Open educational practice covers any significant change in educational practice afforded by the open nature of the internet' (Weller 2017).

In the case of OpenMed, while the project encourages institutions and educators to release content conforming to the 5R permissions whenever possible, it also recognises the value of educational practices that, despite not involving OER, can still help open up learning opportunities to a wider public beyond institutional boundaries. For instance, making scholarly content publicly available on the web (for example, by means of podcasts, online video, blogs or other types of websites and platforms) can be a good first step in opening up opportunities to a wider public, even if content is fully protected by copyright or cannot be used to produce derivative works. While OER levels of openness are more desirable, making resources publicly available is better than having them behind 'walls'.

What is an Open Educator?

An attempt to define what it means to be an Open Educator has been made by the 'Open Educators Factory' project¹⁰, which proposes the following definition:

An Open Educator chooses to use open approaches, when possible and appropriate, with the aim to remove all unnecessary barriers to learning. S/he works through an open online identity and relies on online social networking to enrich and implement his/her work, understanding that collaboration bears a responsibility towards the work of others. He/she:

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⁹ http://opencontent.org/definition/

¹⁰ https://wikieducator.org/Research/open_educators_factory.



- 1. Implements Open Learning Design, by openly sharing ideas and plans about his/her teaching activities with experts and with the past and potential students, incorporating inputs and transparently leaving a trace of the development process.
- 2. Embraces Open Educational Content, by releasing his/her teaching resources through open licences, by facilitating sharing of his/her resources through OER repositories and other means, and by adapting, assembling and using OER produced by others in her teaching.
- 3. Adopts Open Pedagogies, fostering co-creation of knowledge by students through online and offline collaboration, allowing learners to contribute to public knowledge resources such as Wikipedia.
- 4. Implements Open Assessment practices such as peer and collaborative evaluation, open badges and e-portfolios, engaging students as well as external stakeholders in learning assessment.

Activity 1.1 - Test your capacity to work as an open educator

Go on the website http://rd.unir.net/pub/oef/login.php, choose a language and register.

Then take the survey (it will take no more than 10 minutes) and see how you perform with respect to the four dimensions of Open Education: learning design, content, teaching, and assessment.

Finally, have a look at the targeted recommendations that the system provides to you. You might want to save these recommendations as a PDF to take a look at later.



Lesson 1.2. The benefits and impact of Open Education

General benefits of Open Education

Watch this short video to understand why Open Education matters:



Link: https://vimeo.com/43401199

Opening up education is important for various reasons, as noted in a recent report by the European Commission:

'Opening up education is important in the European policy agenda for many reasons. First, it allows access barriers to education to be reduced or removed (for example, cost, geography, time, and entry requirements). This can make it possible for learners to up skill or re-skill in a cheaper and flexible way - an important consideration in the economic crisis faced by Europe today. Second, it helps to modernise higher education in Europe, since contemporary open education is mostly carried out via digital technologies. Finally, it can bridge non-formal and formal education, by making it easier for HE institutions and other accredited institutions to recognise certificates of learning achievement (to include badges) they each issue to learners (JRC 2016: Opening up Education: A Support Framework for Higher Education Institutions)'

This is particularly relevant in times of massification of higher education. Stimulating supply and demand for high-quality open education is essential for modernising education. If universities really want to find more resources to invest in better teaching and research, it is essential that the open sharing of resources is encouraged. Knowledge must be shared and spread, teachers inspired to network and collaborate on course development, and institutions discouraged from fragmentation and a silo mentality¹¹.

Furthermore, Open Education can be a catalyst for teaching and learning innovation. For example, in terms of access to learning, institutions which embrace Open Education are pushed to think further about supporting the adaptation of courses to special needs (for example, students with special needs). They can, therefore, widen up their reach and increase the opportunities for participation in education. An example of how OER can be used to increase learning accessibility is https://opentextbc.ca/accessibilitytoolkit/.

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¹¹ http://www.uni-med.net/progetti/openmed/



<u>Transformative potential of Open Education</u>

The idea of free and open sharing in education is not new. In fact, sharing is probably the most basic characteristic of education: education is sharing knowledge and information with others, upon which new knowledge, skills, ideas and understanding can be built¹². Through Open Educational approaches, students can get additional information, perspectives and materials to help them to succeed. Workers can learn new things that could help them in their current employment, or retrain to get new skills that might help them undertake a career change. Faculty can draw on resources from all around the world, researchers can share data and develop new networks, and teachers can find new ways to help students learn.



'Life is sharing' (Alan Levine, CC-BY 2.0 Generic)

Through Open Education, people can connect with others they wouldn't otherwise meet to share ideas and information. Materials can be translated, mixed together, broken apart and openly shared again, increasing access and inviting fresh approaches. If we look at open educational content, we can see that its transformative educational potential revolves around two linked possibilities:

- 1. Increased availability of high quality, relevant learning materials can contribute to more productive students and educators. Removing restrictions around copying resources can reduce the cost of accessing educational materials; in many systems, royalty payments for textbooks and other educational materials constitute a significant proportion of the overall cost of education¹³.
- 2. Having the possibility of adapting existing of materials provides one mechanism for constructing roles for students as active participants in educational processes, who learn by doing and creating, not by passively reading and absorbing. Content licences that encourage activity and creation by students through re-use and adaptation of that content can make a significant contribution to creating more effective learning environments.

¹² http://www.oeconsortium.org/about-oec/

¹

¹³ http://wikieducator.org/A_Basic_Guide_for_OER/A_Basic_Guide_to_Open_Educational_Resources:_FAQ



Impact of Open Education on different stakeholders

We can identify the benefits for each of those involved in using Open Education approaches – the learners, the organisation and the educators.

Learners can benefit from:

- Applying knowledge in a wider context than their course would otherwise allow
- Freedom of access and enhanced opportunities for learning
- Support for learner-centred, self-directed and social/informal learning approaches
- The opportunity to test out course materials before enrolling

Educators can benefit from:

- Student/user feedback and open peer review
- Reputational benefits, recognition
- Benefits (efficiency and cultural) of collaborative approaches to teaching/learning
- Reaching a wider range of learners

Educational institutions can benefit from:

- Recognition and enhanced reputation
- Wider availability of their academic content (linking to widening participation agenda)
- Efficiencies in content production
- Increased sharing of ideas and practice within the institution
- Increased understanding of IPR

Other sectors (eg, employers, public bodies, private bodies, 3rd sector) benefit from:

- Access to repurposable content
- Input to scoping, development and endorsement of open content in their focus area
- New potential partnerships with content providers and other sectors
- Increased understanding of IPR, curriculum development and learning technologies

Activity 1.2 - Explore the potential benefits of Open Education for you and your institution

Please participate in the Forum by answering to some of the following questions.

Does your academic institution practice any form of Open Education?

If yes, is it for full programmes, courses, or part of a course? How is that benefiting your students? And how is benefiting your institution?

If not, where do you see potential for Open Education to help your students and institution? And how will each stakeholder benefit from such potential?



Lesson 1.3. The Open Education movement and its history

The history of Open Education

A range of 'open' philosophies and models have emerged during the 20th century as a result of several different drivers and motivations — including sharing freely, preventing duplication, avoiding restrictive copyright practices, promoting economic efficiencies and improving access to broad groups of stakeholders¹⁴.

Many of these developments have been driven by and created by communities that recognise the benefits to themselves, and sometimes to wider groups. Some of these are Open Source Software, Open Standards, Open Access to Research Results, Open Design, Open Data, Open Courseware.

Several of these movements have somehow influenced the education community both in terms of research on learning and teaching (particularly in the area of educational technology). Whilst it is widely expected that sharing and openness would bring benefits to some stakeholders in the all the above areas, traditional cultures and practices, managerial approaches and processes, and perceived legal complexities have been identified as barriers to sharing both within and across institutions¹⁵.

The Open Education movement started around the concept of Open Educational Resources (OER), a term originally coined at a forum arranged in 2002 by UNESCO (see more on OER in Module 3). In response to the growing interest in the subject, the OpenCourseWare Consortium (recently renamed as Open Education Consortium¹⁶) was launched in 2005.

Before that, the Massachusetts Institute of Technology (MIT) had launched the **OpenCourseWare initiative** (OCW) in 2001, the same year that Wikipedia was established. While MIT-OCW¹⁷ was preceded by similar initiatives such as Rice University's Connexions (1999) and David Wiley's Open Content Project (1998), it gained unprecedented attention from the media and other universities interested in replicating the model.

Numerous individuals, educational institutions and other organisations around the globe have since then contributed to the so-called **Open Education movement**. Other relevant initiatives were launched soon after that, such as the UK Open University's <u>OpenLearn</u>¹⁸ in 2006; and The <u>Cape Town Open Education</u> <u>Declaration</u>¹⁹, resulting from a meeting of advocates in late 2007, helped to articulate the principles underpinning this emerging movement.

In 2008 Dave Cormier coined the term **Massive Open Online Course (MOOC)** in response to an experience developed that same year by George Siemens and Stephen Downes, who ran a course on connectivism with a group of students at Manitoba University (Canada) and an extended cohort of more than 2,000 participants from the general public who were invited to follow and participate in the course for free.

Over the next few years, similar MOOC experiences were developed at other institutions. In 2011 Sebastian Thrun and Peter Norvig ran another course on <u>Artificial Intelligence at Stanford</u>²⁰ that involved more than 100,000 students. Inspired by this, a number of platforms developed by companies in partnership with, or belonging to, universities emerged over the following months (for example, <u>Udacity</u>²¹, <u>Coursera</u>²², <u>edX</u>²³).

¹⁴https://openeducationalresources.pbworks.com/w/page/24836860/What%20are%20Open%20Educational%20Resources

¹⁵ See for example http://repository.jisc.ac.uk/265/1/goodintentionspublic.pdf.

¹⁶ http://www.oeconsortium.org/

¹⁷ https://ocw.mit.edu/index.htm

¹⁸ http://www.open.edu/openlearn/

¹⁹ http://www.capetowndeclaration.org/

²⁰ http://news.stanford.edu/news/2011/august/online-computer-science-081611.html

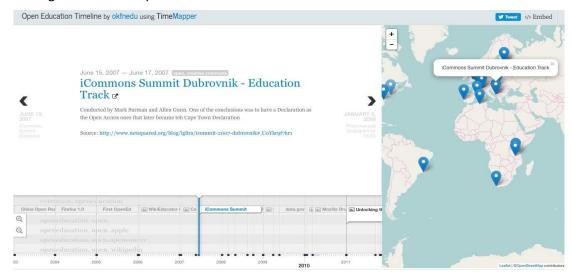
²¹ http://www.udacity.com/

²² https://www.coursera.org/

²³ https://www.edx.org/



The Open Knowledge Foundation Open Education Working Group created the Open Education Timeline, a detailed listing of the most important events and milestones.



Link: http://timemapper.okfnlabs.org/okfnedu/open-education-timeline#54

What is the status of Open Education today?

The Open Education movement is in good health: the Open Education Consortium is a global network working in the area, which organises the Open Education Week every year in March. UNESCO and the Commonwealth of Learning are still pushing for openness adoption at different levels (in 2017 the second OER World Congress took place). In 2013 the European Commission issued a Communication called Opening Up Education, that has given birth to a few national initiatives such as Opening Up Slovenia.

Furthermore open education, OER and MOOCs have been a central theme for almost every e-learning conference in the recent years, and a number of reports are continuously being produced looking at different OER and OEP developments, as witnessed by the richness of the www.oerworldmap.org²⁴ site.

Finally, Open Education is increasingly being considered as an option by universities in other regions than the forerunner English-speaking areas, where it all started. An overview of current projects and initiatives is provided by the OER World Map here below:

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²⁴ https://oerworldmap.org/





Further reading

There are many reports and websites that introduce open education in all of its aspects, our intention here is simply to provide a summary of the most relevant ones. Here are some foundational reports:

If you are interested in finding out more about the **distinction between 'libre' and 'gratis'** within Open Content and about the controversy over open licensing we recommend you to read this post: <u>'Is OER actually open? Gratis vs libre'</u> 25

Journeys to Open Educational Practice²⁶. This is an ideal starting point for anyone wishing to engage in open education. It includes insight into open content production and release, working collaboratively, institutional impact, and legal and technical implications.

MOOCs and Open Education: Implications for Higher Education²⁷. This state-of-the-art review by CETIS²⁸ describes current thinking on open education and MOOCs²⁹. A good read for those wishing to implement change at institutional level, exploring how open education can play a role in meeting the demands of changing student demographics, globalisation, and other economic and technological factors.

The OER Policy for Europe has produced an OER Mythbusting!³⁰ resource which helps answer common questions about OER and addresses some of the misconceptions about this type of resource. University College London (UCL)

You can explore different perspectives on openness in <u>this playlist</u>³¹ created by the OER Research Hub of the Open University UK

You can read Chapter Two, 'What sort of open?' of Martin Weller's book *The Battle for Open*. You can download the book for free³².

²⁵ http://thereeddiaries.blogspot.co.uk/2013/04/is-oer-actually-open-gratis-vs-libre.html

²⁶ http://wikieducator.org/File:Journeys to Open Educational Practice UKOER SCORE Review Final Report.pdf

²⁷ http://wikieducator.org/File:MOOCs-and-Open-Education.pdf

²⁸ https://en.wikipedia.org/wiki/CETIS

²⁹ https://en.wikipedia.org/wiki/Massive_open_online_course

³⁰ http://mythbusting.oerpolicy.eu/

³¹ https://www.youtube.com/playlist?list=PLVQl1nUupmrGZB4B57to4DwmkC8K6zCXT

³² http://www.ubiquitypress.com/site/books/detail/11/battle-for-open/



Finally, for the latest research on OER and open education, we suggest you follow IRRODL, <u>The Internationa</u>, <u>Review of Research in Open and Distributed Learning</u>³³, and also <u>Open Praxis</u>³⁴, published by the International Council for Open and Distance Education (ICDE).

References

This module was built by using and remixing content from:

The OpenMed compendium, http://openmedproject.eu/results/compendium/

Course 'Introduction to openness in education', https://learn.canvas.net/courses/4

Open Educational Resources Infokit, https://openeducationalresources.pbworks.com

Open Education Week, https://www.openeducationweek.org/page/what-is-open-education

Inamorato dos Santos, A., Punie, Y., Castaño-Muñoz, J. (2016) Opening up Education: A Support Framework for Higher Education Institutions. JRC Science for Policy Report, EUR 27938 EN; doi:10.2791/293408

Go Open Wiki, http://wikieducator.org/GoOPEN

UNESCO, A Basic Guide to OER, http://unesdoc.unesco.org/images/0021/002158/215804e.pdf

³³ http://www.irrodl.org/index.php/irrodl

³⁴ http://openpraxis.org/index.php/OpenPraxis



Project work Step 1

Make a pledge for opening up your course/teaching

As a first activity, you are requested to write a pledge on how you will be opening up your course/teaching during the OpenMed course.

Some examples of such a pledge:

- You can select a course of yours and commit to transform it into an open course, possibly made available at no cost to students who are not enrolled in your institution.
- Or you can select a learning resource that you are actually using (a book, a set of PowerPoints, or the content covering a whole course) and commit to make it open, by adopting open licences and by making the resource searchable through different repositories.
- Or, you can commit to adopt an open teaching or Open Assessment strategy within your course, and describe this strategy in your pledge.

Please prepare your pledge, including:

- the objectives of your project work
- the activities that you will run during the project work
- the main results of your project work
- the benefits that your project work will bring to you, to your students and to your institution.



Module 2. Open Licensing and Copyright in education

Main author: Eleonora Bassi, Politecnico di Torino

Introduction

This module presents the essentials of copyright, which are fundamental to better understand the concept of free licences and public domain. A focus on Creative Commons licences follows, including their basic conditions and how to combine them for creating the proper CC licences to use. The final part of the module will be devoted to Open Data and Open Science, the new paradigm that combines the ontological openness of science with the new opportunities given by the internet.

Learning outcomes

- Distinguish between Copyright, Open Licences and Public Domain
- Choosing and using Creative Commons licences
- Reuse content released under different kinds of open licences
- Identify Open Licences that fit your own content



Lesson 2.1. Introduction to Copyright and Open Licensing

Copyright

According to the World International Property Organization, 'Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.' These works cannot be reproduced, performed, recorded, or adapted without written permission of the author. For educators, this has implications for which materials they can use and how they can use them.

The level and type of protection of copyright varies between countries. In general, copyright is territorial, which means that it does not extend beyond the territory of a specific state unless that state is a party to an international agreement. While many aspects of national copyright laws have been harmonised through international copyright agreements (see, for instance, the Berne Convention35), copyright laws in most countries have some unique features.

Copyright is usually for a limited time. It subsists for a variety of durations in different jurisdictions. The length of the term³⁶ can depend on several factors, including the type of work (for example, musical composition³⁷ or novel³⁸), whether the work has been published or not, and whether the work was created by an individual or a corporation. In most of the world, the default length of copyright is the life of the author plus either 50 or 70 years.

Local and international laws and conventions assure that copyright applied in a country is recognised and protected in many others.

Copyright is often shared among multiple authors, each of whom holds a set of rights to use or license the work, and who are commonly referred to as rights-holders. These rights (also known as 'authors' rights') secure protection of both the economic interests of authors – such as reproduction, control over derivative works, and distribution – as well as their moral interests (for example, protection against unauthorised use of their works).

Moreover, creators and authors might not be the only copyright owners of a given work. This has very important implications for educators, because in many cases their universities are also copyright owners of the works they produce as employees. In those cases, technically, the academics would need permission from their employers before being able to release their work under Creative Commons.

The world's first copyright law was the Statute of Anne, enacted in England in 1710. This Act introduced for the first time in history the concept of the author of a work being the owner of its copyright, and laid out fixed terms of protection. Nowadays, each country has its own copyright laws. However, there are some international standards, most based on the Berne Convention. Under the Berne Convention, each country gives original works from any country the same protections, regardless of the laws of the country where they originated. For example, if you find an e-book online by an author from another country, it's protected by the same copyright laws as a book by an author from your own country. The Berne Convention³⁹ grants copyright protection to 'every production in the literary, scientific and artistic domain, whatever may be the

³⁵ https://en.wikipedia.org/wiki/Berne_Convention

³⁶ https://en.wikipedia.org/wiki/Copyright_term

³⁷ https://en.wikipedia.org/wiki/Musical_composition

³⁸ https://en.wikipedia.org/wiki/Novel

³⁹ http://www.wipo.int/treaties/en/ip/berne/summary_berne.html



mode or form of its expression'. Therefore, what lies at the heart of copyright law is the distinction between artistic works and mere ideas.

