



OER Certification of Individuals and Organisations in Higher Education: Implementations Worldwide

RESEARCH ARTICLE

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ABSTRACT

The initiative “Open Education Austria Advanced” develops infrastructures for open educational resources (OER) in higher education. One part is the development of certification procedures to point out OER competencies of teachers in higher education and OER activities at Austrian universities. We present the results of our research on existing OER certification procedures from the German and English-speaking world. We started by searching in the OER World Map and there listed OER policies of universities worldwide and then tried to find examples for existing OER certification for people and organisations. There are several examples for certifications of persons such as in MOOCs on OER, university training on OER or the Creative Commons certification itself. We found only a few references of (partly) OER certificates for organisations. The publication then describes ambitions towards openness of the OER movement regarding possible certification procedures, namely open development, open content, open assessment and open certificates.

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Open Educational Resources (in short OER) are open licensed educational materials, content and formats (Schaffert & Geser, 2008; Ebner & Schön, 2011). International organisations such UNESCO and OECD as well national initiatives and strategy papers recommend their development: They are seen as a base for a more inclusive, open, sustainable education and world (UNESCO, 2019; Orr et al., 2015). Universities share such ambitions and add some more pragmatic aspects such as that OER is a solution for copyright issues in teaching, that OER gives new teaching opportunities, or that OER simply supports lifelong learning – and public relation (Schaffert, 2010).

To support the development of OER in Austria's higher education, the project consortium "Open Education Austria Advanced" develops and implements processes to give OER activities of universities and OER competences of university teachers more visibility: an OER certification for universities and their staff, so lecturers or as well administration e. g. instructional designers.

Within our project and this publication, we understand "certification" as the process on how know-how and competencies of people or activities of organisations are made transparent through a certificate, typically at the end of an episode of learning, development or assessment.

The legal framework regulates in the respective higher education area the admission to study programs, examination law and the attainment of academic degrees, as well as quality assurance procedures at the level of the institutions. In addition, higher education institutions also use the instrument of certification to highlight areas of focus, e. g. to show that they are pursuing sustainability goals.

The term "certification" is associated with the expectation that there will be a formal examination procedure, usually by external parties, to check whether certain characteristics are present, or activities are verifiable.

Different expectations are placed on the introduction of certificates in the field of HEI. We have compiled the following from various publications from the field. Certification of individuals and HEI aims or might contribute to

- support a certain topic and its integration in HEI (cf. Hamid et al., 2021; Disterheft et al., 2012),
- let HEI show certain values and ambitions (Disterheft et al., 2012),
- incentivize competence development or activities within a field because of the availability of an external certification (see e. g. Roorda & Martens, 2008),
- clear descriptions of relevant competencies or activities in a field (tool for policy development (cf. Roorda & Martens, 2008),
- let HEI demonstrate competences, activities and experience in a field, e. g. for project tenders for third-party funding, cooperation with others, or future students (cf. Nguyen & LeBlanc, 2001; Ali et al. 2016),
- set a standard of competencies or activities, practically such standards should be high to reach quality concerning current economic theory (cf. von Wangenheim, 2019),
- an opportunity to HEIs to learn from other HEIs (see Roorda & Martens, 2008),
- a sense of competition with other HEIs that might support activities (Roorda & Martens, 2008),
- trust – "In differentiated societies, trust requires delegation to functional authorities and institutions, particularly in the area of knowledge" (Osterwalder, 2001, p. 38),
- and, of course, to support topic-related developments in HEI, for example quality assurance (Shutler & Crawford, 1998; Hamid et al., 2021).

In economics in particular, attempts are being made to investigate the effects of certification, and there are also more extensive descriptions of the theory of certification in the consumer goods industry (Bartley, 2010). For the HEI sector, such theory development and studies are not as common. We can assume that at least some of the associated expectations should also be fulfilled; even if such procedures could also include the possibility of non-identified consequences (cf. Tambi et al., 2008)

The objective of this contribution is to gain a comprehensive picture of current activities and to list exemplary OER certification procedures and their business models in order to be able to

make the best possible decisions for the development of the OER certification process and body for universities as organizations as well their teachers in Austria. So far, we could not find an existing description of the current state of OER certification in higher education.

RESEARCH QUESTION AND STRUCTURE

We want to use existing knowledge and experience as well as potential network effects for the Austrian OER certification. Therefore, we want to answer and investigate the following two questions:

- What is the background and idea behind the planned OER certification for individuals and organizations in higher education in Austria?
- What are the existing procedures for the recognition of competences and activities in the field of OER for individuals and organizations?

The paper starts with a description of our research methodology and background information of the current situation at Austria's higher education landscape concerning OER. We then present our results concerning (a) a description of the Austrian OER certification in HEI, (b) the results concerning OER certification using the OER of an analysis using the OER Policy Registry, (c) our findings of OER certifications for individuals worldwide and (d) results of our search for OER certifications for HEI. We shortly discuss our findings (and ask for additions from our reader, if known). As an outlook, we present our consideration concerning the characteristic of an OER certification.

