
Open Educational Resources (OERs) for Language Learning

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Abstract

The term “open educational resources” (OER) refers to materials used for teaching and learning that, unlike most materials produced by commercial publishers, carry an open copyright license. Because of its open license, OER give users’ rights traditionally reserved for authors and publishers, such as the right to adapt the original work and the right to disseminate derivatives free of charge. A global, grassroots phenomenon, the OER movement coalesced at the end of the twentieth century and the beginning of the twenty-first century when educators sought to create intellectual content that was accessible to the Internet public. Thanks to a democratic ethos that promotes the sharing of intellectual property, the OER movement has resulted in the collaboration between educational stakeholders, the creation of uniquely adaptable content, and the production of much-needed resources for less commonly taught languages that are frequently ignored by publishers. During the first decade of the OER movement, advocates focused on the development and dissemination of free materials to combat rising costs. During its second decade, however, the movement has begun to focus on empirical research to ascertain the impact of OER on student learning, including FL learning. In addition, open educators are beginning to explore different strategies for bringing OER into the educational mainstream.

Keywords

Open education • Open educational resources • Open educational practices

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Contents

Introduction	170
Early Developments	170
Major Contributions	171
Work in Progress	174
Problems and Difficulties	175
Future Directions	176
Cross-References	178
References	178

Introduction

First coined in 2002 during a UNESCO meeting, the term open educational resources (OER) refers to openly licensed educational materials that allow end users' rights covered by copyright law, such as the right to adapt the original work and the right to disseminate derivatives free of charge. Plotkin (2010, p. 1) defines OER as “teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits sharing, accessing, repurposing – including for commercial purposes – and collaborating with others.” In contrast to the static nature of print materials, digital OER are increasingly produced in editable formats that make them better suited to the dynamic and emergent nature of language learning in informal, online environments. An extremely heterogeneous category, OER vary widely in terms of their pedagogical goals and uses: annotation tools, assessment instruments, language corpora, reference grammars, supplementary readers, textbooks, etc. (see examples at <http://nflrc.org>). In addition, OER are diverse in terms of their size and sophistication (Weller 2010). Despite these differences, however, OER are all distinguished by an open copyright license that allows users' rights traditionally reserved for authors and publishers.

Early Developments

OER are the concrete products of open education (OE), a global, grassroots movement that coalesced at the end of the twentieth century and the beginning of the twenty-first century. OE is a collective term that refers to the advancement of education through “open technology, open content and open knowledge” (Iiyoshi and Kumar 2007). Viewed in its historical context, OE is an extension of the open-source movement whose revolutionary idea was to give software developers free and open access to source code (Perens 1999; Raymond 2001). Concerned that the rising costs of tuition and textbooks were shutting out potential students, educators sought to open up access to educational content as a means of democratizing the system. Consequently, educators began to envision pedagogical materials as learning objects that could be designed to foster adaptation by subsequent users. Richard Baraniuk,

a professor of computer engineering and a leading figure in the OE movement, sums up the paradigm shift in terms of a set of widely shared values and beliefs.

The OE movement is based on a set of intuitions shared by a remarkably wide range of academics: that knowledge should be free and open to use and reuse; that collaboration should be easier, not harder; that people should receive credit and kudos for contributing to education and research; and that concepts and ideas are linked in unusual and surprising ways and not the simple linear forms that today's textbooks present. OE promises to fundamentally change the way authors, instructors, and students interact worldwide. (Baraniuk 2007, p. 229)

One of the precursors to the OE movement was the UK's Open University, established in 1969 as a distance learning institution with minimal entrance requirements (<http://www.open.ac.uk/>). Today, millions of people from all over the world access the Open University's online content on a daily basis. Another early example of OE is the open courseware initiative (OCW) that started at the Massachusetts Institute for Technology (MIT). In 2000, MIT faculty proposed that their courseware (e.g., syllabi, exercises, lectures, etc.) be placed online and be made available to the public. Two years later, MIT launched a website that contained open content from 50 courses. Today, according to the OCW website, the entire collection of MIT courseware is open to the Internet public (<http://ocw.mit.edu/index.htm>).