Copyright law protects only the form of expression of ideas, not the ideas themselves. Using ideas expressed in a work does not represent a copyright violation. For copyright to be infringed, one has to copy the form in which the ideas are expressed.

It should be noted that copyright also protects 'derivative works' – such as translations, adaptations, and music arrangements – without prejudice to the copyright in the pre-existing work. In other words, an author of a translation needs first to obtain authorisation from the author of the work. Computer programs are protected under the copyright laws of a number of countries, including the EU, as well as under the WIPO Copyright Treaty. The same applies to databases.

With the coming of the digital era, copyright is facing several issues since restrictions on reuse do not always fit well with how we use and share information in the digital sphere; furthermore, society benefits most from certain types of content when they can freely circulate. To maintain a fair balance between the interests of users and rights-holders, copyright protection is subject to two types of limitations. On the one hand, works are protected only for a certain period of time, at the expiration of which they may be used freely. On the other hand, during the term of protection, a number of exceptions and limitations, allows for copyrighted works to be used without a licence from the copyright owner.

From the educational perspective, the main category of exception is the so-called 'fair use', and concerns particular acts of exploitation, normally requiring the authorisation of the rights-holder, which may, under strict circumstances, be carried out without authorisation. Examples of fair use include: quoting from a protected work, provided that the source of the quotation and the name of the author is mentioned; and use of works by way of illustration for teaching purposes and news reporting. Interestingly, exceptions and limitations have not been harmonised at the international level. *Indeed, the right to quote is the only mandatory exception provided for by the Berne Convention.* However, all national copyright laws grant exceptions and limitations based on the notion of 'legitimate interest' and which fall into four main categories: promotion of freedom of expression (quoting works for the purpose of criticism or parody); access to knowledge (for example, replacement of lost or damaged copies in libraries; the production of alternative versions in large print or braille of a copyrighted work for visually impaired persons); the requirements of justice and the functioning of the government (for example, official texts and court rulings); and finally, private or personal use.

Nonetheless, a rights-holder may also decide to abandon their exercise of the rights, wholly or partially (i.e., posting copyright protected material on the internet for a fee, or restricting the abandonment to non-commercial use).

(http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/564380/EPRS_BRI(2015)564380_EN.pdf).

Free licences and Open licences

In answer to the current copyright challenges, open licensing movements have risen in recent years, with a significant impulse from the open software communities.

A <u>public licence</u>⁴⁰ or public copyright licence is a licence by which a copyright holder as licensor can grant additional copyright permissions to any and all persons in the general public as licensees. Open licences are a novel use of existing copyright law to ensure a work remains freely available fostering openness and the free circulation of knowledge.

⁴⁰ https://en.wikipedia.org/wiki/Public_copyright_license



An open licence is a licence agreement that describes the conditions under which the holder of the intellectual property grants the users to perform a variety of uses for his intellectual or artistic works. Through open licences, authors grant permission for users to reproduce, adapt, or distribute the work, with the accompanying requirement that any resulting copies or adaptations are also bound by the same licensing agreement. Examples of such licences include the GNU General Public Licence – the first and most widely used software 'copyleft' licence – and Creative Commons Licences.

Free software licences are the legal tools that have been used since the 1980s to promote free software development and distribution: they are legal acts by which the author licenses copyrights (and patent rights) to allow users to enjoy the freedoms provided by the free software definition. Therefore, for a program to be free software, it is enough that the rights holder distributes it under the terms of a suitable licence: a free software licence.

In 1989, Richard Stallman wrote the first version of the GNU-GPL licence, unifying similar licences he used for earlier versions of his programs. Nowadays the GNU-GPL licence is adopted by a large number of projects and it is at the heart of the free software movement. Wide adoption of this licence is partly due to historical reasons (it's the licence created by Richard Stallman, the founder of the Free Software Movement) but also to practical reasons: the engineering of this licence favoured for the spreading of free software. In fact, the GNU-GPL provides that the user is allowed to modify and redistribute software licensed under this licence provided that the modified version is in turn licensed under the terms of the same licence.

To put it briefly, **open licences foster sharing**: whoever wants to modify the content and distribute it (or, sometimes, allow its remote use) can do so provided that he in turn gives the users the same freedoms that were granted to him.

Activity 2.1 - Understanding copyright and public domain

Please check your understanding of copyright and public domain with the following multiple choice questions: notice that only one answer is correct. The correct answers are in green.

- 1) Can I re-use ideas from a copyrighted work?
- a) No if ideas are expressed in a copyrighted work
- b) Yes. Ideas are not covered by copyright. Copyright protects the form of expression of the ideas
- c) You can use ideas only after the copyright expired
- 2) What is covered by the 'fair use' exception?
- a) Only ideas expressed in copyrighted works
- b) Quoting from a protected work, without the mention of the source of the quotation and of the name of the author
- c) The 'fair use' exception concerns particular acts of exploitation, normally requiring the authorisation of the rights-holder, which may, under strict circumstances, be carried out without authorisation
- 3) Is copyright unlimited in time?
- a) Yes
- b) No. Copyright expires always in 10 years
- c) No. Usually copyright is limited in time. The period of protection varies as well amongst countries



Lesson 2.2. Examples of Open Licences

Creative Commons

Creative Commons (CC) is a project building a new and more flexible paradigm for copyright. CC develops standardised copyright licences and other (optional) technical tools to assist authors wanting to share some of their rights with users and fellow authors in a way that is easy, flexible and legally rigourous. Creative Commons licences were originally designed for sharing creative works. They may apply to all types of works (scientific or not).

CC licences protect the people who use or redistribute an author's work from concerns of copyright infringement as long as they abide by the conditions that are specified in the licence by which the author distributes the work. Such licences all grant the 'baseline rights', such as the right to distribute the copyrighted work worldwide for non-commercial purposes, and without modification.

There are different CC licences, some more permissive than others. Some types of licences are particularly broad: the public domain dedication mark such as CCO ('No Rights Reserved') or PDM ('No Known Copyright'), the licence CC-BY ('Attribution') or the licence CC-BY-SA ('Attribution/ShareAlike').

The CC licences are a composition of the following four conditions (source: wikipedia.org):

Icon	Right	Description
•	Attribution (BY)	Licensees may copy, distribute, display and perform the work and make derivative works and remixes based on it only if they give the author or licensor the credits (attribution) in the manner specified by these.
③	Share-alike (SA)	Licensees may distribute derivative works only under a licence identical ('not more restrictive') to the licence that governs the original work. Without share-alike, derivative works might be sublicensed with compatible but more restrictive licence clauses, for example, CC BY to CC BY-NC.)
(\$)	Non-commercial (NC)	Licensees may copy, distribute, display, and perform the work and make derivative works and remixes based on it only for non-commercial purposes
	No Derivative Works (ND)	Licensees may copy, distribute, display and perform only verbatim copies of the work, not derivative works and remixes based on it.



Please watch these two video-clip explaining the basics of Creative Commons:



https://vimeo.com/25684782



https://www.youtube.com/playlist?list=PLcYKkFB K8WcagRCrzEurcU1mtaeVJr-Z

Public domain

'The term *public domain* refers to creative materials that are not protected by intellectual property laws such as copyright, trademark, or patent laws. The public owns these works, not an individual author or artist. Anyone can use a public domain work without obtaining permission, but no one can ever own it' (Stim 2010)⁴¹.

Eventually all original works enter the Public Domain at some point, namely when their copyright protection expires, but it tends to take a long time – in most jurisdictions this happens at least 70 years after the author's death!

⁴¹ http://fairuse.stanford.edu/overview/public-domain/welcome/; see also https://en.wikipedia.org/wiki/Public_domain



The Public Domain Mark (PDM), developed by Creative Commons, is a symbol⁴² used to indicate that a work is free of known copyright⁴³ restrictions and therefore in the public domain⁴⁴. The PDM is intended for use with old works that are free of copyright restrictions around the world, or works that have been affirmatively placed in the worldwide public domain prior to the expiration of copyright by the rights' holder. It should not be used to mark works that are in the public domain in some jurisdictions while known to be restricted by copyright in others. (See https://creativecommons.org/choose/mark/)

Nonetheless, copyright holders might want to dedicate their works to the public domain at any point. In order to do so, they need to explicitly state that they do not wish to reserve any of their intellectual property rights over a given work, something that can be done for instance, by making use of the CC0 tool.

Using CCO, you can waive all copyrights and related or neighbouring rights that you may have in all jurisdictions worldwide, such as your moral rights (to the extent waivable), your publicity or privacy rights, rights you have protecting against unfair competition, and database rights and rights protecting the extraction, dissemination and reuse of data (see https://creativecommons.org/choose/zero/).

'In contrast to CC's licenses that allow copyright holders to choose from a range of permissions while retaining their copyright, CCO empowers yet another choice altogether – the choice to opt out of copyright and database protection, and the exclusive rights automatically granted to creators – the 'no rights reserved' alternative to our licenses'45. For instance, you may find datasets contributed by researchers to the worldwide Public Domain at Figshare⁴⁶. Another example is PixaBay⁴⁷; a repository of high quality photographs and illustrations that only contains public domain content released under CCO. While users can give credit, and even donations, to the authors of content, this is not required.

Rather than thinking of open and closed as binary concepts, it is more appropriate to see them as the two ends of a wide continuum that can include different levels of openness (or closedness). That is, resources can be more or less open depending on the rights reserved by their authors, being Public Domain is the most open possible option.

Here there is the spectrum of the different levels of openness:

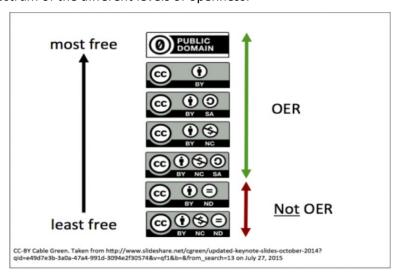


Image source: https://www.cccoer.org/learn/open-licensing/

⁴² https://en.wikipedia.org/wiki/Symbol

⁴³ https://en.wikipedia.org/wiki/Copyright

⁴⁴ https://en.wikipedia.org/wiki/Public_domain

⁴⁵ https://creativecommons.org/share-your-work/public-domain/cc0/

⁴⁶ hthttps://pixabay.com/tp://www.figshare.com/

⁴⁷ https://pixabay.com/



Activity 2.2 - Understanding Creative Commons licences

Please check your understanding of Creative Commons licences by playing the game presented at http://www.opencontent.org/game/: instructions are provided on that website.

The OER Remix Game

Love it? Hate it? Send feedback to david.wiley@gmail.com.

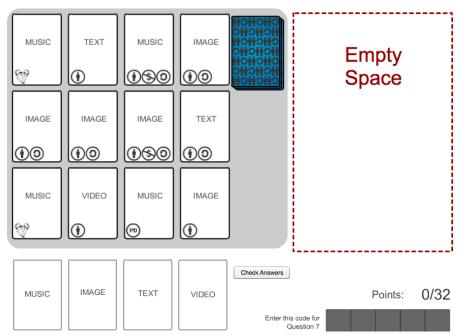


Image source: http://www.opencontent.org/game/



Lesson 2.3. Introduction to Open Science and its fundamental concepts Open Access and Open Data

What is Open Science

The concepts of public domain, Open and Free licences and Creative Commons licences seen in previous lessons share the philosophical postulate of openness, for which benefits to society are maximised and equally distributed when knowledge can freely circulate. Such a postulate applies in science as well, where enabling open access to materials and results of scientific studies is of paramount importance not only for disseminating scientific studies to the civil society, but also for improving the reliability of scientific discoveries: open access to the scientific resources enables replication and reproducibility of the studies.

In addition, the advent of the internet and digital technologies increases and extends the openness of science in new ways. In fact, scientists nowadays can easily exchange data, comment on studies, share their own publications via the internet, and making use of digital tools and platforms.

This new paradigm is called Open Science: its development has been reinforced by recent calls for the global governance of science from European Institutions which considered the transition towards Open Science a fundamental step to foster knowledge circulation as a driver for faster and wider innovation (see http://ec.europa.eu/programmes/horizon2020/en/h2020-section/open-science-open-access)⁴⁸.

The Open Science movement is at the beginning of its life⁴⁹, and no official definitions are yet widely accepted. The scientific communities, together with the institutions⁵⁰, have started a dialogue to build a common infrastructure that will allow scientists, companies and citizens to access a shared pool of scientific resources: it is called the Open Science Cloud⁵¹. However, the development of the Open Science Cloud, which will be the most relevant application of the Open Science paradigm, will still take some years.

Open Access

According to Peter Suber, Open Access (OA) refers to online research outputs that are free of all restrictions on access (for example, access tolls) and free of many restrictions on use (for example, certain copyright and licence restrictions) (Suber, Peter. 'Open Access Overview', 2011).

The European funding programme Horizon 2020 (the most relevant programme for research in Europe) recently provided Guidelines on Open Access to Scientific Publications and Research Data⁵² that require that 'each beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results'. This OA mandate is implemented in two steps, which may be not simultaneous: i) depositing publications in repositories, ii) providing Open Access to them.

Regarding the first step, researchers can refer to the Open Access Infrastructure for Research in Europe (OpenAIRE⁵³) to find a suitable repository (allowed archives are institutional, subject-based or centralised repositories); repositories that claim rights over deposited publications and/or preclude access are not valid archiving options. Other useful listings of repositories are the Registry of Open Access Repositories (ROAR)⁵⁴,

⁴⁸ See https://www.fosteropenscience.eu/content/open-science-scientific-research

⁴⁹ A first definition and taxonomy of Open Science is available at https://en.wikipedia.org/wiki/Open_science

⁵⁰ See for instance the work of the European Commission: https://ec.europa.eu/research/openscience/index.cfm

 $^{^{51}\,}See\ https://ec.europa.eu/research/openscience/pdf/realising_the_european_open_science_cloud_2016.pdf$

⁵² http://bit.ly/19regtt (Version 2.1, 16th February 2016). Last visited on3rd July 2017

⁵³ https://www.openaire.eu/ . Last visited on 3rd July 2017

⁵⁴ http://roar.eprints.org/ . Last visited on 3rd July 2017



and the Directory of Open Access Repositories (OpenDOAR)⁵⁵. A well-known OA repository, for example, is ZENODO⁵⁶.

The second step can be done through opening up the full-text of the item in the chosen repository (*'Green' Open Access*), or publishing the research work in Open Access journals (*'Gold' Open Access*). So-called 'hybrid' journals are also a valid option (i.e. journals which, although they use a revenue model based on subscription, also offer the possibility to provide Open Access for individual articles, provided an article processing fee is paid). Where Green Open Access (via a repository), is chosen, beneficiaries must ensure Open Access to the article within at most 6 months in science, technology, engineering and mathematics (STEM), and 12 months for articles in humanities and social sciences (HaSS). The policies of the publishers and of single journals with respect to self-archiving (depositing of articles in repositories), including required embargo periods, are available in the Sherpa RoMEO databases⁵⁷.

Open Data

Open data is data that can be freely accessed, used, modified and shared by anyone for any purpose - subject only, at most, to requirements to provide attribution and/or share-alike. Compared to proprietary frameworks, open data is characterised - from both a legal and a technical point of view - by lower restrictions applied to its circulation and reuse. This feature is supposed to ultimately foster collaboration, creativity and innovation.

According to the Open Definition, to be open data, the data shall be:

- 1. legally open: that is, available under an open (data) licence that permits anyone freely to access, reuse and redistribute;
- 2. technically open: that is, that the data be available for no more than the cost of reproduction and in machine-readable and bulk form⁵⁸.

The Open Data Handbook outlines three main characteristics for data to be open:

- Availability and Access: the data must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.
- Re-use and Redistribution: the data must be provided under terms that permit re-use and redistribution including the intermixing with other datasets.
- Universal Participation: everyone must be able to use, re-use and redistribute there should be no
 discrimination against fields of endeavour or against persons or groups. For example, 'noncommercial' restrictions that would prevent 'commercial' use, or restrictions of use for certain
 purposes (for example, only in education), are not allowed.

A key concept for understanding Open Data is 'interoperability'. Interoperability denotes the ability of diverse systems and organisations to work together (inter-operate). In this case, it is the ability to interoperate - or intermix - different datasets. Interoperability is important because it allows for different components to work together. This ability to componentise and to 'plug together' components is essential to building large, complex systems. Without interoperability this becomes near impossible — as evidenced in the most famous myth of the Tower of Babel where the (in)ability to communicate (to interoperate) resulted in the complete breakdown of the tower-building effort.

⁵⁵ http://www.opendoar.org/ . Last visited on 3rd July 2017

 $^{^{\}rm 56}$ https://zenodo.org/ . Last visited on 3rd July 2017

⁵⁷ http://www.sherpa.ac.uk/romeo/search.php . Last visited on 3rd July 2017

⁵⁸ See http://opendatahandbook.org/glossary/en/terms/open-data/



We face a similar situation with regard to data. The core of a 'commons' of data (or code) is that one piece of 'open' material contained therein can be freely intermixed with other 'open' material. This interoperability is absolutely key to realizing the main practical benefits of 'openness': the dramatically enhanced ability to combine different datasets together and thereby to develop more and better products and services (these benefits are discussed in more detail in the section on 'why' open data)⁵⁹. It is needed to distinguish between legal interoperability, technical interoperability and semantic interoperability⁶⁰.

Providing a clear definition of openness ensures that when you get two open datasets from two different sources, you will be able to combine them together, and it ensures that we avoid our own 'tower of babel': lots of datasets but little or no ability to combine them together into the larger systems where the real value lies⁶¹.

Several public institutions and organisations around the world develop **open data portals**. Open Data portals facilitate access to and re-use of public sector information⁶². These are web-based interfaces designed to make it easier to find re-usable information. Like library catalogues, they contain metadata records of datasets published for re-use, i.e. mostly relating to information in the form of raw, numerical data and not to textual documents. In combination with specific search functionalities, they facilitate finding datasets of interest. Application Programming Interfaces (APIs) are also often available, offering direct and automated access to data for software applications.

Open Data portals are an important element of most Open Data initiatives. While supporting the policy by offering easy access to data published, they can also work as a catalyst triggering the publication of more and better quality data. For administrations obliged or willing to disseminate their data, they offer the advantage of providing public access without the need to reply to individual requests for access to data. Open Data portals are mainly used by public administrations at European, national and local level, as they publish a large variety of data. But more and more companies are opening up some of their data for developers to re-use.

Notable examples of Open Data portals maintained by public administrations in Europe are:

- Opendata.paris.fr
- www.data.gouv.fr
- www.dati.piemonte.it
- www.dati.gov.it
- www.data.overheid.nl
- data.gov.uk

At all administrative levels, the public sector is one of the major producers and holders of Open Data, which ranges from maps to companies registers for example. During recent years, the amount and variety of Open Data released by public administrations across the world has been tangibly growing: the Open Data Census⁶³ by the Open Knowledge Foundation gives an overview of the high amount of publicly available data⁶⁴. Moreover, a series of indicators have been selected to measure Open Data maturity across Europe. These Indicators of Copen Data, an assessment of the features made available on national data portals as well as the expected impact of Open Data.

