
THE CONTRIBUTION OF THEORY AND RESEARCH TO THE TRANSFORMATION OF LIBRARIES

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European Practices of Overcoming Language Barriers in Times of Crisis: Open Educational Resources

Objective. In any given country, the national language and education not only help to impart knowledge but also broaden the horizons of students, teaching them to be more tolerant of different cultures. Today, the Ukrainian language as an important component of national identity and state building is one of the main goals of Russia in its war against Ukraine. That is why one of the main challenges for higher education in Ukraine during wartime is to create modern and high-quality educational materials in the national language as quickly as possible, in order to facilitate remote teaching, learning and research processes at universities. The mechanism for responding to this challenge is to turn to the experience of creating, adapting and using Open Educational Resources (OER) in Europe and the rest of the world. The aim of the study is to consider the practices of creating, adapting and using OER in European universities and libraries in the context of their benefits, including the possibilities of overcoming language barriers in times of crisis. **Methods.** This article is based on the analysis of the literature on OER practices in facilitating the overcoming of language barriers, on the activities of ENOEL, on the practices of librarians and educationalists of several European universities, as well as on self-reflection and direct experience of the circumstances of the war by Ukrainian librarians, who continue information support of the educational process. **Results.** The theoretical aspects and implemented practical solutions demonstrate that OER can be an effective solution in times of crisis (whether a pandemic or a war) to the issue of quality information support of distance education with materials in the national language in any country in Europe and the world. In the context of higher education in Ukraine, OER is a means and one of the methods of overcoming linguicide by the Russian Federation – the purposeful destruction of the Ukrainian language as the main feature of the ethnic group. The experience of working with OER of the USUST Scientific Library (Dnipro, Ukraine) is the story of a library that was looking for opportunities to answer its local challenges and resolve problems during the COVID-19 pandemic, and found solutions that became necessary during the war with Russia. **Conclusions.** The authors hope that Ukrainian-language OER will soon become a mandatory element in the cultural environment of Ukrainian universities. And it is OER that can help overcome Ukrainian linguicide in educational resources. The experience of librarians of the European Network of Open Education Librarians (ENOEL) proves that one of the most important roles in this is played by university librarians.

Keywords: open educational resources; language barriers; university library; distance education; ENOEL; linguicide; war in Ukraine; library in wartime; information support for distance learning; USUST; SPARC Europe

Introduction

Linguistic diversity is one of the world's riches. Throughout the history of different countries, their language, culture and education have always organically complemented and enriched each other.

However, in the context of this study, we will focus on the aspect of the official language of education and educational resources as information support for teaching, learning and research in various European countries, including Ukraine.

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The national language is a means of communication, identification and self-identification of the nation. It promotes the development of culture, worldviews, creative abilities, research skills, self-development and self-learning in the context of global changes and challenges.

In any given country, the national language and education not only help to impart knowledge (as without it, one will not be able to understand or convey their understanding of the subject) but also broaden the horizons of students, teaching them to be more tolerant of different cultures. Developed language skills enable the creation of educational materials by teacher-authors, as well as their understanding and most effective use by students.

Today, the Ukrainian language as an important component of national identity and state building is one of the main goals of Russia in its war against Ukraine. The brutal war unleashed by Russia intends to seize the territory of Ukraine and destroy it as a nation while destroying its language, culture, education and science.

Literature Analysis

For an extended time, education in Ukraine, including higher education, had been largely informed by educational literature primarily in Russian. Permeated with imperial ideology, Moscow and Russia, and later the USSR, strictly prohibited teaching in Ukrainian, as well as the creation, printing and use of educational resources in Ukrainian with the aim of destroying the Ukrainian language. This was done by using intimidation, physical force, psychological pressure, freedom restriction, kidnapping, torture and murder (Ocheretianko & Riabets, 2020; "Linhvotsyd ukrainskoi movy", n.d.).

In 1944, Polish lawyer Rafał Lemkin coined the term "genocide" (Rafał Lemkin, n.d.). He believed that genocide is a coordinated action aimed at destroying national groups, as well as their freedom, health, dignity, political and social institutions, culture, language, national consciousness, religion and economic basis of existence. In 1946, genocide was recognised as an international crime in the UN General Assembly Resolution (UN. General Assembly, 1947). On November 23, 2022, the European Parliament recognised Russia as a "state sponsor of terrorism" and a state that "uses means of terrorism" against the Ukrainian people (News European Parliament, 2022).