As the OE movement took shape, it became apparent that the rise of informal learning on the Internet required a new generation of flexible materials. Soon, open educators began to think in terms of "open content" and "open design" (Conole 2013), and in 2002, the term "open educational resources" (OER) was coined during a UNESCO meeting of the Forum on the Impact of Open Courseware for Higher Education in Developing Countries (Johnstone 2005). Soon thereafter, the new term was employed by the Organization for Economic Co-operation and Development (OECD) (<http://www.oecd.org/>). Thus, the general concepts of open content and open courseware gave rise to the more specific concept of OER. Today, the distinctive feature of OER is the open copyright license that promotes "4R" activities (Wiley and Green 2012, p. 81):

- Revising – adapting the OER to meet the needs of the end user
- Remixing – combining or "mashing up" the OER with another OER to produce new materials
- Reusing – using the original or derivative versions of the OER in a wide range of new contexts
- Redistributing – sharing the original work or derivative versions with others

Major Contributions

During the past decade, educators have taken advantage of the affordances of OER to make major contributions to the field of FL education. In particular, OER have played a major role in facilitating the collaboration between educational

stakeholders, in the creation of adaptable content, and in the publication of materials for less commonly taught languages (LCTLs).

Fostering collaboration among educational stakeholders is a goal of most OER. Open educators contend that educational publishing is largely controlled by a small group of people in developed countries – publishers, editors, and academics – who rarely collaborate with teachers and learners as coproducers of pedagogical content. The new practices that are at the heart of OE and its “participatory culture” (Jenkins 2009) exemplify the concept of “cognitive surplus” (Shirky 2010), that is, the increase in humanity’s ability to create things together for the common good, thanks to the infrastructure of the Internet. A good example of how OER can facilitate collaboration between multiple contributors is *Français interactif*, an online first-year French program developed by faculty and graduate students at the University of Texas at Austin (Blyth 2012a). Most commercial textbooks are written by two or three authors who work closely with an editor. In contrast, *Français interactif* was developed by a large team of more than thirty French professors, graduate students, and undergraduates. The program focuses on the lives of undergraduate students who were participants in a summer study-abroad program in Lyon, France. In a series of documentary videos, these students describe their experiences living with their host families in Lyon. As such, these students were central players in the development of the materials, suggesting ways to create videos that documented the growth of their linguistic skills during the study-abroad program. In addition to the participation of undergraduates, graduate student instructors (GSIs) played a key role in the making of *Français interactif*. GSIs contributed to the curriculum as part of their professional training by designing new materials and testing the materials in their classrooms.

Acceso, a second-year Spanish program developed at the University of Kansas, was also the work of a large team of contributors, including GSIs. In fact, according to Rossomondo (2011, p. 140), the professional development of GSIs was tightly woven into the development of the *Acceso* curriculum itself. Rossomondo contends that the creation and production of *Acceso* gave GSIs not only marketable skills in developing digital materials but also a deeper understanding of how materials relate to classroom practice. In short, because GSIs played an active role in helping to develop the *Acceso* materials, they became more proficient users of the materials and were more committed to the success of the materials. Finally, Rossomondo (2011, p. 140) points out that *Acceso* fostered collaboration with other higher education institutions through a wiki-based content development area and a discussion forum.

While most OER focus on a specific language as is the case of *Français interactif* and *Acceso*, some OER function as tools that can be used for the teaching and learning of any language. A good example is *The Mixxer*, a website whose goal is to promote collaboration between FL students and native speakers via Skype (Bryant 2013). Telecollaboration has become a well-known method in intercultural approaches to FL learning. And yet, such exchanges are often time-consuming and difficult to organize. Moreover, teachers who wish to integrate telecollaborative

methods into their pedagogy do not always know where to find language partners. To meet the need for a clearinghouse, *The Mixxer* was created as an archive of personal profiles of “language partners.” Learners peruse the archive to locate potential partners who match their language interests and proficiency levels.

