

**Scope** Open practices in education focus on the actions of learners and teachers regarding openness. The sharing and collaborative creation of open educational resources (OER) is at the core of such practices. Digital infrastructures (DI) do not only provide environments for practices, but reflect ideas and implications of open practices through the functionalities they offer. This project studies the impact of digital infrastructures on open practices.

**Method** We analysed 37 DI from universities in German speaking countries. We coded the DI with 46 main categories and 184 sub-categories.<sup>1</sup>

**Results** Designs of OER-delivering DI differ, we grouped four different DI types. All DI show a lack of communication and collaboration functions. Four core functions are offered by DI.



Johannes Hiebl  
Doctoral Candidate



Sylvia Kullmann  
Academic Staff

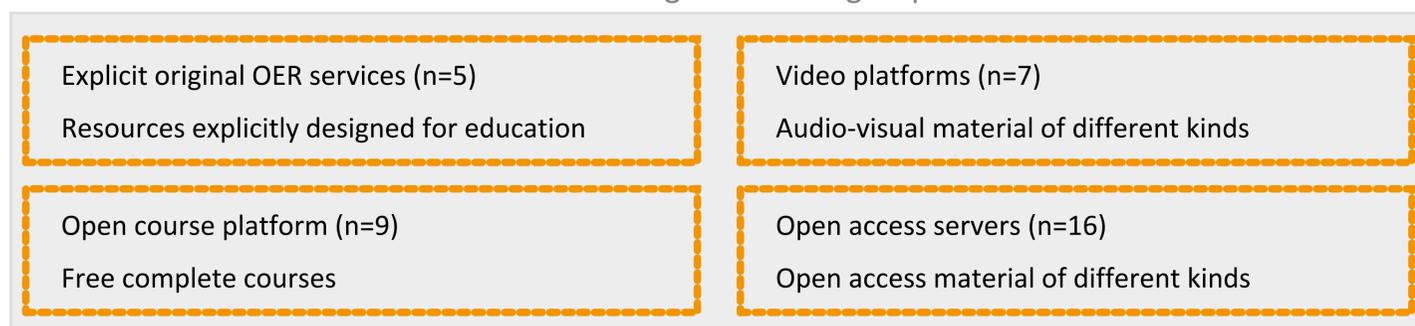


Dr. Tamara Heck  
Academic Staff

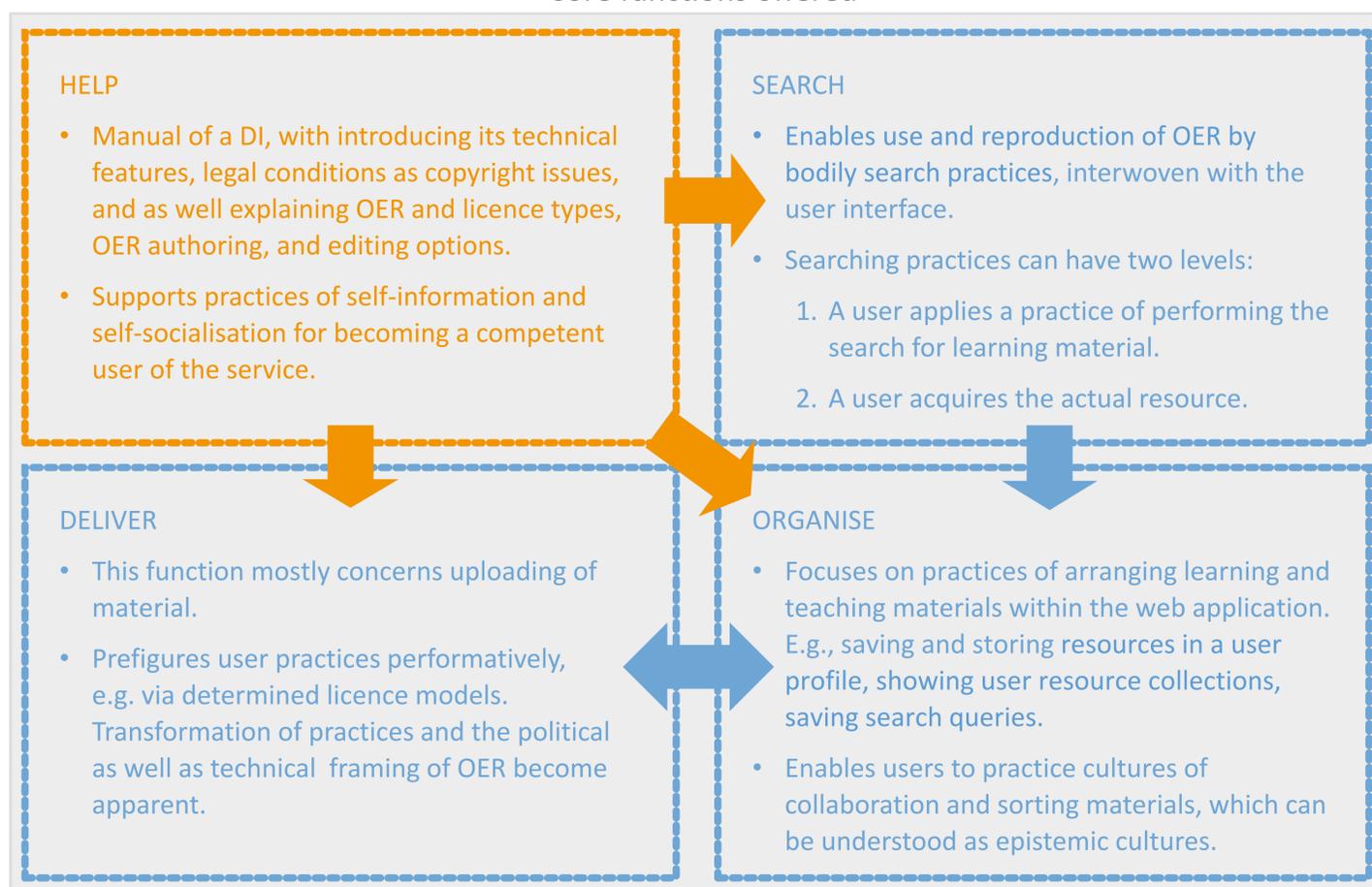


Prof. Dr. Marc Rittberger  
Director Information Center for Education

### Main distinguishable DI groups



### Core functions offered



### Practical implications

<p><b>Define clear purpose and system category</b></p> <p>OER-specific DI are manifold, but we lack a categorisation of different DI types. This would help users find their way through the DI ecosystem.</p> <p><b>Apply proper filters for different OER</b></p> <p>The broad OER definition (see UNESCO) is not helpful for this categorisation, as DI might then provide resources explicitly designed for learning and teaching amongst open access scientific literature and data. The search experience might then be weakened unless appropriate metadata (resource type) is available.