Rich and interactive Open Educational Resources as digitalization enablers with Graasp.org

Denis Gillet & Juan Carlos Farah

Interaction Systems Group (REACT)
Swiss Federal Institute of Technology in Lausanne (EPFL)
School of Engineering and Center for Learning Sciences (LEARN)
Graasp Association for Digital Education

European Training Foundation · February 16, 2023

Learning Experience Platform

Developed through European and Swiss initiatives

- Five EU projects: Palette 2006, ROLE 2009, Go-Lab 2012-2016, Next-Lab 2017-2019, Go-Ga 2018-2020, iHub4Schools 2021-2023, about 20M€
- Swissuniversities P5 Open Edu, P6 SUDAC and P8 d-skills (Phases 1 & 2)
- BeLEARN Open Library 2022-2024, SDC Digital Capacity 2023-2024

Enabling

- Digital transformation, as well as creation, co-creation, usage, sharing, and personalization of ERs and OERs

Nonprofit and participative model

- Open access & open source cloud & mobile solutions
- Co-creation of a platform for co-creation of resources

graasp.org

Open Educational Resources

What are they ?

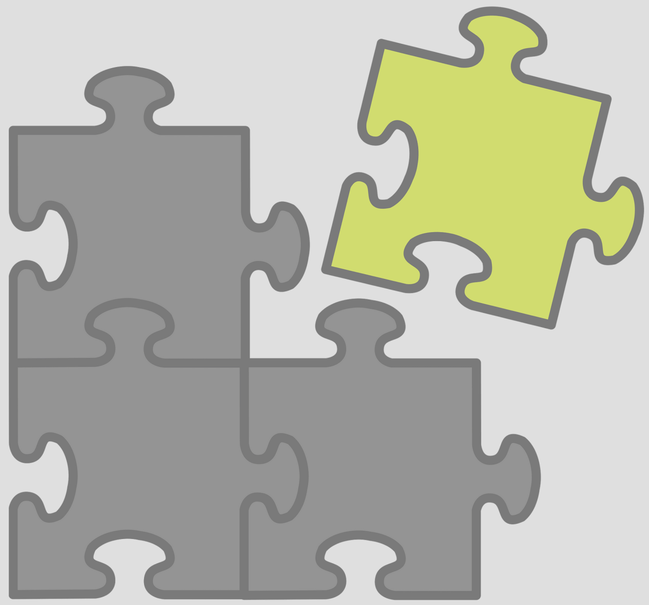
- **Simple resources** like slides, documents, videos, eBooks, …
- **Rich resources** integrating various components and services

Unique features

- Can be composed, orchestrated, and integrated (LTI, …)
- Can be accessed using single URL
- Can be reused or modified freely

Creative common licenses

- Promoting the culture of sharing and reusing

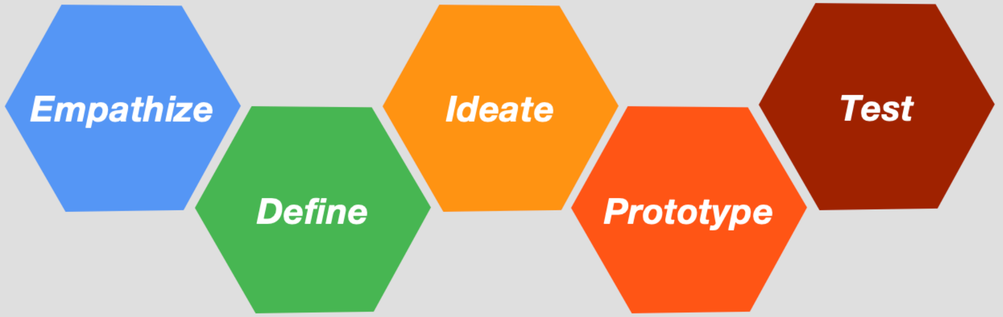


Open Educational Resources

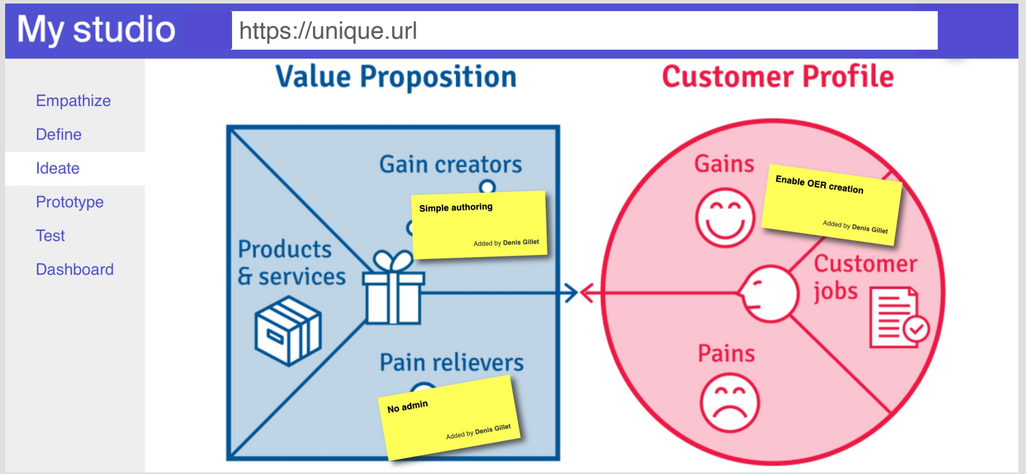
Rich, structuresd and stateful digital OERs