OER are often touted as being more flexible than copyrighted, print-based materials due to their open licenses that enable adaptation. Unfortunately, many OER are difficult to adapt. For example, some are written in formats that are not easy to edit such as PDFs, while others have few instructions to facilitate adaptation. Nevertheless, newer OER are increasingly editable and accompanied by documentation such as manuals or guides. A good example of this new generation of OER is the Open University’s *Languages Open Resources Online* (LORO) (<http://loro.open.ac.uk/>). Essentially an archive of learning objects such as lesson plans or classroom activities, *LORO* contains resources that have been written in an accessible file format such as Microsoft Word, openly licensed with a Creative Commons license and tagged with metadata that explain the purpose and use of the object. While many faculty members at the Open University archive their course content in *LORO*, any FL teacher may upload content as long as he or she follows the required editorial guidelines. Every *LORO* resource must carry a meaningful title and a brief description of what the learning object entails. In addition, information about attribution, target language, and course unit must be specified. Other repositories such as NFLRC.org and MERLOT.org have taken similar steps to assure that the content of their OER is easy to find and adapt.

Another example of the new generation of OER designed for adaptation is the Foreign Languages and the Literary in the Everyday project (FLLITE.org) supported by the Center for Open Educational Resources and Language Learning (COERLL) at the University of Texas at Austin (USA) and the Center for Educational Resources in Culture, Language, and Literacy (CERCLL) at the University of Arizona (USA). The *FLLITE* project constitutes a curated archive of literacy-based FL materials. The project seeks to train FL instructors in the open digital practices needed for the production and dissemination of OER: how to find open, authentic texts, how to create an effective multiliteracy lesson based on an open text, how to choose an open license, and how to share materials and documentation with other members of the community. Thus, the overall goal of *FLLITE* is to create an educational community of practice whose members help each other to generate crowd-sourced materials specifically designed for adaptation.

Finally, the expansion of high-quality LCTL resources constitutes a major contribution to FL education. OER are particularly relevant to the LCTL context because they represent a promising alternative to traditional conceptualizations of educational publishing associated with the values of more commonly taught languages (Blyth 2012b). Defined by their relatively small enrollments and faculties, LCTLs are largely ignored by commercial textbook publishers who focus on the more profitable major languages. Lacking pedagogical materials and institutional clout, some LCTLs may not even have a departmental home at their institution and,

as a consequence, may be administered through a campus language center. Given these circumstances, resource centers such as the National FL Resource Centers in the USA and LangOER in Europe have begun creating OER for the LCTL market. For instance, LangOER produces materials for European LCTLs, e.g., Frisian (<http://langoer.eun.org/>). High-quality LCTL resources are also produced by the Language Flagship program that offers degrees in nine so-called critical languages as determined by the US government (e.g., Arabic, Hindi, Korean, Persian, Portuguese, Russian, Swahili, Turkish, and Urdu). Created in 1991 to develop “global professionals,” the Language Flagship program is administered by the National Security Education Program (NSEP) of the US Department of Defense (<http://www.thelanguageflagship.org/>).

Work in Progress

While surveys indicate that the use of OER is fairly widespread in North America and in Europe, there is still a lack of empirical research about educational impact. Thus, after more than a decade of intensive OER development, open educators are beginning to develop a research agenda to determine the effects of OER on student learning. The OER Hub, an initiative of the Open University, is serving as a de facto clearinghouse for the many studies currently in progress (<https://oerhub.net/>). The OER Hub seeks to create a network of OER researchers across four education sectors (K-12, community college, university, and informal learning) who agree to share methods and results. Findings of research studies are displayed in terms of 11 guiding hypotheses. The first two hypotheses pertain to the nature of openness and are relevant to all OER research studies:

1. The use of OER leads to improvement in student performance and satisfaction.
2. The open aspect of OER creates different usage and adoption patterns than other online resources.