RESEARCH METHODOLOGY DESCRIBING THE AUSTRIAN OER CERTIFICATION

In order to describe the development and status of OER certification in Austria, the authors make use of background materials and existing publications and use them to describe the current status. These include, for example, the project proposal of "Open Education Austria Advanced" and the white paper on OER certification (Ebner et al., 2016).

THE SEARCH FOR INTERNATIONAL EXAMPLES OF EXISTING OER CERTIFICATION

These presentations of examples are the result of intense desktop research. Since we assumed that there are only a few similar developments and that they do not necessarily publish scientifically on this, we combined a traditional scientific search in databases with searches for projects in September 2021.

We therefore analysed the ERIC database and Google Scholar in September and October concerning findings for "certification" AND "open educational resources".

- Additionally, we used the collection of the OER policy registry and had a closer look on the OER policies of higher education institutions worldwide that were tagged with "capacity building".
- We as well looked for "certification" within the OERworldmap.
- To find other OER certification approaches outside of HEI we as well used a search engine and analysed all relevant findings for "certification" AND "open educational resources" (Duckduckgo)
- Additionally, we used our network and social media (Twitter) to find all existing approaches worldwide (see acknowledgment).

Concerning the certification of individuals, we have then selected such examples

- where the certification is based on a longer training, i.e., longer than one day,
- or on the validation of dedicated OER competences.

In the case of references to projects for the certification of OER competences, the corresponding accessible materials were specifically searched for (e.g. project websites, publications) and information on them was collected. In most cases, no further contact was made. In each case, we searched for information from the descriptions,

- which institution gives an OER certificate to which target group and what the requirements for the certificate are, whether participation in further training is necessary and whether work samples (e.g. OER) must also be submitted.

Concerning the certification of individuals, we did not really find an example. So, the presented certification example might serve as inspirations as they come from connected fields such as technology-enhanced learning. The selection is not systematic.

Before presenting international examples, we would like to present the current situation of OER certification and preparatory work as well as background information on OER in higher education in Austria.

BACKGROUND INFORMATION ABOUT OER IN AUSTRIA

Several contributions describe the OER development in Austria in general (see Schön et al., 2017; Schön & Ebner, 2020), which counted among the countries where OER production or use is part of government policy (Orr et al., 2015, p. 129). So, the term “OER” is mentioned for the first time in a strategy paper of the Austrian government in the “Digital Roadmap” in 2016 (Bundeskanzleramt & Bundesministerium für Wissenschaft, Forschung und Wirtschaft, 2016). As a measure, it announces: “Step-by-step anchoring of digital and interactive textbooks; making digital educational media and open and free educational content (Open Educational Resources, OERs for short) accessible; expanding offers for (self-organized) continuing education.” Since fall 2016, the (then called) Federal Ministry of Education has been working intensively on the topic of open educational resources. On January 23, 2017, concrete projects were presented to the public (Federal Ministry of Education, 2017a). The press release on the Federal Ministry of Education’s digitization strategy also presented a summary of the digitization activities. Specifically, in “pillar 4: Digital Learning Tools” the press release mentions OER as follows: “To be able to teach digital content, educators need easy and free access to teaching and learning materials. Through OER (Open Educational Resources), content is made available, and the active use of digital media is stimulated” (Federal Ministry of Education, 2017b, own translation). With a change of government, the declaration has become obsolete, but numerous OER initiatives are still being continued and supported without interruption.

In the context of higher education, reference should also be made to the European and national strategies in the field of Open Access and Open Science. The Federal Ministry of Education, Science and Research (2020b) thus emphasises on a website on Open Science: “In times of global digital change, [Open Science] is an important prerequisite for guaranteeing the constitutionally guaranteed freedom of science. Austria plays an important pioneering role in this respect”. In the following list of what is counted as Open Science, OERs are also explicitly mentioned: “Open Education (including the use of Open Educational Resources (OERs) in the context of the digitization of studies and teaching). This means making teaching and learning materials accessible under free licenses” (Federal Ministry of Education, Science and Research, 2020b, own translation).

The landscape of Austrian universities is characterised by public, inexpensively accessible higher education institutions of various types: In Austria, most students are at universities which are publicly funded and can be attended for comparatively low tuition fees – especially when compared internationally – if one has the formal admission requirements. In addition to 22 public universities, Austria counts 16 private universities. There are also 21 universities of applied sciences and 14 University Colleges of Teacher Education in Austria, which are responsible for the training of a significant number of teachers (Federal Ministry of Education, Science and Research, 2021).