⁵⁹ http://opendatahandbook.org/guide/en/what-is-open-data/

⁶⁰ See F. Morando, https://www.jlis.it/article/view/5461

⁶¹ http://opendatahandbook.org/guide/en/what-is-open-data/

⁶² Https://Ec.Europa.Eu/Digital-Single-Market/En/Open-Data-Portals

⁶³ http://census.okfn.org/

⁶⁴ Open Knowledge International is a global non-profit organisation focused on realising open data's value to society by helping civil society groups access and use data to take action on social problems.

⁶⁵ https://www.europeandataportal.eu/en/dashboard



Several institutions, such as the Open Data Institute (ODI⁶⁶) and the Open Knowledge Foundation (OKF⁶⁷) are working with companies and governments to build an open, trustworthy data ecosystem, where people can make better decisions using data and manage its harmful impacts. They also are promoting educational and training initiatives for citizens (for instance see the School of Data⁶⁸).

Activity 2.3 - Understanding Open Science, Open Access and Open Data

Please check your understanding of Open Science, Open Access and Open Data with the following multiple choice questions: notice that only one answer is correct. The correct answers are in green.

- 1) What is Open Science?
- a) It's a co-working office in the university, where citizens can meet scientists
- b) It's a new scientific method, mainly based on the usage of open source software
- c) It's a service for scientists to use a cloud storage, where they can save their data
- d) It's a paradigm that puts together the natural Openness of Science with digital technologies
- 2) What does Open Access refer to?
- a) Online research outputs free of restrictions of access and use
- b) A badge that guarantees access to the digital services of all European universities
- c) Online manifesto to guarantee free access to university lectures
- d) Online free service to access books in university libraries
- 3) What is Open Data?
- a) Online manifesto to guarantee free access to the data of researchers
- b) Data that can be freely accessed, used, modified and shared by anyone for any purpose
- c) Data that is present on Wikipedia and verified by a community of researchers
- d) Research data published after verification of a community of researchers
- 4) What are the three main characteristics of Open Data?
- a) Availability on Wikipedia; Backup availability; Non-proprietary format;
- b) Availability and Access; Re-use and Redistribution; Universal Participation
- c) Backup availability; Non-proprietary format; Availability and Access
- d) Non-proprietary format; Standard encoding; Universal participation

⁶⁷ https://okfn.org/

⁶⁶ https://theodi.org/

⁶⁸ https://okfn.org/about/our-impact/school-of-data/



Further reading

On Copyright and open licences

The following link: http://opendefinition.org/licenses/ gives a handy list of the different types of licences that are conformant with the principles laid out in the Open Definition is an Open Knowledge International's project.

https://www.openeducationeuropa.eu/en/article/8-things-educators-need-know-about-copyright-and-open-resources provides a short guidelines list on copyright and open resources every educator should know.

On Open Science, Open Access and Open Data

http://opendefinition.org/ offers a clear definition of 'Open'. Moreover, it outlines a set of binding principles attached to 'Openness' as a category.

http://census.okfn.org this site is maintained by Open Knowledge International. It works as an index of where to retrieve datasets in open data format about different countries and concerning many domains.
Election results, crime statistics and public transportation are only few examples of the kind of data available on the index.

https://www.scribd.com/document/4869620/GueDon-Open-Access Jean Claude Guédon's book is fully and freely accessible from this link. The book's name is 'Open Access and the divide between 'mainstream' and 'peripheral' science.'

https://www.fosteropenscience.eu/content/open-science-scientific-research FOSTER portal is an e-learning platform that brings together the best training resources about Open Science. It is maintained by FOSTER Plus, a 2-years EU-funded project willing to foster the practical implementation of Open Science in Horizon 2020.

http://oel.edu.au/toolkit/ is a toolkit developed by Swinburne University and the University of Tasmania.
It's built on a decision tree system that, step-by-step, allows users to choose the licence that best suits the content used or developed for educational purposes.

⁶⁹ http://opendefinition.org/od



Project work Step 2

Identify open licences that you will apply to your course/resources

To put in practice what you have learnt in Module 2, you should reflect on how you will use Open Licences in your project work, with the final aim of opening up your course/teaching.

Some guiding questions: Will you use Creative Commons licences? Of which kind? How will you apply these licences, in practice?

Please think about this and detail the kind of licences you will use and why have you chosen these specific licences.



Module 3. Opening Up Education through OER and MOOCs

Main author: Daniel Villar-Onrubia, Coventry University

Introduction

This module focuses on the role of OER and MOOCs as vectors for opening up education. The module introduces the principles underpinning the notions of OER and MOOC, in legal, technical and pedagogical terms. You will also learn how to find, create, reuse, revise and remix OER. Moreover, it will provide you with tips on how MOOCs can be of use to facilitating learning in campus-based learning.

Learning outcomes

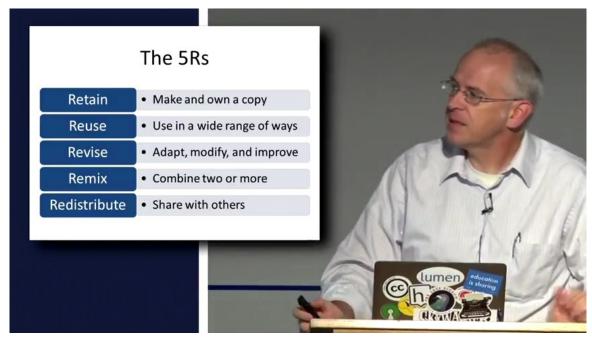
- Recognise the main aspects defining the notion of OER
- Effectively search for high quality OER relevant to your teaching
- Reuse and adapt OER
- Create and share OER
- Recognise different interpretations of 'openness' in MOOCs
- Differentiate pedagogical approaches underpinning the design of MOOCs
- Integrate MOOCs into campus-based learning



Lesson 3.1. Key principles and practical considerations on Open Educational Resources

Properties of Open Educational Resources

As presented in Module 1, materials that qualify as OER can be accessed, used, adapted and redistributed by anyone, for free, and without any major restrictions. More specifically, David Wiley argues that in order to be regarded as OER, content cannot be protected against any of the five key actions known as the **5R's**. According to this, materials only count as OER when anyone is able to enjoy, for free and in perpetuity, the rights to:



Link: https://www.youtube.com/watch?v=x3CY6RR4uns

Licences not allowing the creation of derivative works (for example, CC BY-ND) contradict the third R (i.e. the right to revise and adapt content), so such content cannot be considered as OER according to this understanding.

Another possible definition is offered by OECD, according to which OER are "teaching, learning and research materials that make use of appropriate tools, such as open licensing, to permit their free reuse, continuous improvement and repurposing by other others for educational purposes" (OECD 2016: 17). In this case, the emphasis is also on the possibility – from both a technical and legal perspective – not just to access content, but also to produce derivative works (e.g. the possibility to translate a textbook into another language).



Picture by Daniel Villar-Onrubia (CC BY-NC-SA)70

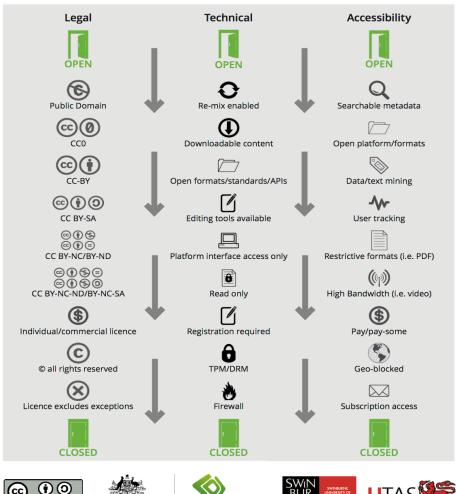
While an author's rights are usually the main aspect under consideration when discussing the notion of openness in OER, there are other important elements that may constrain the ability of users to retain, reuse, revise, remix or redistribute resources.

The Open Education Licensing project⁷¹, a joint research and development initiative between Swinburne University of Technology and the University of Tasmania in Australia, has created the illustration below to illustrate different levels of openness around technical and accessibility dimensions, apart from legal permissions.

 $^{^{70}\} https://www.flickr.com/photos/danielvillar/24832231496$

⁷¹ http://oel.edu.au/















Activity 3.1 - Reflect on OER in your context

After reading the first section of Module 3, you are now familiar with the basics of OER and can start to reflect on relevant opportunities in your own context. Contribute to the forum answering the following questions:

- Are there any OER initiatives at your university? If yes, what is their level of openness based on the different dimensions discussed in this section of the module?
- Does your university have any policy recommending the use of open licences or encouraging the use of OER? If yes, how does is support or encourage the creation and/or re-use of OER? If no, how would you like your university to support the creation and/or re-use of OER?



Lesson 3.2. Finding OER

Learning how to find Public Domain and openly-licensed resources, whether created for educational purposes or not, is the first thing anyone wanting to use OER would need to do. In addition, there is a growing pool of projects and sites specifically devoted to sharing and enabling the remix of OER, some of which will be reviewed later this section.

Search Engines and Aggregators

Some search engines offer the possibility of filtering results by usage rights, so it is possible to submit queries that only return content that can be modified and shared. For example, <u>Google Advanced Search</u>⁷² allows users to restrict results to just content that can be used, shared or modified, even for free. Another useful feature is that you can also filter by language, so you can specifically retrieve OER content in Arabic, or any other language particularly relevant to you or your students and colleagues.

Another way of finding relevant resources that you may use as OER is by means of search engines that submit queries to third party search engines or repositories:

- <u>Search.creativecommons.org</u>⁷³ allows you to easily submit queries to a number of sites (for example, Google, Flickr, YouTube, Pixabay) and retrieve only content that you can 'use for commercial purposes' and/or 'modify, adapt, or build upon.'
- Solvonauts.org⁷⁴ has indexed more than 150,000 open resources from 1,016 sites.

Generic Collections of Public Domain and Openly Licensed Content

Below you can see some examples of websites offering different types of content and data available under Creative Commons licences or in the Public Domain, which you mind find of use in your teaching and learning.

Collections	Photos	Icons	Audio	Video	Data
Flickr Commons	х				
New York Public Domain Collections					
<u>Europeana.eu</u>					
<u>Makerbook.net</u>					
<u>Pixabay.com</u>	х	х			
<u>Thenounproject.com</u>		х			
<u>Unsplash.com</u>	х				
<u>Openimages.eu</u>				х	

⁷² https://www.google.com/advanced_search

⁷³ https://search.creativecommons.org/

⁷⁴ https://solvonauts.org/

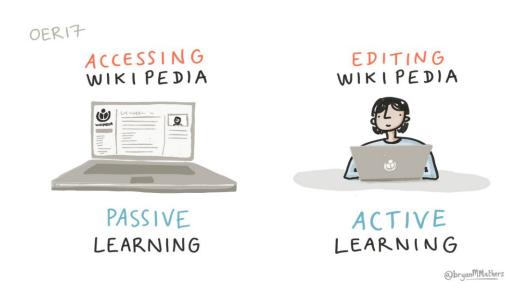


Prelinger Archives			х	
<u>Freesound.org</u>		х		
CC curated music collection on the Free Music Archive		х		
Musopen.org		х		
<u>FigShare.com</u>				Х

Wikimedia projects

Being one of the <u>most visited websites</u>⁷⁵ worldwide every day and having most of its text and many of its images <u>co-licensed</u>⁷⁶ under the Creative Commons Attribution-ShareAlike 3.0 Unported License (CC BY-SA) and the GNU Free Documentation License (GFDL), Wikipedia has been described as 'the single greatest Open Education Resource the world has ever seen' (<u>by Jim Groom in his keynote at the OER16 Conference</u>⁷⁷).

Despite widespread concerns at universities about using it as a formal academic reference, due to the fact that anyone can contribute to it, Wikipedia plays an important role in the Personal Learning Environment (PLE) of many students (and academics). Rather than banning its use, institutions are starting to recognise its value as a learning resource, not as a source of information to be cited, but by involving students in editing articles, enhancing the quality of content, and helping to improve areas of knowledge and topics that are underrepresented. Under the <u>Wikipedia Education Programme</u>⁷⁸ many universities are already embedding the use of this encyclopedia, and other sister initiatives, into teaching and learning, following the <u>Wikipedia's</u> guidelines for academic use⁷⁹.



⁷⁵ https://en.wikipedia.org/wiki/List_of_most_popular_websites

⁷⁶ https://en.wikipedia.org/wiki/Wikipedia:Copyrights

⁷⁷ http://thinking.is.ed.ac.uk/wir/2016/05/26/a-river-runs-through-it-wikimedia-at-oer16/

⁷⁸ https://outreach.wikimedia.org/wiki/Education

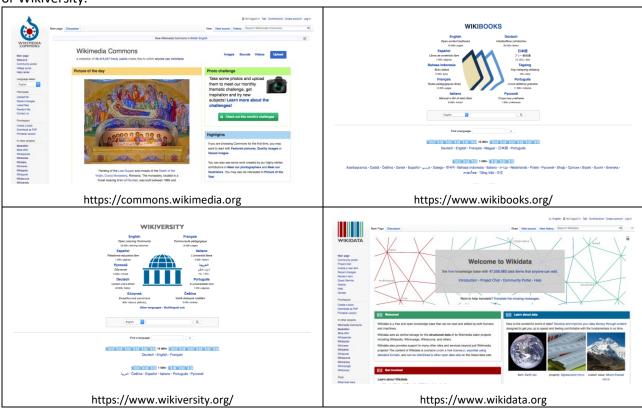
⁷⁹ https://en.wikipedia.org/wiki/Wikipedia:Academic use



For further ideas, examples and suggestions on creating learning activities and assignments around Wikipedia, you may wish to consult a series of brochures published by the Wikimedia Foundation as part of the Wikipedia Education Programme:

- Instructor Basics: How to use Wikipedia as a Teaching Tool⁸⁰
- Case Studies: How professors are teaching with Wikipedia⁸¹
- The Essentials: What to do before the term start⁸²
- The Syllabus: A12-week assignment to write a Wikipedia article⁸³

Whereas Wikipedia is the most popular project within the Wikimedia family, there are many other initiatives of the Wikimedia Foundation that can be extremely valuable as OER, such as Wikimedia Commons, Wikidata or Wikiversity.



⁸⁰ https://upload.wikimedia.org/wikipedia/commons/9/92/Instructor_Basics_How_to_Use_Wikipedia_as_a_Teaching_Tool.pdf

⁸¹ https://upload.wikimedia.org/wikipedia/commons/0/03/Wikipedia_Education_Program_Case_Studies.pdf

⁸² https://upload.wikimedia.org/wikipedia/commons/8/82/The_Essentials_-_Wikipedia_Education_Program_US_Canada.pdf

⁸³ https://upload.wikimedia.org/wikipedia/commons/e/ef/Sample_Syllabus_for_Wikipedia_assignment.pdf





OER collections and repositories

Over recent years many institutions, organisations and individuals have engaged in the provision of OER by developing repositories and collections specifically created with the aim of sharing and enabling the reuse of resources for teaching and learning purposes. In this sections we review a few well-known initiatives that might help you find useful resources.



Navigating OER repositories https://youtu.be/FHLPulogvZM

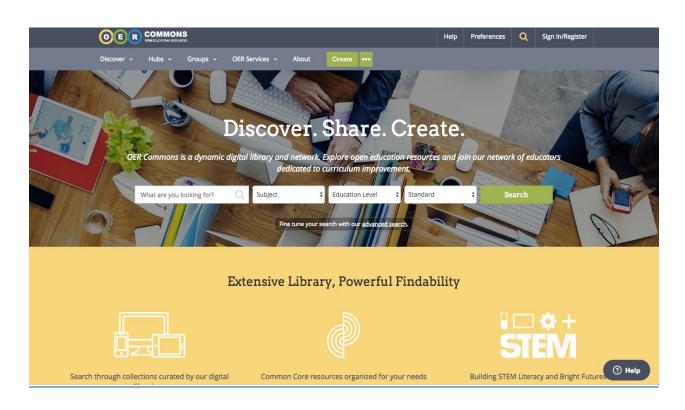


OER Directories

OER Commons⁸⁴ is a directory of resources linking to content produced by a wide range of projects and initiatives, offering a single point of access to more than 50,000 high-quality OER. It aggregates content from a wealth of well-established OER providers, such as MIT OpenCourseWare or Rice University's OpenStax College. The full list of providers can be consulted at https://www.oercommons.org/oer/providers.

Some of the curated collections include:

- Full university courses⁸⁵
- Interactive mini-lessons and simulations⁸⁶
- Adaptations of existing open work⁸⁷
- Open Textbooks⁸⁸
- K-12 Lesson Plans, worksheets, and activities⁸⁹



https://www.oercommons.org/browse/featured-item/609?f.material_types=full-course&f.provider=the-saylor-foundation&f.provider=lumen-learning&f.provider=johns-hopkins-bloomberg-school-of-public-health

 $https://www.oercommons.org/browse/featured-item/611?f.provider_set=4440\&f.provider_set=4309\&f.material_types=textbook\&f.provider_set=3761\&f.provider_set=3468\&f.provider_set=4307\&f.provider_set=4600$

https://www.oercommons.org/browse/featured-item/612?f.provider=university-of-north-carolina-at-chapel-hill-school-of-education&f.provider=new-york-state-education-department&f.provider=alabama-learning-exchange-alex&f.provider=ck-12-foundation

⁸⁴ https://www.oercommons.org/

⁸⁶ https://www.oercommons.org/browse/featured-item/610?f.provider=university-of-colorado-boulder&f.provider=math-open-reference

⁸⁷ https://www.oercommons.org/browse/featured-item/613?f.search=remix



A subset with more than 4,000 resources in Arabic is available as part of the project at https://arabic.oercommons.org. For further details, consult the case study included in the OpenMed Compendium⁹⁰.



Another example is <u>Teaching Commons</u>⁹¹, which gathers open-access textbooks, course materials, lesson plans, multimedia, lectures and other materials from colleges and universities.

OpenCourseWare (OCW)

OCW is a very specific model of OER provision that offers 'high quality college and university-level educational materials. These materials are organised as courses, and often include course planning materials and evaluation tools as well as thematic content' (Open Education Consortium⁹²). Whereas the model was first developed at the Massachusetts Institute of Technology (MIT) in 2001, many other institutions have followed the same steps and launched their own MIT initiatives since then.

