

# OER and OEP for Access, Equity, Equality, Quality, Inclusiveness, and Empowering Lifelong Learning

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## ABSTRACT

Open educational resources (OERs) are catalysts of lifelong learning (LLL) and continuous professional development (CPD). OERs are used in microlearning and nanolearning by lifelong learners, including those in the workplace. OERs have the potential to expand the access to lifelong learning opportunities, achieve quality in education, and establish legal and political frameworks that promote, social justice, collaboration and coordinated partnerships. The mandate, visions, missions, global work, and activities of the International Council for Open and Distance Education (ICDE) and its Open Educational Resources (OERs) Advocacy Committee (OERAC) were presented at a symposium during the ICDE Lillehammer Lifelong Learning Summit 2019. The work of the ICDE and the OERAC is aligned with the United Nations

UNESCO Recommendations (2019). Some of their activities involve collaborative projects and visions that were proposed at the Open Education Leadership Summit 2018 (OELS18). In particular, the ICDE and OERAC will respond to proposals regarding policy. Their responses will identify opportunities for developing some proposed projects and activities and for establishing links with existing and emerging projects and trends around the world. Another activity involves developing guidelines for advocacy and best or better practices for OER advocacy in various settings and levels (e.g., macro, meso, micro, and nano levels).

*Keywords:* continuing professional development (CPD), human resources (HR), International Council for Open and Distance Education (ICDE), leadership, open educational resources (OERs), lifelong learning

**OER 和 OEP：获取、公平、平等、质量、包容性和终身学习能力**  
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### 摘要：

开放教育资源(OERs)有助于促进终身学习(LLL)和持续专业发展(CPD)。终身学习者(包括职场学习者)运用 OERs 进行微型学习(microlearning)和纳米学习(nanolearning)。OERs 拥有巨大潜能,能扩大终身学习机会,提高教育质量,并建立促进社会公正、合作和协调伙伴关系的法律和政治框架。国际开放和远程教育理事会(ICDE)及其开放教育资源倡导委员会(OERAC)就其任务、愿景、使命、全球工作和活动,在2019年ICDE利勒哈默尔终身学习峰会期间举行的一次会议上作了介绍。ICDE和OERAC的工作响应了“联合国教科文组织建(2019年)。其中一些活动涉及在2018年开放式教育峰会(OELS18)上提出的合作目标和愿景。ICDE和OERAC将会特别对有关政策的建议作出回应,从而为制定一些项目 and 活动以及对接世界各地新兴项目和发掘机会。另一项活动涉及在不同场景和不同层面(例如宏观、中观、微观和纳米层面)制定 OER 宣传指南和改善或完善宣传做法。

关□□：持□□□□展(CPD)，人力□源(HR)，国□开放和□程教育理事会(ICDE)，  
□□力，开放教育□源(OERs)，□身学□

## **REA y MEA para acceso, equidad, igualdad, calidad, inclusión y potenciación de la educación permanente**

Por Ebba Ossiannilsson, presidenta del Comité de Defensa de los Recursos Educativos Abiertos (OER) del Consejo Internacional para la Educación a Distancia (ICDE) y Embajadora del ICDE para la incidencia mundial de los REA, Noruega

### **RESUMEN**

Los recursos educativos abiertos (REA) son catalizadores de la educación permanente y de la formación profesional continua. Los REA se utilizan en micro aprendizaje y aprendizaje por aprendices de por vida, incluidos aquellos en el lugar de trabajo. Los REA tienen el potencial de ampliar el acceso a oportunidades de aprendizaje a lo largo de toda la vida, lograr calidad en la educación y establecer marcos legales y políticos que promuevan la justicia social, la colaboración y las asociaciones coordinadas. El mandato, las visiones, las misiones, el trabajo global y las actividades del Consejo Internacional para la Educación Abierta y a Distancia (ICDE) y su Comité de Promoción de los Recursos Educativos Abiertos (OER) se presentaron en un simposio durante la ICDE Lillehammer Lifelong Learning Summit 2019. El trabajo del ICDE y el OERAC están alineados con las Recomendaciones de las Naciones Unidas de la UNESCO (2019). Algunas de sus actividades incluyen proyectos de colaboración y visiones que se propusieron en la Cumbre de Liderazgo de Educación Abierta 2018 (OELS18). En particular, el ICDE y OERAC responderán a las propuestas relativas a la política. Sus respuestas identificarán oportunidades para desarrollar algunos proyectos y actividades propuestos y para establecer vínculos con proyectos y tendencias existentes y emergentes en todo el mundo. Otra actividad consiste en desarrollar pautas para la promoción y para las mejores prácticas para la promoción de REA en diversos entornos y niveles (por ejemplo, niveles macro, meso, micro y nano).

**Palabras Clave:** Formación Profesional Continua, Recursos Humanos (RR. HH.), International Council for Open and Distance Education (ICDE), liderazgo, recursos educativos abiertos (REA), educación permanente

### **INTRODUCTION**

It is well-recognized that open educational resources (OERs) are catalysts for lifelong learning (LLL), continuous professional development (CPD), and promote social justice. OERs have the potential to expand the access to lifelong learning opportunities,

achieve quality in education, and establish legal and political frameworks that promote, inter alia, coordinated partnerships. OERs are frequently used in microlearning in the workplace and in vocational training. OERs can make significant contributions to the United Nations, the United Nations Education Scientific and Cultural Organization (UNESCO) and its sustainability goals (SDG), especially SDG 4 in education, based on its key pillars of access, equity, equality, quality, and inclusion.