So, as well Austrian policy papers currently emphasized OER in higher education, they are explicitly mentioned in the National Strategy for the Social Dimension in Higher Education (Federal Ministry for Science, Research and Economy, 2017) and in the National Austrian University Development Plan 2022–2027 (Federal Ministry of Education, Science and Research, 2020a).

The corresponding developments are coordinated and discussed, and recommendations are developed in the “Open Science Network Austria” network, among others (OANA & uniko, 2016). Open Access and Open Science is supported in numerous projects.

Overall, it can be said that these national initiatives correlate with the developments in the European Higher Education and Research Area (concerning Open Education, Open Science,

Open Data) with its steering instruments (i. e. Erasmus+ Programme Guide with its Open Access Requirements for beneficiaries or The EU’s open science policy with its eight ambitions incl. skills and support for researchers to apply open science research routines and practices).

Despite being mentioned in strategy papers, implementation and attention to OERs is largely not an important issue from a university perspective. In this section, we would like to show how OER is becoming an issue at Austrian universities, but rather “indirectly”, and what activities have been done so far regarding to OER in Austrian universities.

Although OERs have been mentioned in national strategy papers in recent years, only a part universities mention OERs in their strategy papers. Currently, two universities have specific OER policies (University of Graz, 2020; Graz University of Technology, 2020). Another OER policy is in progress at the University of Innsbruck. In meetings of our project and of the Austria-wide special interest group for OER we have tried to describe and iteratively developed the perspectives on OER from universities in Austria. Based on discussions with university representatives, the impression arises, that some Austrian universities deal with OER “indirectly” because they see it as an aid in digital teaching, open education and open science (see **Figure 1**). Nevertheless, the universities profit and promote OER as well from general effects on for example democratization of learning, sustainability or reputation. The figure shows that not OER stands in the focus and wished result, but it is seen as a valuable measure to address, and reach wished effects and possibilities. A similar presentation of OER strategies in universities with a focus on their envisaged organisational changes was published by Schaffert (2010), which did not include requirements of open science then.

Many of the universities implemented OER as part of their internal training for lecturers, but there are different ways of activities – and not all are mentioned in the performance agreements anyway. We give some examples for activities: The University of Graz, for example, is the first Austrian university demonstrating an OER policy, by a decision of the Rectorate in March 2020. Graz University of Technology has already implemented a systematic technical support for the OER publication process: A special feature of Graz University of Technology is that (exclusively) with the acquisition of an OER certificate, which is comparable to the fnma whitepaper, lecturers also receive the authorization to publish their materials as OER in the OER-repository (Ladurner et al., 2020). At the University of Innsbruck, the development of an OER repository is accompanied by training for lecturers. An Austrian referatory for OER from higher education is hosted and developed by the University of Vienna (*OERhub.at*), building upon the experiences of their repository Phaidra (Marksteiner, 2008).

Besides these activities from public universities, OER plays as well as a role for University Colleges of Teacher Education, as several OER projects addressing schoolteachers are existing. For example, University Colleges of Teacher Education are creating OER materials for computer science education. These include the OER textbook on Microbit or task cards on coding and

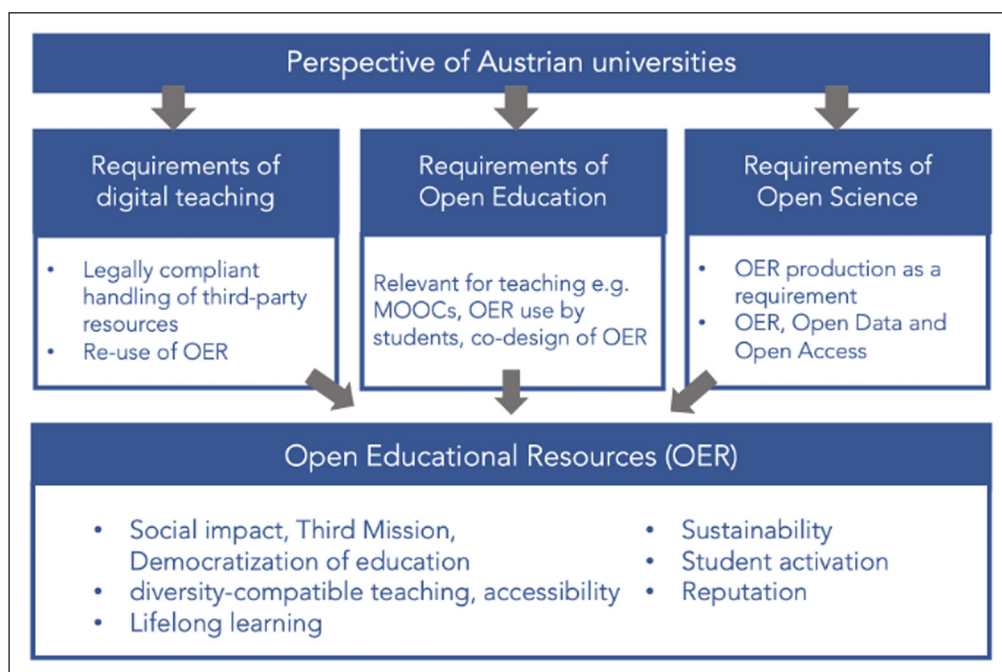


Figure 1 Perspective of Austrian universities on Open Educational Resources. Developed with the OEAA project team and special interest group OER of fnma. Source: Schön et al. (2021), translated.

robotics. (Bachinger & Teufl, 2018; Pädagogische Hochschule Niederösterreich, 2019). Nevertheless, OER plays not an important part of curricula or strategies so far.

