



Dr. Martin Ebner

OPEN EDUCATIONAL RESOURCES (OER) AT TU GRAZ INSTITUTIONAL INTEGRATION AND DEVELOPMENT OF OER

13 March 2024 - Aalto RDM & Open Science Training

Agenda

- Introducing TU Graz
- OER at TU Graz: The beginnings
- TU Graz OER policy
- OER training
- OER repository and OER plug-in
- iMooX.at and other OER initiatives
- (Measuring) impact of OER at TU Graz

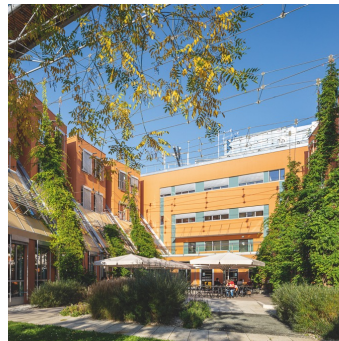
Graz University of Technology



Campus Alte Technik



Campus Neue Technik



Campus Inffeldgasse



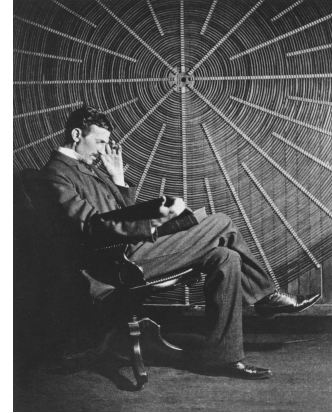
Graz/Austria/Europe

Photos: Lunghammer – TU Graz

Graz University of Technology

- Founded 1811
- 7 Faculties, 3 Campuses
- 19 BA programs, 16 MA programs, 14 Doctoral schools
- 13,700 students, 3,900 staff & faculty
- Fields of Expertise
 - Advanced Materials Science
 - Human & Biotechnology
 - Information, Communication & Computing
 - Mobility & Production
 - Sustainable Systems
- Since 2022 Partner of the Unite! European Alliance
- Climate-neutral University in 2030

A prominent student



"Nikola Tesla, 1896" by plumsaplomb is marked with Public Domain Mark 1.0. To view the terms, visit <https://creativecommons.org/publicdomain/mark/1.0/?ref=opensearch>.

OER beginnings and milestones at TU Graz

- 2010 First OER projects starts
- 2011 publication: OER as strategy at TU Graz Life Long Learning unit
- 2013 Co-organiser of first German-speaking MOOC about OER as OER: COER13
- 2013 Launching iMooX.at: MOOC platform for CC licensed online courses
- 2017 Open Education Austria partner
- 2019 OER repository
- 2020 OER policy



(Ebner & Stöckler-Penz, 2011, <https://de.scribd.com/document/46644200/Open-Educational-Resources-als-Lifelong-Learning-Strategie>)

TU Graz OER Policy (2020) - Aims

1. OER supports and enables open teaching and learning
2. OER creates the opportunity for access to free knowledge and open exchange.
3. OER enables increased collaboration with companies and the university.
4. OER promotes inclusion.
5. OER serves as a feature for good teaching of the university and its teachers.
6. OER is part of a sustainable quality assurance of teaching.
7. OER serves as support for copyright issues in teaching



OER Policy

https://www.tugraz.at/fileadmin/user_upload/tugrazExt-ernat/02bfe6da-df31-4c20-9e9f-819251ecfd4b/2020_2021/Stk_5/RL_OER_Policy_24112020.pdf

TU Graz OER Policy (2020) - Measures

- Recommends OER and open CC license (CC BY 4.0)
- Names responsible people
- Addresses further education, support and OER repository
- Declares that Educational Technology team support OER (exceptions must be justified)
- Announces monitoring




**Richtlinie zu offenen Bildungsressourcen
an der Technischen Universität Graz
(OER-Policy)**

RL 94000 OERP 145-01

Technische Universität Graz
 Rechbauerstraße 12
 A-8010 Graz
 Telefon +43 (0) 316 873 / 0

	Erstellt	Geprüft	Freigegeben
Name	Lehr- und Lerntechnologien	VR Stefan Vorbach	Rektoratsbeschluss
Datum	21.10.2020	05.11.2020	24.11.2020