The next nine hypotheses examine specific ways that OER may impact students, teachers, and the learning environment:

3. Open education models lead to more equitable access to education, serving a broader base of learners than traditional education.
4. The use of OER is an effective method for improving retention for at-risk students.
5. The use of OER leads to critical reflection by educators, with evidence of improvement in their practice.
6. OER adoption at an institutional level leads to financial benefits for students and/or institutions.
7. Informal learners use a variety of indicators when selecting OER.
8. Informal learners adopt a variety of techniques to compensate for the lack of formal support, which can be supported in open courses.

9. Open education acts as a bridge to formal education and is complementary, not competitive, with it.
10. Participation in OER pilots and programs leads to policy change at institutional levels.
11. Informal means of assessment are motivators to learning with OER.

While there is strong evidence for the claim that OER reduce costs for students and institutions (Hypothesis #6), the claims that OER promote student learning (Hypothesis #1) and improve teacher cognition (Hypothesis #5) are still in need of further evidence. Moreover, to date, there are few published research studies that investigate the impact of OER on FL learning. In light of this situation, COERLL and LangOER launched a joint 4-year study in 2014 to assess the impact of FL OER in the USA and in Europe (<http://coerll.utexas.edu/coerll/projects/oer-research>). In 2015, COERLL surveyed 1,100 FL educators working at all levels of the American educational system. The survey targeted American educators from all 50 states and from different types of institutions (private vs. public, urban vs. rural). The goal of the survey was to determine the obstacles to OER adoption in the USA as well as to understand the motivations of early adopters. Based on the findings of the OER survey, the next phase will involve a needs analysis of FL educators in the USA. Data for the needs analysis will come from interviews with targeted teacher populations in high schools, community colleges, and 4-year colleges.

Problems and Difficulties

Before achieving widespread acceptance, OER must first overcome two major obstacles: lack of awareness about open licenses and concerns about quality control. A 2011 survey conducted by the National Institute of Technology and Liberal Education (NITLE) found that faculties at small liberal arts colleges in the USA had minimal knowledge of OE and were unclear about how to locate OER. Based on the responses to the survey, the authors suggest that there is a pressing need for OER of high quality that are also easily “discoverable,” that is, optimized for search engine recovery (Spiro and Alexander 2012, p. 1). Two years later, a survey of FL program directors in the USA found similar results – teachers are confused about how to find and teach with OER (Thoms and Thoms 2014). In fact, Thoms and Thoms (2014, p. 144) note that many FL program directors “were not familiar with the term *open educational resources* per se.” In 2015, in response to such survey results, the US Department of Education hired an open education advisor to disseminate information about OER via social media (e.g., Twitter campaign #GoOpen).

According to the OER evidence report disseminated by the OER Hub, teachers who are new to OE rarely distinguish between OER and other pedagogical materials found online (OER Evidence Report 2014, p. 14). As noted, the distinctive feature of OER is an open license that allows its creators to share rights with end users in a way that is legally sound and globally applicable. Surveys cited in the OER Evidence Report discovered that educators who do not understand open licenses tend to treat

OER like any other commercial product. Once they become aware of the implications of open licenses, however, teachers begin to adapt elements of the OER. Then, with increased OER experience, teachers start to create their own materials, sometimes remixing several OER. Finally, according to the report, the most experienced open educators actually begin to create resources and share them with their peers using a Creative Commons license (OER Evidence Report 2014, p. 15).

In addition to lack of awareness, OER must overcome the public's persistent concern about quality control. In face of these concerns, OER developers have adopted different approaches to ensure the quality of their products. In one approach, the academic institution where the OER is produced plays a leading role in vetting the OER according to traditional academic practices of peer review. A more digitally native approach to quality control is crowdsourcing, as pioneered by the open-source software community. In this approach, the quality of the OER becomes the responsibility of the crowd of users who write reviews and aggregate ratings for the public to consult (Plotkin 2010, p. 6). More recently, OER developers have begun combining elements of peer review with the newer crowdsourcing approaches. For example, many professional societies and organizations, such as *OER Commons* (www.oercommons.org), *Open Content Consortium* (www.ocwconsortium.org), *Community College Open Textbook Collaborative* (<http://collegeopentextbooks.org>), *MERLOT* (www.merlot.org/merlot/index.htm), and *WikiEducator* (http://wikieducator.org/Free_textbooks), hire editorial teams to vet online content and to organize it in ways that help educators find what they are seeking. *OpenStax College*, an open publisher of higher education textbooks headquartered at Rice University (Houston, Texas, USA), has adopted a quality control process that combines peer reviews from experts and informal feedback from teachers in the field (<https://openstaxcollege.org/>). To further increase the quality of their free and open textbooks, *OpenStax College* encourages users to report typos and errors that may be periodically sorted and posted as errata sheets and editorial updates.