It is also well recognized in the research literature that the implementation of OERs and open education at local, regional, and national level has been too slow despite the international initiatives undertaken from the first OER in 2002 to the OER recommendation consultation in 2018. Worldwide research and experience have indicated that the uptake of OERs depends on policies and strategies. Hence, it is a question of leadership and management at all levels within institutions—not only senior leaders but also middle managers and leaders.

This article has its focus on the work and advocacy on OER from the International Council for Open and Distance Education (ICDE) OER Advocacy Committee (OERAC). Its guidelines (ICDE, 2017) include the following statement by the International Council for Open and Distance Education (ICDE): “when invited and if possible, OERAC Ambassadors should be prepared to play a role at e.g. ICDE World Conferences, Leadership Summits, Regional Conferences, Expert Seminars or other events relevant for the purpose.” Accordingly, the ICDE OER Advocacy Committee hosted and participated in a symposium on the mandate and global work of OERs at the ICDE Lifelong Learning Summit 2019 (LLS2019) in Lillehammer, Norway, on OER and OEP, focusing on access, equality, inclusiveness, and empowerment for lifelong and lifewide learning. In addition, the focus will include leadership in lifelong learning in the digital era. The symposium was held on 12 February 2019. This article is based on the presentation at that symposium where mandates, visions, missions, activities, and a current roadmap of the OERAC were presented and discussed. In addition, the mandates and work of the ICDE OER chairpersons were presented.

During the symposium, the worldwide knowledge and experiences of OERAC were shared in a dialog with the participants. Concrete steps and actions in the latest initiatives and recommendations on OERs were highlighted and discussed. The presentation by each panelist was followed by questions from the audience and the chairperson. During the symposium, there was an interactive dialog with the audience although the initial speeches were given by the presenters. The following final questions were raised by the presenters:

- Can OER and OEP contribute to the achievement of the SDG4 in access, equity, equality, quality, inclusiveness, and empowering lifelong learning?

- If so, how?
- What actions should be taken?

The present article is a position paper rather than a research paper, as it presents the content and discussions of the ICDE OER Advocacy Committee's symposium during the ICDE Lifelong Learning Summit (LLLS19).

The next section describes the ICDE OER Advocacy Committee, followed by a section on global megatrends and challenges, which are related to the global work and mandate of the OERAC. The UNESCO sustainability goals are then described before open education and a framework for open education are presented. The next section includes the Cape Town open education declaration's 10th anniversary and ten directions to move open education forward (CPT+10). The following section presents OERs and the concept of the creative commons before highlighting the global consultation regarding the UNESCO OER recommendations, 2018. Finally, the concluding section includes recommendations for further activities.

## THE OER ADVOCACY COMMITTEE

The OER Advocacy Committee (OERAC)<sup>1</sup> was launched at the 27<sup>th</sup> ICDE World Conference in Toronto in October 2017. The aim was the global advocacy of OER and the reinforcement and support for the ICDE chairpersons of OERs, who work to increase the global recognition of OER and to provide policy support for the uptake, use, and reuse of OERs.

OER Advocates support UNESCO OER's recommendations and goals. OERAC was granted a two-year mandate until the end of 2019. The committee includes global representatives of higher education from Australia, Barbados, China, France, India, Ireland, Sweden, Turkey, and the US. All members of the ICDE Advocacy Committee are appointed as ambassadors for the global advocacy of OER. The author of the present paper was appointed chair of the committee. The signum and the logotype of the ICDE OERAC are shown in Figure 1.



<sup>1</sup> [www.icde.org/icde-oer-advocacy-committee](http://www.icde.org/icde-oer-advocacy-committee)

### Figure 1. ICDE OERAC signum and logotype

According to the ICDE guidelines, the mandate of the OERAC is as follows:

- The advocacy is for OER.
- Applications for a membership in the ICDE OER Advocacy Committee can be made by an expert ICDE member who has the record and capacity to contribute significantly to the advocacy of OER.
- Members are appointed ICDE OER ambassadors by the ICDE Executive Committee.
- When appropriate, members of the committee should seek collaboration with OER Chairs and relevant stakeholders to achieve synergy in OER advocacy.
- The ICDE OER ambassador is not a funded position, but it provides an extra profile to the holder by expressing ICDE's interest in his/her voice for OER and underlining his/her reputation.
- ICDE OER ambassadors are bound to establish a network among themselves in which they and their teams collaborate and to which experts in the subject area from other institutions may be admitted.
- ICDE OER ambassadors, both individually and jointly, are expected to plan OER advocacy actions.
- When invited and if possible, ambassadors should be prepared to play a role at events such as ICDE world conferences, leadership summits, regional conferences, expert seminars, and other relevant events.
- ICDE OER ambassadors, both individually and jointly, are expected to plan OER advocacy actions.
- The Chair of the ICDE OAC suggests activities in collaboration with the ICDE Secretariat. The ICDE OER ambassadors are independent, and they will inform ICDE of their activities through a brief annual report.

*Figure 2* shows the OERAC webpage, and *Figure 3* shows its LinkedIn page.