Nowadays, the language policy against Ukrainians carried out by Russian invaders in the temporarily occupied territories of Ukraine is called "linguicide" and is derived from the term "genocide" (State Language Protection Commissioner, 2022). According to Ukraine's Commissioner for the Protection of the State Language, "Linguicide is the purposeful destruction of the Ukrainian language as the main feature of the ethnic group, which is carried out by its ousting from various public spheres, forced inclusion of Ukrainian citizens in the Russian linguistic and cultural space, assimilation of the population, etc. It is a way of dismantling the constitutional system of Ukraine, one of the components of the Russian policy of exterminating the Ukrainian people in the occupied territories, which is recognised by the Verkhovna Rada of Ukraine, numerous other parliaments in the world and international organizations as a genocide" (ArmiiaINFORM, 2022). That is, linguicide is language murder.

The first steps taken by the Russian invaders in the temporarily occupied Ukrainian territories were the seizure of Ukrainian-language literature from the libraries of schools, colleges and universities and the demonstrative burning of books in front of the residents held at gunpoint. British Ambassador to Ukraine Melinda Simmons released photos of Russians burning books on the history of Ukraine under the pretext of so-called "denazification" (Yavorovych, 2022).

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In his play-tragedy “Almanson” (1821), the world-famous writer Christian Johann Heinrich Heine said, “Where they burn books, they will ultimately burn people too.” His words turned out to be prophetic (Heinrich Heine, n.d.).

Russian terrorists pursue, among other things, a clear goal – to oust the Ukrainian language as the language of the educational process. It is to be achieved by full or partial transfer of educational institutions to the Russian language of instruction; termination or reduction of the teaching of the Ukrainian language and literature as a subject; restriction of access to, prohibition of distribution and destruction of literature and other printed materials in Ukrainian.

That is why one of the main challenges for higher education in Ukraine during wartime is to create modern and high-quality educational materials in the national language as quickly as possible, in order to facilitate remote teaching, learning and research processes at universities. Such educational documents, primarily textbooks and manuals, should be an important part of the funds and digital collections of libraries of higher educational institutions of the state. The Ministry of Culture and Information Policy of Ukraine in its recommendations notes that the updating of library collections is necessary, but should be done in a balanced manner, taking into account the type of library, and with an individual approach to each document in its collection (Ministry of Culture and Information Policy of Ukraine, 2022).

The authors of this study argue that the mechanism for responding to this challenge is to turn to the experience of creating, adapting and using Open Educational Resources (OER) in Europe and the rest of the world. Such practices significantly reduce the time necessary to create new educational material (for example, by translating and adapting already existing resources under an open license) and improve its quality.

The benefits of involvement in OER for the institutions included the improvement of students’ learning performance; easy access and use of learning resources; the cost reduction and dismantling of learning barriers; and the sharing of learning resources and collaboration (Santos-Hermosa, Proudman, & Corti, 2022). On the other hand, there were various challenges, namely the limitations of the technology infrastructure; the problems of intellectual property rights; the inadequacy of policy and support; the absence of learning objectives; and the language barriers (Li & Wong, 2021).

University of Groningen Press (UGP) is part of the University Library and offers a new initiative (Buist-Zhuk & Nieborg, 2022). This initiative is the creation of an open textbook publishing service that builds on the experience and lessons learned from the already well-established Open Access to Journals and Open Monographs initiatives. By including open educational resources (as OER) in the form of interactive open textbooks in its portfolio, the UGP together with the Library is transitioning to being an all-round open publisher that enables mutual enrichment and fruitful exchange between different fields of Open Science, thus enhancing the synergy between them. The language aspect in the Netherlands is taken into account. Many bachelor and master programs are taught only in Dutch, so a lot of literature (educational and research) is in the Dutch language. At the same time, the University of Groningen has 2 official languages: Dutch and English.

Open Educational Resources (OER) aim to support access to education for all. However, this potential is not fully exploited due to various obstacles in the production, distribution and use of OER. Among the typical obstacles for OER developers, such as lack of technical skills, different types of devices and systems, there are also cultural and linguistic differences, including in cross-border collaboration (Nurhas, Pawlowski, Jansen, & Stoffregen, 2016).

Practices of overcoming language barriers in OER have been studied in the world: in several aspects. For example, the rapid progress of modern AI tools for automatic speech

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recognition and machine translation is leading to a progressive cost reduction to produce publishable subtitles for educational videos in multiple languages (Pérez et al., 2021).

OER aim to provide equal access to education. Yet, as the language level used in OER presents a barrier to many learners, there is a need to make these resources more comprehensible (Rets & Rogaten, 2021).

Therefore, our international team of authors **aims** to consider the practices of creating, adapting and using OER in European universities and libraries in the context of their benefits, including the possibilities of overcoming language barriers in times of crisis.