The third form of universities, so-called “Universities of Applied Science”, are not bound to national policies, and follow very diverse approaches concerning OER. Some have already OER activities nevertheless: The University of Applied Science Carinthia has already started an intense training for 20 of their lecturers in 2019, interrupted by the closure of universities facilities due to the COVID-19 pandemic (see Ebner et al., 2020).

RESULTS

DESCRIPTION OF THE OER CERTIFICATION DEVELOPMENT WITHIN THE “OPEN EDUCATION AUSTRIA ADVANCED” PROJECT

Within the framework of the project “Open Education Austria Advanced” under the project management of the University of Vienna, various existing initiatives of the participating institutions in the field of OER, for example the establishment of an Austria-wide OER department and university repositories, will be continued and intensified (see Ladurner et al., 2020). A sub-project of the initiative “Open Education Austria Advanced” is entitled “Establishment of the national OER certification body”. With the support of the project partners, the “Forum Neue Medien in der Lehre Austria” (fnma) will establish the national OER certification body and processes. The necessary procedures and processes will be set up and put into practice in close cooperation with all Austrian stakeholders: All Austrian universities should be able to carry out the certification of both their lecturers and the university itself within the project period.

The whitepaper on OER certification by “Forum neue Medien in der Lehre Austria” (fnma) is the non-binding basis for the design of the certification body: In 2017, the special interest group “Open Educational Resources” of fnma published the “Concept OER Certification at Austrian Universities” (Ebner et al., 2017; Ebner, 2018). The concept is based on the “Recommendations for the Integration of Open Educational Resources at Universities in Austria” (Ebner et al., 2016a, Ebner et al., 2016b) published in 2016 by the same special interest group. The concept for OER certification sketches the certification of both teachers and universities. It also recommended the creation of a national certification body.

So, the criteria for the OER certificates for universities and their staff (teachers and other staff at universities) have been developed in a national special interest group and are (still) the basis for the ongoing development (Ebner et al., 2017). For individuals (working title: “OER Expert – Proof of competence in open educational resources for experts”) the following criteria are defined:

- Participation in an OER training measure in the scope of one ETCS (25 hours, alternative validation procedures are under development)
- Publication of three OER

The special interest group also defined the following criteria for universities (working title: “OER University”):

- The university has a corresponding OER qualification offer and is publicly/strategically committed to free educational resources (“OER Policy”).
- The university has a defined number of OER-certified lecturers.
- The university offers its own OER repository (or a suitable network solution in cooperation with other universities) in which OERs can be deposited.

The planned OER certification thus corresponds to the recommendations and request for actions in the UNESCO OER declaration (2019). So, the OER certification for individuals and the therefore needed further education in HEI contributes to the recommend action of “providing systematic and continuous capacity building (in-service and pre-service) on how to create, access, make available, re-use, adapt, and redistribute OER as an integral part of training programmes at all levels of education, including assistance in initial training programmes for educators.” (III, i, b).

The planned OER certification for higher education institutions in Austria and the criteria of an offer of further education for staff members and a certain number of staff with an OER certifications addresses the same demand. Additionally, the criteria for OER certification of HEI as well addresses further actions suggested by the OER recommendation of UNESCO (2019) because it

- support the development or use of OER repositories, so that “OER can be easily found, accessed, re-used, adapted and redistributed in a safe, secure and privacy-protected mode” (see III, i, d) and it
- encourage HEI to develop “policy frameworks to stimulate the creation, access, re-use, re-purpose, adaptation and redistribution of quality OER” (see III, ii, b)

The aim of the OER certification work package is now to develop a convincing, transparent and recognized procedure with which it is possible to sustainably promote and make OER activities and OER competencies at Austria’s universities visible. We would like to avoid an unnecessarily complex and expensive procedure with extensive documentation work and at the same time develop a business model that enables the long-term operation of a certification body beyond the end of the project (after 03/2024). While the criteria for certification have already been described, we are currently working on sketches of the processes, designing an appropriate digital environment and discussing the implementation of the actual certificate.

In order to increase the effect and incentives for the certificate, it is planned in the development to meet as many standards as possible and thus to create compatibility with national and international initiatives and certificates, among other things by considering the quality standards of the German Association for University Didactics.