The **Open Education Consortium** (formerly known as OCW Consortium) has built a meta search engine⁹³ that allows querying from one single point the OCW repositories of many institutions around the world, including MIT's.

Another useful tool that can help you find OCW resources is the **Semantic Course Search Engine** – **Serendipity**⁹⁴.

⁹⁰ http://openmedproject.eu/results/compendium/

⁹¹ http://teachingcommons.us/

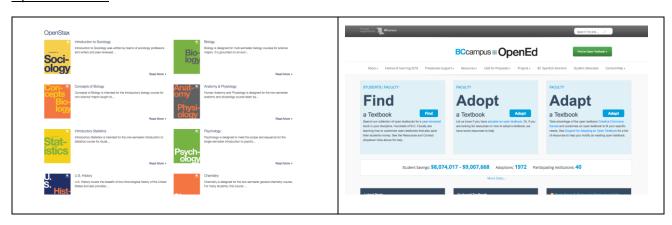
⁹² http://www.oeconsortium.org/faq/what-is-open-courseware/

⁹³ http://www.oeconsortium.org/courses

⁹⁴ http://serendipity.utpl.edu.ec/



Open Textbooks



Several initiatives are specifically devoted to creating manuals released as OER.

OpenStax CNX⁹⁵, formerly known as Connexions, is an initiative launched as early as in 1999 by Rice University that currently offers 'tens of thousands of learning objects, called pages, that are organised into thousands of textbook-style books in a host of disciplines' (https://cnx.org/about).

OpenStax CNX is designed to encourage the sharing and reuse of educational content. The knowledge in OpenStax CNX can be shared and built upon by all because it is reusable:

- educationally: We encourage authors to write each page to stand on its own so that others can easily use it in different collections and contexts specially designed for their students.
- technologically: all content is built in a simple semantic HTML5 format rich with built-in accessibility features to ensure it can all be read by everyone. Also the OpenStax CNX toolset makes it easy for author to create and adapt content using a word processor similar to Google Docs or Word.
- legally: all content produced in OpenStax is available under a Creative Commons opencontent licenses. This makes it easy for authors to share their work - allowing others to use and reuse it legally - while still getting recognition and attribution for their efforts. The OpenStax CNX software maintains attribution to the original author for you, making remixing a cinch (https://cnx.org/about).

The <u>BC Open Textbooks</u>⁹⁶ project has released a considerable number of OER manuals adapted and created by faculty in the post-secondary system of British Columbia (Canada). The titles cover an extremely wide range of disciplines and topics. As an example relevant to anyone following this course, we recommend taking a look at the book <u>Teaching in a Digital Age</u>⁹⁷, by the leading expert in the field of education and technology, Tony Bates.

The Community College Consortium for Open Educational Resources has identified a <u>list of open textbooks</u> in the following areas: Anthropology & Archaeology, Art, Biology & Genetics, Business, Chemistry, Computer Science, Economics, Education, Engineering & Electronics, English & Composition, Health & Nursing, History, Languages & Communications, Literature, Law, Math, Music, Philosophy, Physics, Political Science, Psychology, Science, Sociology, Statistics & Probability.

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⁹⁵ https://cnx.org/

⁹⁶ https://opentextbc.ca/

⁹⁷ https://opentextbc.ca/teachinginadigitalage/

⁹⁸ http://www.oerconsortium.org/discipline-specific/



The Open Textbook Library (OTL) is an initiative aiming to address the issue of university students having to spend a substantial amount of money every year on textbooks in order to follow their courses. OTL offers a vast catalogue of peer-reviewed, free and openly-licensed books, in compliance with the 5R. OTL is supported by a network of more than 50 institutions working to foster the adoption of open textbooks by lecturers in their teaching (http://research.cehd.umn.edu/otn).

Open Podcasts and Video Content

Many universities and organisations have also created OER collections of video and audio recordings of talks by faculty or guest speakers. For instance, the **University of Oxford** has shared thousands of podcasts featuring public lectures and interviews with leading academics, as OER, by means of iTunes U and their own repository available at http://podcasts.ox.ac.uk/open. Content is available under the CC BY-NC-SA licence.

<u>VideoLectures.net</u>¹⁰⁰ is a well-known repository of talks delivered by distinguished scholars at prominent academic events around all over the world. While this is no doubt an extremely valuable source of educational content, it is worth noting that VideoLectures.net does not fit with the notion of OER as defined by the 5R permissions, given that videos are released under the CC BY-NC-ND, so users are not allowed to 'alter, transform, or build upon the work' (http://videolectures.net/site/about/).

Khan Academy¹⁰¹ is another example of a comprehensive collection on OER videos, which has evolved to include exercises, articles and a range of personalised learning tools. Rather than being an institutional initiative, it started with a single person – Salman Khan¹⁰² – recording video tutorials to help his cousin learn mathematics, and now it has grown to be an 80-person non-profit organisation. While not all the content is available as OER, most of the content on Khan Academy has been released under a CC licence that allows users to repurpose resources, as long as it is for non-commercial purposes. Some content is available in Arabic at https://ar.khanacademy.org/

Disciplinary and subject OER repositories

Apart from searching for OER through generic directories or collections, teachers and learners may also find relevant resources by consulting special collections of content devoted to particular topics, subjects or disciplines. Here, we have selected just a handful of projects that will give you a flavour of what a valuable thematic OER project or collection looks like.

<u>School of Data</u>¹⁰³ is a network of organisations and individuals concerned with data literacy that have produced dozens of articles, lessons and hands-on tutorials on how to work with data. All content is available under the <u>Creative Commons Attribution 4.0 International License</u>¹⁰⁴ used by Open Knowledge International.

<u>SmartHistory</u>¹⁰⁵ is a collection of videos and essays for the study of art history and cultural heritage with contributions from more than 200 experts (art historians, archaeologists, curators, etc.), which has been created in collaboration with leading museums and organisations in the field around the globe – including The British Museum, the Google Cultural Institute, The Museum of Modern Art, and Tate among others. The work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0¹⁰⁶.

101 https://www.khanacademy.org/

⁹⁹ https://open.umn.edu/opentextbooks/

¹⁰⁰ http://videolectures.net/

¹⁰² https://en.wikipedia.org/wiki/Sal_Khan

¹⁰³ https://schoolofdata.org/

¹⁰⁴ https://creativecommons.org/licenses/by/4.0/

¹⁰⁵ http://smarthistory.org/

¹⁰⁶ http://creativecommons.org/licenses/by-nc-sa/4.0/



Open Courses and Certification (more than content)

Beyond the opportunity for learners to have access to educational content for free (for example, textbooks, podcasts, courseware), some OER initiatives offer the possibility of assessing and certifying learning.

For instance, the UK Open University's OpenLearn initiative offers around 1,000 courses that are free to study and include ways of demonstrating achievements through assessed learning, which may lead to the issuing of statements of participation and digital badges.

Another example is <u>Saylor Academy</u>¹⁰⁷, an initiative of the Constitution Foundation that offers self-paced courses for free, including the possibility of earning certificates of achievement and in some cases even credit recognition. Before the final exam, learners can check their progress by means of activities and assignments while completing a course. While both formative and summative assessment in Saylor Academy may help students in their learning, it is worth noting that the exams sat rely on automatic- or self-grading. While Saylor Academy is not an accredited institution and cannot grant credits, some of their courses might be recognised for credits by third parties, provided that students pass a proctored exam (https://www.saylor.org/credit/).

Quality Considerations

The issue of quality in OER provision – as well as in Open Access scholarship – has been part of discussions since the early days of the movement, and it has implications from the perspective of providers as well as reusers.

Depending on the nature of practices, initiatives might involve more or less systematic approaches to quality assurance. For instance, an individual scholar might release content on her own personal website without going through any formal quality assurance process, the same way s/he can create resources for their teaching without any formal approval. In the case of institutional initiatives, there is usually some form of review process, though this is not always the case.

After reviewing a number of OER initiatives, the Open Educational Quality Initiative – OPAL Project (2009-11) identified 'lightweight' as opposed to 'top-down' controlled approaches to quality assurance, as well as models in between the two ends of the spectrum.

Teachers wishing to re-use OER in their teaching should get familiar with the quality assurance mechanism in place and assess the credibility of authors and institutions behind them, just the same way as should be the case when dealing with proprietary resources.

The ExplOERer Course offers a set of questions, based on Achieve's <u>Rubrics for Evaluating Open Education</u> <u>Resource (OER) Objects</u> (http://www.achieve.org/oer-rubrics), that aim to help teachers consider key aspects when evaluating the quality of OER.

'Quality of explanation of the subject matter

- How thoroughly is the subject matter explained?
- Are the main ideas clearly identified for the students?

Utility of materials designed to support teaching

- Are materials comprehensive and easy to understand and use?
- Are suggestions for ways to use the materials with a variety of learners included?

Quality of technological interactivity

• If interactive, is this feature purposeful and directly related to learning?

¹⁰⁷ https://www.saylor.org/



• If interactive, do materials create an individualised learning experience (i.e. do they adapt to students based on what they do?)

Opportunities for deeper learning

• Do materials engage students in working collaboratively, thinking critically and solving complex problems, learning how to learn, communicating effectively, etc.?

Assurance of accessibility

 Are the materials fully accessible for ALL students, i.e. visually impaired, print disabled, etc.?' http://www.exploerercourse.org/en/modules/week%202/week-2.4/

In any case, it is ultimately up to educators to decide whether a given OER (or any teaching materials at large) is suitable and meaningful to their students, based on aspects and features that are relevant to their particular needs.

Activity 3.2 - Find OER in relevant repositories

In the second section of Module 3 you have seen different ways of finding various kinds of OER. Now it is time to find resources you can use in your teaching.

By searching some of the repositories and platforms reviewed in this section, identify resources to be used as part of your teaching. Try to find at least two different kinds of resources (e.g an OpenCourseWare, a textbook, a data set, an audio or video clip).

- 1. Where did you find each of the resources?
- 2. How did you search for them?
- 3. What are you allowed to do with these resources based on their licences?
- 4. What quality considerations have you applied in order to determine that it is an appropriate and relevant resource?



Lesson 3.3. Reusing, Revising & Remixing OER

OER may be extremely useful to students and independent learners who want to revise content and acquire new knowledge, but it can be equally valuable to educators who want to embed such resources into their teaching. The most basic way of doing so would be by simply showing or circulating OER among students.

Beyond the possibility to read, watch, download and reuse individual resources for free, the beauty of OER is that anyone can also modify, remix and repurpose pre-existing resources as part of their own work, so you don't have to build everything from scratch to reinvent the wheel!

The first step is to make sure that the resources you want to reuse can be modified and remixed (i.e. they are part of the Public Domain or released under an open licence), but then you also need to make sure that you properly attribute the resources – in accordance to the specific requirements of their licence – and also make sure they are compatible with the licence you want to use for your own remix.

Some OER portals incorporate tools that allow you to easily combine different resources into a single document. For instance, you can use the <u>Open Author</u>¹⁰⁸ tool to remix resources on OER Commons. Open Author allows educators to remix resources (for example, lessons, activities, units) available on OER Commons and export the result in different formats for use in course management systems (CMS), websites, for printing, etc.



Video: How to Use Open Author on OER Commons: https://www.youtube.com/watch?v=kaFbQcvF9r4

These are some important questions to be taken into consideration before remixing OER for your teaching:

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- What subject(s) would you like to focus your remix on?
- What type of pedagogy (teaching methods and styles) would you like to use in this remix?

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¹⁰⁸ https://www.oercommons.org/open-author-about



- What materials and resources would you need to teach this OER?
- What would your design for the remixed OER look like?
- How would you structure the OER?
- Where would you teach this OER?
- Who would the students be (grade, age, learning style, etc.)?
- How would the students learn/experience this OER?
- What would you rename your remixed OER design?
- How would your remix connect to the local community?
- Who would participate in your remixed OER (students, other educators, parents, community members, etc.)?
- How will this OER meet your students' needs?
- How is this OER connected to your greater goals as an educator and your school/organisation/community goals?

Katz 2016

Activity 3.3 - Open Educational Resources

Take this quiz to check your understanding of OER and their use: https://tools.kib.ki.se/quiz/oer/en/.



Lesson 3.4. Creating and Sharing your own Resources as OER

Releasing your own educational resources as OER is as easy as applying a suitable licence and making the content as widely available as possible. Of course, that implies making sure you have cleared copyright on any third party material you use.

Many universities and institutions around the world are implementing policies and schemes to encourage – and even reward in some cases – academics to release their own teaching materials as OER. For instance, the University of Edinburgh (UK), in line with its values and mission, has introduced a policy encouraging staff and students to use, create and share OER – recommending the use of the CC-BY licence: http://www.ed.ac.uk/files/atoms/files/openeducationalresourcespolicy.pdf. Another well-known case of a university implementing an institutional policy is the University of South Africa (UNISA). For further details on this consult the case study included in the OpenMed Compendium¹⁰⁹.

However, if you are not lucky enough to work at a university that has already implemented an Open Education or OER policy, you should check with your employer before releasing your teaching materials as your institution might also be copyright owner of the work you do as a result of your employment.

Many universities have repositories where their academics can archive their publications, but also teaching materials. Usually repositories ask contributors to specify the licence they need or want to apply for each file as part of the deposit process.

Many academics have their own personal website or blog, sometimes supported by their institutions through a <u>Domains of One's Own initiative (DoOO)</u>¹¹⁰, and this is also a very good way of sharing content as OER with the world. In order to do so, apart from creating your site, you will need to decide which specific licence you would like to choose for the release of your works.

You don't need to always use the same licence. On the contrary, you might want to pick different variations depending on the nature of each particular work you share (for example, allowing commercial uses, requiring share alike). You will then need to mark each work with your chosen licence, as otherwise all rights will be reserved. If you would like to publish by default all the content on your website under a particular CC licence, unless otherwise specified, you can introduce for instance a note like this in the footer or some other visible place on your website:

Except where otherwise stated, the content on this website is licensed under a <u>Creative Commons</u>
Attribution 4.0 International License¹¹¹

Beyond releasing granular content (for example, stand-alone videos, books, audio files), there are also tools that enable the creation of OER courses. For instance, OpenLearn Create (http://www.open.edu/openlearncreate/) is a platform developed by the UK Open University that allows anyone to build and publish their own open courses. Apart from sharing content, it also offers the possibility of including interactive activities (for example, quizzes) and opportunities for interaction with other learners (for example, forums, peer-review). Moreover, it can also allow the issuing of digital badges so students completing a course can easily showcase their achievement.

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¹⁰⁹ http://openmedproject.eu/results/compendium/

¹¹⁰ http://hackeducation.com/2017/04/04/domains

¹¹¹ http://creativecommons.org/licenses/by/4.0/





For more tips and detailed instructions on how to share your resources as OER, you may check the guide <u>How to make your resources open</u>¹¹² guide by the University of Edinburgh.

Activity 3.4 - Create an OER (applying CC license) and share it

Now it is time for you to create some OER

- 1. Select some resource you have created for your teaching (it could be some text, short video, piece of digital storytelling, illustration, set of slides or any other type of content) and make it available as OER.
- 2. Go to https://creativecommons.org/choose/ and choose the licence you would like to apply to your OER.
- 3. Share it using your preferred channel: own website, repositories, etc.

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¹¹² http://open.ed.ac.uk/how-to-guides/how-to-subpage/



Lesson 3.5. Unpacking MOOCs

What is a MOOC?

The acronym MOOC means Massive Open Online Course. However, there is not one single interpretation of each of these terms and, therefore, the phrase has been used to describe different types of learning experiences. In particular, and as outlined at the start this module, the meaning of the word 'Open' has proved to be rather contentious.

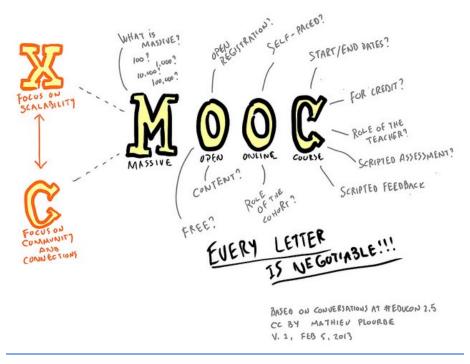


Illustration by Mathieu Plourde CC-BY¹¹³

MOOCs arguably became mainstream in 2012, although there were instances of online courses open to anyone and involving large numbers of learners before then (Davidson 2013). Whilst 2012 was named as 'the Year of the MOOC' by the New York Times (Pappano 2012), when four major providers of MOOCs were founded or announced – Coursera¹¹⁴, edX¹¹⁵, Udacity¹¹⁶ and Futurelearn¹¹⁷ –, the term MOOC was coined a few years before that, in 2008 after a course on connectivism ran by George Siemens and Stephen Downes: Connectivism and Connected Knowledge (CCK08).

¹¹³ https://www.flickr.com/photos/mathplourde/8448541815

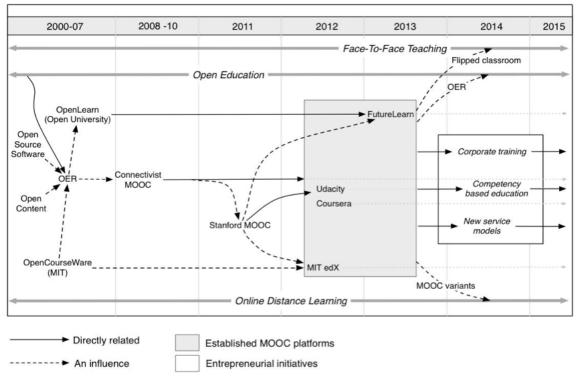
¹¹⁴ https://www.coursera.org/

¹¹⁵ https://www.edx.org/

¹¹⁶ https://www.udacity.com/

¹¹⁷ https://www.futurelearn.com/



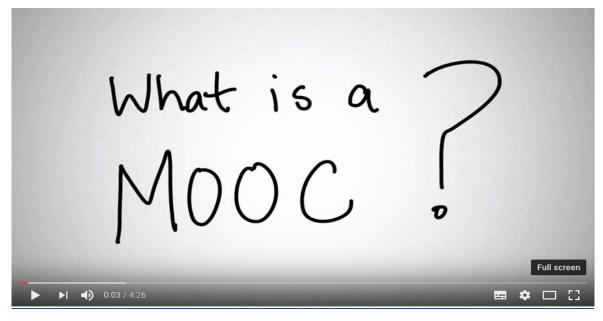


MOOCs and Open Education Timeline (updated 2015 version). By Li Yuan and Stephen Powell

cMOOCS vs xMOOCS

Courses following a model similar to the approach adopted by CCK08 are often referred as 'connectivist' MOOCs, or cMOOCs.