Methods

This article is based on the analysis of the literature on OER practices in facilitating the overcoming of language barriers, on the activities of ENOEL, on the practices of librarians and educationalists of several European universities, as well as on self-reflection and direct experience of the circumstances of the war by Ukrainian librarians, who continue information support of the educational process.

The matter of opportunities and benefits of OER is analysed as a means of understanding the present and future of academic libraries in their development and providing services to teachers, students, researchers and universities in general.

In this study, the authors rely on their own experience with OER in the framework of the SPARC Europe, European Network of Open Education Librarians, University of Groningen Library (Groningen, the Netherlands) and Scientific Library of the Ukrainian State University of Science and Technologies (USUST) (Dnipro, Ukraine).

Results and Discussion

Overcoming Language Barriers in Times of Crisis: ENOEL Experience

We care about Diversity, Equity and Inclusion within SPARC Europe (<https://sparceurope.org/>) and the European Network of Open Education Librarians – ENOEL (SPARC Europe, n.d.). It is librarians; how can it be different? The ENOEL members' contribution to the Open Education movement relies largely on voluntary efforts because, more often than the contrary, librarians are not formally involved in open education activities in their institutions. Despite this reality, librarians made significant efforts in the past two years to contribute with local language materials. As an example, we published “*An ENOEL Toolkit: Open Education Benefits*” (2022) to raise awareness and advocate for more Open Education through its benefits for different stakeholders - students, teachers, institutions, and all citizens, - with the initial purpose of offering it in 5-6 language versions. After brainstorming to identify, select and prioritise the benefits, members agreed to share them all in the toolkit so that reusers could pick and them choose according to their own priorities (consistently with an open approach). Additionally, we created some tools to manage the translation process. It was a complex undertaking that had to be managed at a distance while always passing through English, a second language for the large majority of contributors. Translation tricks were needed, and potential misunderstandings were always behind the corner. After testing the process with the first pilot language versions, we fixed some issues and shortcomings. We learned how to make things easier and faster for the contributors (our own members) while centralising the final testing process so that it could become a parallel activity. As a result, we have 18 language versions now and expect one more to be released soon.

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An interesting avenue for our network to explore is discussing with librarians how a local language might enhance their chances of getting people to cooperate with them and get the community involved. As with the OE Benefits Toolkit, having open education content in local languages could ignite some further practical steps. Open education could become part of the discussions at decision-making tables and the more popular Open Access policies.

Another interesting aspect that deserves further attention is finding ways to design simple, easy-to-adapt tools that require few skills and leave room for personalisation with local institutions' logos, colours, and fonts so that the final result can be part of the local discourse around openness. After all, being inclusive also means not raising technical barriers. Embracing diverse approaches also means allowing others to adapt with low or no time-consuming necessary activities.

Why does ENOEL care about translation and localisation, then? Because it is a basic step toward inclusion but also representation, involvement, and recognition of cultural diversity. On top of all this, it gives us a chance to understand how rich Europe and the world are, thanks to all the languages and all the words' meanings connected with different origins. This is part of who we are: as a local community sharing the same language, but also as part of a larger network of people who need to find ways to communicate effectively and to progress by sharing the same values, starting with collaboration.

The work we did as a network lately was recognised at the global level: the ENOEL was awarded the Open Education Award of Excellence 2022 for Open Collaboration (OE Awards for Excellence, 2022b) because together we created "A successful environment that fosters the collective production of open resources and open practices with a shared goal. An interchange of ideas supported through technologically mediated collaborative platforms, encouraging new opportunities for people to form ties with others and create things together; encouraging diversity of goals, backgrounds and cultures".

The work the ENOEL did with the Ukrainian members during 2022 in a difficult time of crisis with the ongoing war provided support for some specific OE-related activities that helped raise awareness and ignite further activities. Such activities are consistent with the challenges the higher education sector faces under the stress and limitations imposed by air raids, bombing, lack of infrastructure and budget for secondary needs. No one wanted to stop supporting students whenever possible, and librarians were often the first to provide such support. Open Educational Resources were created, adapted, and distributed to make study still an option. The work done deserves to be visible and to be supported further. In particular, the Scientific Library of the Ukrainian State University of Science and Technologies (USUST) was recognised with the Open Resilience 2022 Award of Excellence (OE Awards for Excellence, 2022a).

