

DIPF Reflecting Open Practices on Digital Infrastructures

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.¹

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.

Main distinguishable DI groups

Explicit original OER services (n=5)

Resources explicitly designed for education

Open course platform (n=9)

Free complete courses

Video platforms (n=7)

Audio-visual material of different kinds

Open access servers (n=16)

Open access material of different kinds

Core functions offered

HELP

- Manual of a DI, with introducing its technical features, legal conditions as copyright issues, and as well explaining OER and licence types, OER authoring, and editing options.
- Supports practices of self-information and self-socialisation for becoming a competent user of the service.

SEARCH

- Enables use and reproduction of OER by bodily search practices, interwoven with the user interface.
- Searching practices can have two levels:
 - 1. A user applies a practice of performing the search for learning material.
 - 2. A user acquires the actual resource.

DELIVER

- This function mostly concerns uploading of material.
- Prefigures user practices performatively, e.g. via determined licence models. Transformation of practices and the political as well as technical framing of OER become apparent.

ORGANISE

- Focuses on practices of arranging learning and teaching materials within the web application. E.g., saving and storing resources in a user profile, showing user resource collections, saving search queries.
- Enables users to practice cultures of collaboration and sorting materials, which can be understood as epistemic cultures.

Practical implications

Define clear purpose and system category

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.

Apply proper filters for different OER

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.

Be aware of target groups

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.

Offer communication and collaboration

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.

Practical example A discipline-specific platform with search function and collaboration options, combining repository features and active participation elements: SocioHub (https://sociohub-fid.de/).



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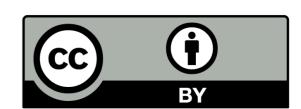
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1 For a full description and detailed results refer to https://doi.org/10.17605/OSF. IO/RMFK3

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.

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