

Open Educational Resources in Ukraine: Current Status and Future Directions

YEVHENIIA ANDRIICHENKO, FH CAMPUS 02, AUSTRIA

MARTIN EBNER, GRAZ UNIVERSITY OF TECHNOLOGY, AUSTRIA

SANDRA SCHÖN, GRAZ UNIVERSITY OF TECHNOLOGY, AUSTRIA

OER: Definition

“**Open Educational Resources (OER)** are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others.”

UNESCO



«**Open license** refers to a license that respects the intellectual property rights of the copyright owner and provides permissions granting the public the rights to access, re-use, re-purpose, adapt and redistribute educational materials.”

UNESCO

OER licensing



This license enables re-users to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator.



This license enables re-users to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. Adaptations must be shared under the same terms.



CC0 (aka CC Zero) is a public dedication tool, which enables creators to give up their copyright and put their works into the worldwide public domain. CC0 enables re-users to distribute, remix, adapt, and build upon the material in any medium or format, with no conditions.



Benefits of Open Educational Resources

Open Educational Resources (OER) have become a transformative force in the educational landscape, offering numerous benefits that significantly impact the quality of education.

Benefits of OER:

- Reducing financial barriers for students by providing free access to high quality learning materials.
- Fostering a more inclusive educational environment by facilitating diverse learning experiences.
- Enabling educators to adapt resources to the specific needs of their students, thereby promoting more personalized learning, increasing engagement and retention.
- The widespread implementation of OER can lead to systemic changes in the way institutions approach resource allocation and curriculum development.
- OERs foster collaborative learning environments as they encourage the sharing and remixing of materials among faculty, thereby promoting a culture of collaboration and innovation in teaching.

OER integration: Austria

In Austria, the “Open Education Austria Advanced” initiative is an example of efforts to create an infrastructure to support OER in higher education institutions. This initiative includes the development of certification procedures that recognize the competence of teachers in the use of OER, thereby promoting a culture of open educational practices (Schön et al., 2021).

The national MOOC platform iMooX.at serves as a vital resource for the dissemination of OER, particularly in the context of microcredits and joint educational initiatives between European university alliances.

Graz University of Technology has developed tools and procedures that facilitate the transfer of OER from its learning management systems to its repository, making it easier for educators to access and reuse these resources (Ladurner et al., 2020).

Academic libraries in Austria are increasingly involved in the development and dissemination of OER, aligning their services with UNESCO's recommendations on open education.

OER integration worldwide

The case of the **Norwegian NDLA** platform is an example of how publicly funded OER can support diversity and inclusion in education by ensuring all learners have equitable access to quality resources (Müller, 2021).

An open educational resource called **CRICKET** at Thompson Rivers University (TRU) in **Canada** focuses on three main areas of curriculum planning and development: formulating, aligning and presenting learning outcomes; selecting and aligning instructional strategies and interventions; and aligning assessment results at all levels. In addition, CRICKET serves as a community-building tool, encouraging participants to share their work and ideas with colleagues.

More widely Atenas, Ebner, Ehlers, Nascimbeni & Schön in the article “An Introduction to Open Educational Resources and Their Implementation in Higher Education Worldwide” describe current forms of OER implementation in higher education around the world and discusses aspects such as the importance, development, understanding, opportunities, debates, criticisms and prospects for innovation through OER.

The impact of OER on the quality of education

Research shows that implementing **OER** correlates with improved academic performance and **increased student engagement** (Nusbaum et al., 2020; Clinton et al., 2021). In addition to increasing accessibility and engagement, OER also **encourages innovative pedagogical practices**. Educators are empowered to embrace open pedagogies, which involve **collaborative** and participatory approaches to learning that engage **students as co-creators** of knowledge (Hilton et al., 2020; Cronin & MacLaren, 2018).

This change not only enriches the learning experience but also promotes **critical thinking** and **self-regulated learning** as students take responsibility for their learning journeys (Lima, 2023).