Stand: November 2020 Seite 1 von 5 RL 94000 OERP 145-01

OER Policy

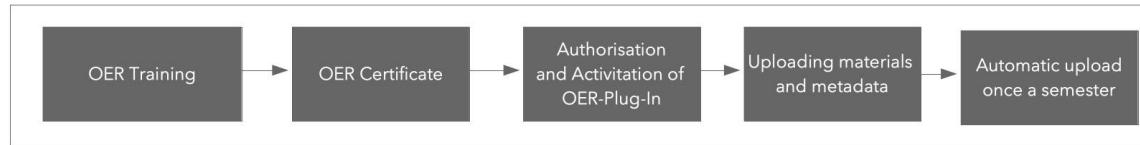
https://www.tugraz.at/fileadmin/user_upload/tugrazExt
02bfe6da-df31-4c20-9e9f-819251ecfd4b@2020
[2021/Stk_5/RL_OER_Policy_2411](#)

2020.pdf

OER Trainings and Qualification at TU Graz

- OER is topic in trainings since 2010, dedicated OER trainings since 2011 offered
- Regular and updated OER MOOCs since 2013
- Currently already 25 persons are certified „OER practitioner“ - a (new) national Austrian certificate (since 2022)
- Certificate is quality assurance for publication at TU Graz OER repository

Process to qualify TU Graz teachers, to authorise OER plug-in activation and to publish OER



Ladumer et al. (2021).
<https://joer.scholasticahq.com/api/v1/articles/25065-the-development-and-implementation-of-missing-tools-and-procedures-at-the-interface-of-a-university-s-learning-management-system-its-oer-repository-a.pdf>

OER repository and plugin

- 2019 TU Graz OER Repository first version (own development)
- 2020 Publication of Plug-In for publication and metadata add-on from the learning management system

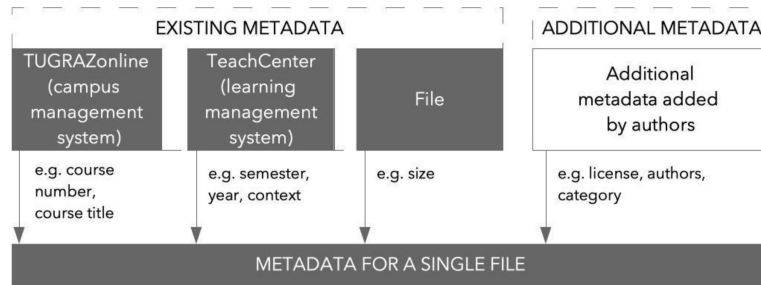


Figure 4. Overview of Sources of Existing and Necessary Metadata

- 2023 Publication of new OER repository based on Invenio RDM (own development, Open Source, FAIR principles)

Ladumer et al. (2021).
<https://joer.scholasticahq.com/api/v1/articles/25065-the-development-and-implementation-of-missing-tools-and-procedures-at-the-interface-of-a-university-s-learning-management-system-its-oer-repository-a.pdf>

OER repository

▼ License

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- CC BY-NC-ND 4.0
- CC BY-NC-SA 4.0

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March 12, 2024
Public
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Canvas zur Erstellung einer offenen Lehr- und Lernressource - Unite!-Version

TU Graz, Lehr- und Lerntechnologien

Dies ist ein interaktives PDF des OER Canvas im Unite!-Design. Der OER-Canvas unterstützt Lehrende bei der Planung und Erstellung eigener Open Educational Resources (offen lizenzierte Bildungsinhalte).

Uploaded on March 12, 2024

March 12, 2024
Public
Edit

5

Canvas for the creation of an Open Educational Resource - Unite! version

Graz University of Technology, Educational Technology

This is an interactive PDF of the OER Canvas in a Unite! design. The OER Canvas helps teachers plan and create their own open educational resources.

Uploaded on March 12, 2024

March 6, 2024
Public
Edit

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KI zur Erstellung und Weiternutzung von OER: Chancen und Herausforderungen