This short video summarises the key characteristics of connectivist MOOCs:



https://youtu.be/eW3gMGqcZQc



Another example of a cMOOC is DS106, initiated by Jim Groom¹¹⁸ in:

'Digital Storytelling (also affectionately known as ds106) is an open, online course that happens at various times throughout the year at the <u>University of Mary Washington</u>¹¹⁹... but <u>you can join in whenever you like</u>¹²⁰ and leave whenever you need. This course is free to anyone who wants to take it, and the only requirements are a real computer, a hardy internet connection, preferably a domain of your own and some commodity web hosting, and all the creativity you can muster.' (http://ds106.us/about/)

While cMOOCs take place across distributed platforms (for example, blogs, social media), xMOOCs are typically confined to a single learning management system through which content is made available to participants and where all interactions take place. Coursera, edX, FutureLearn or Udacity all have their own platforms that universities offering courses through them are required to use for the delivery. Further, xMOOC platforms are generally run as commercial enterprises and this may have an impact on what content can be used on the platform.

Another important difference between cMOOCs and xMOOCs is that the former tend to focus on interactions, while the latter usually prioritise the delivery of content to students. Also, xMOOCs tend to incorporate some formal assessment that can lead to some form of certification, often subject to the payment of some fees.

An important difference between MOOCs and some of the open courses available at platforms discussed in section 2 is that MOOCs are usually delivered to cohorts of learners who start a given course together at specific times. Therefore, interactions, assignments and assessment only take place within a bounded period of time. However, learners might start at any point on the courses offered by initiatives such as OpenLearn or Saylor Academy.

A more detailed comparison of the main differences between xMOOCs and cMOOCs from a pedagogical design dimension can be found in the Bates (2015).

In the Arab-speaking world, as featured in the OpenMed Compendium, Edraak has become the main MOOCs provider, following the xMOOC approach.

Universities in the South-Mediterranean region have also launched MOOCs making use of their own learning management platforms (for example, Moodle) as exemplified by Discover Palestine. For further details on these initiatives consult the case studies on Edraak, Discover Palestine and UC@MOOC included in the OpenMed Compendium¹²¹.

On openness in MOOCs

The open nature of MOOCs has been heavily questioned since the explosion of their popularity in 2012. MOOCs are open because anyone with access to the internet is able to enrol for free. However, not all MOOCs apply open licenses, so they cannot be considered open in the same sense as OER are open in compliance with the 5R rights. Indeed, the content of courses delivered by most prominent MOOCs platforms tends to be protected by full copyright. For instance, Coursera allows users to download content for personal use, but it is not possible to reuse, modify or share the content, so opportunities for lecturers to make use of this as part of their teaching are rather limited.

120 http://ds106.us/open-participant

¹¹⁸ hhttp://umw.edu/ttp://bavatuesdays.com/

¹¹⁹ http://umw.edu/

¹²¹ http://openmedproject.eu/results/compendium/



edX restricts by default the ability of users to reuse content, although its terms of service state the intention of increasing the use of open licenses.

In the case of FutureLearn, all rights protection is also the default, but it is up to course providers to decide under which conditions they want to make content available.

MOOCs and Certified Learning

Most xMOOC platforms now offer the option for learners to get some sort of certification evidencing their achievement.

To be eligible to get a certificate, learners usually need to go through some sort of formal assessment process after completing a course and achieve a minimum required score. Formative assessment (i.e. exercises counting towards the final mark) in these platforms usually takes the form of multiple choice tests. Some xMOOCs also include peer-review as part of the assessment.

Some platforms offer different kinds of certification, depending on the mechanisms in place to verify the identity of candidates or the grades.

While free enrolment is one of the defining characteristics of MOOCs, most xMOOC platforms have now implemented revenue generation strategies that involve paying a fee for certifications as well as a wider catalogue of paid services, namely longer degrees leading to more formal qualifications.

Coursera, edX and Futurelearn have also expanded their offering of paid services by means of course bundles that allow learners to get qualifications and even full degrees.

Engagement and completion in MOOCs

One of the main concerns about learning in MOOCs is the high level of attrition. Namely, according to a study analysing data on 221 MOOCs 'Completion rates (defined as the percentage of enrolled students who completed the course) vary from 0.7% to 52.1%, with a median value of 12.6%' (Jordan 2015). The study also reported that enrolments on MOOCs have overall declined while completion rates have improved over time since the launch of major platform providers in 2012.

It is worth stressing that dropout rates have typically been much higher in e-learning and distance education than in campus-based courses. Also, while still an important indicator of engagement, it is important to understand the value of this metric in relation to MOOCs as opposed to formal education courses. The main reason for that is that learners taking a MOOC might not be interested in formal recognitions, or be driven by any motivation other than just learning, which can still happen despite not engaging in assessment. On the contrary, students enrolled in formal education programmes are presumably driven more strongly by the extrinsic motivation of getting the credentials associated with completing a degree.

Based on the analysis of a subset of MOOCs, the study mentioned above concluded that the first two weeks of a course are critical for student engagement and assessment submissions.



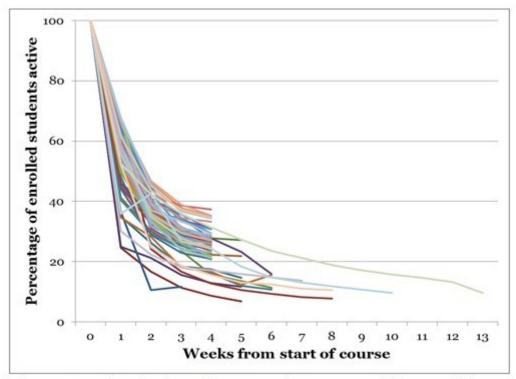


Figure 5. Proportion of active students (accessing course materials) per week since start of course as a percentage of total enrolment (n=59).

Katy Jordan / IRRODL (CC-BY). Jordan 2015

Other relevant findings of the study indicate that automated assessment has a positive impact on completion rates (as compared to peer-grading or a mix of both approaches) and that the shorter a MOOC is, the higher the chances of learners finishing. These conclusions have implications for those interested in designing a MOOC.

The formation of local learning communities articulated around particular MOOCs might also offer another way of improving engagement, as suggested by research on the motivations behind learners who had the initiative to arrange face-to-face meetings with peers. This kind of experience might fill an important gap for students who believe that not all learning can take place in an online setting.

Learning with MOOCs on campus

Despite the overall difficulties in reusing the content of MOOCs as OER, due to the limited use of open licences, there are ways in which this type of course can be of help to lecturers and students in higher education settings, whether it is in connection with the formal curriculum or not.

Aiming to foster the creation of local learning communities around MOOCs, the <u>Peer 2 Peer University</u>¹²² has developed a methodology and training materials for anyone willing to facilitate what they call a 'learning circle.' Moreover, they have launched a platform to publicise learning circles in any city, so learners with similar interests can easily get in touch.

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¹²² https://www.p2pu.org/



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Project work Step 3

Use OER in your course/teaching

In order to open up your teaching through your project work, you will be using OER. The third step of the project work is to define how you will do this.

Some guiding questions:

- 1. Will you be using existing OER? If so, how will you look for them?
- 2. Will you be transforming your resources into OER? How will you do that?
- 3. Will you be producing new content that you will release as OER? How will you promote that for other users?



Module 4. Localising OER and MOOCs

Main author: Isidro Maya Jariego, Universidad de Sevilla

Introduction

Competences to manage cultural diversity play a significant role in the dissemination and community appropriation of open educational resources. In this module, we showcase the contribution of intercultural communication skills, the management of multicultural groups, the design of communities of practice, and community adjustment strategies in the local implementation of open educational resources.

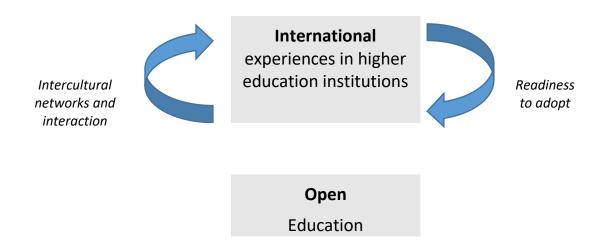
Learning outcomes

- Effectively interact in an intercultural learning community
- Identify the factors affecting intercultural communication
- Localise OER and MOOCs to your own context



Lesson 4.1. The importance of intercultural communication in Open Education

Open Education is directly connected with international experiences in higher education. On the one hand, internet-mediated communication extends the opportunities for intercultural interaction to a greater number of students (Villar-Onrubia & Rajpal, 2016). On the other hand, the internationalisation of higher education facilitates the implementation of open digital practices.



It is a virtuous circle. International experiences prepare institutions for the incorporation of Open Educational Resources, and the incorporation of OER contributes to the internationalisation of university studies. However, in the opposite direction the disconnection and the barriers to innovation reinforce each other.

Therefore, intercultural communication skills are important in the promotion as well as in the implementation of open education.

Intercultural communication skills

Intercultural communication skills are a set of cognitive, affective and behavioural skills that lead to effective communication and behaviour in intercultural settings.

Previous research has identified a set of eight core competencies that define culturally competent individuals. For an individual to handle well in intercultural relationships it is necessary to have (a) adequate knowledge of the cultures in contact, (b) cognitive skills to develop positive interpersonal relationships, and (c) problem solving and relationship building skills (Maya Jariego, 2002; Maya Jariego, Holgado & Santolaya, 2006). The eight competencies are summarised below.

8 Skills for effective intercultural communication

Skills	Definition
Understanding of the other culture	Having a good knowledge of the values, beliefs and ideology of the other culture allows adequate attributions of the behaviour of its members. In addition to the specific knowledge of the other culture, knowledge of other cultures in general may also be useful.



Understanding of one's culture	There is a relationship between the level of knowledge of one's culture and the knowledge that can be acquired over a third culture. It also can help to better face the process of acculturation.
Empathy	Cultural exchanges require the ability to adopt the point of view of the interlocutor. This is one of the most relevant elements of effectiveness in communication, in general. Cognitive decentralisation and the ability to recognise differences allow adaptation to culturally diverse groups.
Tolerance for ambiguity	This refers to the ability to cope with complex, unclear and uncertain situations that may arise in intercultural communication. Intercultural relationships tend to carry a high degree of uncertainty and unpredictability.
Cognitive Flexibility	Being able to accommodate easily to the circumstances or opinions of others.
Delay the evaluation of the behaviour of others	Ability not to evaluate in advance the behaviour of the other. This has also been called 'respect for cultural differences', emphasising its affective component.
Problem solving skills	Managerial skills, task solving in different contexts, planning, etcetera.
Relationship building skills	Ability to initiate contacts, to maintain control over the image transmitted in the interaction, to know how to adjust to the required social distance and to make appropriate use of social support networks.

The following **example** illustrates the influence of communication skills:

A Moroccan lecturer provides individualised tutoring on Skype in a postgraduate course on marketing strategies taught in French for students from Morocco, Algeria, Tunisia, Spain and Italy. The communication develops in general without problems. Despite the national differences, the teacher has the feeling that the countries of the Mediterranean share the same style of open, expressive and friendly communication. Interruptions by the students, which are frequent, are understood as a sign of interest and facilitate clarification by the teacher.

A year later, the Moroccan business school decided to open new markets in Asia and the teacher repeated the same course with Chinese students. The teacher experienced some differences in individual tutoring. Chinese students are usually quieter, and they do not ask questions until the teacher stops speaking. She has the feeling that Chinese students are less expressive, it is more difficult for her to interpret nonverbal cues, and she has to make an extra effort of empathy to confirm that the students follow their explanations.

After this experience, the business school decided to implement a teacher preparation course in which teachers are trained in Chinese culture, communication styles, and effective intercultural communication skills.



Activity 4.1 - Analyse the inhibitors and facilitators to adoption of OER at your university

Here, we summarise some of the facilitating and inhibiting factors for the reuse of open content.

In the South-Mediterranean region, universities see OER as an opportunity to respond to the problems of massification of higher education, geographic dispersion and accessibility in rural settings. For instance, Cadi Ayyad University (in Marrakech) is one of the largest in Morocco and developed a system of Massive Open Online Courses (MOOCs) as an alternative to teaching in saturated classrooms (Idrissi Jouicha, Bouazaze, Ai Si Ahmad & Berrada, 2016). Al Akhawayn University is located in Ifrane (Morocco), in the middle of the Atlas Mountains. It covers an eminently rural area in which students perform community-volunteering services, while they are still connected with teaching activities from small villages of difficult accessibility. Ibn Zhor University (in Agadir) is the educational institution of reference in the south of Morocco, and covers a very large area where digital resources allow long-distance training and monitoring.

One of the elements that seems to influence the readiness to adopt OER is the degree of internationalisation. Among the most receptive institutions are business schools and universities with a hybrid organisational culture, such as German-Jordan University or The American University in Cairo. In the same way, the participation in joint and dual degrees seems to predispose positively to the incorporation of innovations: The Princess Sumaya University for Technology (in Jordan) has had some experiences in this regard. Similarly, in Palestine the concentration of international cooperation projects has generated competencies that facilitate the adoption of innovations.

Question

Make an analysis of the inhibitors and facilitators to adoption of OER at your university. For example, suppose that lecturers at your university want to use educational materials from MIT, Coursera or Edraak, and incorporate them into their teaching. Fill in the following table with examples illustrating the context at your institution. Optionally, write a brief qualitative report informing of strategies to localise the educational materials.

Dimensions	Inhibitors	Opportunities
Technological equipment		
Attitudes towards Open		
Education		
Digital competences		
(knowledge and skills)		
Institutional factors		
Language and local relevance		
Cultural characteristics		



Lesson 4.2. How to adapt OER to local contexts: cases of diversity in rework, reuse and remix

Consider the following example:

The Massachusetts Institute of Technology (MIT) releases as open content an introductory course in agricultural engineering. A professor from the South-Mediterranean studies the educational material and thinks that it would be very interesting to use a part of it with his students. However, he encounters some barriers to use the open contents in his teaching:

Inhibiting factors At his university, textbooks and other educational materials usually are pre-approved by the Institutional rectorate before incorporating them into the restrictions curriculum. Some of his students do not speak English, or they do not have enough command of it to use Language the original material. Examples of the MIT course relate to corn and cotton farming. However, in the region where the Local relevance university is located, the main agricultural products are tomato, cucumber and aubergine,

This is an example in which a teacher faces some obstacles to the **reuse of open content**. To face it effectively, he will need to implement some strategies for adapting the open content. That is, he will have to **localise OER**. In this case, he will have to translate the content and introduce examples related to the local economy, as well as incorporate it officially into the curriculum and syllabus of his course at the university.

In this lesson, we first present the barriers to reuse of open contents. Second, some of the strategies for local and cultural adaptation of OER are examined.

Inhibiting factors to reusing open contents

which require different technical training.

Hatakka (2009) has reviewed some of the most common obstacles in the reuse of open content in developing countries. We have summarised it in the Table '11 factors that inhibit the reuse of open contents'. Along with the original list of 11 factors, we have provided a brief description of each barrier.



11 factors that inhibit the reuse of open contents

Inhibiting factors	Example
Educational rules and restrictions	Depending on each institutional context, the Ministry of Education or the university itself can decide which types of educational materials are used in class, or what language can be used in the teaching practice. The rules set limit the type of contents that can be included in the curriculum or syllabus.
Language	Much of the open content is only in English. The need to translate – or even the peculiarities of the language used or its cultural references – may become an obstacle to its use.
Relevance	Sometimes the content is not appropriate because it is not adapted to the goals of the course, or is too complex for students. For reuse, it is important that contents relate to the context of the students, so that it is meaningful for them. It is also easier to reuse when the course is composed of small modules, so you can extract some of the original content (but not the rest).
Access	Although the materials are freely available on the internet, their use depends of finding them. In turn, this may depend on the users' search skills, the amount of materials and the accessibility of repositories. Therefore, the challenge is not only to have open content available but also to find materials that are appropriate for the courses taught by the teacher.
Technical resources	Infrastructure limitations such as lack of computers or internet access are impediments for use.
Quality	The more (or less) trust the potential users can have in the contents can determine their use.
Intellectual property	Clarity regarding copyright and the type of uses that each content allows, are relevant to reuse by third parties.
Awareness	Knowledge of the existence of the resource is a step prior to its use.
Computer literacy	IT literacy influences the teacher's ability to incorporate OER into their teaching.
Teaching capacity	Some teachers think that content development is one of their competencies and that the re-use of pre-existing content makes them lose autonomy or creativity.
Teaching practices and traditions	Sometimes teaching is organised around a textbook, which reduces opportunities to incorporate alternative content.

Strategies for local and cultural adaptation of OER

Reuse of open content is not easy or immediate. It requires a significant investment of time and effort. To be effective it has to be made relevant in the local context. Following the 11 previous factors, next we propose some of the strategies that facilitate the local and cultural adaptation of open contents. They are summarised in Box 5.1.



Inhibiting factors	Local and cultural adaptation
Institutional restrictions	Incorporation into the institution
Language	Translation
Local relevance	Introducing local examples
Awareness, access, computer literacy	Develop search skills, IT training, dissemination of OER
Quality, teaching capacity and practices	Promote favourable attitudes towards OER and OEP
Intellectual property	Dissemination of Creative Commons and open licensing
Technical resources	Provide the right equipment

We have reorganised the list of inhibitory factors into 7 categories which, in turn, correspond to two types of conditions for the effective location of OER:

- The local adaptation of OER has as **prerequisites** (a) the existence of appropriate technological equipment, together with the (b) attitudes, (c) knowledge and (d) skills needed by teachers to incorporate them in their teaching practice. Therefore, community readiness to adopt OER consists of both needed **technology** and **digital skills** of teachers.
- The adaptation strategies as such refer to the incorporation into the specific **institutional** context, together with the translation into the local **language**, and the **cultural** rework and adjustment of the contents. These strategies are intended to be **relevant at the local level**, so that they are well understood and incorporated naturally as part of the teaching-learning process. Next, we focus precisely on the



cultural relevance of the contents.



Picture by Nick Youngson (CC by-sa 3.0)123

Cultural relevance of open content

Consider the following example:

A teacher from Spain participates in a development cooperation programme, training Peruvian teachers. The training is developed in Spanish and the teacher does not perceive a great cultural distance, being two countries with a part of shared history. However, in the development of the course he appreciates some differences of interest:

Dimensions of cultural variability
 The participants in the course treat him with special respect. They call him 'doctor', follow a formal treatment and hardly critically discuss their claims.
 There are fewer discrepancies in the group than usual. Some students react negatively when the teacher proposes activities in which students compete with each other for better achievement.

This is a case of teacher-student interaction that seems conditioned by some elements of cultural distance. Traditionally, it is a very common situation in academic exchange programmes or in development cooperation projects. It can also arise in internet-mediated communication, often involving international or intercultural interactions.