Now it is time to think ahead: how to continue, despite all the electricity interruptions that have become a daily reality for our Ukrainian members? How can we manage language-related challenges? We will continue having meetings with the support of members who speak more than one language; we will continue adapting to machine translation to communicate asynchronously. Any way forward is fine; any contribution that enhances our experiences in getting closer to other cultures and helping each other when needed is part of the shared European values. It is also part of the goals set by the European Commission in various funding opportunities (i.e. ERASMUS+ programme) because our cultures are richer together, and each one of them deserves to be preserved, also through our diverse languages.

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Overcoming Language Barriers in Times of Crisis: Experience of an OER Librarian

What can librarians and other OER advocates and practitioners do to help communities they serve overcome language barriers, especially in times of disruptions to educational processes? Our answers will center around the benefits of and access to OER as an essential and accessible means to this end.

Due to their adjustable nature and embedded permissions empowered by open licenses (“Defining the “Open” in Open Content and Open Educational Resources”, n.d.), OER are well suited to bridge sociolinguistic and other barriers by providing equity of access to education and information in multiple languages. In some cases, it is as simple as having unabridged access to up-to-date, just-in-time, accurate versions of academic resources and other types of materials useful in the educational setting. Availability of such materials in open access enables a quicker transition to remote teaching and learning and contributes to the community’s resilience in times of unprecedented disruptions such as a full-scale war or a global pandemic.

However, mere access is not enough if these resources cannot be adjusted to fit the needs of the local communities and be inclusive, culturally equitable and linguistically diverse. Ensuring and supporting effective, inclusive and equitable access to quality OER is one of the five action areas of the *UNESCO Recommendation on Open Educational Resources* (UNESCO, 2019). Going beyond linguistic diversity and translation, UNESCO also encourages the development and adaptation of OER in a variety of cultural contexts to ensure the relevance and accessibility of such materials, respecting indigenous knowledge and rights (UNESCO, 2012). These efforts should also be inclusive of learners in formal and non-formal education contexts, irrespective of their age, gender, physical ability, socioeconomic status or any other characteristics (UNESCO, 2019).

Due to their role as educational enablers, close contacts with various academic communities and their unique skill sets, librarians are widely recognised as important stakeholders in implementing inclusive and equitable access to education in general and OER in particular. When advising the faculty on OER reuse, remix, adaptation, or creation, academic librarians are uniquely positioned to also address the needs of the underrepresented, not very vocal communities. Think of vulnerable groups, linguistic minorities, those disadvantaged by discrimination, war-affected veterans in need of retraining or upskilling, as well as displaced persons looking for lifelong learning opportunities. Open education librarians in Europe already organise themselves in broader networks and communities, such as the ENOEL, where they can share their experience in this realm, give insights into local undertakings and best practices and serve as the inspiration for fellow colleagues in need of new ideas and working solutions.

Undoubtedly, mere access to rich open resources across the continents is not enough. Educators and librarians need access to essential infrastructures: reliable translation tools that can make information available in multiple languages; services to support, quickly and efficiently, its dissemination; open tools for the creation of resources in multiple formats; repositories for uploading and storing such materials in a well-organised way, making them easily retrievable.

Language adaptation is, in principle, one of the lower-threshold ways to localise already existing OER and customise them to the institutional context. Think of adding multilingual subtitles using built-in features of applications; translating the text into your local language using online AI tools; adding short textual summaries for easier comprehension; producing a voiceover to accommodate children and people with visual impairments. To enable all those activities, open materials should be designed in such a way that requires as few technical skills as possible to adapt them to local contexts and languages. Furthermore, it is also important to consider learners and

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fellow educators with (at times) limited or intermittent access to the Internet while making the resources modular and available for further integration in different formats and media.

In the Netherlands, faculty that create new and reuse existing OER are advised and encouraged by librarians to use, whenever possible, user-friendly and adaptable formats, non-proprietary open-source software alternatives and interoperable systems. Information about such recommendations and software can often be found on academic library websites and library guides (University of Groningen, n.d.), or during consultation hours with OER librarians. In this way, librarians also support linguistic diversity in classrooms and on the (virtual) bookshelves of Dutch academic libraries, ensuring that teachers are well equipped to localise materials by translating them into the Dutch language, whenever needed, or adjusting them otherwise to local and regional specifics.

On the national level, repositories and dissemination systems for sharing OER are supported by governmental funding and facilitated through several nationwide initiatives and frameworks. Within one of them, Dutch academic librarians collectively work on developing a nationwide OER repository and search engine (<https://edusources.nl/en/>) together with SURF, the collaborative organisation for ICT in Dutch education and research. Furthermore, open education librarians in the Netherlands organise themselves in special interest groups and communities, collectively work on developing guidebooks and knowledge clips and regularly conduct knowledge sessions on OER-related subjects.