Sarah Edelsbrunner

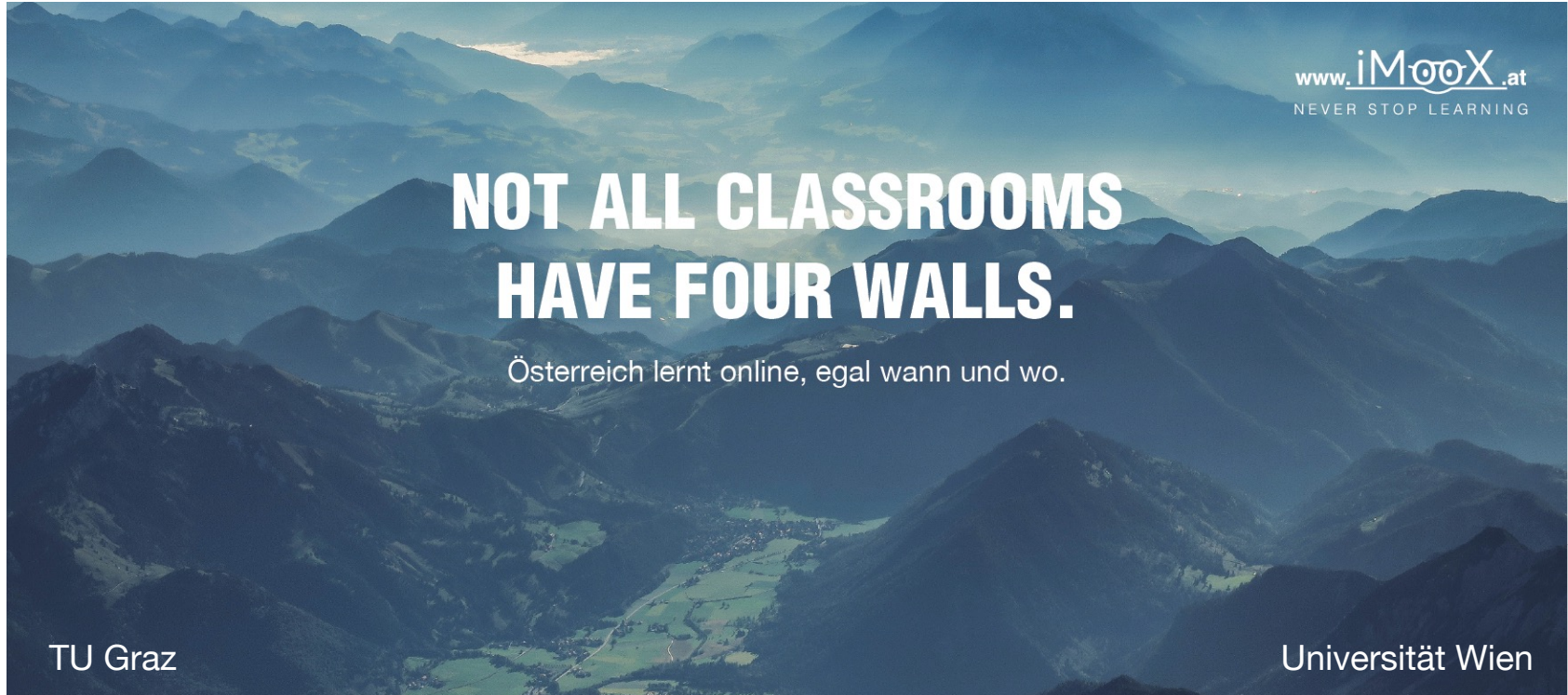
Dies ist die Präsentation zum Online-Vortrag am 6.3.2024 bei der "OER-Week @ Campus Luzern". Im Vortrag wurde berichtet, wie KI zur Erstellung von zwei MOOCs auf iMooX.at eingesetzt wurde, Sociotech und OER in Higher Education, und welche Chancen und Herausforderungen die Ersteller:innen in der Nutzung von KI für die Erstellung von OER sehen.

Uploaded on March 6, 2024

https://repository.tugraz.at/oer/search?q=&l=list&p=1&s=10&sort=newest

iMooX.at – the Austrian MOOC platform

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www.iMooX.at
NEVER STOP LEARNING