¹²³ https://www.flickr.com/photos/danielvillar/24832231496



To examine international contact situations, one of the most widely used models consists of the application of the **five dimensions of cultural variability** (Hofstede, 1980). In the following table, we have compiled the original definitions by Geert Hofstede.

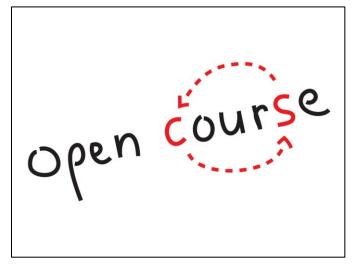
The model has been widely used in cross-cultural comparisons. Interestingly, the author of the model indicates: 'Culture only exists by comparison. The country scores on the dimensions are relative, as we are all human and simultaneously we are all unique. In other words, culture can be only used meaningfully by comparison. These relative scores have been proven to be quite stable over time. The forces that cause cultures to shift tend to be global or continent-wide. This means that they affect many countries at the same time, so if their cultures shift, they shift together and their relative positions remain the same.'

5 dimensions of cultural variability

Dimension	Definition
Power distance	This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people. People in societies exhibiting a large degree of Power Distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low Power Distance, people strive to equalise the distribution of power and demand justification for inequalities of power.
Individualism- collectivism	The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of 'I' or 'we.'
Femininity- Masculinity	The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented. In the business context Masculinity versus Femininity is sometimes also related to as 'tough versus tender' cultures.
Uncertainty Avoidance	The Uncertainty Avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.
Long-term versus short-term orientation	Every society has to maintain some links with its own past while dealing with the challenges of the present and the future. Societies prioritise these two existential goals differently. Societies who score low on this dimension, for example, prefer to maintain time-honoured traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future.



Source: https://en.wikipedia.org/wiki/Hofstede%27s cultural dimensions theory



Picture by Marc Wathieu (CC BY-NC-SA 2.0)

In situations of intercultural contact, these dimensions may affect the teacher-student or the student-student interaction. For example, distance to authority influences the role assigned to the teacher, and the degree of individualism affects the type of interactions that occur within groups of students.

Cultural dimension	Power distance	Individualism-collectivism
Impact in teaching and learning	Role assigned to the teacherTeacher-student interaction	 Group work Student-student interaction
Consequences	In contexts with higher perceived power distance:	In contexts with higher individualism:
	 The teacher is expected to initiate communication and proactively coordinate the teaching activity. 	 The student shows autonomy and independence in his/her behaviour.
	 The teacher is a figure who deserves respect and is credited with wisdom. 	 Students see as normal that differences in points of view lead to confrontations in learning situations.

Research has shown that in developed countries it is comparatively more frequent to find individualistic values and a more egalitarian relationship style. In traditional cultures of developing countries, collectivist



values and a perception of greater distance from authority figures are comparatively more common. In the case of intercultural contact, frictions occur which need to be handled properly. For this reason, it is important to be aware of the elements of cultural distance and to face them effectively.

Activity 4.2 - Reflect on stereotypes and cultural difference

This is a short interview to Professor John Berry, which originally proposed the model of four strategies of acculturation: https://www.youtube.com/watch?v=XAm0iqkZCKI

After seeing the interview, summarise what are the benefits of integration for immigrants, and explain the implications of this model in the context of OER reuse or remix.



Lesson 4.3. Personal learning environments and diversity in networks

Come_IN@Palestine

Come-IN is an experience with computer clubs in Germany that promotes the development of digital skills and facilitates community integration in neighbourhoods with a high percentage of immigrants. It usually works with computer rooms where they provide training in the use of software. However, it also functions as a space for communication between recent immigrants. The results show that Come-IN computer clubs contribute to social cohesion and integration in Germany.

Between 2012 and 2013 a *Come-IN* computer club was held in a refugee camp in Palestine. The programme was implemented as part of a development cooperation project with the collaboration of the promoters of this programme in Germany and Birzeit University (in Ramallah). A small group of students of the Palestinian university performed their practices as tutors and facilitators of computer clubs in the refugee camp.

In general, the programme worked in a similar way to its application in Germany. However, there were also some differences of interest. For instance, the refugee status of the participants and the difficult living conditions in the camp posed specific challenges during the implementation of the programme. On the other hand, a group of girls participated in the computer club. For them it was one of the first educational experiences in a context without gender segregation. Despite the difficulties this entailed, it created a learning experience, both for the participants and for the promoters of the intervention.

Read the complete case in: Aal, Yerousis, Schubert, Hornung, Stickel & Wulf (2014).

This is an example of **acculturation** in a context of international cooperation. Development cooperation programmes bring together diverse socio-cultural groups, which introduces changes in the context of interaction that forces the adaptation of both parties. Possibly, the Germans found themselves in a medium where group cohesion and consensus are more important than in previous applications of computer clubs. On the other hand, Palestinian participants experimented with an organisation of mixed gender groups to which they were not accustomed. As a result, both parties react, adapt and change in some way.

Acculturation consists precisely of changes in the behaviour or attitudes of individuals or groups experiencing a situation of prolonged intercultural contact. A similar case occurs with open educational resources, in which the elimination of access restrictions to participate put in contact a set of learners of different origin, with different subjective identity or with different national cultures. Before we describe a model about the different potential outcomes of acculturation, we would like you to watch this video by Pellegrino Riccardi about cross-cultural communication.





Link: https://www.youtube.com/watch?v=YMyofREc5Jk

Acculturation among users and developers of OER

John Berry proposes a simple model with which to describe the strategies of acculturation adopted by individuals or groups. Specifically, it describes four basic strategies that depend on (a) the interest in maintaining or not maintaining one's culture and (b) the interest in establishing relationships or not with the members of the other group:

- Assimilation: the individual abandons his or her own cultural practices, to be absorbed by a different
 cultural collective. It consists of assuming the new to the point of denying previous traditions, values
 and experiences. The individual assumes a personal cost to obtain new opportunities.
- Segregation: the individual maintains his own culture and rejects his involvement in the new one. It
 consists of an attitude of affirmation of one's own and denial of the opportunities offered by the
 other collective. It is a fold in on itself, reaffirming its values and customs, and without interest in
 contact with people from another cultural context. This attitude closes the possibilities of
 socialisation and learning in the new context.
- Integration: The individual maintains some own cultural characteristics while actively participating in
 the other cultural context. Integration is conceived as a personal and creative synthesis of the two
 cultural spaces that come into contact. There is no single possible solution, but a space to deal with
 cultural contact in a positive way. The combination of both cultural experiences brings creativity and
 effort, but it usually gives good results, both from a psychological and social point of view.
- Marginalisation: A final possible result of contact between cultures is the confusion or lack of
 definition of the actors involved. The collective or the individual can lose their frame of reference,
 not knowing how to integrate new experiences into a meaningful discourse. A result that frequently
 appears associated with cases of exclusion.



4 strategies of acculturation			
		Retention of cultural identity	
		Yes	No
Relatio Yes nships with	Yes	Integration	Assimilation
larger society	No	Segregation	Marginalisation

Consider the following example:

A Mexican professor takes a one-year visiting fellowship as a professor in the United States. At his university, south of Mexico, he usually wears a jacket and tie, the students treat him in a formal way, and the administration and services staff treat him with great respect. In the classes, which are organised around his oral presentation, he has a preponderant role. When organising a research seminar, it is usual for academic authorities to open and close the meeting. When he arrives in the United States, he finds that the teachers dress in an informal manner, compared to what he is accustomed to in Mexico. Students treat him more closely, confidently, and more informally. Students are very active in class, ask questions and even question what the teacher says. In the seminars, a practical orientation is followed and the contents are entered without further delay.

In this example, the visiting fellowship in the United States poses for the Mexican professor a situation of intercultural contact that exposes him to a process of acculturation. He could follow a strategy of assimilation, segregation or others depending on his attitudes and the interaction that develops in the receiving context.

Similar cases occur with open digital practices. The use of open educational resources can result in situations of intercultural contact and, consequently, in processes of acculturation. For example, content **reuse** usually involves coming into contact with materials in another language, from another culture, or simply produced in a different institutional context, introducing an element of diversity. Participation in large-scale **MOOCs** often involves interacting with students from other countries. Accessing resources on the **internet** in other languages exposes us to a process of hybrid socialisation, between our immediate culture and the influences that come from other contexts. Distributing or using **open data** increases the likelihood of contacting international research teams, and so on.

Culture by comparison

What are the differences between the Dutch and the Jordanians? What are the differences between Jordanians and Moroccans? These questions can lead us to make a stereotyped description of each national group, and to assume that individuals belonging to each category are culturally homogeneous. On the one hand, we know that if we compare Dutch and Jordanians we will find differences in beliefs, values and customs. On the other hand, we know that these practices depend on material conditions of life, collective history and socio-economic aspects.



One of the advantages of the acculturation model is that it allows us to speak about cultural values and practices in relative terms. It does not consider cultural characteristics as an immovable property of groups or individuals. Rather, on the contrary, cultural practices are changing, they are constantly evolving and individual differences can be found within each group.

However, when aggregating comparisons of individuals from different communities, regions, or countries, they are often found to differ in their values, attitudes, and behaviours. In that case, we speak of 'cultural distance'. This approach makes it possible to avoid an essentialist understanding of culture. Instead, it is proposed to empirically evaluate the patterns of behaviour of individuals and groups, describe the cultural distance between them and implement pragmatic strategies to facilitate intercultural communication.

The study of national cultures has shown that differences in values and customs are strongly related to socioeconomic and development factors. However, they tend to be fairly stable over time, as different collectives change simultaneously. That is why it is useful to have an understanding of cultural distance, even if we consider that these characteristics are historically conditioned and that there is no cultural determination by belonging to a particular group.

Heterogeneous personal learning environments

A personal learning environment (PLE) is the set of resources, relationships and sources of information that an individual uses for personal learning. This concept aims to reflect that (a) **each person** has different elements in their environment, (b) to **self-regulate** their learning, in (c) a context in which **informal learning** has gained importance.

MOOCs, blogs or mailing lists are resources that each person integrates into their PL as sources of information, means to publish their reflections or channel their learning, and spaces of interaction with other people. Open educational resources provide **opportunities to connect with diverse people and groups**, and to customise the learning network.

Take the example of a Jordanian doctoral student who begins to publish her presentations in an open content repository such as <u>Slideshare</u>¹²⁴. Initially she sees this as a way of disseminating her research to other researchers in the area. However, it immediately becomes an opportunity for interaction and learning. Other researchers contact her, comment on her presentations or share similar studies they have done. The open nature of the content makes her connect with people outside her immediate social circle, from different countries and institutions, thereby increasing the diversity of her academic personal network. Thanks to this heterogeneous network, she gets different types of feedback that allow her to innovate her research.

Cultural distance and readiness to adopt OER

Immigrants in Australia

Australia is, along with the United States and Canada, one of the classic countries of immigration. It has a high percentage of population of foreign origin: at least one in four residents in Australia was born in another country. Since the eighteenth century, it received successive waves of foreign populations that joined the aborigines that inhabited the Australian territory. It is, therefore, an enormously diverse country, where situations of intercultural contact are frequent.

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¹²⁴ http://slideshare.net/



In this context, a group of Australian psychologists conducted a thorough analysis of individual differences in the process of psychological adjustment of immigrants. They evaluated the factors that predict (1) subjective psychological well-being, (2) material well-being, and (3) social integration with members of the receiving local society; and compared the predictors of each outcome.

The first thing they observed was that psychological adjustment in Australia was clearly related to the individual situation before the displacement. That is, the level of psychological, material and social well-being prior to emigration correlates with the corresponding level of adjustment after relocating in Australia. Second, they found specific predictors depending on each adaptation indicator:

- 1. Immigrants who had previous cultural experience (for example, because they had migrated to another country before relocating to Australia) showed better emotional well-being and better material living conditions. Men showed comparatively greater subjective well-being than women did.
- 2. Social integration with Australians was higher among younger immigrants. Second, assimilation in local communities was influenced by the cultural similarity between origin and destination. For example, those who came from a rural setting and from nuclear-oriented families were better accommodated, since in Australia they lived in agricultural areas where it was uncommon to live with members of the extended family. The immigrants who knew some Australians before arriving in Australia or who came from a country with a similar cultural background were also better adapted. For example, the British or the New Zealanders had fewer difficulties than the Chinese or the Indians.

Based in: Scott & Scott (1989).

The research we have summarised in the previous box shows that there are significant individual differences in the degree of predisposition for intercultural contact, which influence the outcomes of immigrant adaptation. People with previous intercultural experience and with less cultural distance from the receiving society, show better objective and subjective indicators of adaptation.

In MOOCs, international contact situations often occur. Let us suppose that Coursera offers a course on programming in which students from around the world can participate. Among other evaluation indicators, teachers evaluate the interaction of students in online forums. If we draw a parallel with research on international immigrants, we must assume that not all students are equally prepared to take advantage of the course. For example:

- Academic achievement in a MOOC is likely to show a positive correlation with the student's prior academic performance, before participating in this type of course.
- Those students who have already participated in a digital distance course or who have previous
 experience with multicultural contexts of learning have a priori a comparative advantage that should
 facilitate their use of the MOOC.
- Young university students generally have a profile that facilitates social assimilation with students from other countries.
- Students who are familiar with the language and the university context of the course will find it less difficult to achieve adequate academic performance.
- If your home university has an intercultural background as well as international connections, it will be easier to adapt to a MOOC with an international audience.



Activity 4.3 - Cultural adaptation of MOOCs

Please check your understanding of cultural adaptation of MOOCs with the following multiple-choice questions. The correct answers are in green.

- 1) In order to have effective intercultural communication with a heterogeneous group of students in a MOOC:
- a) It is enough if you have a good knowledge of the cultures in contact.
- b) Communication only depends on professional skills and knowledge.
- c) Empathy is one of the basic competences for intercultural communication.
- 2) Introducing local examples when reusing OER is a way to improve:
- a) Language pertinence.
- b) Local relevance.
- c) Institutional awareness.
- 3) Cultural variability in the use of formal expressions and language when communicating with teachers in the classroom may be an indicator of...
- a) Power distance.
- b) Individualism-Collectivism.
- c) Diffusion of innovations.
- 4) In order to promote positive intergroup interactions, a teacher indicates, 'Romanian and Italians are both members of the European Union'. This is an example of...
- a) Personalisation.
- b) Re-categorisation.
- c) Cross-cutting categories



Lesson 4.4. Managing diversity in groups of learners



Picture by Free Press (CC BY-NC-SA 2.0)

Open educational resources usually target a community of interacting users. The patterns of communication and exchange depend in part on the definition of the community of practice. The language used sets the limits of the potential audience and the profile of the participants involved. The institutional context, professional profile, as well as the reference region also determine the socio-technological design of MOOCs, educational forums and other open educational resources. This module examines how to define and manage meaningful communities of practice.

Open educational resources are often made operative through groups of heterogeneous composition (in terms of region of origin, language or values). Teams composed of members from different cultures are innovative and contribute to new approaches to problem solving. However, there is a challenge in getting cohesion and integration in the group, and diversity may contribute to conflict or misunderstanding. In this module, we present the implications of 'super-diversity', majority-minority interaction and other forms of intergroup contact.

How to define a culturally meaningful Community of Practice

The following courses differ in their socio-technological design:

- A German university uses Moodle to coordinate the End-of-Grade Work of all final-year students.
- A private foundation from Jordan launches a chemical engineering course in Arabic, implemented in Sakai.
- The European Union designs an online course in English, French, German, Spanish and Italian to
 prepare for the international travel of Erasmus students of different nationalities and languages,
 taught through Blackboard.
- A consortium of North American universities offers a course in social network analysis conducted by one of the leaders of the area, open to participants from around the world.
- A Chilean university conducts a course in Spanish on the application of social intervention projects in marginalised communities in Latin America.

Each of these courses varies in the learning management system, the language, the conditions of access and the group to which it is potentially directed. They not only use different software, but also have a different 'social design'. Beyond the intention that the course be *more or less* open, they differ in the community of practice that they have defined and, consequently, the audience to which they are potentially directed.



- **Language** is one of the elements that contributes to the establishment of boundaries, since it implies a specific community of speakers.
- Second, there are institutional or group membership requirements that also delimit the community
 of practice. In the previous examples, one of the courses requires being a student of a specific
 university, another requires being a student of the Erasmus programme and another one implicitly
 requires being part of the stakeholders in the community development in Latin America.

On the other hand, regardless of the a priori definition of the target audience, the implementation of the course entails specific social dynamics that determine the accessibility and the final use of the resource. For example, the course on chemical engineering in Arabic can be addressed generally to students from the Maghreb and the Middle East region. However, in practice the type of Arabic used can make students in Jordan or Palestine feel more comfortable with the language used than students in Morocco or Tunisia. The examples of industrial chemistry may be more relevant in one country than in another. Furthermore, the degree of heterogeneity of the participants in the region can influence the type of interaction and the degree of participation that occurs in the forums.

In sum, even with the objective of promoting open education, a set of social and institutional factors condition the effective community of practice that finally accesses and takes advantage of learning resources.

Learning in multicultural groups

Cultural diversity influences the performance of work groups. Cultural heterogeneity affects group cohesion and increases the likelihood of conflict. However, it also increases the creativity and satisfaction of the participants (Stahl, Maznevski, Voigt & Jonsen, 2010). These effects occur both between groups with a different national culture, and internally, for example with the diversity introduced by ethnic minorities within a national culture. Logically, there may be differences depending on the size of the group, the geographic dispersion of the group, or the type of management strategies that are developed.

Some of the problems that arise in multicultural work teams have to do with language, style of communication, and the way to make decisions:

- Members who have a poorer command of the language have more difficulty in participating, and the
 group has more difficulty recognising their competences. This not only affects the communication,
 but also the motivation of the participants.
- The communication style of each of the participants can be more or less direct depending on their cultural background. For example, an American usually says things more openly compared to a Chinese, who is more likely to use an indirect style of communication.
- Members vary in the pace of work, the time they invest in debating, or the more or less consensual style of decision-making. This forces participants to adjust the pace and expectations of group work.

Imagine the following **example**: in a MOOC taught by a North American university, groups of students are formed to carry out the tasks of each module. The work is done in a group through a chat tool. In one of the groups, there are 2 Japanese students and 6 North American students. During the meeting of the group, several Americans take the lead and make a proposal that is accepted by the majority. When the activity is to be concluded, one of the Japanese students says that they do not agree with the result and reopen the debate. The Japanese have had less opportunity to participate because they have less English proficiency. When they are building their ideas in English, the group is already addressing the next topic. In addition, they assume that it is important that the group reach a consensus, even if this means more time for debate or a



slower pace in the discussion. Therefore, the group faces the dilemma of terminating the task (with the discomfort of two members) or restarting a debate that they thought had ended.

