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Summary

Open Educational Resources (OER) are any type of educational materials in the public domain, or released with an open license that allow users to legally and freely use, copy, adapt, combine and share. OERs present a strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing and capacity building.

The theme of the 2nd World OER Congress "OER for Inclusive and Equitable Quality Education: from Commitment to Action", reflects the pivotal role OER can play toward achieving the 2030 Agenda for Sustainable Development, Sustainable Development Goal 4 on Quality Education.

The 2nd World OER Congress is organized by UNESCO and the Government of Slovenia, with the generous support of the Government of Slovenia, and the William and Flora Hewlett Foundation. The objectives of the 2nd World OER Congress are to:

- examine solutions to meeting the challenges of mainstreaming OER practices into education systems worldwide;
- showcase the world's best practices in OER policies, initiatives and experts; and,
- provide recommendation that are demonstrably best practices of the mainstreaming of OER.

The Congress will bring together Ministers of Education/Human Resource Development, senior policy makers, expert practitioners, researchers and other relevant stakeholders to examine solutions to mainstreaming OER in support of Sustainable Development Goal 4 ("Quality Education").

For more information

http://www.oercongress.org/
#OERcongress

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ICT in Education, Science and Culture Section
Knowledge Societies Division
Communication and Information (CI) Sector

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Introduction

Open Educational Resources (OER) are dramatically increasing in number, notably via the transfer of information through ICT, as part of a revolution in the generation and sharing of open-licensed knowledge and information. The participation of diverse expertise in previously specialized and closed disciplinary areas is extending the boundaries of scholarship, while dynamic knowledge creation and computing and networking tools are becoming more widespread and accepted. This opens up opportunities to create and share a wider array of educational resources, thereby accommodating a greater diversity of student needs. Increased online access to OER has further promoted individualized study, which, coupled with social networking and collaborative learning, has created opportunities for pedagogical innovation.

The growing demand for education and the ongoing rollout of ICT infrastructure have created unique challenges for education institutions. OER has the potential to play a pivotal and innovative role, in an era of often tight budgetary resources.

The term Open Educational Resources (OER) was coined at UNESCO's 2002 Forum on Open Courseware and designates any type of educational materials in the public domain or released with an open license that allow users to legally and freely use, copy, adapt and re-share educational content. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work.

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A decade of international collaboration focusing on advocacy and capacity building has helped to advance the level of understanding and use of OER by educational decision makers worldwide. Such initiatives included follow up to the draft resolution for the further promotion of OER presented at the 35th UNESCO General Conference (2009), which was inspired by the Communiqué of the UNESCO 2009 World Conference on Higher Education citing OER, as well as the Commonwealth of Learning (COL)-UNESCO initiative "Taking OER beyond the OER Community: Policy and Capacity" (2010 to 2011), as well as the launch of the UNESCO / COL Guidelines for OER in Higher Education launched at the 36th General Conference in 2011.

In 2012, UNESCO in partnership with COL organized the first World OER Congress (UNESCO Headquarters, Paris, 20-22June 2012), which produced the Paris OER Declaration (Appendix A). The Paris OER Declaration provides a series of recommendations to educational stakeholders on capacity building, research and policy issues. It notably encourages governments to open license educational materials that are financed through public funds. UNESCO, in collaboration with partners including the Commonwealth of Learning (COL), the *Organisation Internationale de la Francophonie* (OIF), the Arab League Educational, Cultural and Scientific Organization (ALECSO), Creative Commons and others, has been working on implementing the Paris OER Declaration (Appendix A), adopted at the 2012 World OER

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Congress. The 2012 Paris OER Declaration notably encourages governments to openly license educational materials that are publicly funded.

UNESCO has implemented the 2012 Paris OER Declaration as part of its 4-year budget and programme 2013 – 2017, and with the generous support of the William and Flora Hewlett Foundation and the European Commission. Namely, UNESCO has implemented activities related to: advocacy, policy development and the use of OER in teacher training with a link to the ICT Competency Framework for Teachers (ICT CFT).

Objectives of the 2nd World OER Congress

The 2nd World OER Congress is organized by UNESCO and the Government of Slovenia in Ljubljana on 18 to 20 September 2017, with the generous support of the Government of Slovenia and the William and Flora Hewlett Foundation. The theme of the 2nd World OER Congress – OER for Inclusive and Equitable Quality Education: from Commitment to Action – reflects the role that OER must play in achieving the 2030 Agenda for Sustainable Development, universally adopted by all Member States of the United Nations, in particular its Sustainable Development Goal 4 on Quality Education.