Future Directions

Educators and developers are taking different paths in their efforts to promote OER. Headed in one direction are OER proponents such as the Hewlett Foundation who seek to drive down the costs of education by bringing OER into the educational mainstream. In general, these proponents seek to co-opt traditional publishing practices in an attempt to render OER more “familiar” and therefore “adoptable.” Headed in another direction are proponents who seek to revolutionize pedagogy by emphasizing the unique features of OER. This group tends to focus on open educational practices (OEP) that have the greatest potential to change the classroom ecology (Zourou 2016a).

In a 2013 white paper entitled “Breaking the Lockbox on Education,” the Hewlett Foundation outlined their strategy for mainstreaming OER in terms of three global

megatrends: an increased demand for education, an economic recession, and a surge of interest in educational technology.

In the USA, state and local governments have made deep cuts in education over the past few years as they have grappled with declining revenues that are the result of the worst recession since the Great Depression. While the trend may be reversing as the broader economy improves, overall school funding remains well below pre-recession levels. . . . While overall state spending has contracted, interest in innovation and private investment in education have nearly quadrupled in a decade, from \$62 million in 2005 to an estimated \$1.1 billion in 2012. This education technology investment has given rise to a number of new players that, like OER, are looking to retool classrooms.

The Hewlett white paper argues that the main problem facing OER is a critical lack of “off-the-shelf offerings that teachers can adopt as their primary resources.” In other words, the Hewlett white paper argues uneven and disorganized supply of high-quality content is the biggest obstacle to mainstreaming OER. As such, the report calls for developers to create future OER that rival commercial materials in integration, usability, and completeness. Along these lines, the Hewlett white paper cites Rice University’s *OpenStax College* as a model developer who has embraced the goal of mainstreaming OER. Supported by several nonprofit foundations, *OpenStax College* produces free, open textbooks for introductory college courses with large enrollments, e.g., Psychology, Sociology, Statistics, American History, etc. Run by professionals with years of experience in educational publishing, *OpenStax College* focuses on producing textbooks that meet industry standards for scope and sequence requirements. In addition, all *OpenStax College* textbooks are rigorously peer reviewed and accompanied by a suite of ancillaries such as online exercises and teacher’s editions. By producing open textbooks that rival commercial products in terms of their production values and standards-based content, *OpenStax College* hopes to overcome concerns about quality.

In contrast, some advocates reject the strategy of producing OER that resemble commercial products. Rather, these advocates hope to attract new adopters by demonstrating how OER support open educational practices (OEP) (Blyth and Dalola 2016; Kurek 2016; MacKinnon et al. 2016; Whyte 2016; Zourou 2016b). OEP refers to teaching practices that are made possible by open licenses. These teaching practices amount to the collaboration between content creators that invariably involves the reuse of resources created by other persons (often peers). As an example of OEP, Blyth (2012a) recounts the story of a French professor teaching in a Nigerian university who asked her students to modify *Français interactif*, an OER intended for American students learning French. To make the OER more suitable for Africans, the professor asked her students to replace American cultural referents found in the textbook with African equivalents. This practice not only led students to reflect more deeply about the relationship of language and culture but also resulted in an African version of the original. As advocates explore different ways to attract new users, OER, despite their inherent diversity, will likely become part of the educational mainstream within the next decade.

Cross-References

- ▶ [Language, Ideology, and Critical Digital Literacy](#)
- ▶ [The Digital Divide in Language and Literacy Education](#)

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