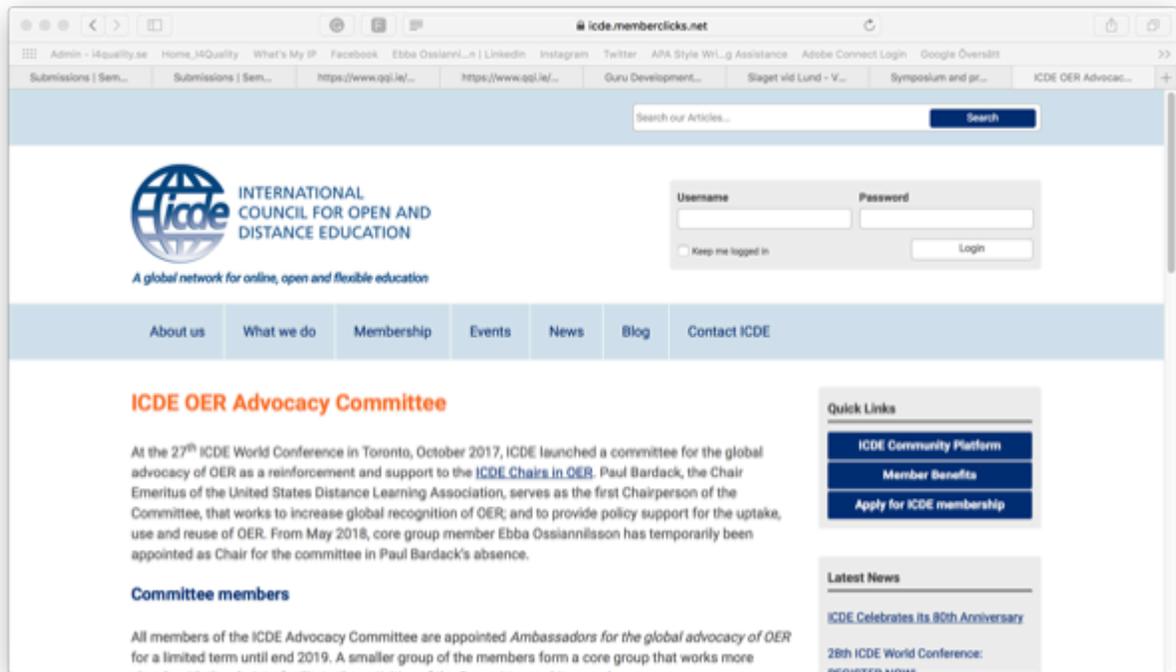


Figure 2. ICDE OERAC webpage

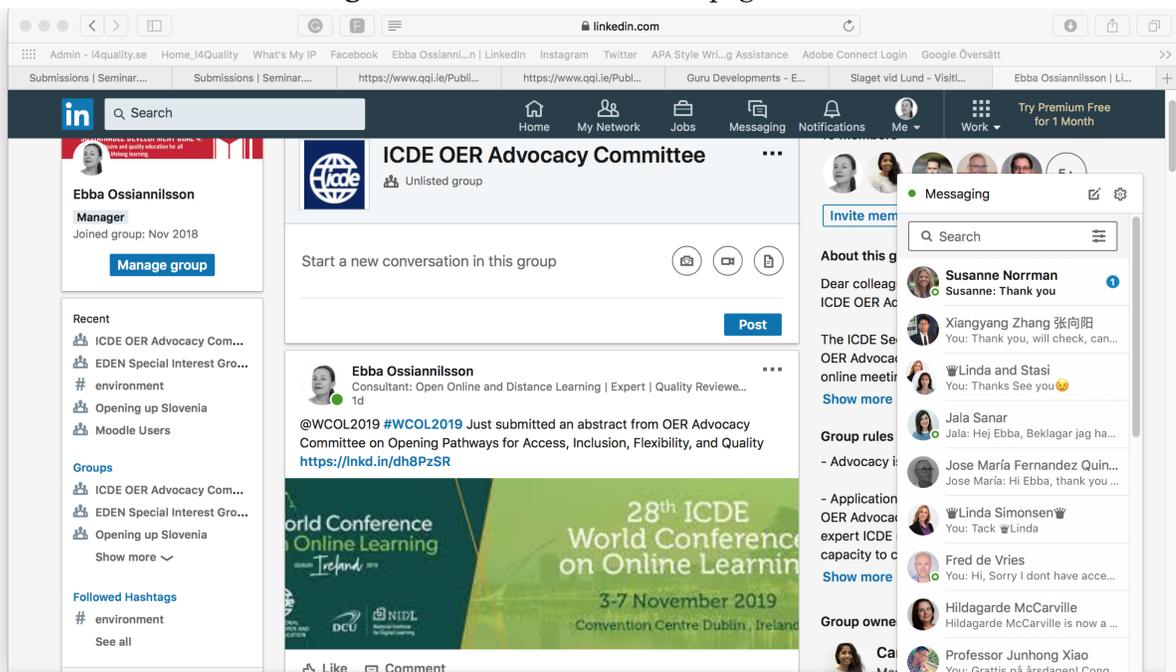


Figure 3. ICDE OERAC LinkedIn page

The work of the ICDE OERAC is aligned with the UNESCO Recommendations (2018). The OERAC will also respond to the global UNESCO consultation on the OER recommendations in 2018 (UNESCO, 2018), to be published in 2019.

Furthermore, some activities are underway in the collaborative projects and visions proposed at the Open Education Leadership Summit in 2018 (OELS18, December 2018). In particular, the ICDE OERAC is responding to the OELS18 proposals regarding policy. These responses will identify opportunities for developing some of the proposed projects and activities and for establishing links with existing or emerging projects and trends around the world. The ICDE therefore will be positioned to support and expand some of the projects and visions proposed at OELS18. Another activity is the development of guidelines for advocacy and the best or better practices in OER advocacy in various settings and levels (e.g., macro, meso, micro, and nano levels).