As a lead up to the 2nd World OER Congress, UNESCO – working with the Commonwealth of Learning (COL) – invited governments to provide information about their policies in relation to OER. Questionnaires were developed by UNESCO, COL and the Ministry of Education, Science and Sport of the Republic of Slovenia, and were sent out to all UNESCO Member States.

The objectives of the 2nd World OER Congress are to:

- examine solutions to meeting the challenges of mainstreaming OER practices into education systems worldwide;
- showcase the world's best practices in OER policies, initiatives and experts; and,
- provide recommendation that are demonstrably best practices of the mainstreaming of OER.

The Congress will bring together Ministers of Education/Human Resource Development, senior policy makers, expert practitioners, researchers and other relevant stakeholders to examine solutions to mainstreaming OER in support of Sustainable Development Goal 4 ("Quality Education").

In preparation for the 2nd World OER Congress, six Regional Consultations and a survey on OER have been organized by the Commonwealth of Learning (COL) in close cooperation with UNESCO and the Government of Slovenia, and the generous support of the William and Flora

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Hewlett Foundation. These Regional Consultations were organized thanks to the support of the national authorities in the six host countries, and were held in:

- Kuala Lumpur, Malaysia (Asia Regional Consultation, 1-2 December 2016);
- Valletta, Malta (Europe Regional Consultation, 23–24 February 2017);
- Doha, Qatar (MENA Regional Consultation, 27-28 February 2017);
- Port Louis, Mauritius (Africa Regional Consultation, 2-3 March 2017);
- Sao Paulo, Brazil (Americas Regional Consultation, 3–4 April 2017); and
- Auckland, New Zealand (Pacific Regional Consultation, 29–30 May 2017).

The Regional Consultations and the survey have built awareness on the objectives of the 2nd World OER Congress and identified the status of national and regional implementation of the Paris OER Declaration.

The Transformative Potential of OER

OER offers the potential to provide broader and more equal access to knowledge and educational opportunities by making quality and affordable educational resources widely available, at a time when education systems worldwide are facing growing challenges. Rapid growth in education enrollment despite limited or no growth in financial resources available for education, and the ongoing rollout of enabling ICT infrastructure have made it increasingly important for educational systems to support - in a planned and deliberate manner - the development and improvement of quality teaching and learning materials, curricula, programmes and course design, as well as the planning of effective contact with students, the design of effective assessment, and the meeting of needs for a greater diversity of learners. These activities aim to improve the teaching and learning environment while managing costs through increased use of OER-based learning. OER helps to manage this investment and the resulting copyright issues in a way that can support continuous, cost-effective improvements in the teaching and learning process.

The high number of responses to the OER surveys and the outcomes of the Regional Consultations have underscored an overwhelming interest in OER by UNESCO Member States. In particular the lead up discussions have highlighted a wealth of national, regional and inter-regional collaboration and innovation in the area of OER.

The 2nd World OER Congress will focus on building on these findings, and to explore the innovative strategies, partnerships and mechanisms for supporting the mainstreaming of OER in educational practices worldwide in support of SDG 4.

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Challenges to mainstreaming OER practices

It has been observed that awareness of OER has spread faster than its implementation. Obstacles remain that hinder the mainstreaming of OER by the global educational community. The Paris OER Declaration 2012 highlighted these obstacles as areas that require further cooperation to address. While advances have been made in each of these five areas, increased efforts by the international community are still necessary. These obstacles are: 1) the capacity of users to access, re-use and share OER; 2) issues related to language and culture; 3) ensuring inclusive and equitable access to quality OER; 4) changing business models; 5) the development of supportive policy environments.

1) Capacity of users to access, re-use and share OER
[Relevant points of the Paris OER Declaration 2012: a, d, e, f, i]

Capacity building for all education stakeholders
Harnessing OER requires leaders who are flexible, open to new ideas, and empowered to make decisions. Thus there is a need to build capacity to ensure that leveraging OER is both a top-down and bottom-up process. This includes capacity building of educational stakeholders (policy makers, educators, students) to support capacity building to share materials created under an open license, as well as the need to facilitate the finding, retrieving and sharing of OER through the development of user-friendly tools to locate and retrieve OER that are specific and relevant to particular needs.