The flexibility of OER allows teachers to **modify** and **reuse materials**, which can lead to a more engaging and relevant learning experience for students (Schön & Ebner, 2019). This **adaptability** is particularly **important** in the context of **adult education**, where learners often have diverse needs and experiences (Schön & Ebner, 2019).

Aim and research approach

As Open Educational Resources (OER) continue to play an increasingly significant role in education worldwide, this study examines where **Ukraine** currently stands in terms of adoption, challenges, and opportunities, providing insights into its development within the global OER movement.

The purpose of this study is to define the level of **demand for OER** among teachers, students and educational institutions. The focus is on analyzing the **benefits** and **challenges** associated with the **implementing of OER**, as well as identifying the prospects for their further development in the context of **digital transformation** of education.

Aim and research approach

To provide a broad, contextualized understanding of the topic, a narrative review approach was chosen to allow flexible interpretation of a wide range of academic and open access sources. The review researches such key issues as:

Relevance of OER for the Ukrainian education system.

Level of readiness to use OER in practice among teachers, librarians and students.

Level of awareness of OER among stakeholders.

Barriers to the implementation of OER in education.

Analyzing examples of implemented OER practices in Ukraine

The following criteria were used to select publications:

- **Relevance:** articles published since 2018 to provide a modern, in-time context.
- **Representativeness:** publications related to both global OER experience, and the specifics of Ukraine were included.
- **Accessibility:** only articles available online in open sources or through academic databases were analyzed.

Relevance of the topic

Ukrainian research papers generally also emphasize the significance of OER, often referencing UNESCO's recommendations and frameworks.

OER reduce **financial barriers** and foster lifelong learning (Nykyporets, 2023).

They improve access to education, especially in financially or geographically **disadvantaged areas** (Voloshynov et al., 2020).

The war has increased **demand for distance learning** and accelerated OER adoption (Voloshynov et al., 2020).

OER help align Ukrainian education with **global standards** (Nykyporets, 2023; Voloshynov et al., 2020).

Curricula should be adapted to address **psychological stress** of Students caused by the war (Ameridze et al., 2022; Sytnykova, 2023).

The role of libraries as publishers of open educational materials is gaining recognition, as they contribute to the democratization of knowledge, which significantly improves the learning environment for all students, including those with **disabilities** (Kolesnykova, 2019).

Level of openness and readiness for OER among academic staff, students, and the library

**Project “Optima”
2021-2023
24,705 responses
from students
and academics of Ukrainian
higher education institutions**

- **Q51, page 74: Higher education institutions should provide open access to their educational resources (textbooks, manuals, various digital tools, etc.) for everyone.** About 50% of respondents completely agree about 30% tend to agree, which together amounts to **79.8% over 3 years** (2021 - 78.62%; 2022 - 81.45%; 2023 - 79.07%). The trend has practically not changed over the three years.
- **Q32, page 74: Students and teachers use unauthorized software (so-called “pirated software”).** **54%** of respondents at least sometimes (of which 30% often) use the so-called “**pirated software**”. Trend: “never” decreased from almost 50 to 40 over three years, the remaining indicators increased by several %, which indicates an increase in **interest in open access**.



The reasons that encourage users to use “pirated software” can be many and varied, such as the high price of the product, the complexity of use, the unwillingness to pay for an intellectual product, and others. This issue requires further research. But the answers to this question from the Optima report also indicate a fairly high interest in resources with open access.

Level of awareness of OER among faculty, students and librarians.

