

Open Educational Resources for Social Science Research Methods – A Case Study from the D-A-CH-Region

Dimitri Prandner

Empirical Social Research Unit, Johannes Kepler University of Linz, Austria.

Abstract

The D-A-CH region has traditionally been sceptic towards OER materials. Despite a very active open science community the three German speaking countries in Europe did not embrace wide reaching OER policies. This can be seen in the field of social science research materials as well. With national initiatives missing it falls to individual universities, organizations and persons to provide free online education materials. Most of those do not match the OER criteria and have limited application scenarios. If the region wants to truly embrace an open science policy, it needs to strengthen OER in the future.

Keywords: *OER; D-A-CH region; social science research methods, Austria, Germany, Switzerland.*

1. Introduction – Crisis and the rising need for OER?

In 2002, twenty years ago, *UNESCO* first drew attention to the societal importance of free educational resources (Kerres, 2019). Ten years later the ubiquitous nature of digital technologies (e.g.: smartphones, tablets, broadband internet) made it possible that online based learning and teaching platforms could establish themselves as a central pillar for education. The *Paris OER declaration* was put forward, highlighting the benefits of open education and as a mean to further the right to education for everyone (UNESCO, 2012). In this document *OER* were defined as “teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions” (ibid).

The importance of *OER* has further increased in the decade since, especially after the Covid-19 pandemic struck. In early 2020 most of the education sector was forced to switch to online based teaching modes, often relying on digital resources. While the majority of those resources are not broadly accessible because of copy right laws, ownership of material by publishers and associated pay walls, *OER* offered a sensible alternative for adopting teaching and learning to the circumstances forced upon educators (Huang et al., 2020, p. 4). This was especially important for the research methods education in the social sciences. This discipline gained prominence as the interest in and the relevance of quantitative and qualitative research that track public opinions and attitudes, including – but not limited to – the interpretation of such data, rose (Dada et al., 2021). Thus, easily accessible high quality *OER* for this discipline became relevant for a broader public as well. However, despite their arguable importance, *OER* development was not equally embraced in the past. While in many regions national and even supranational plans were put forward to foster the development of such materials the German speaking region of Europe – also known as the *D-A-CH* region, for Germany (D), Austria (A) and Switzerland (CH) – did not develop such strategies and let individual actors and educational institutions find their own solutions.

Accordingly, we ask how numerous available *OER* material for social science research (*SSRM*) methods in the *D-A-CH* region were during the pandemic years of 2020 as well as 2021 and what can be stated about their quality?

To do so we give an (2) overview over the reasons for developing *OER* and the documented situation in the *D-A-CH* region, (3) provide insights into our research design and (4) present as well as (5) discuss the results of our case study.

2. Literature Review - Importance of OER and the situation in the D-A-CH region

The following section provides a short literature review, illustrating both the relevance of *OER* and discussing the situation in the German speaking part of the world, which has been historically known to be critical of the *OER* movement (see Hylén et al. 2021).

2.1. The importance of OER

As illustrated in the 2012 *Paris OER* declaration by *UNESCO*, the importance of *OER* lies in the fact that they help to promote formal and non-formal education at all levels, contributing to broad social inclusion (*UNESCO*, 2012). This can lead to a democratization of knowledge (Lane, 2008), potentially reducing the financial costs traditionally associated with education and increasing the chance for open science. The last aspect must be stressed, as the origins of modern *OER* are at the *MIT - Massachusetts Institute of Technology*. Despite being a prestigious higher education institution in the US, with high entry costs and tuition fees, it was one of the first institutions to create *massive open online courses (MOOC)*, where all their lectures became available for anyone with internet access (Alquézar Sabadie et al., 2014, p. 3). Because of this *OER* can be seen as disruptive elements in the educational landscape, challenging not only the professional educational sector, but also traditional commercial textbook publishers. During the financial crisis of the late 2000s the advantages of *OER* could be felt around the globe, as socio-economic issues were limiting access and chances for (lifelong) education (Falconer et al. 2013, pp. 5). People who had no access to structural or formal education could bolster their knowledge on the one hand, while institutions that had only limited resources could offer their pupils and students materials to continue their education on the other (Alquézar Sabadie et al., 2014). Despite those benefits the quality of *OER* is a highly controversial topic, with authors like Knox (2013) arguing, that because of a lack of institutional or pedagogical quality insurance *OER*-users must fend for themselves when it comes to assessing quality. While it is true that criteria like academic peer review are less prevalent for *OER* assessment, defenders of *OER* argue that the collaborative character of the materials is a substitute (Alquézar Sabadie et al. 2014). Typically, *OER* quality is not judged on the merits of their learning content, but by their usability – e.g. navigation, use of keywords, requirements to use them on a topical level (e.g. previous knowledge) –, their openness and transparency regarding sharing and re-using them as well the opportunities to identify and engage with the creator to assess and improve the *OER* wherever possible (Elias et al., 2020).