Skills development for OER use, re-use and sharing
Building capacity requires relevant ongoing professional development activities available to educators to enable the acquisition of the skills and competencies to apply OER. For example, there is a need for digital and media literacy skills to find, share, create, and re-mix OER effectively. Since available OER may not always match methods or subject matter taught locally, there is also a need to train staff to source and adapt OER. Further skills include the ability to "see value" in someone else's open-licensed work that could be used in a new context; technical skills to effect changes to OER; translation skills, and the ability to distribute and share the new version of OER to students and other members of the open education community.

There is also a need for capacity building on intellectual property rights issues, through developing a clear understanding of open licensing, their implications, and understanding how these work in practice. Assessment mechanisms that recognize the time, effort and skills required to develop and adapt OER by educational staff need to be mainstreamed.

OER storage and retrieval systems should be simplified and popularized to reinforce the necessary tools and information needed to develop OER (UNESCO, 2016). Currently the

available tools to share resources are limited and there are few options available, with current platforms often being difficult to use.

2) Language and Culture

[Relevant points of the Paris OER Declaration 2012: g]

This issue is related to the need to promote multilingualism in cyberspace. The Internet, which is the main medium through which OER are shared, provides opportunities to improve the free flow of ideas by word and image. It also presents challenges to ensuring the participation of all, with the majority of online content in English. Producing OER in local languages adapted for certain cultural contexts allows for increased diversity and relevance of the content.

There is a need to address cultural issues around attitudes toward sharing. It is important to provide incentives to encourage or, where appropriate, ensure the use of OER in education institutions. As part of capacity building efforts, there is value in creating and sustaining effective communities of practice to foster sharing of information and collaboration. Such collaboration has the additional potential side benefits of improving quality (through reviewing and vetting others' materials), increasing access and reducing costs through sharing.

3) Ensuring inclusive and equitable access to quality OER

This relates to two concepts: accessibility of OER for persons with disabilities; and, supporting the use of OER in all ICT environments.

- Accessibility for persons with disabilities: While OER provides for an open license to use and share, it may still not be inherently accessible to all. Approximately 15 per cent of the global population, representing some 1 billion people in the world, have a disability[1]. This figure is accelerating in line with population increase, poverty, ongoing conflict, rising natural disaster risks and ageing populations. With such a large number of people living with a disability, it is vital that access to educational opportunities is made widely available and accessibility issues are mainstreamed into OER, whether this may be for creating, sharing, adapting and/or re-mixing content. *[Relevant points of the Paris OER Declaration 2012: a, b, c, d, e]*
- Connectivity: Despite the great potential of OER, there are challenges in accessing OER, particularly in developing countries related to access to the Internet. Being able to access OER requires adequate ICT infrastructure, including assuring reliable

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[1] World Health Organization. 2013. Disability and health, Fact Sheet no. 352 available at: www.who.int/mediacentre/factsheets/fs352/en/

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connectivity to the Internet for a greater number of educational institutions. Furthermore, the high cost of bandwidth, coupled with students' poor socio-economic situations in some contexts, means that many students are unable to access OER available through ICTs and the Internet. In addition with the increased use of mobile technologies and networks to access the Internet in all parts of the world, particularly in developing countries, it is important that OER is mobile-friendly both to share, create, and/ or re-mix, and also readily downloadable so that it can be shared on networks 'off line' if necessary. *[Relevant Paris OER Declaration 2012: a, b, c, d, e, f, l]*

- Quality Concerns: A common debate around OER focuses on the quality of OER. Proponents point out that the transparency provided by OER (where resources produced by staff are openly shared) usually places social pressure on institutions and teaching staff to increase quality. For instance, institution-based providers implicitly rely upon the brand or reputation of an institution to persuade users that available materials on a website will be of high quality. If they are not, then the prestige of the institution will be put at risk. Another effective approach is to use peer review, one of the most commonly used quality assurance processes in academia. As more institutions around the world are, at different levels, requiring their educators to share more materials under open licenses, experiences demonstrate that this opening of intellectual property to peer scrutiny is having the effect of improving quality of teaching and learning materials. This happens both because educators tend to invest time in improving their materials prior to sharing them openly, and because the feedback they receive from peer and student scrutiny helps them to make further improvements.