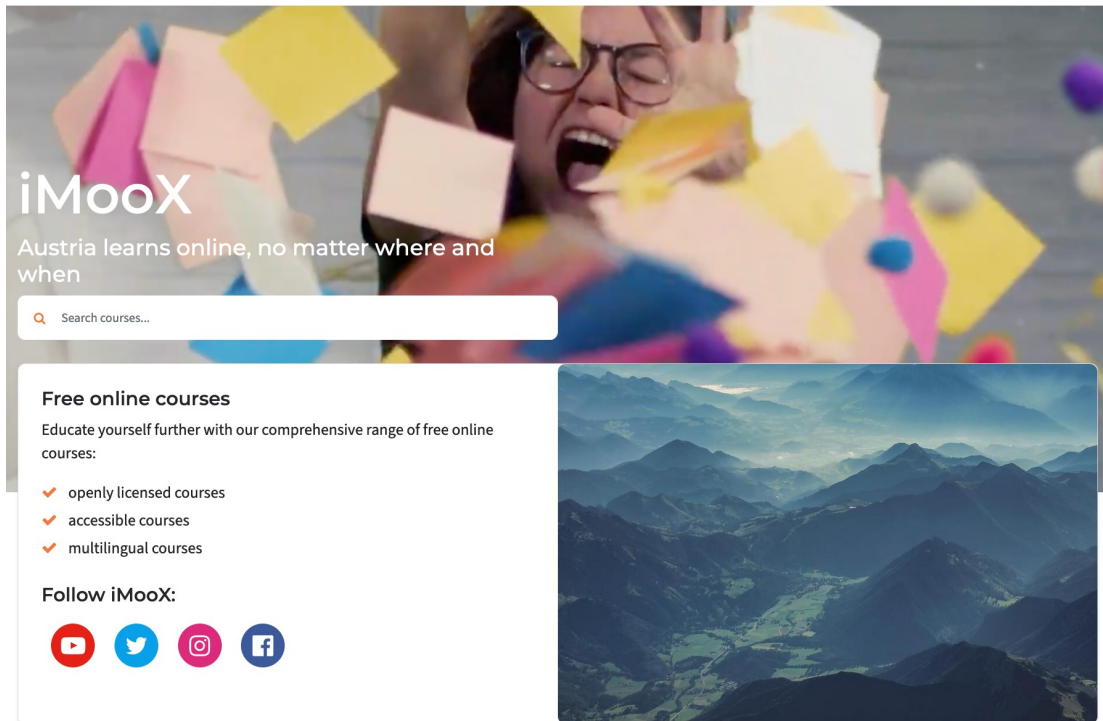
**NOT ALL CLASSROOMS
HAVE FOUR WALLS.**

Österreich lernt online, egal wann und wo.

TU Graz

Universität Wien

iMooX.at – the Austrian MOOC platform



2013 founded
(TU Graz | University of Graz);
now hosted by TU Graz

All materials CC licensed



100% GPNR conform

Member of European MOOC Consortium

Member of MOOC hub
Bildung für alle.

Expansion to the national MOOC platform (2020-2023) supported by Federal Ministry Education, Science and Research

OER initiatives

- Open Education Austria Advanced 2020-2024
(TU Graz was responsible for WP „OER certification“.
<https://www.openeducation.at/>)



- Unite! Seedfund project „OER courses“
<https://www.unite-university.eu/unitenews/unite-pioneers-open-science-and-multilingual-oer-courses>



Coming soon: New MOOC „OER in HE“



<https://imoox.at/course/OERinHE>

The screenshot shows the iMooX interface for the course 'Open Educational Resources (OER) in Higher Education'. The header includes the iMooX logo, navigation links for 'About iMooX', 'Partners', and 'All courses', a language selector set to 'English (en)', and a 'Log in' button. The main banner features a colorful illustration of a lightbulb, gears, a globe, a person with a laptop, and an open book. Below the banner, there are tabs for 'Upcoming' and 'Law - Media Sciences'. The course title is 'Open Educational Resources (OER) in Higher Education' by 'Graz University of Technology' and 'Martin Ebner & Sandra Schön'. It has a rating of 4.5 stars and a share icon.

About

Duration 4 units	Unit 2 hours/unit	Licence CC BY 4.0	Participants 82
Availability Unlimited	Start Date 6 May 2024	Costs € 0.00	

Multilingual
 Produced with human
 and artificial
 intelligence (Heygen)



Measuring Impact of OER at TU Graz

- Papers about OER impact measurement (e.g. Ebner, Orr & Schön, <https://doi.org/10.1515/edu-2022-0018>)
- OER report available (09/22)
- New report about OER impact will be published soon (09/23)

Ebner, M., Edelsbrunner, S., Hohla-Sejkora, K.,
 Koschutnig-Ebner, M., Nagler, W., & Schön, S.
 (2022). OER an der TU Graz 09/2022: Erster
 Bericht zu offenen Bildungsressourcen (OER) der
 TU Graz. Graz University of Technology.
<https://doi.org/10.3217/p25jb-7j780>

Measuring Impact of OER at TU Graz

Report 2022: Examples for impact

5.1 Weiterbildung von Mitarbeiter:innen der TU Graz und ihre mögliche Wirkung

Als Beispiel für eine mögliche Wirkung der Weiterbildung zu OER verweisen wir auf einen Lehrenden der TU Graz, der nach Abschluss der Schulung begonnen hat, offen lizenzierte Lernvideos zu veröffentlichen: Michael Fuchs (Institut für Elektronik) hat mit seinen Videos auf YouTube beachtliches Aufsehen erregt - so hat allein eines seiner Videos seit der Veröffentlichung im Jänner 2018 bis September 2021 mehr als 120.000 Aufrufe erreicht (siehe Abbildung 7), im September 2022 waren es bereits fast 140.000 Aufrufe für ein einzelnes Video.