In order to effectively manage multicultural groups, it has been proposed, among other strategies, (a) to recognise differences and face them directly, (b) to modify the composition of the group, (c) to establish certain norms of operation, or even (d) to remove group members, when other options have not worked (Brett, Behfar & Kern, 2006).

Here are some strategies for managing multicultural learning groups, illustrated with examples:

Strategy	Example
Promoting cultural awareness so that the members of the group adapt to work with the differences existing between the members.	A MOOC 'for the Arab world' decides to incorporate a module for preparation for intercultural contact, which promotes awareness of the cultural differences in the region and provides training in intercultural communication skills.
Designing composition of the groups to prevent conflict, communication problems or mutual stereotypes.	A teacher sets the following norm for the organisation of student task groups: 'Erasmus exchange students cannot form a single group among themselves, but must be distributed among local student groups.' That way Erasmus students are not segregated in the classroom and the local students have intercultural contact opportunities.
Reorganising teams when participants have been divided into defined subgroups and problems have begun to emerge.	In a course with students of four nationalities, managers decide to organise small groups with 25 percent of each nationality. This way the groups are integrated with each other (they are not segregated) and the majority-minority situation is prevented.
Mediating with direct intervention of a supervisor or coordinator.	Students who have previously worked in multicultural groups are mentors for students who have this experience for the first time. Teachers mediate in case of conflict or misunderstanding in student task groups.

Intergroup relations

A Latin American educational network programme video-conferences with several secondary schools. It is a 'classroom virtual collaboration' project. Students from Argentina, Chile, Colombia and Ecuador participate in the exchanges, and make presentations about nature in their respective countries and then open a debate on ecology. To facilitate discussion, everyone uses educational material about the environment in Latin America that they have previously selected among the resources with a Creative Commons licence available at Curriki. In addition, through forums in the same community of educators, teachers have selected those parts of the material that coincide in different educational centres and that can allow a shared reflection between participants from the different countries involved. All students participating in the videoconferences are from urban extraction, except the representatives from Ecuador, who live in a rural area and are from the Saraguro minority. Finally, this group hardly participates in the debate, feels excluded and makes negative assessments of the experience.



This could be an example of a majority-minority situation, in which the minority group has a secondary status in the interaction. It is a case of intergroup relations, in which the characteristics of (a) differentiation between groups, (b) favouritism towards the group of belonging, and (c) social comparison, sometimes resulting in competition or conflict between groups, are observed.

Intergroup relations are usually influenced by the social identity perceived by the individuals in contact. Accordingly, in order to prevent prejudice and discrimination between groups, several strategies have been proposed that are based on manipulating social categories:

- Personalisation. It consists of promoting personal relationships, so that membership in the group loses weight in interaction. In the previous case, informal conversations could be developed among the students before starting the scheduled academic activity. For example, students in Buenos Aires can enter into prior contact via Skype with Saraguro students. Personal exchanges help to break the stereotype that defines them as a homogeneous collective, giving rise to a process of 'decategorisation'. This result depends largely on having a prolonged and positive contact.
- Re-categorisation. It consists of creating and promoting inclusive categories. For example, the category 'Latin American' includes the different national categories, and these in turn are subdivided into ethnic categories (as is the case of the Saraguro minority). This is an element that can be handled institutionally in the dissemination of the activity, in the selection of students and in the implementation of the course.
- Crosscutting categories. It is also possible to use multiple categories, to find common spaces. For
 example, it may happen that several groups of students differ in ethnicity, but coincide in nationality,
 religion, associations in which they participate, or in sporting and political interests. Finding crosssectional categories between Saraguro students and the rest could also improve relationships
 between groups.

The development of positive intergroup relations can facilitate a good use of open educational resources.



Further reading and references

The video 'Practical skills for increasing intercultural communication' gives you tips to communicate in a context of cultural diversity: http://www.cornell.edu/video/practical-skills-for-increasing-intercultural-communication

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Project work Step 4

Localise OER in your course/context

You will most probably have adapted some OER to your needs, by translating them, or by combining them. The fourth step of the project work is to report on this.

Some guiding questions:

- How did you adapt existing OER?
- What was the biggest challenge in the adaptation process?
- Which stakeholders did you engage in the process?



Module 5: Open Educational Practices - OEP

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Introduction

Producing, using and re-using OER, apart from being useful in ethical and efficiency terms, has the potential to change the way you teach in your daily work. OER can, in fact, represent the first step towards the adoption of open and networked teaching methodologies, improving students' engagement, participation and motivation.

Learning outcomes

- Explain the concept of the Open Educational Practices (OEP)
- Plan your own OEPin your course design
- Practice using social and online collaborative learning tools
- Plan your own Open Assessment approaches in your course design
- Understand the concept of open badges



Lesson 5.1. The Concept of Open Educational Practices (OEP)

The Implications of 'open' for course and program design: towards a paradigm shift

Although in recent years MOOCs have been receiving significantmedia attention, we believe that developments in Open Educational Resources (OER), Open Textbooks, Open Research and Open Data will be far more important than MOOCs and far more revolutionary. Here are some reasons why:

a) Nearly all content will be free and open.

Eventually most academic content will be easily accessible and freely available through the internet – for anyone. This could result ina shift of power from teachers/instructors to students. Students will no longer be as dependent on instructors as their primary source of content. Already some students are skipping lectures at their local institution because the teaching of the topic is better and clearer from accessing resources such as OpenCourseWare, MOOCs or content from the Khan Academy. If students can access the best lectures or learning materials for free from anywhere in the world, including the leading lvy League universities, why would they want to get content from a middling instructor at their university? What is the added value that this instructor is providing for their students? There are good answers to this question, but it means considering very carefully how content will be presented and shaped by a teacher or instructor including how that makes it uniquely different from what students can access elsewhere. For research professors, this may include access to their latest, as yet unpublished, research; for other instructors, it may be their unique perspective on a particular topic, and for others, a unique mix of topics to provide an integrated, interdisciplinary approach. What will not be acceptable to most students is repackaging of 'standard' content that can easily be found elsewhere on the internet and at a higher quality.

Furthermore, if we look at knowledge management as one of the key skills needed in a digital age, it may be better to enable students to find, analyse, evaluate and apply content than for instructors to do it for them. If most content is available elsewhere, what students will look for increasingly from their local institutions is support with their learning, rather than the delivery of content. This means directing them to appropriate sources of content, helping when students are struggling with concepts, and providing opportunities for students to apply their knowledge and to develop and practice skills. It means giving prompt and relevant feedback as and when students need it. Above all, it means creating a rich learning environment in which students can study. It means moving teaching from information transmission to knowledge management, from selecting, structuring and delivering content to learner support.

Thus, for most students within their university or college (with the possible exception of the most advanced research universities) the quality of the learning support provided will eventually matter more than the quality of content delivery, which they can get from anywhere. This is a major challenge for instructors who see themselves primarily as content experts.

b) Modularisation

The creation of OER, either as small learning objects, but increasingly as short 'modules' of teaching, from anywhere between five minutes to one hour of material, coupled with the increasing diversification of markets, is resulting in two of the key principles of the 5R permissions of OER being applied, re-used and remixed. In other words, the same content, available in an openly accessible digital form, may be integrated into a range of different applications, and/or combined with other OER to create a single teaching module, course or programme.



The Ontario government, through its online course development fund¹²⁵, is encouraging institutions to create OER. As a result, several universities have brought together faculty within their own institution, albeitworking in different departments, that teach the same area of content (for example, statistics) to develop 'core' OER that can be shared between departments. The logical next step would be for statistics faculty across the Ontario system to get together and develop an integrated set of OER modules on statistics that would cover substantial parts of the statistics curriculum.

Working together has the following benefits:

- a) higher quality content through the pooling of resources (two subject experts are better than one, combined with support from instructional designers and web producers)
- b) greater amounts of OER can be produced than any one instructor or institution can develop
- c) subject coherence and duplication issues can be avoided
- d) more likelihood of faculty in one institution using materials created in another if they have had input to the selection and design of the OER from other institutions

As the range and quality of OER increases, instructors (and students) will be able to build curriculum through a set of OER 'building blocks'. The aim here, will be to reduce instructor time in creating materials (for example, by focusing on creation of their own OER in subject-specific areas or related to specific research expertise), and using their time more in supporting student learning than in delivering content.

c) <u>Disaggregating of services</u>

Open Education and digitisation enable what has tended to be offered by institutions as a complete bundle of services to be split out and offered separately, depending on the market for education and the unique needs of individual learners. Learners will select and use those modules or services that best fit their needs. This is likely to be the pattern for lifelong learners in particular. Some early indications of this process are already occurring, although most of the really significant changes are yet to come.

d) Learner support

Students may have already determined what they want to study through the internet, such as a MOOC. What they are looking for is help with their studies: how to write assignments, where to look for information, feedback on their work and thinking. They are not necessarily looking for a credit, degree or other qualification, but if they are, they will pay for assessment separately. Currently, students pay private tutors for this service. However, it is feasible that institutions could also provide this service, provided that a suitable business model can be developed.

About Open Course Design

The increasing availability of high quality open content is likely to facilitate the shift from information transmission by the instructor to knowledge management by the learner. Also, in a digital age, there is a need for greater focus on skills development embedded within a subject domain than on the memorisation of content.

¹²⁵ https://www.ecampusontario.ca/program-development-funding/



The use of OER could enable these developments in a number of ways, such as:

- A learner-centred teaching approach that focuses on students accessing content on the internet (and
 in real life) as part of developing knowledge, skills and competencies defined by the instructor. Or
 learners managing their learning for themselvesalthough, content would not be restricted to only
 officially approvedOER, but to everything on the internet, because one of the core skills students will
 need is how to assess and evaluate different sources of information;
- A consortium of teachers or institutions creating common learning materials within a broader programme context, that can be shared both within and outside the consortium. However, not only would the content be freely available, but also the underlying instructional principles, learning outcomes and learner assessment strategies. Further what learner support is needed, learner activities, and programme evaluation techniques would be freely available, so that other instructors or learners can adapt all this to their own context. This approach is already being followed by the Carnegie Mellon Open Learning Initiative¹²⁶, and to some extent by the UK Open University's OpenLearn¹²⁷ project, the Virtual University of Small States of the Commonwealth¹²⁸ and OER Africa¹²⁹.
- The role of the instructor will shift to providing guidance to learners on where and how to find content, how to evaluate the relevance and reliability of content, what content areas are core and what are peripheral. In this way, students will be enabled to analyse, apply and present information, within a strong learning design that focuses on clearly defined learning outcomes, particularly with regard to the development of skills. Students will work mainly online and collaboratively, developing multi-media learning artefacts or demonstrations of their learning, managing their online portfolios of work, and editing and presenting selected work for assessment.

¹²⁶ http://oli.web.cmu.edu/openlearning/

¹²⁷ http://openlearn.open.ac.uk/

¹²⁸ https://www.col.org/

¹²⁹ http://www.oerafrica.org/



Activity 5.1 - Open Educational Practices

Correct answers are in green.

- 1. Using Open Education Practices means:
 - a) Teaching with OER
 - b) Teaching through open and innovative pedagogical models, empowering learners as coproducers on their lifelong learning path
 - c) Teaching with the help of technology
- 2. Open Education Practices will lead to:
 - a) the emergence of a few macro universities that will dominate the global higher education market;
 - b) an increased modularisation and disaggregation of learning services, which are needed to respond to the increasing diversity of learner needs in a digital age
 - c) the multiplication of micro-universities with a high thematic specialisation.
- 3. In the long run, OER and OEP will:
 - a) disappear as with many technological innovations,
 - b) replace existing formal education systems, which will have become outdated for a digital world;
 - c) enhance existing public education systems, which remain pivotal in enabling equal access to educational opportunities.



Lesson 5.2. OEP in your daily teaching

Once you have reflected about Open Educational Practices, the next step is to gradually start adopting some of these practices in your daily teaching. Every teacher as well as every student group is different, so the adoption of OEP should be tailored to each case, also depending on the subject and especially on the learning context.

Learner-centred teaching through OER

The five characteristics of Learner-Centred Teaching are:

- 1. <u>Learner-centred teaching engages students in the hard, messy work of learning</u>. Teachers are doing too many learning tasks for students. We ask the questions, we call on students, we add detail to their answers. We offer the examples. We organise the content. We do the preview and the review. On any given day, in most classes teachers are working much harder than students. We are not suggesting we never do these tasks, but we don't think students develop sophisticated learning skills without the chance to practice, and in most classrooms the teacher gets far more practice than the students.
- 2. <u>Learner-centred teaching includes explicit skill instruction</u>. Learner-centred teachers teach students how to think, solve problems, evaluate evidence, analyse arguments, generate hypotheses—all those learning skills essential to mastering material in the discipline. They do not assume that students pick up these skills on their own, automatically. A few students do, but they tend to be the students most like us and most students aren't like that. Research consistently confirms that skills develop faster if they are taught explicitly along with the content.
- 3. <u>Learner-centred teaching encourages students to reflect on what they are learning</u> and how they are learning it. Learner-centred teachers talk about learning. In casual conversations, they ask students what they are learning. In class they may talk about their own learning. They challenge student assumptions about learning and encourage them to accept responsibility for decisions they make about learning; like how they study for exams, when they do assigned reading, whether they revise their writing or check their answers. Learner-centred teachers include assignment components in which students reflect, analyse and critique what they are learning and how they are learning it. The goal is to make students aware of themselves as learners and to make learning skills something students want to develop.
- 4. Learner-centred teaching motivates students by giving them some control over learning processes. Teachers make too many of the decisions about learning for students. Teachers decide what students should learn, how they learn it, the pace at which they learn, the conditions under which they learn and then teachers determine whether students have learned. Students aren't in a position to decide what content should be included in the course or which textbook is best, but when teachers make all the decisions, the motivation to learn decreases and learners become dependent. Learner-centred teachers search out ethically responsible ways to share power with students. They might give students some choice about which assignments they complete. They might make classroom policies something students can discuss. They might let students set assignment deadlines within a given time window. They might ask students to help create assessment criteria.
- 5. <u>Learner-centred teaching encourages collaboration</u>. It sees classrooms (online or face-to-face) as communities of learners. Learner-centred teachers recognise, and research consistently confirms, that students can learn from and with each other. Certainly the teacher has the expertise and an obligation to share it, but teachers can learn from students as well. Learner-centred teachers work to develop structures that promote shared commitments to learning. They see learning individually and collectively as the most important goal of any educational experience.



Toward Innovative Pedagogies for using OER to Promote OEP to Promote Requisite Skills

'Delivering OER to the still dominant model of teacher-centred knowledge transfer will have little effect on equipping teachers, students and workers with the competences, knowledge and skills to participate successfully in the knowledge economy and society... [there is] the need to foster open practices of teaching and learning that are informed by a competency-based educational framework' (Geser, 2012, p.12).

Innovative pedagogical models, targeted at developing requisite, relevant competencies, are important in defining and enacting OEP.

Conole and Ehlers (2010, p.1) argue that more emphasis needs to be placed on using OER to promote quality and innovation in teaching and learning.—Similarly, Campbell (2012) differentiates between 'open education' and 'opening education'. Campbell contends that open is

'not merely a quality to adopt or a direction to pursue, but a certain attitude or mindset towards systems and the desires those systems empower and focus'.

As such, Campbell argues that most so called 'open education' discussed today uses the new technology to merely do old things (instructivist model) in new ways, and is not truly OEP. He provides online learning and xMOOCs as examples of new technology that calls itself OEP, but that is merely doing old things in new ways; ways that do nothing to further challenge and develop students in owning their learning, promote the importance of engaging with others in their learning, and in innovating than continuing to deliver the traditional model of education. Opening education Campbell claims, shifts the focus to doing new things (for example,, developing new capacities) in new ways (for example,, using OER). Open Education should strive to promote what Bloom (1984) calls a radically higher academic level in learners, to use OER to develop networked learners who can self-organise, co-create, innovate, and peer-validate (Campbell, 2012). Similarly, Mott and Wiley (2009) claim that the ubiquitous course management system (CMS) used by many universities at worst merely does old things in new ways, and at best, severely limits learner access to OER. They contend that the CMS 'reinforces the status quo and hinders substantial teaching and learning innovation in higher education. It does so by imposing artificial time limits on learner access to course content and other learners, privileging the role of the instructor at the expense of the learner, and limiting the power of the network effect in the learning process' (p. 3).

<u>Authentic Activities for Student-centred</u>

To develop requisite skill sets using new pedagogical models, Reeves, Herrington, and Oliver (2002, p. 562) recommend the following ten criteria to consider in the projects selected to promote learning:

- 1. <u>Authentic activities have real-world relevance</u>: Activities match as nearly as possible the real-world tasks of professionals in practice rather than decontextualised or classroom-based tasks.
- 2. <u>Authentic activities are ill-defined</u>, requiring students to define the tasks and sub-tasks needed to complete the activity. Problems inherent in the activities are ill-defined and open to multiple interpretations rather than being easily solved by the application of existing algorithms. Learners must identify their own unique tasks and sub-tasks in order to complete the major task.
- 3. <u>Authentic activities comprise complex tasks</u> to be investigated by students over a sustained period of time. Activities are completed in days, weeks and months rather than minutes or hours. They require significant investment of time and intellectual resources.
- 4. <u>Authentic activities provide the opportunity for students to examine the task from different perspectives</u>, using a variety of resources. The task affords learners the opportunity to examine the problem from a variety of theoretical and practical perspectives, rather than allowing a single perspective that learners must imitate



to be successful. The use of a variety of resources rather than a limited number of preselected references requires students to detect relevant, from irrelevant information.

- 5. <u>Authentic activities provide the opportunity to collaborate</u>. Collaboration is integral to the task, both within the course and the real world, rather than solely achievable by an individual learner.
- 6. <u>Authentic activities provide the opportunity to reflect</u>. Activities need to enable learners to make choices and reflect on their learning both individually and socially.
- 7. <u>Authentic activities can be integrated and applied across different subject areas and lead beyond domain-specific outcomes</u>. Activities encourage interdisciplinary perspectives and enable diverse roles and expertise rather than a single well-defined field or domain.
- 8. <u>Authentic activities are seamlessly integrated with assessment</u>. Assessment of activities is seamlessly integrated with the major task in a manner that reflects real world assessment, rather than separate artificial assessment removed from the nature of the task.
- 9. <u>Authentic activities create polished products valuable in their own right</u> rather than as preparation for something else. Activities culminate in the creation of a whole product rather than an exercise or sub-step in preparation for something else.
- 10. <u>Authentic activities allow competing solutions and diversity of outcome</u>. Activities allow a range and diversity of outcomes open to multiple solutions of an original nature, rather than a single correct response obtained by the application of rules and procedures.