A main purpose of the contribution to the ICDE Lillehammer Summit on Lifelong Learning 2019 was the dissemination of knowledge about the OER Advocacy Committee to the OER community. Hence, ICDE blogposts were published before the conference on 5 February 2019 (Ossiannilsson, 2019a) and on 27 February 2019 (Ossiannilsson, 2019b). The presentation by ICDE LLLS 2019 was shared on social media: LinkedIn, Facebook, Twitter, Google+, and the author's blog (Ossiannilsson, 2019c).

The OER Advocacy Committee is currently mapping best practices for the implementation of policies regarding OER advocacy around the world. Some examples of the work done so far by the OERAC are the following: 1) developed and implemented a roadmap and action plan for short-term, mid-term, and long-term actions; 2) a white paper on the guidelines on micro, meso and macro levels will be presented at the ICDE World Conference in Dublin in November 2019. Blogposts, where the OERAC's contributions to conferences have been published. The OERAC's activities include participation in international conferences, such as the OECL2018, OEB2018, ICDE Lillehammer 2019, OEW2019, and ICDE World Conference Dublin 2019. Regarding the latter, a paper titled, "Opening Pathways for Access, Inclusion, Flexibility, and Quality" has been submitted (Ossiannilsson et al., submitted). These pathways range from the departmental and unit levels to the regional, national, and even global levels. In this proposed session, the authors will share examples of how the concept of open, the use of OER, as well as the policies and strategies involving OER are represented and advocated in a variety of educational contexts around the globe.

The session will elaborate the concept of "open" and its many definitions, explore its initiation from the ground up. In addition, the paper will consider ways to implement this change as well as the governance and policies required to ensure a robust open organization. Finally, advocacy for a regional OER project will be shared, and examples of regional projects that resulted from successful advocacy will be provided. To date, there

has been no organized effort to document and disseminate the best practices in OER advocacy or its implementation at different levels in various organizations.

Before the main issue in OER is discussed, the following section will outline some global megatrends and challenges, the United Nations and UNESCO Sustainability Goals (SDG), and the challenges of open education for universities in modernizing higher education.

## GLOBAL MEGATRENDS AND CHALLENGES

The Visionary Innovation Research Group (Frost & Sullivan, n.d.) has presented visionary thinking on the most important trends and topics that influence the world both today and in the future. Based on extensive research and rigorous analysis, the team discusses thought-provoking facts and scenarios in the next decade, which societies and companies must consider. Their viewpoints are substantiated by market value estimates, opportunity analyses, and case studies on groundbreaking ideas and breakthrough concepts that have led to redefining practices in businesses today. They foresee megatrends (Figure 4) that will have direct effects on education, such as the future of mobility, connectivity, convergence, business models, and social trends as well as economic trends, as the global economy is changing radically and the focus is shifting to the eastern part of the globe. Here, rapid transformation and development are ongoing.

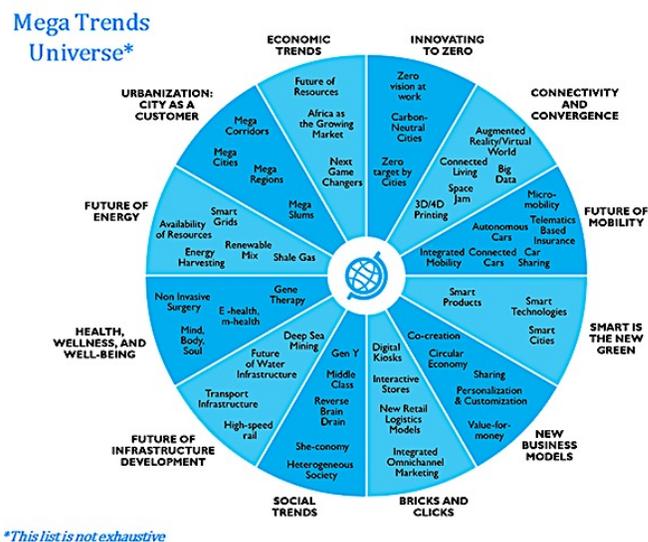
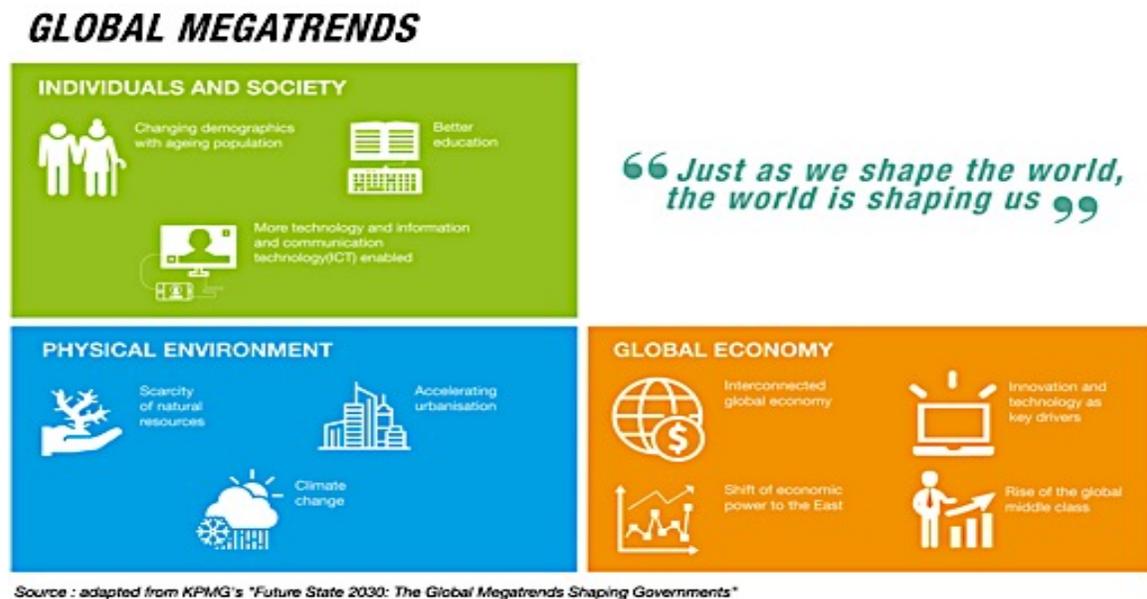