  In the development of materials for K-12 education, and for teacher training, ensuring quality assurance mechanisms of content for non-OER materials is applied also for OER where possible has proven useful and should be further explored.
  [Relevant points of the Paris OER Declaration 2012: a, b, d, e, i]

4) Changing business models

[Relevant points of the Paris OER Declaration 2012: j]

Globally, the traditional business model for commercial publishing has come under economic pressure to evolve as a consequence of technological development and the digitization of content. The changes experienced by the publishing industry are affecting its market paradigms and business models. Basic principles, such as economies of scale, which used to be a mantra for this sector, have become less significant. Digital books are usually sold at a lower price compared to physical books, and, as free public domain books increasingly becoming available, this availability may further threaten the traditional business model of the publishing industry (Rodrigues, Chimenti, Nogueira, Hupsel, & Repsold, 2014).

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The increasing demand for access to quality education, combined with rising education enrolments, signals the need for more educational resources, particularly affordable textbooks. However, textbook prices are soaring in many countries along with rising tuition, resulting in the overall cost of education to increase significantly.   As textbook costs rise, there has been a simultaneous movement toward digital textbooks, facilitated by the increasing availability of ICT. The potential of affordable electronic textbooks, combined with the potential of OER, is regarded as an option to mitigate the rising cost of textbooks, with several organizations and institutions making electronic textbooks available for free.

Such developments are forcing publishing industry actors to reassess their business models and redefine their products and services, in order to align them with changing conditions, needs, and requirements. A growing number of governments and institutions – from national to regional to local levels – require that all educational resources funded by taxpayers or public resources must be licensed as OER. At the same time, educational and academic publishers in these countries are undergoing a period of evolution and reflection regarding the future dynamic between traditional copyrighted publishers and publicly funded OER.

There is a need to identify innovative solutions to develop new business models, so that the interests of the OER community and educational publishers are addressed. Several possibilities include: publishers providing customized education services; publishers concentrating on new subjects where OER do not yet exist; developing joint products (for example producing conventional textbooks while releasing other products such as educational games with an open license); publishers assembling OER or developing new OER through public tenders; and developing hybrid models which allows for both OER and traditional copyrighted publications to co-exist, each meeting different audience needs (UNESCO, 2016).

5) Development of supportive policy environments
[Relevant points of the Paris OER Declaration 2012: c]

The Paris OER Declaration 2012 states that publicly funded educational resources should be made available under an open license to the public. This creates a need to foster the creation, adoption, and implementation of policies that will be supportive of effective OER practices. Governmental and institutional policy makers play a crucial role in setting policies that help to shape the direction of education systems. These policies can accelerate or impede the adoption and creation of OER. A number of countries have adopted OER policies[2], and the existence of country policies supportive of OER can be used as a gauge to determine levels of commitment to OER. The lack of such frameworks can limit and delay the process of adoption or may even discourage institutions from pursuing OER undertakings. Furthermore, commercial interests, lack of awareness, and absence of strong leadership may limit the development and

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[2] https://wiki.creativecommons.org/wiki/OER_Policy_Registry

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implementation of supportive OER policies. Once governments and institutions have decided to adopt an open license policy, it is also important to provide implementation guides and professional development for how to implement the open policy.

Conclusion

OER provides an opportunity to improve learning outcomes, reduce costs, and improve the quality of teaching by facilitating effective sharing, necessary to support achievement of SDG 4. The effective use of OER by education systems at both national and institutional levels is helping to ensure that new opportunities presented by the grassroots OER movement will be effectively harnessed. When embedded at the core of educational systems, OER use offers an innovative and cost-effective means to achieve the targets of SDG 4, toward ensuring inclusive and equitable quality education through the key pillars of access, equity and inclusion. The 2nd World OER Congress will seek to address strategies and solutions to the challenges of mainstreaming OER, in order that OER may reach its transformative potential while supporting the commitments made by all Member States to achieve SDG 4.