Activity 5.2 - Start Planning Your Own OEP

Within this activity, you should think about an OEP that you could implement in your daily teaching by answering the following guiding questions before presenting your ideas to others:

- Decide on the one learning objective that you want your students to achieve in your course.
- Describe what you are planning to do in order to achieve this objective
- Describe what you are going to ask your students to do to achieve your objective.
- Define in what way your approach can be defined as 'open'?



Lesson 5.3. Networked Teaching

OER foster collaboration among the producers, the users, the improvers, and the re-users of the content. Similarily, OEP are strongly based on collaboration, especially through social media. The Center for Open Learning and Teaching (University of Mississippi) defines Open Educational Practices (OEP) as 'teaching techniques that introduce students to online peer production communities, (for instance, Wikipedia, YouTube, OpenStreetMap), which offer rich learning environments'. We have seen in Module 1 that other typical activities that characterise Open Educators are collaborative course design, open research collaborations, and many more. But, as a first step, being present on the most relevant social networks is a prerequisite, and being connected to peers in order to exchange ideas and knowledge is more and more the norm.

What is online collaborative learning?

Harasim (2012) describes online collaborative learning (OCL) as follows (p. 90):

'OCL theory provides a model of learning in which students are encouraged and supported to work together to create knowledge: to invent, to explore ways to innovate, and, by so doing, to seek the conceptual knowledge needed to solve problems rather than recite what they think is the right answer. While OCL theory does encourage the learner to be active and engaged, this is not considered to be sufficient for learning or knowledge construction......In the OCL theory, the teacher plays a key role not as a fellow-learner, but as the link to the knowledge community, or state of the art in that discipline. Learning is defined as conceptual change and is key to building knowledge. Learning activity needs to be informed and guided by the norms of the discipline and a discourse process that emphasises conceptual learning and builds knowledge.'

Online discussion forums go back to the 1970s, but really took off as a result of a combination of the invention of the World Wide Web in the 1990s, high speed internet access, and the development of learning management systems, most of which now include an area for online discussions. These online discussion forums have some differences though with classroom seminars:

- first, they are text based, not oral;
- second, they are asynchronous: participants can log in at any time, and from anywhere with an internet connection;
- third, many discussion forums allow for 'threaded' connections, enabling a response to be attached to the particular comment which prompted the response, rather than just displayed in chronological order. This allows for dynamic sub-topics to be developed, with sometimes more than ten responses within a single thread of discussion. This enables participants to follow multiple discussion topics over a period of time.

Developing meaningful online discussion

There are several design principles that have been associated with successful (online) discussion, such as:

- appropriate technology (for example, software that allows for threaded discussions);
- **clear guidelines on student online behaviour,** such as written codes of conduct for participating in discussions, and ensuring that they are enforced;
- student orientation and preparation, including technology orientation and explaining the purpose



of discussion;

- **clear goals** for the discussions that are understood by the students, such as: 'to explore gender and class issues in selected novels' or 'to compare and evaluate alternative methods of coding';
- **choice of appropriate topics,** that complement and expand issues in the study materials, and are relevant to answering assessment questions;
- **setting an appropriate 'tone' or requirements for discussion** (for example, respectful disagreement, evidence-based arguments);
- **defining clearly learner roles and expectations,** such as 'you should log in at least once a week to each discussion topic and make at least one substantive contribution to each topic each week';
- monitoring the participation of individual learners, and responding accordingly, by providing the
 appropriate scaffolding or support, such as comments that help students develop their thinking
 around the topics, referring them back to study materials if necessary, or explaining issues when
 students seem to be confused or misinformed;
- regular, ongoing instructor 'presence', such as monitoring the discussions to prevent students
 getting off-topic or becoming too personal, and providing encouragement for those that are making
 real contributions to the discussion, heading off those that are trying to dominate the discussions,
 and tracking those not participating, and helping them to participate;
- ensuring strong articulation between discussion topics and assessment.

<u>Cultural and epistemological issues</u>

Students come to the educational experience with different expectations and backgrounds. As a result there are often major cultural differences across students with regards to participating in discussion-based collaborative learning that in the end reflect deep differences with regards to traditions of learning and teaching. Thus teachers need to be aware that there are likely to be students in any class who may be struggling with language, cultural or epistemological issues, but in online classes, where students can come from anywhere, this is a particularly important issue. For example, in many countries, there is a strong tradition of the authoritarian role of the teacher and the transmission of information from the teacher to the student. In some cultures, it would be considered disrespectful to challenge or criticise the views of teachers or even other students. In an authoritarian, teacher-based culture, the views of other students may be considered irrelevant or unimportant. Other cultures have a strong oral tradition, or one based on story-telling, rather than on direct instruction.

Strengths and weaknesses of online collaborative learning

This approach to the use of technology for teaching is very different from the more objectivist approaches found in computer-assisted learning, teaching machines, and artificial intelligence applications to education, which primarily use computing to replace at least some of the activities traditionally done by human teachers. With online collaborative learning, the aim is not to replace the teacher, but to use the technology primarily to increase and improve communication between teacher and learners, with a particular approach to the development of learning based on knowledge construction assisted and developed through social discourse. Futhermore, this social discourse is not random, but managed in such a way as to 'scaffold' learning:

- by assisting with the construction of knowledge in ways that are guided by the instructor;
- that reflect the norms or values of the discipline; and
- that respect or take into consideration the prior knowledge within the discipline.



Thus there are two main strengths of this model:

- when applied appropriately, online collaborative learning can lead to deep, academic learning, or transformative learning, as well as, if not better than, discussion in campus-based classrooms. The asynchronous and recorded 'affordances' of online learning more than compensate for the lack of physical cues and other aspects of face-to-face discussion;
- online collaborative learning as a result can also directly support the development of a range of high level intellectual skills, such as critical thinking, analytical thinking, synthesis, and evaluation, which are key requirements for learners in a digital age.

There are however, some limitations:

- online collaborative learning does not scale easily, requiring highly knowledgeable and skilled instructors, and a limited number of learners;
- online collaborative learning is more likely to accommodate to the epistemological positions of
 faculty and instructors in humanities, social sciences, education and some areas of business studies
 and health, and conversely it is likely to be less accommodating to the epistemological positions of
 faculty in science, computer science and engineering. However, if combined with a problem-based
 or inquiry-based approach, it might have acceptance even in some of these subject domains.

Activity 5.3 - Plan for using online collaborative tools

Building on learning activity 5.2 where you had the chance to decide on the activities that you and your students will be doing in order that they can achieve the learning objective(s) you set, think of how you are planning to use the different online collaborative tools to enhance the quality of the teaching and learning process.



Lesson 5.4. Open Assessment and Open Badges

Open Assessment/ Authentic Evaluation

Open Assessment, or one may call it authentic assessment, is an important facet of open learning, since it empowers students to be active partners in evaluating their progress and the progress of their peers.

How well do multiple-choice tests really evaluate student understanding and achievement? Many educators believe that there is a more effective assessment alternative. These teachers use testing strategies that do not focus entirely on recalling facts. Instead, they ask students to demonstrate skills and concepts they have learned. This strategy is called *authentic assessment*.

Authentic assessment aims to evaluate students' abilities in 'real-world' contexts. In other words, students learn how to apply their skills to authentic tasks and projects. Authentic assessment does not encourage rote learning and passive test-taking. Instead, it focuses on students' analytical skills; ability to integrate what they learn; creativity; ability to work collaboratively; and written and oral expression skills. It values the learning process as much as the finished product. In authentic assessment, students do science experiments, conduct social-science research, write stories and reports, read and interpret literature, and solve math problems that have real-world applications.

Authentic assessment utilises *performance samples* – that is, learning activities that encourage students to use higher-order thinking skills. There are five major types of performance samples:

a. Performance Assessment

Performance assessments test students' ability to use skills in a variety of authentic contexts. They frequently require students to work collaboratively and to apply skills and concepts to solve complex problems. Short-and long-term tasks include such activities as: writing, revising, and presenting a report to the class, conducting a week-long science experiment and analysing the results, or perhaps working with a team to prepare a position in a classroom debate.

b. Short Investigations

Many teachers use short investigations to assess how well students have mastered basic concepts and skills. Most short investigations begin with a stimulus, like a math problem, a political cartoon, a map, or an excerpt from a primary source. The teacher may ask students to interpret, describe, calculate, explain, or predict. These investigations may use enhanced multiple-choice questions. Or they may use concept mapping, a technique that assesses how well students understand relationships among concepts.

c. Open-Response Questions

Open-response questions, like short investigations, present students with a stimulus and ask them to respond. Responses include: a brief written or oral answer, a mathematical solution, a drawing, a diagram, chart, or graph.

d. Portfolios

A portfolio approach documents learning over time. This long-term perspective accounts for student improvement and teaches students the value of self-assessment, editing, and revision. A student portfolio can include: journal entries and reflective writing, peer reviews, artwork, diagrams, charts, and graphs, group reports, student notes and outlines, rough drafts and polished writing.



e. Self-Assessment

Self-assessment requires students to evaluate their own participation, process, and products. Evaluative questions are the basic tools of self-assessment. Students give written or oral responses to questions like: What was the most difficult part of this project for you? What do you think you should do next? If you could do this task again, what would you do differently? What did you learn from this project?

Many teachers find that authentic assessment is most successful when students know what teachers expect. For this reason, teachers should always clearly define standards and expectations. Educators often use rubrics, or established sets of criteria, to assess student work. Because authentic assessment emphasises process and performance, it encourages students to practice critical-thinking skills and to get excited about the things they are learning. You may also want to read Open Assessment' by Prof. Ulf Ehlers who introduces a number of reflections on Open Assessment that shall help you understand the potential impact of this practice in your daily work

Open Badges

One of the most interesting developments in Open Assessment is the Open Badges project 131 by Mozilla. Through the project, everyone can issue 'open badges', which are digital indicators of skills learned inside or outside the classroom. Open Badges contain metadata indicating the badge issuer, the criteria for the badge, and other information, all of which is hard-coded into the image file itself. The technology supports a range of badge types, developed in conjunction with the badge issuer. They can be issued by traditional educational institutions, professional bodies, community learning organisations, after-school programmes, or online initiatives (including MOOCs). You may want to watch An Introduction to Open Badges 132 before conducting learning activity 5.4.

Activity 5.4 - Get an Open Badge

The best way to understand how Open Badges work is to get one. Start from this link: http://openbadges.org/earn/ and earn your first Open Badge, then share with the community what you think about Open Badges and if they are applicable in your daily work. Would students like the idea? Why yes? Why not?

As an alternative activity if you do not want to get an Open Badge, please select a course that you have been teaching at your institution and develop your Open Assessment plan that you think you can implement while teaching the course.

¹³⁰ http://eacea.ec.europa.eu/llp/events/2010/documents/online_educa_berlin_2010/open_educational_quality_initiative_ehlers-oeb.pdf

¹³¹ https://openbadgefactory.com/?gclid=EAIaIQobChMI5PW6iMaH2wIVIMmyCh23DgWGEAAYASAAEgJvZvD_BwE

¹³² https://www.youtube.com/watch?v=oACpeW6NA-o



Further reading

- An investigation into social learning activities by practitioners in Open Educational Practices, Bieke Schreurs, Antoine Van den Beemt, Fleur Prinsen, Gabi Witthaus, Grainne Conole, Maarten de Laat.
- Paper '<u>Using innovative social networking tools to foster communities of practice</u>'¹³⁴. The paper presents the National Digital Learning Resources Service (NDLR), funded by the HEA (Ireland), an open educational resource service providing an open online repository and community portal, shared between the seven Universities and the fourteen Institutes of Technology in Ireland. The NDLR uses innovative technologies and social networking tools to foster over thirty active communities of practice.
- Paper 'Colearning' collaborative networks for creating, sharing and reusing OER through social media' 135. The paper presents an investigation focusing on the use of social media tools and personal network environments for engaging learning communities in producing, adapting, sharing and disseminating OER collaboratively. The aim of this investigation is to identify new forms of collaboration, as well as strategies that can be used to make the production and adaptation processes of OER more explicit for anyone in the community to contribute.
- Innovating Pedagogy 2014 report new forms of teaching, learning and assessment, to guide educators and policy makers¹³⁶. The Open University has recently published this report, which explores new forms of teaching, learning and assessment, namely Massive open social learning, Learning design informed by analytics, Flipped classroom, Bring your own devices, Learning to learn, Dynamic assessment, Event-based learning, Learning through storytelling, Threshold concepts, Bricolage.

¹³³ http://www.irrodl.org/index.php/irrodl/article/view/1905

 $^{^{134}\} http://www.openeducationeuropa.eu/en/article/Using-innovative-social-networking-tools-to-foster-communities-of-practice-properties of the communities of th$

¹³⁵ http://oro.open.ac.uk/33750/2/59B2E252.pdf

¹³⁶ http://www.open.ac.uk/blogs/innovating/



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Project work Step 5

Develop an open teaching plan and share it with the community

In this step you should develop a plan on how you will 'open-up' your teaching strategy.

Some guiding questions:

- Which teaching strategy will you adopt? Can you define this as an Open Educational Practice?
- What online tools will you use?
- Which stakeholders did you engage in the process?
- Will you use Open Assessment practices?



Project work

The project work is a fundamental component of the OpenMed course, and is the main outcome that will be assessed by facilitators.

At the beginning of the course, learners will have to briefly define their projects, by setting the objectives, activities and expected results of the project.

At the end of each module, each learner will have to reflect on the five steps that he/she will take to transform his/her teaching practice by adopting open approaches.

The five steps are:

Project work Step 1: Make a pledge for opening up your course/teaching

Project work Step 2: Identify open licences that you will apply to your course/resources

Project work Step 3: Use OER in your course/teaching

Project work Step 4: Localise OER to your course/context

Project work Step 5: Develop an open teaching plan and share it with the community

Following completion of the five modules, learners will focus on their 'project', defining in detail how they intend to apply the knowledge achieved through the course in their daily teaching practices. The result(s) will be a Project Work Final Report, that will be evaluated by the Course Facilitators.

Project Work Final Report

The final project work should report on the work done, by detailing the main achievements, the difficulties encountered, the main short term and long term benefits, and the strategy for the future development of the project.



OpenMed Course Glossary 137

Acculturation. Prolonged contact between individuals or groups of different cultures leads to changes in knowledge, attitudes or behaviour among participants.

Attribution. The process of recognising the source of borrowed materials, regardless of whether it is all rights reserved copyright or open licensed.

Community of practice. Social groups that share a common interest and are constituted in order to develop a specialised knowledge based on practical experiences.

Copyleft. 'A play on the word copyright to describe the practice of using copyright law to offer the right to distribute copies and modified versions of a work and requiring that the same rights be preserved in modified versions of the work.' (UNESCO, 2013¹³⁸)

Copyright. Copyright is the exclusive legal right to produce, reproduce, publish or perform an original literary, artistic, dramatic or musical work. The creator is usually the copyright owner. However, an employer—for example, a film studio—may have copyright in works created by employees unless there is an agreement in place stating otherwise.

When you own the copyright in a work, you control how it is used in order to protect its value. Others who want to use the work have to buy or otherwise get your permission.' (<u>Canadian Intellectual Property Office</u>, 2015¹³⁹)

Individualism-collectivism. Dimension of cultural variability that distinguishes between societies in which autonomy and individual interests prevail, in comparison with others in which the group's harmony is valued more.

Intercultural competence. Set of skills that allow communication with individuals from other cultures, such as empathy, tolerance to ambiguity, cognitive flexibility and understanding of cultures in contact.

Licensing. The process of choosing and assigning a licence to an OPER by the original creator of that resource. OER creators can choose from several licenses offered by organisations such as Creative Commons—with the licence typically stipulating the conditions under which that resource can be used, shared, adapted, or distributed by other users.

Localisation. The process through which educational resources are adapted to meet local teaching and learning needs. Resource localisation might entail, for example, translating a lesson plan into another language, or removing parts of a course module that are too complex for a given set of students.

Massive Open Online Course. (MOOCs) are online courses aiming at large-scale participation and open access. They may use OER as content. (UNESCO, 2013¹⁴⁰)

Metadata. Basic descriptive data about an educational resource, which help users more easily find and use the resource. It is 'data about data,' or attributes that describe the data, and includes descriptors such as title, language, author, and grade level, creation date, etc.

¹³⁷ Based on https://moodle.gprc.ab.ca/mod/glossary/view.php?id=33539 and http://www.oercommons.org/courses/oerglossary/view.

¹³⁸ http://www.unevoc.unesco.org/go.php?q=Open%20Educational%20Resources

¹³⁹ http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/wr03719.html?Open&wt_src=cipo-cpyrght-main

¹⁴⁰ http://www.unevoc.unesco.org/go.php?q=Open%20Educational%20Resources



Open Access. A publishing model whereby authors make their content freely available with publishing costs met by authors, or the institution, to which they are affiliated.

Open Courseware (OCW). 'publicly available materials that are either a part of, or a complete course from an educational institution such as a university or college.' (<u>UNESCO</u>, <u>2013</u>¹⁴¹)

Open Educational Resources. 'Open Educational Resources (OER) are any type of educational materials that are in the public domain or introduced with an open licence. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them. OER range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation.' (UNESCO, 2013¹⁴²)

Open Source Software. Refers to a program in which the source code is available to the general public for use and/or modification from its original design. (<u>UNESCO</u>, <u>2013</u>¹⁴³)

Open Standards. Public standards, usually divided into de jure (those created formally by a standardisation body such as ISO or BSI), and de facto (those gain 'critical mass' through near-universal adoption). Some standards are administered by a user group or committee (for example, W3C) rather than a legal body.

Open textbook: Digitised textbooks freely available with non-restrictive licenses.

Public Domain. The public domain, in intellectual property (IP) law, is generally said to consist of intangible materials that are not subject to exclusive Intellectual Property rights and which are, therefore, freely available to be used or exploited by any person (World Intellectual Property Organization¹⁴⁴).

Super-diversity. A phenomenon that occurs when diversity becomes a norm. For example, because of the proliferation of many small immigrant communities in the United Kingdom.

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¹⁴¹ http://www.unevoc.unesco.org/go.php?q=Open%20Educational%20Resources

¹⁴² http://www.unevoc.unesco.org/go.php?q=Open%20Educational%20Resources

¹⁴³ http://www.unevoc.unesco.org/go.php?q=Open%20Educational%20Resources

¹⁴⁴ http://www.wipo.int/portal/en/



www.OpenMedproject.eu

Coordinator





