2.2. The role of OER in the D-A-CH region

While many countries champion *OER* and are actively involved in fostering the systematic development of such resources, the German speaking region of Europe can generally be

classified as sceptic towards the concept. Ten years ago, in 2012, the *OECD* reported that only four for their survey countries had no structured *OER* activity, with two of them being Germany and Switzerland (Hylén et al., 2021, pp 8-10). And even as Austria reported some activity, this was mostly tied to an emphasis on the open access publication of research results and articles (Hoosen, 2012, p. 8). Reasons for missing activity in Germany were a series of concerns: The practicality and usefulness of *OER* were doubted, as questions regarding content quality, technical interoperability, and legal aspects – especially regarding copyright – were not solved (Hylén et al., 2021, p 8). For Switzerland it was reported that they have no countrywide *OER* programs as regulators saw it as the duty of the Cantons (Provinces) to provide a framework (ibid.). Those sentiments can still be seen today, as the *Registry of Open Access Repositories* (see: <http://roar.eprints.org/>) is currently not listening any open access repositories focusing on teaching and learning in Austria or Switzerland and only one for Germany, despite the interest the German federal Ministers of Education showed in the issue, as early as 2015 (Marín et al., 2020). However, government-sponsored initiatives like *Open Education Austria* (<https://www.openeducation.at/>), which was funded in 2020, and an *OER* section at the homepage of the *Austrian Social Science Data Archive – AUSSDA* (see: <https://www.aussda.at/>), hint at the development of the sector in Austria and well-known platforms like the *Methodenberatung* of the University of Zurich (see: <https://www.methodenberatung.uzh.ch/de.html>) show fruitful regional developments in Switzerland. Next the situation of Social Science Research Methods *OER* in the *D-A-CH* region will be assessed and discussed if the assumptions of German representatives in the *OCED* 2012 survey on the state of *OER* could be rectified in the field of *SSRM*.

3. Study design

The study design is based on a structured content analysis (Mayring 2010). The corpus for the analysis are freely available online learning materials, in the German language dealing with the field of social science research methods (following either the quantitative or qualitative paradigms or mixed forms). While the definition of the *UNESCO* includes the necessity to publish under creative commons licenses, it was decided to start with a classification of *OER like materials*, as e.g., defined by Ochieng and Gyasi (2021, p. 9), that can be subsumed as freely available teaching and learning materials that can be found on the internet. This broader approach was taken as it had to be anticipated that German language *OER*– matching the *UNESCO* definition – would be too few for a structured analysis. For the whole process of the structured analysis a three-pillar approach was taken.

The first pillar consisted of *OER* offered via social science associations in the German speaking countries coming from sociology, psychology, communication and media studies, political science and educational studies (e.g.: *DVPW*, *DGPuK*, *DGfE*, *ÖGS*, *SGS*, *SGKM*, *ÖFEB*). The second pillar for cataloging were the offerings from public universities and

universities of applied sciences in the *D-A-CH* region having chairs in empirical social research or departments focusing on such matters (e.g.: departments that included descriptions like “empirical social research”, “social science research methods”). When it comes to both the offerings from the associations as well as universities the regular web-front end as well as e-learning platforms were used for data collection. Finally, the third pillar were non-institutionalized *OER*. Cataloguing happened via *OER* hubs as well as using a free web search via google and *YouTube*. Logical operators and registered *ELSSST – European Languages Social Science Thesaurus* – keywords for (research) methods, social sciences and *OER* were used as well as more specific terms for twenty common analytical procedures like e.g., grounded theory, factor analysis, regression, topical analysis. For each combination the first five pages – approximately 50 entries – of search results were considered. New combinations of the key words were used until no new useful hits emerged. For both *Google* and *YouTube* cleaned browsers, with all tracking tools disabled, were used. Later results may have been (willingly) influenced by the algorithms that started to track the search interests. This research created the corpus of *OER* for analysis. To be part of this corpus the following criteria had to be met: The materials had to be online based (1), in the German language (2) and needed to cover quantitative or qualitative research methods from the social sciences (3). Furthermore, they needed to be at least partially openly available (4) and go beyond simple reference or reading lists or syllabi (5). Following the arguments from Atenas and Havemann (2013, p. 27) course or seminar scripts and slidesets, encyclopedia or glossary entries as well as repositories that contained scientific papers or qualification work (e.g., doctoral dissertations) were excluded. This limits the scope of the study and may result in some undercoverage but made it possible to systematically collect data. Read results accordingly.