Figure 4. The mega trends universe

In addition, global megatrends are spreading throughout the world. According to KPMG’s Future State 2030 (KPMG, n.d.), these global megatrends will continue to shape governments (Figure 5). They pointed out that as we shape the world, the world is shaping us. They emphasized that global megatrends are related to individuals and society, the physical environment, and the global economy. Notably, people are the focus as well as the ways in which individuals and societies respond or do not respond to global challenges.

## Zooming Out to the World



**Figure 5.** Zooming out to the world

Schwab and Davis (2018), Schwab (2016), and the World Economic Forum (2019) during the Davos conference in 2019 also pointed in the direction of the fourth industrial revolution. Schwab and Davis (2018) argued that the fourth industrial revolution is changing everything from the way we relate to each other, the work we do, the way our economies work, and what it means to be human. We cannot let the brave new world that technology is currently creating simply emerge. We all need to help shape the future in which we want to live. However, Schwab and Davis questions what we need to know and how to achieve it. These authors pointed out that the fourth industrial revolution is not as much about technology and digitization as it is about a social revolution. They argued that it will transform the way we live, work, earn, communicate, collaborate, and

relate to each other. Furthermore, this transformation is toward social justice, and the emotional, emphatic, identity, “just for me,” just in time, and personal concerns and considerations.

## UNESCO SUSTAINABILITY DEVELOPMENT GOALS

Among the 17 United Nations and UNESCO Sustainable Development Goals (SDG), the SDG 4 is especially dedicated to education. When the SDG was launched, it was decided that education plays a large role in all the other SDGs. SDG 4 has 10 targets, each of which encompasses many different aspects of education. Seven targets are the expected outcomes (4.1-4-7), and three targets are the means of achieving these targets (4a-4c).

- 4.1 Universal primary and secondary education
- 4.2 Early childhood development and universal pre-primary education
- 4.3 Equal access to technical, vocational, and higher education
- 4.4 Relevant skills for decent work
- 4.5 Gender equality and inclusion
- 4.6 Universal youth literacy
- 4.7 Education for sustainable development and global citizenship

In addition, three means of implementation are specified:

- 4.a Effective learning environments
- 4.b Scholarships
- 4.c Teachers and educators

Across the globe, open education continues to move into the mainstream. UNESCO emphasizes the role of opening up education to reach several of its sustainable development goals. SDG4 specifically highlights access, equity, equality, inclusiveness, quality, lifelong learning, and mainstreaming the many elements of open education (Figure 6). The SDG 4 emphasizes that the inclusive use of OER will support increased access along the lifelong learning continuum.



Figure 6. SDG4 and its key objectives

## GLOBAL TRENDS AND CHALLENGES IN EDUCATION

The four main global challenges and trends are globalization, changing demography, increased digitalization, and technological development, as described above. Hence, there are tremendous challenges for education, as it also needs to be redefined. The role of education is and has always been to educate people to enable them to solve problems both now and in the future. In the current context, the role of education is to educate people to solve social and global problems that we do not yet know about using methods that are not yet invented. Therefore, we cannot use yesterday's methods to educate today's students for an unknown future that is unpredictable.

The big questions for education, which are usually the focus of international conferences in the areas of education, lifelong learning, and open online learning are the following:

- What is the future of online education?
- How can online education contribute to better futures?
- What is required to harness the potential of online education?
- What are the implications of online learning for educational leaders?
- How should governments and policy-makers respond to online education?

These questions include several sub-themes, such as the following: reimagining online education for better futures; expanding access, openness, and flexibility; promoting equity, diversity, and inclusion; innovative learning designs for student success; open pathways and new credentials for lifelong learning.

The challenges in higher education concern its modernization, which will be conducted mainly through the practice of open education to foster the uptake of open education, its culture, and the use of OERs in the ecosystem of open education. The aims of higher education must be to expand the access to education and to promote inclusion according the digital education action plan (European Commission, 2018). In addition, the results of a study by the Organisation for Economic Co-operation and Development (OECE) on the affordances of digital technology emphasized cultural and symbolic concerns, networking, communication, and cyberinfrastructure (Pedro, 2012.)