Finally, mere access is not enough: librarians and the faculty they support need the skills to navigate the complex universe of OER and engage in the adoption, (co)creation, reuse, remixing and dissemination of these resources. Effective adaptation, creation and implementation of OER are fundamental for engaging in open education and require new skill sets outlined in the 2016 UNESCO competency framework (International Organisation of La Francophonie, 2016). First workshops and seminars that mostly focused on the basics of OER, copyright and open licensing and aimed at spurring the enthusiasm of open-minded educators and early adopters will now have to be replaced with more structural training that focuses on developing OER-related skills. Furthermore, the pedagogical component is an equally important part of this mix that helps ensure the move beyond the basics of OER towards new learning models and unleash the potential of OER in innovative teaching strategies, co-creation and learning environments. This translates, ultimately, into a larger process of building skill sets for sustainable staff development and OER-enabled resilience in times of crisis.

At the University of Groningen in the Netherlands, the need to help faculty develop skills for meaningful engagement with OER was facilitated by a natural collaboration between the University Library and the Education Support and Innovation team at the University's Centre for Information Technology. In the spirit of openness, these two groups combined their knowledge bases and skill sets and blended information literacy services and didactic expertise to create a series of interdisciplinary workshops (edusources, n.d.). These training sessions were intended to grow the pool of early OER adopters at the University and subsequently engage with a wider academic community. The workshop introduces OER and their many benefits, especially in times of rapid transition to online and blended learning, but also follows the aim of "developing a 'pick and mix' learning design toolbox of different resources and tools to help designers/teachers make informed decisions about creating new or adapting existing learning activities" (Conole & Weller, 2008). Using in this training, each field of the UNESCO OER competency framework is addressed, namely building familiarity, searching, using, creating and sharing. Since navigating OER is swiftly becoming an essential skill, this topic has also been embedded as a sub-module in

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the teacher professional development courses provided at the University (Raj, Zhuk, van Rij, & Beldhuis, 2021).

While OER are widely recognised as essential in helping academia and local communities ensure access to “Quality education for all” (as stated in Sustainable Development Goal 4) (United Nations, 2015) and overcoming language barriers, such disruptive situations as a full-scale and protracted war expose the vulnerabilities of educational systems and, once again, highlight the need for well-functioning support services, infrastructure and cooperation across institutional and country borders. After all, open educational resources carry a largely untapped potential for reforming traditional learning paths and facilitating a move towards broader, linguistically diverse and inclusive learning environments.

First Experience of Creating Ukrainian-Language OER: Scientific Library of the Ukrainian State University of Science and Technologies (Dnipro, Ukraine)

The experience of working with OER of the USUST Scientific Library is not very extensive yet, as it started at the end of 2019. Nevertheless, this is the story of a library that was looking for opportunities to answer its local challenges and resolve problems during the COVID-19 pandemic, and found solutions that became necessary during the war with Russia. These solutions can also be useful to institutions and communities thousands of kilometers away from the city of Dnipro.

Was it and is it still difficult for us to work in wartime? To answer with a simple “yes” is to say nothing. It was physically, morally and psychologically demanding.

Taking advantage of every opportunity (termination of air-raid alarms, restoration of electricity, good connection, etc.), we work with our patrons and with each other both remotely and physically on the library premises.

Destroying the myths about the conservatism of librarians, we quickly enhanced our own experience of organizing the workplace. Although it was almost impossible to imagine this before February 24, 2022, we have been working in basements and subways, in cafes and cars, in “Invincibility Points” or corridors between two walls to avoid windows. Sometimes, in order to send a message or an email, we have to climb to the top branch of an old apricot tree using a ladder... And we can already tell by the sound what exactly exploded.

We learned to estimate whether the electricity obtained with the help of uninterruptible power supplies, batteries, generators, and mobile or wired Internet connection would be sufficient to complete a particular activity in case there were scheduled or emergency power outages again.

After Russian terrorists destroyed most of the critical infrastructure of Ukraine, librarians, teachers and various university support services learned to work in classrooms, offices or library halls at a constant temperature of mere 6-9 degrees Celsius. But at these times the connection is on, and we learn to “catch” these moments and feel happy because we have done something useful.

In the context of implementing OER and utilising their potential in overcoming language barriers, there is a need to create a certain environment at the USUST. This applies to creating textbooks, course manuals and other educational materials in Ukrainian. Such an environment should be culturally more familiar to the residents from eastern, central-eastern and southern regions of Ukraine (who are used to using, in addition to Ukrainian, the Russian language in everyday life) and should provide social opportunities for students with more diverse needs and expectations.