Data collection was conducted research associate Matthias Forstner (JKU) between May 19 and August 3, 2021 afterwards all the materials were analyzed regarding the topics they cover (e.g., data collection, quantitative data analysis, qualitative methodology etc.), the knowledge required to work with them, their mode (e.g., text or video), if they provide information on the license for use and furthermore what type of license and if they offer the chance for feedback, collaboration and interaction. Next to these quantitative assessments a qualitative judgement regarding the quality of the free online learning resource was formulated.

4. Results and Insights

First and foremost, it must be stated that even the world database of open access educational resources does not identify a larger number of *OER* content for *SSRM* in the *D-A-CH* region. In January 2022 only 1 *OER* activity can be found that matches the criteria in the *Registry of Open Access Repositories*. While other aggregation platforms like e.g., *Edukatico* or the *OER-Content Buffet* offered at least some more basic content or links to such content, most of the material was either in a non-German language or not matching the established criteria

in one way or another. This limited *OER* activity is also mirrored by the activities of the subject based associations, our first pillar: not a single *OER* – or other forms of free online learning materials – could be found in their online presences, even if dedicated research methods sections existed, that were hosting workshops or conferences like e.g., the methods section of the *Austrian Sociological Association (ÖGS)*. However, research showed that there was at least some relevant activity in the field, tied to our second pillar for analysis: individual universities. Eighteen platforms could be identified, twelve of them text based and six of them video based. While those are often hard to find because of the structure of university homepages, complex navigation structures and problematic URL-denominations, they can be generally seen as high-quality *OER* materials, that are often highly structured and can be easily navigated – including relevant key words. While in Germany the resources are spread out over several universities, the main contributions in Austria and Switzerland are at the most prestigious universities of the countries – the *Universities of Vienna and Zurich*.

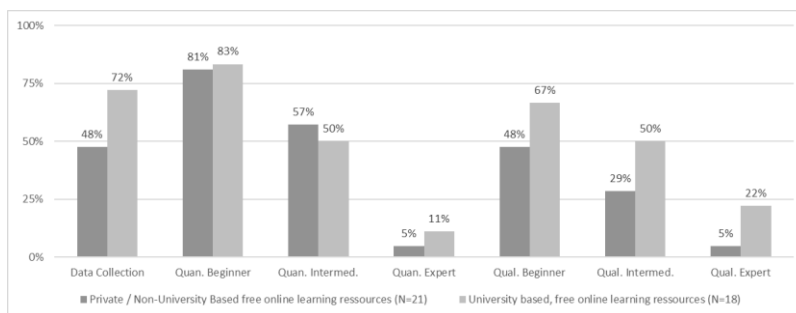


Figure 1. Distribution of topics covered by German language free online learning materials on social science research methods

When it comes to the type of content the learning materials provided by the universities cover, it can be stated that they cover a broad range of quantitative as well as qualitative methods, mostly at beginner or mid-level. Expert level quantitative methods like e.g., structural equation modelling or confirmatory factor analysis were covered by none of the text platforms. However, two expert level resources were available on the video-based platforms. Furthermore, three of the text-based platforms covered expert level information on qualitative methods like e.g., discourse analysis. Additionally, a video-based platform provided content on these topics (see figure 1 for an overview on covered topics). Only one of the platforms identified allowed for a rating of the provided materials. While none allowed for direct interaction, most provided e-mail contacts for an exchange. Regarding the openness of the university offerings, it can be stated that only five of twelve text-based platforms provided information on a creative commons license, while the rest either used closed licenses or protected their material with strict copy right. When it comes to the videos only one – the platform of the *University of Darmstadt* – provided materials that had an actual creative commons license. Most of the university-based pages provided little information on authors

or creators of the resources. Moving away from official platforms offered by universities and looking at content hosted by individuals, organizations or published on social media platforms like *YouTube*, a highly heterogeneous field of resources can be found. Firstly, several commercial software providers like e.g., the startup *Datatab* (quantitative data analysis tool) and prominent text analysis software provider *MAXqda* (qualitative data analysis tool) offer free materials to support their key business. Springer-owned *Ivertiy* offers some courses for free as well. However, those initiatives are not *OER*, as they serve a commercial interest and are often copy right protected. Furthermore, offerings that are not tied to such commercial enterprises are often presented in blog-format or on sub-pages of other open science initiatives like e.g., the *Austrian Social Science Data Archive – AUSSDA* and thus hard to find and use. However, most of those initiatives have the advantage that they allow for direct communication, exchange and feedback via communication tools and identify the content creators. Coming from a content perspective they are not too different to the offerings found at university sites, mainly focusing on beginner level material (see figure 1).