An initial implementation concept was drawn in 2021 with the involvement of stakeholders, interested persons and universities, and details are currently under development and will be tested in detail by spring 2023. The first official certificates will be issued in 2022.

Learning objectives and activities for can be derived from the existing frameworks for OER competences. Nascimbeni & Burgos (2016) provide an introduction and considerations into a competency framework. A French-speaking consortium published an OER competence framework in 2016, which UNESCO translated into English (Organisation internationale de la francophonie, 2016a), and a trainer’s guide was also presented (Organisation internationale de la francophonie, 2016a). A current contribution by Ehlers & Bonaudo (2020), who have described the requirements in the form of a competence profile for “Open Educators”, may also be helpful here. Here one of two components is “OER competence”. This in turn is described as (p. 73ff): Use open licenses, search for OER create, revise and rearrange OER, share OER.

Bearing in mind those frameworks a qualification description was drafted for the Austrian OER certification in the first year of the project and discussed and adapted in several rounds with stakeholders: “The certificate holder can find, create, revise, remix and publish openly licensed educational resources (OER) independently and on his/her own responsibility, taking into account his/her professional disciplinary and didactic expertise.”

We aim those individuals who will receive the OER certificate should have achieved the following learning objectives:

1. I can name and use different open licenses and their requirements and differences.
2. I can find openly licensed educational resources (OER).
3. I can create, revise and remix OER.
4. I can publish OER and make them available to other teachers.

In the last few years, the universities in the project consortium have already carried out further training in line with the criteria, so that there are about 20 to 50 people who can receive the OER certificate from fnma. Further training is also being carried out and planned now; the project is also supporting here, for example, with the new production of a MOOC for OER in HE.

EXISTING OER CERTIFICATION IN HEI ACCORDING TO THE OER POLICY REGISTRY (SEPTEMBER 2020)

We tried to find existing OER training and potential certifications for university lecturers as well in the worldwide collection of OER activities: The organization Creative Commons has started to collect OER policies. Since 2018 the “OER Policy Registry” is part of the project “OER World Map” (Wikipedia, 2020).

Figure 2 gives an overview of the 141 OER policies of the higher education sector collected in the OER Worldmap (as of December 2020).

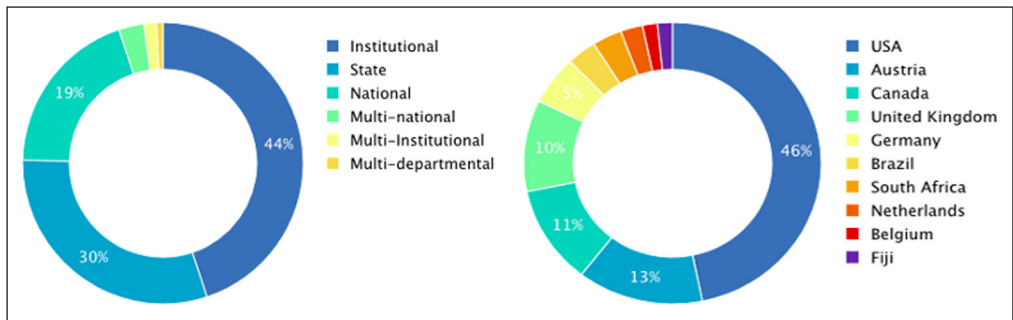


Figure 2 Overview of the 141 OER policies of the higher education sector in the OER Worldmap (as of December 2020). Source: https://oerworldmap.org/resource/?filter.about.primarySector.%40id=%5B%22https%3A%2F%2Fassets%2Fjson%2Fsectors.json%23higherEd%22%5D&q=about.%40type%3APolicy&view=statistics&size=20&sort=_score&language=en&filter.about.%40type=%22Policy%22

According to our analysis (September 2020), we found four OER policies from outside Austria of single universities which were tagged with “capacity building” which we saw as a sign for activities in the field of further education of lecturers.

The University of the South Pacific (2017) specifically mentions further training as a measure for “capacity building” (p. 2): Capacity building and professional development of staff in the integration of OER in teaching and learning will be organized and coordinated [...] Staff engaged in the creation and adoption of OER shall be duly recognized as part of the Quality of Research and Quality of Teaching criteria and policies at the University“. The OER policy for the Open University of Tanzania (2016) mentions training for teachers (but no special certification as well). The other two findings of OER policies in higher education on an institutional level were less disappointing concerning our aim: We could not find the expected reference concerning training activities (Hochschule Reutlingen, 2019) nor a current URL of the OER policy at all (University of South Africa).

So, the following examples for OER training and certification were primarily detected with research in literature databases, the Web as well throughout networks and are only partly related to the field of higher education.

