

**Type of Contribution: PAPER**

## ***Actually, I used OER – Professor's Perspectives on Digital Education in Library and Information Science during the COVID-19 Pandemic in Germany***

Lea Wöbbekind, Orhan Yener, Thomas Mandl (University of Hildesheim, Germany)

**Keywords: OER, Digital Education, COVID-19, Information Science**

### **Introduction**

In addition to requiring significant changes at the health and social levels, the COVID-19 pandemic's global outbreak at the beginning of 2020 and its ongoing effects continue to present significant issues for the education sector. In times of crisis management, German universities are dependent on restructuring teaching and study programs in the shortest of timeframes in order to be able to successfully facilitate teaching. The pandemic made it more evident than ever before that the German higher education system needs to implement digitization initiatives. In view of the progressing digitization, the creation and use of Open Educational Resources (OER) could be a didactic intervention for German LIS institutes. It is necessary to explore to what extent OER are already established in university teaching and in which context lecturers use them. Furthermore, it is to be determined whether the digital semesters may have contributed to stimulating interest in the use of OER. As a result, this research examines how LIS (Library and Information Science) teachers have used digital education (DE) and open educational resources (OER) in the face of the COVID-19 pandemic in Germany.

This research is part of the DECriS project: *Digital Education for Crisis Situations: Times when there is no alternative*. The project's target groups are students and teachers from programs in (L)IS, which will be approached in regard to the use of OER and ways for promoting, enriching and improving, DE for crisis situations, and beyond (<https://decris.ffos.hr/>).

### **Theoretical framework**

The purpose of this study is to gain understanding of teachers' perceptions of Digital Education (DE), specifically of Open Educational Resources (OER), primarily during the COVID-19 crisis and in comparison to their pre-pandemic experiences.

Factors on how to support student engagement in online teaching have been studied for various domains already (Boca, 2021; Hollister et al., 2022). To identify potential obstacles to the use of OER and the best ways to promote OER in teaching, it is essential to understand how academics

perceive and use OER in higher education (Belikov & Bodily, 2016). According to Boté-Vericad (2021), technical difficulties are the biggest challenge facing academics in digital education, as they have an impact on the production of educational videos. These limited experiences affected the creation of educational videos. There were issues with old technology and issues with internet connectivity. Feldhammer-Kahr et al. (2021) highlight that using digital tools effectively by professors results in greater satisfaction and better learning outcomes. The problem at hand for the university is to uphold the flexibility it now provides in terms of implementing teaching and instead offer various (digital technology) options that cater to the unique requirements and needs of teachers and students.

In light of this, the study that follows examines how instructors perceived using OER and digital teaching resources during COVID-19.

### **Research question**

The study analyzes OER in use and potential application concerns during the pandemic from the perspective of LIS academics, as there is a knowledge gap about OER utilization:

*What are the best methods for using OER by LIS instructors and what difficulties can there be?*

We will identify challenges and suggest solutions for digital teaching in the LIS sector based on the findings.

### **Methodology**

An interview guideline for semi-structured interviews with professors is designed to explore individual opinions and experiences. Based on a literature review, we use a question set within seven blocks regarding digital education and OER: Attitudes, expectations, problems, adaptability, advantages & disadvantages and lessons learned & improvements (DECriS, 2022).

The interviewer uses the questions as a tool to guide the subject into a natural discussion and elicit responses that would not be provided in a closed questionnaire when developing this form of interview. The method offers more flexibility and openness to address new issues and add or modify research questions (Luo & Wildemuth, 2017).

Eight interviews with professors from German universities in the field of Information Science are conducted in 2022 using an interview guide. A pilot interview is carried out.

### **Research Results**

The results from interviews are transcribed and analyzed with qualitative content analysis (Mayring, 2014). As for the analysis and presentation of results, we focus on topics that are relevant to the research question.

### *Online teaching and the use of OER*

Blended-learning methods have been a common teaching practice in LIS even before the pandemic. The pre-existing knowledge and skills of being able to create digital teaching materials helped professors ease the transition into the pandemic:

*[...] I have the impression that I experimented a lot somehow. It also fascinated me, it was fun [...]*  
(Prof. 5).

The most popular strategy that has worked well during the pandemic is sharing knowledge through privately produced screencasts. OER are occasionally integrated into the courses, but more often than not, they are used as the basis for new teaching materials. All interview partners are satisfied with the range of open resources for their field of education:

*I actually use OERs for science communication. There is a good MOOC from the Society for Knowledge Management with film content that I actually also integrate into teaching, but without reassembling or remixing it* (Prof. 1).

The future of higher education will be improved by technology, according to lecturers. A didactic model that combines the benefits of face-to-face instruction with a balanced amount of digital teaching is what almost all lecturers are working toward in the future.

### *The challenge of reusing OER*

Although their own teaching materials are re-used, the results indicate that professors do not fully embrace the possibility of modifying, combining, and reusing OER. Challenges may arise due to quality standards of learning materials as well as technical issues:

*[...] We once did research on OER as a whole in this OER manual. How do you get hold of the materials? [...] Whereby I have now noticed that the content becomes outdated relatively quickly, the links are no longer accessible or it no longer fits one hundred percent. In this respect, it is also a Sisyphian task* (Prof. 1).