Dnipro is a frontline city, one of the largest in Ukraine, with a pre-war population of over a million people. It is known as the space capital of Ukraine, a major transport hub and a center of

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mechanical engineering. The city is located on the banks of the mighty Dnipro River; it is famous for its historical past as the center of the free Cossack lands.

Today, in wartime, the city hosts a lot of internally displaced persons (IDPs) from those parts of the east and south of Ukraine that are currently occupied by Russian troops: districts of Donetsk, Luhansk, Kherson and Zaporizhzhia regions. Among the IDPs, there are many children, teenagers and women who have nowhere to return to after the end of the war because homes, schools, colleges and universities in their cities were destroyed. They plan to stay in Dnipro to live and get an education or a new qualification.

In addition, a significant increase is expected in the number of native residents of the Dnipro region who have been physically affected by the war and have received various degrees of disability. It is physically difficult for them to come to the university in person, but they also have the right to receive higher education or obtain a new qualification. It is the libraries that should be ready to support inclusiveness with their resources and services.

Given these circumstances and aiming to facilitate the development of open education and OER at USUST, it is necessary to create an environment that is culturally more familiar to the aforementioned regions and to provide social opportunities inclusive of a diverse group of students. This may prove to be an effective strategy for achieving greater equity in bringing higher education closer to potential beneficiaries.

The availability of up-to-date teaching materials in Ukrainian should be a mandatory element in the cultural environment of USUST. However, due to the ongoing war, the economic crisis, the lack of funds to replenish library collections, the inability of commercial publishers to develop models of working with electronic textbooks for libraries and other adverse factors, it is impossible to quickly provide the information support for learning and teaching with Ukrainian-language educational materials.

In addition, we experience a lack of potential authors of textbooks in Ukrainian because some of the young teachers have been conscripted to fight in the ranks of the Armed Forces of Ukraine. Other issues familiar to those teachers who continue to work in critical conditions are the heavy teaching load, moral and psychological pressures of wartime life and lack of time for creative authorship. All these issues are exacerbated by power and communication outages.

That is why the management of the USUST Library, which has functioned as a digital publisher (Kolesnykova, 2017) and Openness lab (Kolesnykova & Matveyeva, 2021), since 2010, agreed on the following philosophy: *non-standard situations require non-standard solutions*.

The Library's focus on (digital) OER became such a non-standard solution to the issue of information support for distance learning, teaching and research in times of crisis and physical inaccessibility of printed collections and local digital collections. Moreover, this was a "bottom-up" initiative, rather than a "top-down" approach originating, for example, at the Ministry of Education and Science of Ukraine.

It should be noted that open education and OER are still in their infancy in Ukraine. In recent years, the Ministry of Education and Science has made it a priority to work more systematically to bring Ukrainian academia closer to the European research and innovation community. Several institutions have already embraced some open educational practices, but open education and OER are not yet mentioned in official national documents.

Therefore, the University took a big step forward in April 2022 when the USUST leadership and its Scientific and Methodological Council expressed their full support for the Library's capacity-building activities aimed to create, reuse, repurpose, adapt and disseminate OER.

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However, already in October 2019, the Library made the first and most difficult steps aimed at raising teachers' and librarians' awareness about the importance of open education and OER and their benefits for students, teachers, institutions and society.

It was back in 2019 (while today it seems a lifetime away) that we chose the "small steps tactics - little by little, but constantly" for directing the development of the OER support.

Where did these small steps begin for the USUST Library?

- Realisation that teachers and librarians are not yet aware of open education and OER;
 - Training librarians to enable them to further share ideas and knowledge with the university community, explaining the essence of open education and OER;
 - Creating an information block on "Open Educational Resources" (available in Ukrainian and English versions) on the Library's website; systematically improving and updating it with new resources (Scientific Library of USUST, n.d.);
 - Readiness of librarians to work with considerable doubts and resistance of teachers, just as they did 10-12 years ago when the first repository in the Dnipro region was introduced (Kolesnykova, 2011);
 - Resilience of librarians to significant criticism coming from commercial publishers;
 - Persistence of librarians in delivering their messages; and even more persistence;
 - Participation in the development of the first USUST documents that officially enable the use of textbooks and course manuals created as OER by the University teachers;
 - First specific plans: working with the prospective teacher-authors, determining the scope of work and its timeline, agreeing on responsibilities;
 - Helping teacher-authors in the pilot project on publishing the first 5 textbooks as OER.
- This enabled the development of the "Model of Library Activities for Implementing OER at the University", which enables the discussion of advantages and disadvantages of certain activities, examining expectations and making assumptions.