## OPEN EDUCATION AND THE OPEN EDUCATION FRAMEWORK

Open education is an umbrella term under which different understandings of open education can be accommodated. Globally, open education continues to move into the mainstream. UNESCO emphasizes the role of opening up education to reach several of

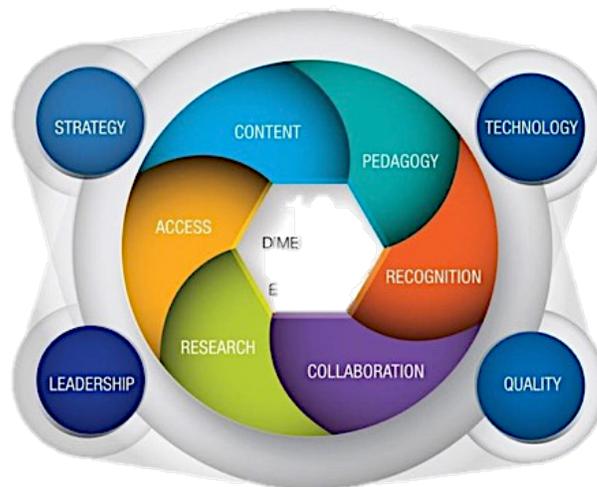
its sustainable development goals. SDG4 specifically concerns access, equity, equality, inclusiveness, quality, and lifelong learning. Mainstreaming the many elements of open education, including the use of OERs, will support the increased access along the lifelong learning continuum (Weller, Jordan, DeVries, & Rolfe 2018).

The broad access to knowledge (A2K) movement embraces many strategies in addition to open education, including the open access to research and data as well as copyright reform. Broad alliances are formed with movements seeking openness in other ways, including free and open source software, open government, and open culture. The open education community considers itself part of a larger movement that supports sharing and the use of creative commons in the digital era. As the open education movement moves into the next decade, we should consider how to explore and leverage these connections to achieve shared goals (CPT+10, 2017).

Through open education, each individual at every stage in life and career development could have appropriate and meaningful educational opportunities available to them (Biswas-Diener, & Jhangiani, 2017); Bliss, & Smith, 2017; Butcher, 2015). These include access to content, courses, support, assessment, and certification in ways that are flexible and accommodate diverse needs. Barriers such as entry requirements or unaffordable costs are reduced or eliminated. Open access publishing requirements, for example, have become formal policy in Europe. Open universities and policies regarding OER are expanding in Africa. In addition, the growth of the OER Universitas consortium (OERu) and the launch of Z-degrees based on OER and student demand have been implemented in the US and Canada. Global organizations, such as the Creative Commons and the Open Education Consortium bring together activists, scholars, and practitioners from around the world to strengthen the global network (Ossiannilsson et al., submitted).

In Europe, particularly in higher education, opening up education does not refer specifically to the opening up of educational materials under an open license. Neither does it mean the availability of open access research in repositories. However, these two aspects can and should be included in the broad concept of open education. Indeed, open education is becoming more important in European higher education because digital technologies are a main driver of the modernization of educational systems. The use of digital technologies in teaching and learning is no longer limited to open universities or virtual universities. It has spread throughout all types of institutions, both traditional and avant-garde.

Also in Europe, the European Research Center (JRC) presented a support framework for higher education institutions (HEI) to open up education (Inamorata dos Santos, Punie, & Castaño Muñoz, 2016) (Figure 7). This framework is based on a wide definition of the term “open education,” which includes different uses to promote transparency and a holistic approach to practice. It goes beyond OERs, MOOCs, and open access to embrace the 10 dimensions of open education. The are divided into the four transversal dimensions i.e. strategy, technology, leadership, and quality, the ten course dimensions i.e. content, pedagogy, recognition, collaboration, research, and access. The framework could be used as a tool by HEI staff to help them make strategic decisions about pedagogical approaches, collaboration between individuals and institutions, recognition of non-formal learning, and different ways of making content available. Because contemporary open education is mainly enabled by ICTs, there virtually limitless potential for innovation and outreach, which would contribute to the modernization of higher education in Europe (Inamorato dos Santos et al., 2016).



**Figure 7.** Open education framework (Inamorata dos Santos, 2016)

## CPT+10

The 10th anniversary of the Cape Town Open Education Declaration was celebrated in 2017. On this occasion, the directions to move open education forward, the CPD+ 2017, was launched.

Over the last decade, much of the open education movement has been focused on the creation and adoption of open educational resources. Some of the most exciting frontiers in open education are in open pedagogy, which is widely understood to consist of teaching and learning practices enabled by the ability to retain, reuse, revise, remix, and redistribute educational materials (Wiley, & Hilton, 2018). The open environment empowers educators to step away from the confines of static textbooks and traditional assignments, opening the door to imaginative, collaborative, and engaging educational experiences that help transform teaching and learning (CPD+, 2017).

Moving beyond the textbook has been at the core of the open education movement from its beginning. However, over the last decade, some OER efforts have been driven in the opposite direction. Promoting open textbooks that look, feel, and serve like traditional books has proven to be a highly successful adoption strategy in certain contexts. These efforts have made essential progress in expanding the use and adoption of OERs. However, the open education movement should remain conscious that the strategy of equating OERs with textbooks constrains the imaginations of teachers and learners with regard to the potentials of modern, technology-enhanced open learning materials. CPT +10 specified 10 directions:

- Communicating open; taking the message of open education to the mainstream.
- Empowering the next generation; the open education movement must put the next generation at its core.
- Connecting with other open movements; open education can grow stronger through collaboration with allied movements.
- Open education for development; unlocking new opportunities for education in support of development.
- Open pedagogy; harnessing the power of open in teaching and learning practices.
- Thinking outside the institution; enabling everyone everywhere to learn anything.
- Data and analytics: exploring the intersection of open content, open data, and open learning.
- Beyond the textbook: building the open learning materials of the future.
- Opening up publicly funded resources; publicly funded educational resources should be openly licensed by default.
- Copyright reform for education: copyright reform and open education advocacy are two sides of the same coin.