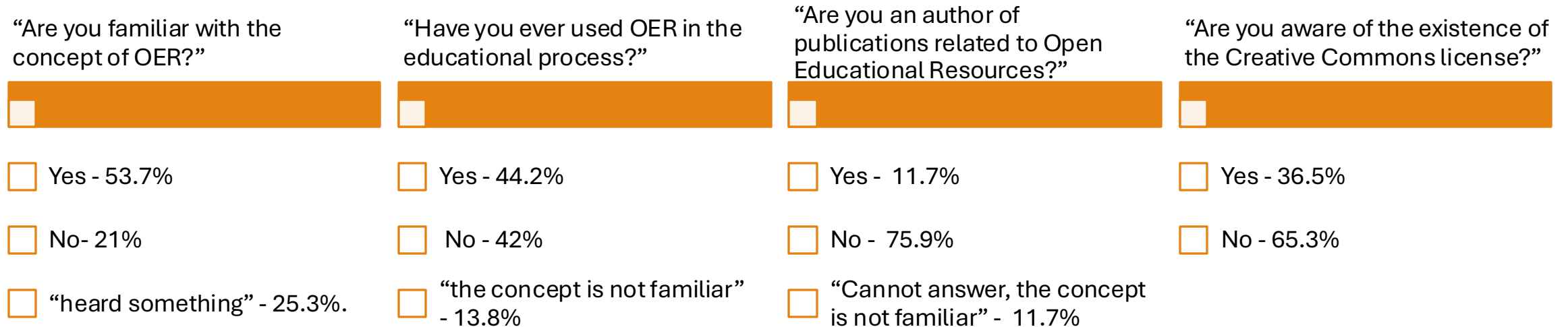
Despite the growing recognition of OER among educators and institutions, significant gaps in awareness and implementation remain.

The study by Kolesnykova and Matveyeva highlights that **awareness** of OER among university librarians in Ukraine is **still limited**, with many librarians **lacking** the necessary **skills** to support the development and use of these resources in educational institutions (Kolesnykova & Matveyeva, 2021).

This conclusion is supported by Shemaieva and Kostyrko, who describe **OER as a relatively unexplored area** for the library community in Ukraine, suggesting that practical implementations, such as the creation of open textbooks, are still in their infancy (Shemaieva & Kostyrko, 2022).

Level of awareness of OER among faculty, students and librarians.

Director of the Scientific and Technical Library of NTU "KhPI" Yulia Glavcheva in her presentation "Open educational resources in Ukraine: reality and potential" presents the results of a survey in which 581 people took part, of which 33.7% were library employees, 32.2% were students, 30.1% were representatives of the scientific and teaching staff (Glavcheva, 2023).



Barriers to the implementation of OER in Ukraine

Significant need for **digital tools** for distance learning, which impacts ability to engage with OER (Ivaniuk & Ovcharuk, 2021).

Low level of awareness among teachers, which limits their ability to use these resources in their teaching practice (Semerikov, 2023; Mintii et al., 2021).

Challenges with internet access, especially in rural areas (Semerikov, 2023; Falfushynska et al., 2021).

Need for reliable **digital infrastructure** and learning management systems (**LMS**) to facilitate communication and resource sharing between teachers and students (Ivaniuk and Ovcharuk, 2020; Kalachova et al., 2023).

Sociocultural factors, language barriers are particularly pronounced in the context of Ukraine, where there is a strong demand for quality educational materials in the national language (Kolesnykova et al., 2022).

The cultural **perception of OER as a legitimate form of educational resource** is still evolving, which may affect the willingness of teachers to use these resources in their teaching practices.

Implemented OER practices in Ukraine

Before the pandemic, distance learning was already gaining momentum, with platforms such as **Prometheus** providing access to massive open online courses (MOOCs) developed by leading experts. However, the pandemic, and now the war, necessitated a rapid shift to online formats and blended learning models, forcing educators to use a variety of digital tools and platforms to facilitate learning.

These are examples of Ukraine's largest online platforms providing open access to educational materials

Prometheus

is Ukraine's largest professional development platform, offering online courses from major Ukrainian employers and the world's top universities.

CRUST- Common Repository of the University of Science and Technologies

The institutional repository of the Ukrainian State University of Science and Technologies

EdEra

is a Ukrainian edtech company that creates educational solutions for the government, business and the public sector. They develop online courses, learning platforms and educational games.