OER CERTIFICATION OF INDIVIDUALS WORLDWIDE

In our research, we found several shorter workshops at HEI where attendance can be verified with a certificate of attendance. One example is the workshop “Using Open Educational Resources for Teaching” at the FU Berlin (2020), which is offered as part of a university didactic program. OER certificates based on longer trainings (more than one day) that focus on OER are much less common (see **Table 1**) and will be described in the following paragraphs.

TITLE (DESCRIPTION)	PROVIDER (COUNTRY)	PARTICIPATION IN CONTINUING EDUCATION/ MOOC	WORK SAMPLE	OTHER ASSESSMENT BASE
a) “COER13 hOERer” and “COER13 wOERker” (MOOCs)	eteaching.org and partners (Germany, Austria, Belgium)	■	■	
b) Certificates of COER15, COER16, COER17, COER18, COER19 (MOOCs)	iMooX/FH Lübeck, (Austria/Germany)	■		
c) “Certified OER Expert BDVT” (blended training)	Professional Trainer Association (Germany)	■	■	
d) “Certificate as a Mural” (training)	University of Guadalajara, (Mexico)	■		
e) Opening up Education in South-Mediterranean countries (course and peer-based assessment)	UNIMED – Mediterranean Universities Union and project consortium, (Europe)	■	■	■
f) Master in Leadership in Open Education (blended study)	University of Nova Gorica (Slovenia)	■	■	■
g) Creative Commons Certification (blended/online course)	Creative Commons (USA)	■	■	■

Table 1 Overview of selected identified OER certificates for individuals and basis of their certification.

Some certificates base on massive open online courses (in short MOOC, McAuley et al., 2010), which are conducted on the topic of the OER and end with a certificate.

a) COER13 is the abbreviation for the first German-language open online course (C) on OER that was conducted in 2013 (Arnold et al., 2015). While the course communication and inputs from the organizers were collected centrally on a homepage (not within a course platform), a software was used to collect comments on the web, which were marked with the hashtag #coer13. The unit included live events, which were afterwards available as recordings, ready-made videos and action-oriented tasks. Those who wanted a final certificate for pure “listeners” of the course, which is a rather passive participation, could contact the organizer and received a certificate for COER13 titled “hOERer” (a pun from “to hear” and OER in German). Anyone who could provide evidence of corresponding self-made OER projects could have this checked by the organizers and apply for the certificate “COER wOERker” (a German-English pun from “to work” and OER). COER13 was offered and carried out based on free cooperation without further funding by several partners in the German-speaking world, that means through own resources or voluntary work. COER13 was later awarded a trophy at the German OER Festival in 2016 as an outstanding project on “OER about OER” by the German UNESCO (e-Teaching.org, 2020).

b) For the first time in 2015, a new version of COER was offered on the xMOOC platform iMooX.at, and was repeated in a similar, partly modified way, also by the MOOC platform of the FH-Lübeck. In 2017 the same online course was offered simultaneously on both platforms (Ebner et al., 2016c). A variant of the course, which is now mainly aimed at teachers in universities, was run on iMooX in 2019 as part of the “Open Education Austria” project. On both platforms, quizzes must be successfully completed for each unit. On iMooX.at this is possible up to five times, then 75 percent of the points must be reached to download the certificate (as pdf). In addition, participants will be awarded with an Open Badge (Mozilla Foundation) for each successful unit and the whole MOOC. At COER19 alone, 918 people have registered for the course.

Then, we found several offers for further education for lecturers and adult educators. As described, we selected those trainings, which are longer offers, so longer than one day and focussing on open education as well open educational resources.

c) In Germany one of the professional associations in the field of training, consultation and coaching offer a qualification measure as “examined OER specialized expert BDVT” (OER-Fachexperten.de, 2020). The development and first implementation of the blended learning event with face-to-face sessions and online phases was carried out within the framework of the OER project funding of the German ministry from 2016 to 2018, participation was free of charge at that time. A renewed implementation is planned for 2020 within the framework of a follow-up project with further co-financing by the ministry, however, a fee is now planned for parts of the training. The continuing education and the degree “certified OER expert” were examined and approved by the association. The structure of the program and processes has been adapted somewhat for the renewed implementation in 2020.

d) A further training for the university’s own lecturers in the form of a faculty development program, the “Certificate as a Mural” was offered at the University of Guadalajara (Mexico) in 2019, in which everything revolves around OER. A remarkable aspect of this course is that participants are encouraged to create several social media accounts in advance for the four-day workshop (Mural ODG, 2020).

e) The OpenMedProject.eu project offered and implemented further training for teachers at universities in the so-called South Mediterranean countries. The course was developed and implemented within the project and is now available for subsequent use (as OER, in three languages). The learning assessment of the course is both formative and summative: formally, the facilitators evaluate the activities during the modules and give feedback to the learners (some activities include online quizzes). Finally, the project work is assessed based on a common section and with the help of a feedback form. In addition, the final assessment should be peer based (OpenMed Project, 2020).