OER creation takes time, which contributes to the poor engagement of professors in OER creation. On the one hand, teachers who have less OER expertise need some time to get accustomed to the prerequisites for reusing OER.

However, interview partners with specific expertise in OER note that because they aim to assure high standards for quality, creating OER needs more work than creating conventional teaching resources. Another barrier towards OER in higher education is a collective uncertainty regarding open licenses. There is a great deal of uncertainty about the legal aspects of the publication and reuse of content:

*[...] I have cited legal problems everywhere properly. Have I really done everything so cleanly that it more or less corresponds to these OER guidelines [...]*? (Prof. 3).

## **Discussion**

The findings show that teachers are highly motivated and competent in incorporating digital learning materials into their teaching.

However, there is a need for further assistance with information on copyright and open licenses, because teachers are not aware of copyright issues with educational materials. Another finding is that while many instructors use open educational resources, very few of them contribute to their publishing. To resolve these problems, collaboration among coworkers and the creation of a repository to offer free teaching and learning material in the field of LIS can both be helpful (Kullmann et al., 2021). Not only institutional support for the reuse of OER for lecturers is needed, but also quality criteria for the evaluation of OER (Todorova et al., 2022). Additionally, to integrate multiple best practices, a comparison to other LIS colleges and their experience and best practices are beneficial.

To lower potential barriers to developing digital educational materials, it is also considered how to educate and train librarians in universities to promote awareness of and give training for staff and students on the use of open educational resources (Santos-Hermosa and Atenas, 2022).

## **Conclusion**

This study helps to clarify the driving forces behind the adoption and application of OER in LIS. The collective wisdom and experience obtained from teaching during a crisis underline that the endurance and diversity of digital learning and teaching resources offered a significant pedagogic advantage in the dissemination of information. However, for the OER topic to build a common understanding of OER, university-level collective impulses or activities must be launched.

## **REFERENCES**

- Boca, Gratiela Dana. 2021. "Factors Influencing Students' Behavior and Attitude towards Online Education during COVID-19." *Sustainability* 13 (13): 7469. <https://doi.org/10.3390/su13137469>
- Belikov, Olga Maria, and Robert Bodily. 2016. "Incentives and Barriers to OER Adoption: A Qualitative Analysis of Faculty Perceptions." *Open Praxis* 8 (3): 235. <https://doi.org/10.5944/openpraxis.8.3.308>
- Boté-Vericad, Juan-José. 2021. "Perceived Barriers for Distance Teaching in Higher Education during the COVID-19 Crisis: 'I Never Did a Video Before.'" *Education for Information* 37 (3): 377–97. <https://doi.org/10.3233/efi-200418>
- "DECriS." Digital Education Appraisal and Quality Perception by Students, Teachers and Trainers at the Partner HEIs during the COVID-19 Crisis. Accessed October 7, 2022. <https://decris.ffos.hr/intellectual-outputs/o2>
- Feldhammer-Kahr, Martina, Maria Tulis, Eline Leen-Thomele, Stefan Dreisiebner, Daniel Macher, Martin Arendasy, and Manuela Paechter. 2021. "It's a Challenge, Not a Threat: Lecturers'

- Satisfaction during the Covid-19 Summer Semester of 2020." *Frontiers in Psychology* 12: 638898. <https://doi.org/10.3389/fpsyg.2021.638898>
- Hollister, Brooke, Praveen Nair, Sloan Hill-Lindsay, and Leanne Chukoskie. 2022. "Engagement in Online Learning: Student Attitudes and Behavior during COVID-19." *Frontiers in Education* 7. <https://doi.org/10.3389/feduc.2022.851019>
- Kullmann, Sylvia, Johannes Hiebl, Tamara Heck, and Marc Rittberger. 2021. "Potenziale von Open Educational Resources in der Informationswissenschaft?" In *Information between Data and Knowledge*, 74:397–404. Glückstadt, Germany: Werner Hülsbusch.
- Luo, Lili and Barbara Wildemuth. 2017. "Semistructured Interviews." In *Applications of Social Research Methods to Questions in Information and Library Science*, edited by Barbara Wildemuth, 248–57. Westport, CT: Libraries Unlimited.
- Mayring, Philipp. 2014. "Qualitative Content Analysis: Theoretical Foundation, Basic Procedures and Software Solution," <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-395173>
- Santos-Hermosa, Gema, and Javiera Atenas. 2022. "Building Capacities in Open Knowledge: Recommendations for Library and Information Science Professionals and Schools." *Frontiers in Education* 7. <https://doi.org/10.3389/feduc.2022.86604>
- Todorova, Tania, Eugenia Kovatcheva, Hristina Bogova, and Daniela Pavlova. 2022. "The Use of Open Educational Resources at University of Library Studies and Information Technologies during the Covid-19 Pandemic." <https://doi.org/10.5281/ZENODO.6488865>