Fig. 1. Working on the Creation of an Open Textbook: Authors – Professor Mykhailo Kapitsa, Associate Professor Dmytro Bobyr, and Library Staff – Library Director Tetiana Kolesnykova, Deputy Director for Informatisation Maryna Shcherbyna, Head of the Information Technology Department Tetiana Shcherbatiuk (June 2022)

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These publications were placed in the institutional repository eaDNURT in the section "Open Educational Resources" (eaDNURT, n.d.) and integrated into the international system Open Educational Resources Search Index – OERSI (OERSI, 2022). Currently, these are the only Ukrainian open textbooks available in OERSI. All 5 books are primary sources with ISBN and DOI and have been published under a CC license.

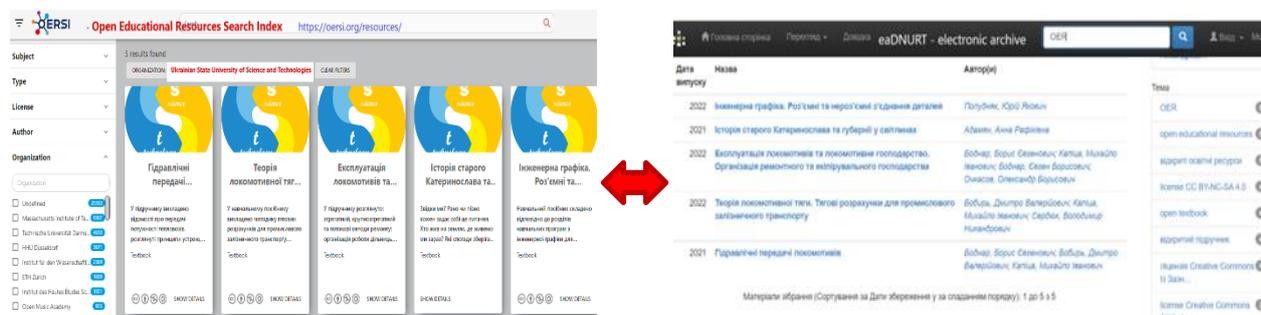


Fig. 2. Integration of OER from USUST Repository into OERSI

The USUST librarians try to use every opportunity to study international practices of supporting teacher-authors in the adaptation of existing OER in English, Spanish, German and other languages. The adaptation of existing OER to the institutional context will greatly accelerate the creation of new resources, enrich them with international practices, promote the involvement of students as co-creators of materials and improve their knowledge of a particular subject.

For example, a common challenge in both online and blended learning is how to produce multilingual video subtitles of publishable quality at scale and low cost (as OER). Clearly, a direct approach to this is to use modern AI tools for automatic speech recognition (ASR) and machine translation (MT): raw (automatic) subtitles in the source (spoken) language are produced first by an ASR system; then, they are machine-translated into a number of other, target languages of interest.

Adaptation of existing OER to the institutional context will speed up the creation of new resources, enrich them with international practices, promote the involvement of students as co-creators of documents and improve their awareness of a particular subject.

In our opinion, this is the only way to overcome the lack of modern textbooks in the Ukrainian language during the active war waged by the aggressor state of Russia against Ukraine and on the territory of Ukraine.

Dr. Tetiana Kolesnykova and Tetiana Shcherbatiuk (USUST Scientific Library) have been members of the ENOEL/SPARC Europe since 2020. They have learned from the experience of colleagues from other European universities, participated in webinars and surveys and translated ENOEL materials and tools into Ukrainian. At the same time, they had the opportunity to share their own experience and inform the larger OER community about the specifics of the USUST Library's work in the field of OER in the local and national contexts.

The USUST Scientific Library is the representative of Ukraine in SPARC Europe. This is a great honor but also a great responsibility.

In May 2022, ENOEL/SPARC Europe nominated the advocacy work of the USUST librarians for the Open Education Awards for Excellence by Open Education Global. The Board of Directors and the Award Committee recognized the importance of the work of the USUST librarians in advancing open education in Ukraine and providing continuous support to students

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and teachers even in extreme conditions. The USUST Scientific Library became a winner of the special Open Resilience Award (OE Awards for Excellence, 2022a).



Fig. 3. Open Resilience Award WINNER 2022

Conclusions

The aforementioned theoretical aspects and implemented practical solutions demonstrate that OER can be an effective solution in times of crisis (whether a pandemic or a war) to the issue of quality information support of distance education with materials in the national language in any country in Europe and the world.

In the context of higher education in Ukraine, OER is a means and one of the methods of overcoming linguocide by the Russian Federation – the purposeful destruction of the Ukrainian language as the main feature of the ethnic group. That is, OER can help to overcome the Ukrainian linguocide in educational resources.