5. Conclusion

Despite the increasing importance of *OER* the number of freely available learning materials in the *D-A-CH* region covering social science research methods is still small, mostly focused on beginner and intermediate skill levels and tied to either universities or corporations with a strict interest to provide materials for their (potential) costumers. This matches the results of other analysis of the region (Höhne, 2018, p. 150 and 155). While creative common licenses and potential ties to commercial actors may not be a hinderance for the quality of the content it at least limits the use of such materials and their application in educational scenarios – be the institutionalized or even driven by the personal interest in the topic (Kerres, 2019, p. 6). True *OER* are still the exception rather than the rule. Accordingly, it has to be recommended that a national or even supranational strategy should be put in place to foster *OER* development at the level of associations and universities. These strategies need to address open licenses and gives guidance on quality related concerns, making sure that times of crisis – when e.g., in our case the information on how to read and understand statistical data presented in the media would be very important – free and open learning materials of high quality are readily available.

Overall, it is an alarming result that ten years after the *Paris OER declaration* a region that is committed to open science and a key partner in establishing the *European Open Science Cloud* (Burgelman, 2021), seems to be lacking highly societally relevant open educational resources that are central for navigating the increasingly digitized and datafied society.

References

- Atenas, J., & Havemann, L. (2013). *Quality assurance in the open: an evaluation of OER repositories*. INNOQUAL, 1(2), 22-34.
- Alqu zar Sabadie, J. M., Casta o Mu oz, J., Puni, Y., Redecker, C., & Vuorikari, R. (2014). OER: A European Policy Perspective. *Journal of interactive Media in Education*, 5(1), 1-12. Retrieved Feb. 10, from: <https://files.eric.ed.gov/fulltext/EJ1034709.pdf>
- Burgelman, J. C. (2021). Politics and Open Science: how the European open science cloud became reality (the untold story). *Data Intelligence*, 3(1), 5-19.
- Dada, S., Battles, H., Pilbeam, C., Singh, B., Solomon, T., & Gobat, N. (2021). Learning from the past and present: social science implications for COVID-19 immunity-based documentation. *Humanit Soc Sci Commun*, Vol 8, 1-9.
- Elias, M., Oelen, A., Tavakoli, M., Kismihok, G., & Auer, S. (2020, September). Quality evaluation of open educational resources. In Alario-Hoyos, C., Rodr guez-Triana, M. J., Scheffel, M., Arnedillo-S nchez, I., Dennerlein, S. M., Frey, T. F., & Weidlich, J. (eds), *European Conference on Technology Enhanced Learning* (pp. 410-415). Cham: Springer.
- Falconer, I., McGill, L., Littlejohn, A., & Boursinou, E. (2013). *Overview and analysis of practices with Open Educational Resources in adult education in Europe*. Seville: European Commission
- H hne, T. (2018).  konomisierung der Produktion von Schulb chern, Bildungsmedien und Vermittlungswissen. In Engartner T., Fridrich C., Graupe S., Hedtke R. & Tafner G. (eds), *Sozio konomische Bildung und Wissenschaft* (pp. 141-162). Wiesbaden: Springer.
- Hoosen, S. (2012). Survey on governments' open educational resources (OER) policies. Vancouver: Commonwealth of Learning.
- Huang, R., Liu, D., Tlili, A., Knyazeva, S., Chang, T. W., Zhang, X., Burgos, D., Jemni, M., Zhang, M., Zhuang, R., & Holotescu, C. (2020). *Utilizing OER under COVID-19 Pandemic in line with UNESCO OER Recommendation*. Beijing: Smart Learning Institute of Beijing Normal University.
- Hyl n, J., Van Damme, D., Mulder, F., & D'Antoni, S. (2012). Open Educational Resources: Analysis of responses to the OECD country questionnaire. Paris: OECD Publishing.
- Kerres, M. (2019). Offene Bildungsressourcen und Open Education: Openness als Bewegung oder als Gef ge von Initiativen. *MedienP dagogik*, 34(1), 1-18.
- Lane, A. (2008). Widening participation in education through Open Educational Resources. In V T. Iiyhoshi & M. Vijay Kumar (Eds.), *Opening up Education* (pp. 149-164). Cambridge: The MIT Press.
- Mar n, V. I., Zawacki-Richter, O., & Bedenlier, S. (2020, October). Open Educational Resources in German Higher Education – An International Perspective. In *EDEN Conference Proceedings* (No. 1, pp. 85-94).
- Mayring, P. (2010). *Qualitative Inhaltsanalyse. Grundlagen und Techniken*. Basel: Beltz.
- Ochieng, V. O., & Gyasi, R. M. (2021). Open educational resources and social justice. *E-Learning and Digital Media*, 18(2), 105-124.
- UNESCO (2012). Paris Declarion. Retrieved Feb. 10, from: 2012 WORLD OPEN EDUCATIONAL RESOURCES (OER) CONGRESS (unesco.org)