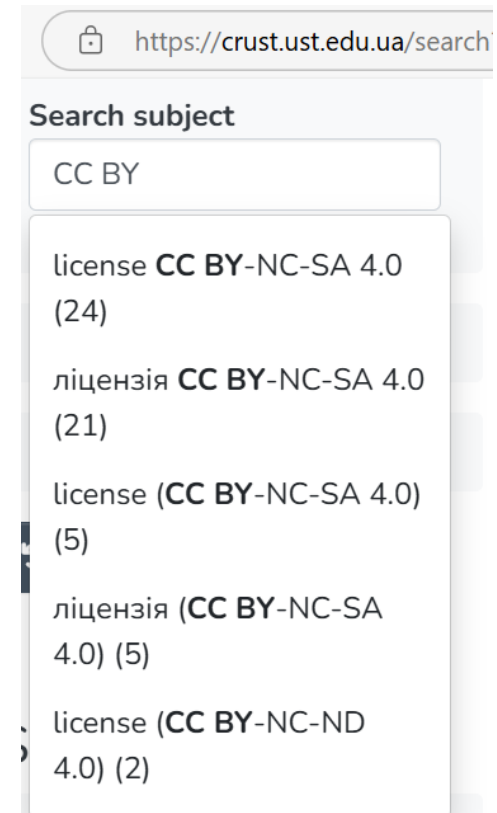
OUM – Open University of Maidan

is a public organization located in Kyiv with 22 regional departments, which creates and develops new formats of non-formal education and self-education that are available for everyone.

Implemented OER practices in Ukraine

However, despite the existence of open access educational platforms and resources, there is **NO** indication that they are OER and have a **Creative Commons license**, that is appropriate for OER. During this research, no Creative Commons licensed educational objects or courses were found on the Prometheus, OUM and EdEra platforms mentioned in this paper

On the CRUST platform there is an opportunity to apply a filter and select OER, but these objects usually have a **CC BY-NC-SA 4.0** license, which in turn is **not suitable** for OER.



**Screenshot of filtering on web page CRUST*

Discussion

Ukrainian authors cited in this study first define OER according to the **UNESCO version** and then provide examples of OER implementation in Ukraine on the above-mentioned platforms, where there are **no licensed OER**. It could therefore be interpreted as suggesting a **lack of awareness** and **clear rules** for the creation and implementation of OER in Ukraine, or perhaps an inconsistent implementation of these rules.

- ✓ There is a strong interest in OER in Ukraine.
- ✓ The availability and development of online platforms with open access to educational materials
- ✓ The need for rapid innovative solutions in education due to the geopolitical situation
- The extremely low level of awareness of Creative Commons licenses
- No systematic approach to the implementation of OER was found
- Initiatives are fragmented, and the state strategy in this area is still in the process of formation.

Discussion

It is evident that the concept of OER in Ukraine is predominantly associated with the free availability of educational materials, and almost nothing is known about their authorship or copyright. This observation underscores the necessity to enhance the competencies in the field of OER in Ukraine.

The experience of Germany and Austria demonstrates the importance of comprehensive support for the implementation of OER, including teacher certification, the creation of national platforms, the development of policies, and the establishment of communities of practice (Ebner et al., 2022; Orr et al., 2017).

To assess the true impact of OER on education in Ukraine, further empirical steps are required. These should include:

analysis of digitalization strategies in universities

monitoring the presence of OER on their official resources

studying local educational policies and implementing pilot projects

These projects should then be analyzed with a view to educational results.

Thank you for your attention!

These slides may be used under the terms of the CC license CC BY 4.0 International (<https://creativecommons.org/licenses/by/4.0/>).

Please use the links and references as sources for individual illustrations, if applicable.



Slides available at <https://doi.org/10.3217/y8prt-8h024>



Yevheniia Andriichenko, Martin Ebner, Sandra Schön (2025)
ed-tech.at