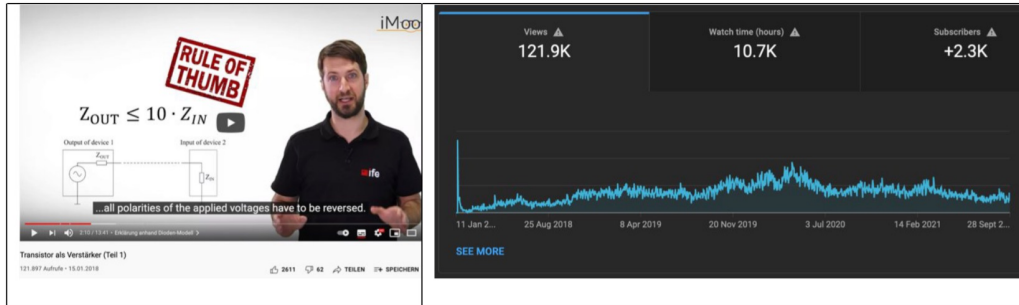


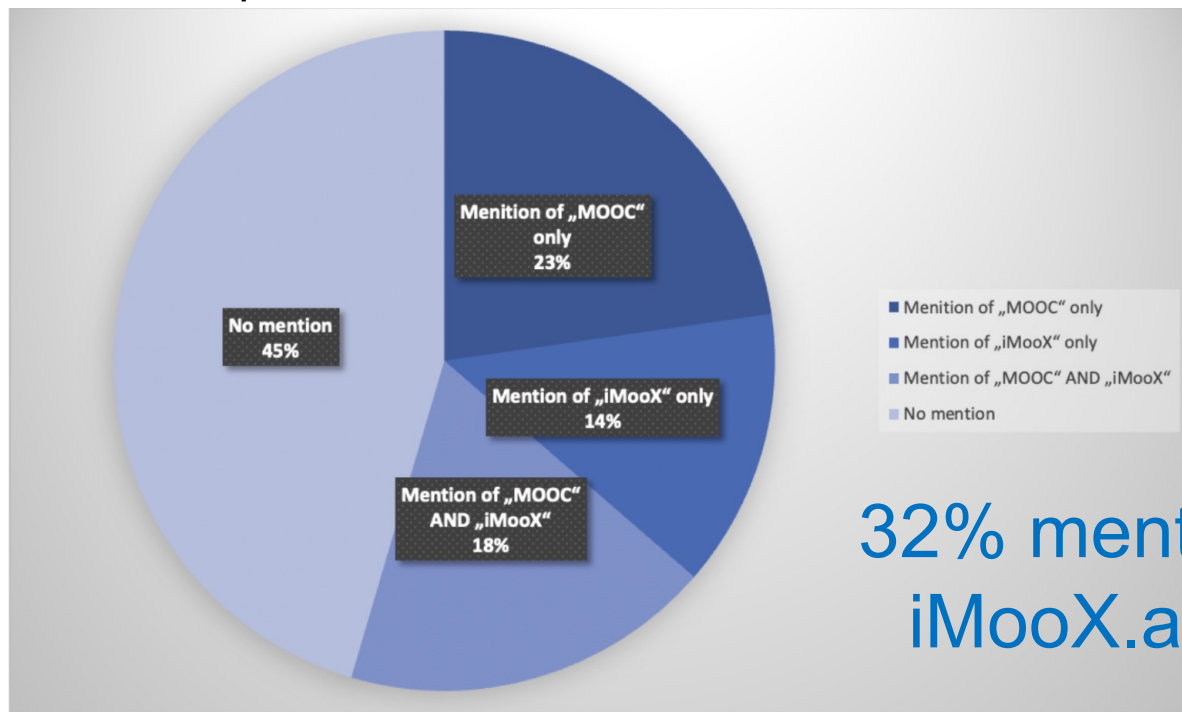
Abbildung 7: Ein offen lizenziertes Video eines zertifizierten OER-Dozenten an der TU Graz und seine Statistik, Quelle: Screenshot des Videos <https://www.youtube.com/watch?v=WZD9RZoMhVE&t=130> und der YouTube-Statistik (September 2021)

Ebner, M., Edelsbrunner, S., Hohla-Sejkora, K.,
 Koschutnig-Ebner, M., Nagler, W., & Schön, S.
 (2022). OER an der TU Graz 09/2022: Erster
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<https://doi.org/10.3217/p25jb-7j780>

Measuring Impact of OER at TU Graz

Report 2023: Focus on iMooX

Role of iMooX.at in Performance Agreements of Austrian public universities (2022-2024)



32% mention
iMooX.at !