## OPEN EDUCATIONAL RESOURCES

Open Educational Resources (OERs) are teaching, learning and research materials in any medium, digital or otherwise, that resides in the public domain or has been released under an open license that permits no-cost access, use, adaptation, and redistribution by others with no or limited restrictions (UNESCO, n.p.; Commonwealth of learning, 2017a). The Hewlett Foundation defined OERs 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 and repurposing by other (The William and Flora Hewlett Foundation, n.d) definition OERs include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques that are used to support the access to knowledge (Atkins, Brown, & Hammond, 2007).



Figure 8. Open educational resources

There are several other definitions, such as those given in the OECD, The Cape Town Declaration, WikiEducator, and OER Commons. An Overview of the Definitions of OER and Their Relationships are presented in Table 1.

Table 1. An Overview of the Definitions of OER and Their Relationships

	Open copyright license required	Right of access, adaptation, and republication	Non-discriminatory (rights given to everyone, everywhere)	Does not limit use or form (does not include NonCommercial limitations)
Hewlett Foundation	✓	✓	✓	✓
OECD		✓		
UNESCO	✓	✓	✓	✓
Cape Town Declaration	✓	✓	✓	
Wikieducator OER Handbook		✓	✓	✓
OER Commons		✓	✓	✓

Both OERs and Massive Open Online Courses (MOOC) facilitate learners and academics in participating effectively in the changing international environment (Commonwealth of learning, 2017b). Similarly, as the use of social media connects people, teachers and learners are updated by using OERs and MOOCs. Learners can use the best resources and knowledge from international professionals and researchers across the globe. Through OERs that can be retained, reused, revised, remixed, and redistributed, and even sold for commercial use (Wiley, n.d.). learners can contextualize and adapt to their own learning context. Hence, teachers do not need to reinvent the wheel time and time again by reproducing learning materials. Instead, they can use both time and resources for deeper learning and reflection (Ossiannilsson, & Abeywardena, forthcoming). Both MOOCs and OERs could be used in a wide variety of ways, such as the following (Contact North, 2018):

- Continuing professional development (CPD)
- Teasers
- Marketing and branding
- Recruitment of new students
- Learning resources in ordinary courses
- Updating and “just for me” learning here and now
- Informal and formal learning, which today are increasingly blurred

### *UNESCO Recommendations 2018*

In 2018, UNESCO held a global consultation on the forthcoming UNESCO OER recommendations. The recommendations build on previous work, as those in 2012 (UNESCO, 2018), the Second OER world conference in Ljubljana 2017 (UNESCO 2017), and the ministerial statement at Ljubljana conference (2017). The following was emphasized:

*“to reinforce international collaboration in the field of Open Educational Resources (OER)” and that “a recommendation could be an essential tool to strengthen the implementation of national and international legislation, policies and strategies in this field, as well as to enhance international cooperation on the use of Open Educational Resources (OER) in support of Sustainable Development Goal 4 Education” (UNESCO, 2018)*

Three directions were highlighted in the global consultation on the forthcoming UNESCO OER recommendations (2018):

- Based on the present study, it is clear that a Recommendation on International Collaboration on Open Educational Resources is both desirable and feasible. Such a new UNESCO normative instrument is desirable because education is diversifying rapidly in all parts of the world while at the same time the usage, creation, and availability of Open Educational Resources have become global as well as regional.
- The advantage of a recommendation is that it is flexible and meant to allow for contextualization. However, a framework for Open Educational Resources delivery for international cooperation toward further and extended capacity building is missing, and a recommendation should build on decades of work in developing and implementing Open Educational Resources related policies and actions.
- It will rely on tools developed over the years that have helped to deliver Open Educational Resources criteria and procedures. The events, documents, and surveys conducted in this study clearly demonstrated that a majority of those most familiar with Open Educational Resources firmly support the move to a standard-setting.

### *Creative Commons*

A creative commons (CC) license is one of several public copyright licenses that enable the free distribution of an otherwise copyrighted “work.” A CC license is used when an author wants to give other people the right to share, use, or build on a work that he or she (that author) has created (Creative Commons, n.d). CC provides an author with flexibility: for example, he or she might choose to allow only noncommercial uses of a given work. The CC license protects people who use or redistribute an author’s work from copyright infringement as long as they abide by the conditions that are specified in the license by which the author distributes the work (Wikipedia, n.d.). Creators choose the set of four conditions they wish to apply to their work (*Figure 9*).



**Attribution (BY)**. All CC licenses require that others who use your work in any way must give you credit the way you request, but not in a way that suggests you endorse them or their use. If they want to use your work without giving you credit or for endorsement purposes, they must get your permission first.