</p> <p><b>Practical example</b> A discipline-specific platform with search function and collaboration options, combining repository features and active participation elements: SocioHub (<a href="https://sociohub-fid.de/">https://sociohub-fid.de/</a>).</p>	<p><b>Be aware of target groups</b></p> <p>OER are intended for either educators or learners, or both groups. Currently, DI resemble a kind of digital library for educators, others a virtual learning platform. A potential user needs to be aware of the target group.</p> <p><b>Offer communication and collaboration</b></p> <p>A main element of the OER idea is the active participation and sharing of material by educators and learners. Current DI often do not provide opportunities for interchange and collaboration between OER creators and learners.</p>
--	---

<sup>1</sup> For a full description and detailed results refer to <https://doi.org/10.17605/OSF.IO/RMFK3>

Project references:  
Heck, T., S. Kullmann, J. Hiebl & Schröder, Nadine, Otto, Daniel, Sander, Pia, (2020): Designing Open Informational Ecosystems on the Concept of Open Educational Resources. Open Education Studies 2: 252–264.

Hiebl, J., S. Kullmann, T. Heck & M. Rittberger, (in press): Reflecting Open Practices on Digital Infrastructures: Functionalities and Implications of Knowledge in: M. Kerres, D. Otto & O. Zawacki-Richter (Eds.), Distributed Learning Ecosystems: Repositories, Resources and Practices. Wiesbaden: Springer Nature.

Contact:  
Johannes Hiebl  
hiebl@dipf.de



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)