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Appendix A

2012 WORLD OPEN EDUCATIONAL RESOURCES (OER) CONGRESS
UNESCO, PARIS, JUNE 20-22, 2012
2012 PARIS OER DECLARATION

Preamble

The World OER Congress held at UNESCO, Paris on 20-22 June 2012,

Mindful of relevant international statements including:

The Universal Declaration of Human Rights (Article 26.1), which states that: "Everyone has the right to education";

The International Covenant on Economic, Social and Cultural Rights (Article 13.1), which recognizes "the right of everyone to education";

The 1971 Berne Convention for the Protection of Literary and Artistic Works and the 1996 WIPO Copyright Treaty;

The Millennium Declaration and the 2000 Dakar Framework for Action, which made global commitments to provide quality basic education for all children, youth and adults;

The 2003 World Summit on the Information Society, Declaration of Principles, committing "to build a people-centered, inclusive and development-oriented Information Society where everyone can create, access, utilize and share information and knowledge";

The 2003 UNESCO Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace;

The 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expression, which states that: "Equitable access to a rich and diversified range of cultural expressions from all over the world and access of cultures to the means of expressions and dissemination constitute important elements for enhancing cultural diversity and encouraging mutual understanding";

The 2006 Convention on the Rights of People with Disabilities (Article 24), which recognizes the rights of persons with disabilities to education;

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The declarations of the six International Conference on Adult Education (CONFINTEA) Conferences emphasizing the fundamental role of Adult Learning and Education.

Emphasizing that the term Open Educational Resources (OER) was coined at UNESCO's 2002 Forum on Open Courseware and designates "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. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work";

Recalling existing Declarations and Guidelines on Open Educational Resources such as the 2007 Cape Town Open Education Declaration, the 2009 Dakar Declaration on Open Educational Resources and the 2011 Commonwealth of Learning and UNESCO Guidelines on Open Educational Resources in Higher Education;

Noting that Open Educational Resources (OER) promote the aims of the international statements quoted above;

Recommends that States, within their capacities and authority:

a. ***Foster awareness and use of OER***. Promote and use OER to widen access to education at all levels, both formal and non-formal, in a perspective of lifelong learning, thus contributing to social inclusion, gender equity and special needs education. Improve both cost-efficiency and quality of teaching and learning outcomes through greater use of OER.

b. ***Facilitate enabling environments for use of Information and Communications Technologies (ICT).*** Bridge the digital divide by developing adequate infrastructure, in particular, affordable broadband connectivity, widespread mobile technology and reliable electrical power supply. Improve media and information literacy and encourage the development and use of OER in open standard digital formats.

c. ***Reinforce the development of strategies and policies on OER***. Promote the development of specific policies for the production and use of OER within wider strategies for advancing education.

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d. ***Promote the understanding and use of open licensing frameworks.*** Facilitate the re-use, revision, remixing and redistribution of educational materials across the world through open licensing, which refers to a range of frameworks that allow different kinds of uses, while respecting the rights of any copyright holder.

e. ***Support capacity building for the sustainable development of quality learning materials.*** Support institutions, train and motivate teachers and other personnel to produce and share high-quality, accessible educational resources, taking into account local needs and the full diversity of learners. Promote quality assurance and peer review of OER. Encourage the development of mechanisms for the assessment and certification of learning outcomes achieved through OER.

f. ***Foster strategic alliances for OER.*** Take advantage of evolving technology to create opportunities for sharing materials which have been released under an open license in diverse media and ensure sustainability through new strategic partnerships within and among the education, industry, library, media and telecommunications sectors.

g. ***Encourage the development and adaptation of OER in a variety of languages and cultural contexts.*** Favour the production and use of OER in local languages and diverse cultural contexts to ensure their relevance and accessibility. Intergovernmental organizations should encourage the sharing of OER across languages and cultures, respecting indigenous knowledge and rights.

h. ***Encourage research on OER.*** Foster research on the development, use, evaluation and re-contextualization of OER as well as on the opportunities and challenges they present, and their impact on the quality and cost-efficiency of teaching and learning in order to strengthen the evidence base for public investment in OER.

i. ***Facilitate finding, retrieving and sharing of OER.*** Encourage the development of user-friendly tools to locate and retrieve OER that are specific and relevant to particular needs. Adopt appropriate open standards to ensure interoperability and to facilitate the use of OER in diverse media.

j. ***Encourage the open licensing of educational materials produced with public funds.*** Governments/competent authorities can create substantial benefits for their citizens by ensuring that educational materials developed with public funds be made available under open licenses (with any restrictions they deem necessary) in order to maximize the impact of the investment.