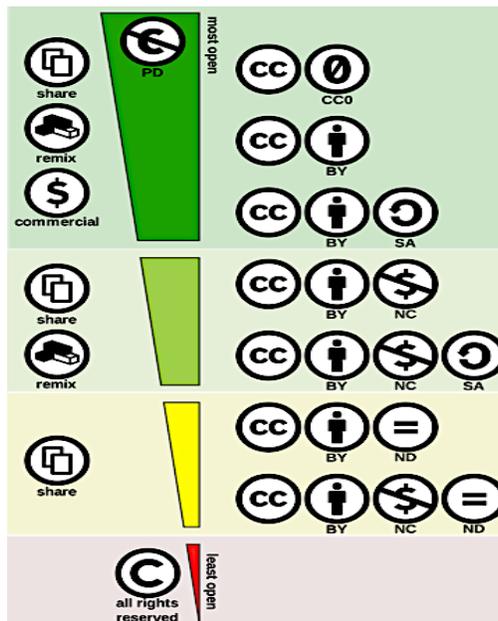
 **ShareAlike (SA)**. Lets others copy, distribute, display, perform, and modify your work, as long as they distribute any modified work on the same terms. If they want to distribute modified works under other terms, they must get your permission first.

 **Noncommercial (NC)**. Lets others copy, distribute, display, perform, and (unless you have chosen NoDerivatives) modify and use your work for any purpose other than commercial unless they get your permission first.

 **NoDerivatives (ND)**. Lets others copy, distribute, display, and perform only original copies of your work. If they want to modify your work, they must get your permission first.

**Figure 9.** The four conditions of creative commons (CC)

The four conditions BY, SA, NC, and ND can be combined in six ways that define what they allow and how open or closed they are, as shown in *Figure 10*. All six variations begin with CC BY. As shown in *Figure 10*, the most open is Public Domain (PD) and CC BY and CC SA. The most closed ones are copyright and all rights reserved, but CC BY, CC NC, and CC ND are also closed.



**Figure 10.** The six variations of Creative Commons, what they allow, and how open or closed they are.

*The five Rs according to Wiley (n.d.)*

The terms “open content” and “open educational resources” are used to describe any copyrightable work (traditionally excludes software, which is described using other terms, such as “open source”) that is licensed in a manner that provides users with free and perpetual permission to engage in the 5R activities according to Wiley (n.d.). The five Rs are Retain, Reuse, Revise, Remix, and Redistribute. The terms and their implementation are illustrated in Table 2.

**Table 2.** What Can I Do with OERs?

Open content is licensed in a way that grants users the permission to:

<b>Retain</b>	Make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
<b>Reuse</b>	Use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)
<b>Revise</b>	Adapt, adjust, modify, or alter the content (e.g., translate the content into another language)
<b>Remix</b>	Combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
<b>Redistribute</b>	Share copies of the original content, your revisions, or your remixes with others (e.g., post a copy of the content online for others to download)

This material is based on original writing by David Wiley, which was published freely under a [Creative Commons Attribution 4.0 license](#) at: [Defining the "Open" in Open Content and Open Educational Resources](#).

*Finding open content*

An interesting initiative by Open Education (OE ) Africa is the Finding Open Content Tutorial (OER Africa, 2019). There is no requirement to log in or register; the user simply clicks on the link. There are videos and interactive elements, so an Internet connection is required. The tutorial includes the following:

- A search strategy for open content
- What is open licensing?
- What is open content?
- How to search for open content using Google
- How to conduct more effective online searches
- How to search for open content using Creative Commons search
- How to search for open content in YouTube
- How to search for content in open repositories
- How to evaluate open content

## CONCLUSION

It is well-recognized that countries and institutions who have strategies for implementing OERs and or CC licensing strategies as part of the rationale and vision are more prepared and have better conditions for the digital transformation of education than others are. The strategies for using OERs are crucial facilitators of the modernization of higher education and the digital transformation of education (Wiley & Hilton, 2018). OERs are a fruitful global academic collaboration in teaching and learning, and they demonstrate the growth of networking and collaboration. The most important issue could be that taxpayers should have a voice in ensuring that the global goals of UNESCO Education For All are achieved, including the SDG4's key issues of access, equity, equality, inclusion, quality, and lifelong learning (Ossiannilsson, 2018).

At the ICDE Lillehammer conference, a lifelong learning roadmap was developed, which focused on three levels of action in line with the UNESCO OER recommendations in 2019:

- Government: support
- Employers and educational leaders: implementation
- Educators: deliver

At the Open Education Week 2019, Stephen Downes (2019, March 05) emphasized taking a quick look at the future of OER, which could yield guidelines to address further quality concerns by the OERAC:

- Need to think in terms of data and networks
- Need to think in terms of environment and experiences, not just content

- Need to learn to cross create cooperatives, such as not on demand (i.e., not necessarily) collaboration

### Author



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Ossiannilsson is the Vice President of the Swedish Association for Distance Education (SADE) and the Vice President of the Swedish Organization for E-Competence (REK). She is a member of the European Distance and Elearning Network (EDEN) Executive Committee and was awarded the title of EDEN Fellow in 2014. She became an Open Education Europa Fellow in 2015. In 2018, she was awarded the title of the Council of EDEN Fellow. For EDEN she also Chair the Special Interest Group on TEL and quality enhancement (EDEN SIG GEL QE).

Ossiannilsson earned her PhD at Oulu University, Finland in 2012 with a dissertation titled: Benchmarking e-learning in higher education: lessons learned from international projects. Her dissertation has had a very large outreach and has been cited often. Ossiannilsson has more than 200 publications in peer-reviewed journals and books, as well as technical reports.

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