f) For the Creative Commons certification, one must successfully participate in a 10-week online course. The syllabus and course contents are available under a CC BY license (Creative Commons, 2020a). In addition, a comprehensive textbook is offered (157 pages, Creative Commons, 2020b). Concerning assessment, the following is stated (Creative Commons, 2020a, own translation): “To

receive the certificate, you must achieve at least (...) 90 of the 100 possible points” (p. 7). It should be added that the quizzes in the course are not evaluated but must be passed in order to pass the course. The quizzes can be repeated as often as desired. The course communication takes place on the one hand in the learning management system (Canvas) and on the other hand via Slack. As an alternative to the online course, you can book a workshop on site, the “1-week Bootcamp”. Up to 15 learners will be trained. They must read the online course content and do some tasks before or after the course. The certificate is available in the form of a digital document (PDF), all successful participants will be mentioned by name on the corresponding Creative Commons pages (Creative Commons, 2020c). The online course is offered with a focus on libraries or education. The course currently costs \$ 500 US\$. Scholarships are offered that cover \$400 to \$450 US\$. Recipients register for the CC certificate and then pay the remaining ticket price. The names of the scholarship holders are publicly listed on the CC website. Preference will be given to scholarship recipients who are members of the CC Global Network, in which participation is free of charge.

Anyone who has successfully completed the “CC Certificate Course” can further qualify as a “CC Certification Facilitator” in an eleven-week training course (online course). Since the online courses are accompanied for the CC certification, CC does not charge any fees for the facilitator training. As a CC-Certification-Facilitator you will receive 3,000 USD per course, which can be held online or as a so-called “boot camp”.

g) A study program has also been identified that deals intensively with OER and Open Education. This is a master’s program in open education. From the description: “Masters of Open Education will be able to design, manage and carry out activities that provide knowledge for all through improved accessibility, flexibility, quality and sustainability of learning processes. Their work will enable many people to develop their potential and acquire knowledge necessary for active social inclusion” (University of Nova Gorica, 2020). The prerequisite for participation is a first degree (for example a suitable BA). Participation in blended learning studies is offered on a part-time basis. There is no explicit reference to the preparation of a master thesis in the course description. Participation costs 5,000 Euros per semester, that means 10,000 Euros in total.

As we suspected at the beginning, we could not find many, but interesting examples of OER certification.

OER CERTIFICATIONS OF ORGANIZATIONS WORLDWIDE

We were unable to find an OER certificate in the narrower sense, that means a distinction as an institution that is particularly concerned with OER and demonstrates activities according to defined criteria. However, we did find a few procedures that seem to be stimulating.

For example, there is a contribution describing a framework for a competence profile or activities of universities regarding “Opening-Up Education” (Inamorato dos Santos et al., 2016). This could serve as a basis or reference for criteria for OER-active universities.

Universities that see themselves as “OER universities” are particularly targeted by the OERu network: Here you can participate for a participation fee. The network is primarily concerned with supporting and disseminating MOOCs that provide OERs. It is therefore not a certification process in the strict sense (OERu, 2020).

Then, there is a certification procedure of schools in Austria, in which OER plays a bigger role: Offered by the Competence Center eEducation Austria (Federal Ministry of Education, Science and Research), Austrian schools create a profile and document evidence of defined activities regarding eEducation at school (controlled by 80 representatives). The first step of participation in the network is the online registration of the school in the system and then the development of an eEducation school concept. Schools can then receive appropriate online badges that qualify them for participation in support programs. At least two of the criteria directly related to OER production as a topic, several other criteria and activities of the schools could also be implemented with the help of OER, as there are numerous OER projects in Austria and their use is relatively widespread. After the strategy has been developed (together with the provincial coordinators or expert schools), the participating schools document in detail their activities in the field of eEducation, e. g. the production of OER (known as “eTapas”) or the participation in further training or the implementation of an offer for pupils or parents. Defined scores and activities lead to the activation of corresponding badges and finally the certificate “eEducation Expert School” is achieved. However, this has to be renewed again and again or the activities

have to be verified regularly: The certificate is only valid for the following year of certification. The certificate is now very widespread, with around half of the schools participating. About 3,000 of currently 6,000 schools in Austria participate in the “eEducation Network”, currently more and more attend as participation is a prerequisite for the laptop initiative in the COVID 19 pandemic (December 2020). As an incentive, the certificate serves as a prerequisite for specific funding (about 500,000 Euros for continuing education) or, currently, the funding for laptops that is linked to the certificate.

To sum up, we did not really find an OER certification of higher education institutions. Nevertheless, we identified the process to support digitalisation in Austrian schools with the education system as a very inspiring and helpful approach, as it is also using several OER related criteria and could be used as well, at least theoretically, by Austrian University Colleges of Teacher Education.