Figure 1: Percentage of 22 public universities mentioning MOOCs and/or *iMooX* in current performance agreements (2022–2024).

iMooX cooperations with Austrian universities (2023)

Type of the University	Number of universities (03/2023)	Number of universities that have already offered at least one MOOC on iMooX (in percent)
Universities (public)	22	11 (50%)
Universities of Applied Sciences (public)	21	7 (33%)
University Colleges of Teacher Education (public)	14	4 (27%)
Private Universities and Private Universities of Applied Sciences	18	0 (0%)

Even more uses
iMooX.at actively

Ebner, M., Edelsbrunner, S., Hohla-Sejkor, K., Mair, B., Schön, S., Lipp, S., Steinkellner, I., Stojcevic, I., & Zwiauer, C. (2023). Impact Assessment of a MOOC Platform Considerations, Development, and Results. in *Conference Proceedings EMOOCs 2023* (S. 171-186). Universitätsverlag Potsdam. <https://doi.org/10.25932/publishup-57645>

Summary

OER is a highly integrated topic and issue concerning strategic further development of digital transformation of teaching at TU Graz.

Open Science movement is a great support for OER in HE.

We are happy to be an active part of the worldwide OER movement and open to any collaborations!

References - OER at TU Graz (selection)

Ebner, Martin; Schön, Sandra; Atenas, Javiera; Havemann, Leo; Nascimbeni, Fabio & Neumann, Jan L. (2020). Ressourcen und Werkzeuge für die Entwicklung einer OER-Policy an Hochschulen. Gemeinsamer Report von TU Graz, Open Education Austria Advanced, OER World Map und Open Education Policy Hub. Graz: TU Graz. DOI: 10.13140/RG.2.2.13705.47207/1

Ladurner, Christoph; Ortner, Christian; Lach, Karin; Ebner, Martin Haas, Maria; Ebner, Markus; Ganguly; Raman & Schön, Sandra (2020). The Development and Implementation of Missing Tools and Procedures at the Interface of a University's Learning Management System, its OER Repository and the Austrian OER Referatory. In: International Journal of Open Educational Resources (IJOER), Volume 3, No. 2 Fall 2020 Winter 2021 <https://www.researchgate.net/publication/346519611> The Development and Implementation of Missing Tools and Procedures at the Interface of a University's Learning Management System its OER Repository and the Austrian OER Referatory

Ebner, Martin; Schön, Sandra; Ebner, Markus; Edelsbrunner, Sarah; Hohla, Katharina (2022). Potential Impact of Open Educational Resources and Practices for Good Teaching at Universities. The OER Impact Assessment at TU Graz. In: Michael E. Auer, Andreas Pester, Dominik May (Eds.), Learning with Technologies and Technologies in Learning. Experience, Trends and Challenges in Higher Education, Lecture Notes in Networks and Systems, Volume 45, Cham: Springer, pp. 79-99. DOI: 10.1007/978-3-031-04286-7_5

Ebner, M.; Stöckler-Penz, C. (2011). Open Educational Resources als Lifelong-Learning Strategie am Beispiel der TU Graz. - in: The Lifelong Learning University. (2011), S. 53–60, <https://de.scribd.com/document/46644200/Open-Educational-Resources-als-Lifelong-Learning-Strategie>

TU Graz 11/2020 OER Policy https://www.tugraz.at/fileadmin/user_upload/tugrazExternal/02bfe6da-df31-4c20-9e9f-819251ecfd4b/2020_2021/Stk_5/RL_OER_Policy_24112020.pdf

Ebner, M.; Schön, S. & Kumar, S. (2016). Guidelines for leveraging university didactics centers to support OER uptake in German-speaking Europe. Education Policy Analysis Archives, 24 (39). URL: <http://dx.doi.org/10.14507/epaa.24.1856>

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