Undoubtedly, it will be incredibly difficult for the university communities of Ukraine to implement a new model of information support for learning, teaching, research during martial law. After all, higher education institutions around the world have been improving practices and researching every aspect of creating, repurposing, adapting, disseminating, using OER and their impact on student learning outcomes, on the statements of teachers and other participants in the educational process about new opportunities for many years. Our foreign colleagues have been harmonizing OER year after year in terms of education, finance, legal, intellectual property and copyright issues, including the Creative Commons (CC) license system.

But Ukrainian education in the conditions of a fierce war has no time for slowness. That is why it is necessary now, actively studying the experience of universities in Europe and the world, to introduce local OER projects in their universities, and in the future - at the country level.

The authors hope that Ukrainian-language OER will soon become a mandatory element in the cultural environment of Ukrainian universities. The experience of librarians of the European Network of Open Education Librarians (ENOEL) proves that university librarians play one of the most important roles in this.

Ukrainian librarians can now and in the future count on assistance in OER issues from SPARC Europe and the European Network of Open Education Librarians (ENOEL). Together we

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care about diversity, equality and inclusion. This gives us the opportunity to understand how rich Europe and the world is thanks to all the languages and meanings of words associated with different backgrounds.

Yes, war is our new reality. The reality of Ukraine, Europe, and the world ... And in this reality, the librarians of USUST and librarians of other universities of Ukraine are determined to continue to support students, teachers, scientists, often even in extreme conditions and at a time when it is most needed. We understand that it depends on each of us whether we will overcome the linguocide (destruction) of the Ukrainian language in educational resources.

Thanks to their special role as educational intermediaries, close contacts with different university communities and unique skills, librarians are already widely recognized worldwide as important stakeholders in the implementation of inclusive and equitable access to education in general and to OER in particular.

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**Європейські практики подолання мовних бар'єрів в умовах кризи:
Відкриті освітні ресурси**

Мета. У будь-якій країні національна мова та освіта допомагають не лише передавати знання, а й розширюють кругозір студентів, вчать їх бути більш толерантними до різних культур. Сьогодні українська мова як важлива складова національної ідентичності та державотворення є однією з головних цілей росії у її війні проти України. Саме тому, одним із головних викликів для вищої освіти України у воєнний час є якнайшвидше створення сучасних та якісних навчальних матеріалів державною мовою з метою сприяння дистанційному викладанню, навчанню та дослідницьким процесам в університетах. Механізмом реагування на цей виклик є звернення до досвіду створення, адаптації та використання відкритих освітніх ресурсів (OER) в Європі та світі. Мета дослідження – розглянути практики створення, адаптації та використання OER в європейських університетах та бібліотеках у контексті їх переваг, у тому числі можливостей подолання мовних бар'єрів в умовах кризи. **Методи.** Стаття базується на аналізі літератури про практики використання OER у сприянні подоланню мовних бар'єрів, про діяльність ENOEL, про практики бібліотекарів та освітян кількох європейських університетів, а також на саморефлексії та безпосередньому переживанні обставин війни українськими бібліотекарями, які продовжують інформаційний супровід освітнього процесу. **Результати.** Теоретичні аспекти та реалізовані практичні рішення демонструють, що OER можуть бути ефективним вирішенням в умовах кризи (чи то пандемії, чи то війни) питання якісного інформаційного забезпечення дистанційної освіти матеріалами державною мовою в будь-якій країні Європи та світу. У контексті вищої освіти України OER є засобом і одним із методів подолання лінгвоциду з боку російської федерації – цілеспрямованого знищення української мови як головної ознаки етносу. Досвід роботи з OER Наукової бібліотеки УДУНТ (м. Дніпро, Україна) – це історія бібліотеки, яка шукала можливості для відповіді на свої локальні виклики та вирішення проблем під час пандемії COVID-19, і знайшла рішення, які стали необхідними під час війни з росією. **Висновки.** Автори сподіваються, що україномовні OER незабаром стануть обов'язковим елементом культурного середовища українських університетів. І саме OER спроможні допомогти здолати український лінгвоцид в освітніх ресурсах. Досвід бібліотекарів Європейської мережі бібліотекарів відкритої освіти (ENOEL) доводить, що одну з найважливіших ролей у цьому відіграють бібліотекарі університетів.

Ключові слова: відкриті освітні ресурси; мовні бар'єри; університетська бібліотека; дистанційна освіта; ENOEL; лінгвоцид; війна в Україні; бібліотека у воєнний час; інформаційна підтримка дистанційного навчання; УДУНТ; SPARC Europe

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