DISCUSSION

We were able to discover and describe some OER certificates for individuals. Except for the Creative Commons approach and the M.A. studies in Slovenia, none of the OER certificates has been implemented in the long term and describes a corresponding business model, besides one-time funding. We could not find a dedicated OER certification for higher education institution. So far, the Austrian approach for an OER certification for all higher education institutions seems to be unique.

The focus on OER certificates that are based on a longer period of further education and on such certificates that refer specifically to OER does not mean that there are not exciting alternatives to this form of certification: An alternative way of evaluating OER activities is the German HFDnet (2020) network for university teachers of the Higher Education Forum on Digitization (Djabarian et al., 2019a; Djabarian et al., 2019b): Here participants can have their participation, activities and competencies confirmed by their peers. The HFDnet gives experts in the field of digital university didactics the opportunity to network and exchange information in different groups and offers the possibility of having participation confirmed by peers. The number of ePoints provides a measure of the extent of the activities described, documented and confirmed. These do not refer to OER-related activities. So, members can get for example a “semester champion” and show evidence and also corresponding special badges in their profiles.

In our research, we also saw an example of how OER activities are directly incentivized without there being a “certificate” for it: An interesting different approach to award OER activities was found at the BCcampus (British Columbia, Canada, 2020): The “OpenEd Challenge” organizes an open educational competition series for teachers who want to learn more about open educational practices (OEP). According to the self-description, we will publish 2 so-called “Challenges” per week over a period of 5 weeks. A Challenge is a micro-activity that you can complete in 10 minutes or less and that covers a small aspect of open education. The number of participants is limited, and participants will receive a prize if they succeed. The Challenge is a “bite-sized learning for busy educators” and by offering a prize instead of a certificate, it takes a different approach than others. From the communication with Tannis Morgan there is no uniform program or certificate for teachers in Canada.

Beside our ambition, we could practically only reach projects and information which are documented in English or German (cf. Organisation internationale de la francophonie, 2016a, 2016b). As we might not have been able to discover all major programs and initiatives due to language restrictions, we would be very pleased if this publication would give us the opportunity to contact you.

OUTLOOK: CONSIDERATIONS CONCERNING THE OPENNESS ASPECTS OF AN OER CERTIFICATE

Our research has provided us with good insights of the current offer and procedures for further education and certification of persons and organizations with close ties to open educational resources. For the development of the processes of certification of OER competences of Austrian lecturers at universities or the activities of universities we can deduce several lessons learned from this. Based on the hypothesis that an “open” educational resources certification should take special “openness” aspects into account, we have collected these from the examples

and added own considerations. **Figure 3** therefore presents the potential “openness” features concerning the development, content, assessment and the certificate itself for us as a potential working base.

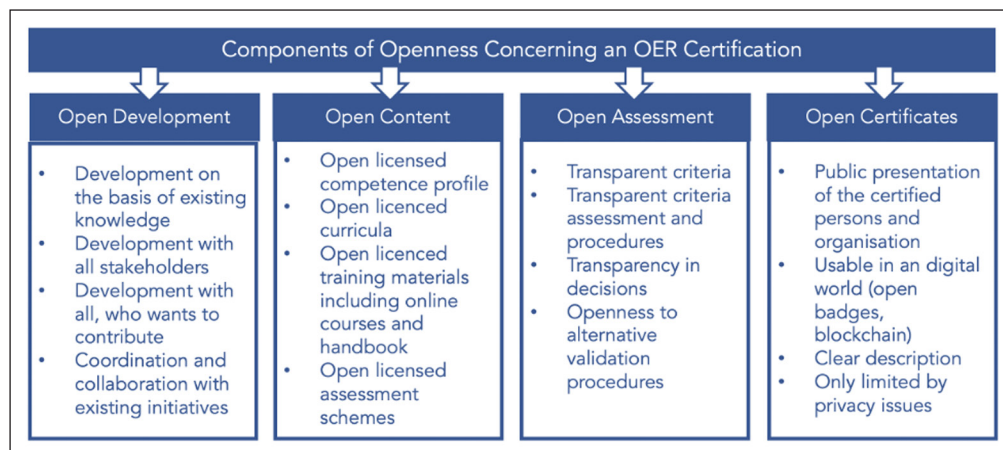


Figure 3 Components of Openness in OER certification as summary of a selection of examples.

We are currently holding meetings with various Austrian stakeholders – different types of higher education institutions are the target group for certification – and are trying to find synergies with their strategies, possibilities and interests. The described openness components, e. g. regarding the criteria and their examination, have so far been well received. It has also been explicitly noted that the criteria have been chosen so clearly that there is comparatively little room for interpretation. This is also linked to the expectation that the procedure is not only transparent but also efficient as there should be no need for visits of external experts at the universities.

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COMPETING INTERESTS

The authors have no competing interests to declare.

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