Integrating

- Digital documents
- Multimedia content
- Pedagogical structure
- Interactive apps (games, simulations, …)
- Support apps (quiz, …)
- Collaboration support
- Learning analytics for educators and learners

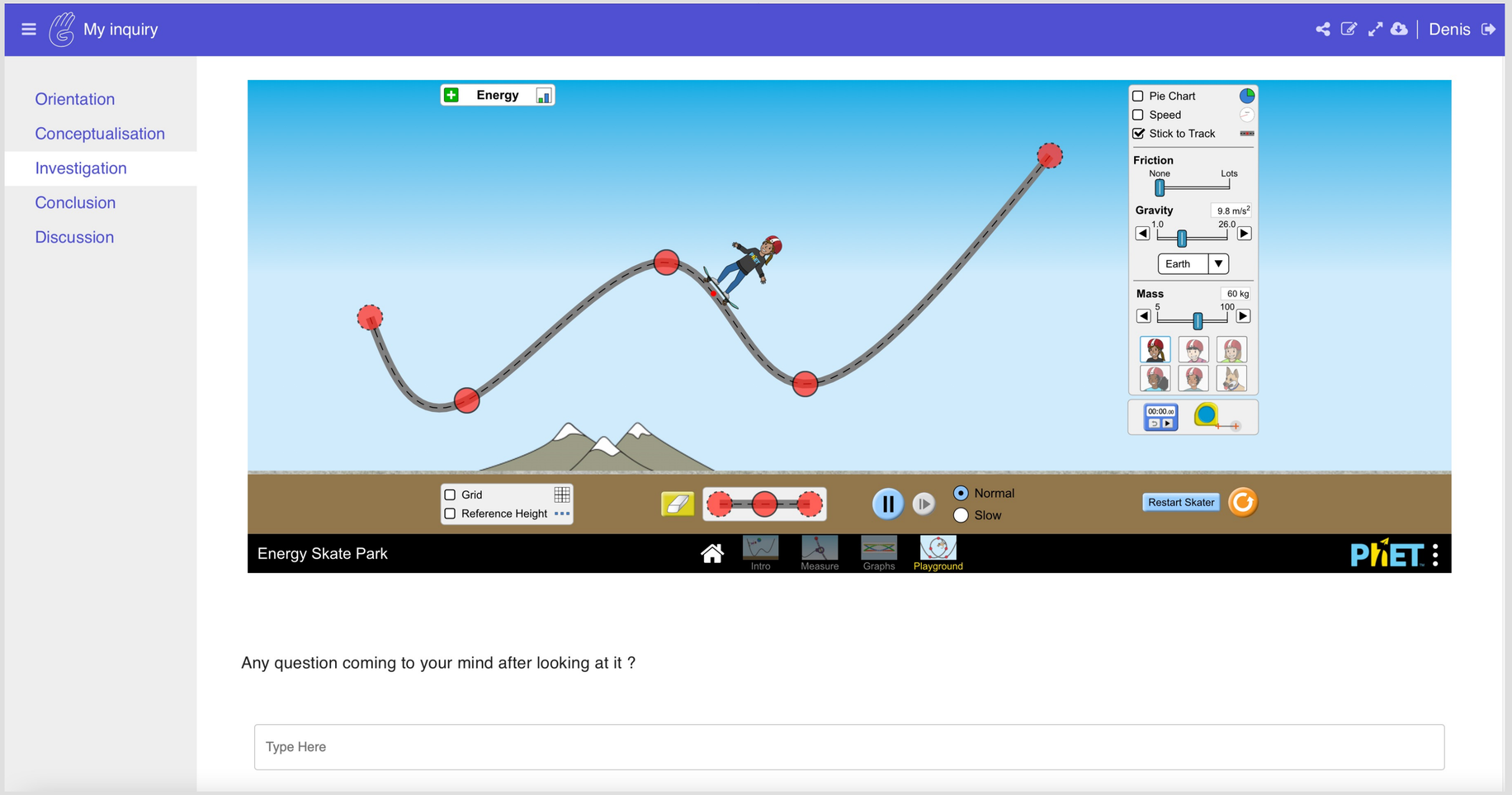


Design Thinking scenario



OER for collaborative design thinking

Open Educational Resources



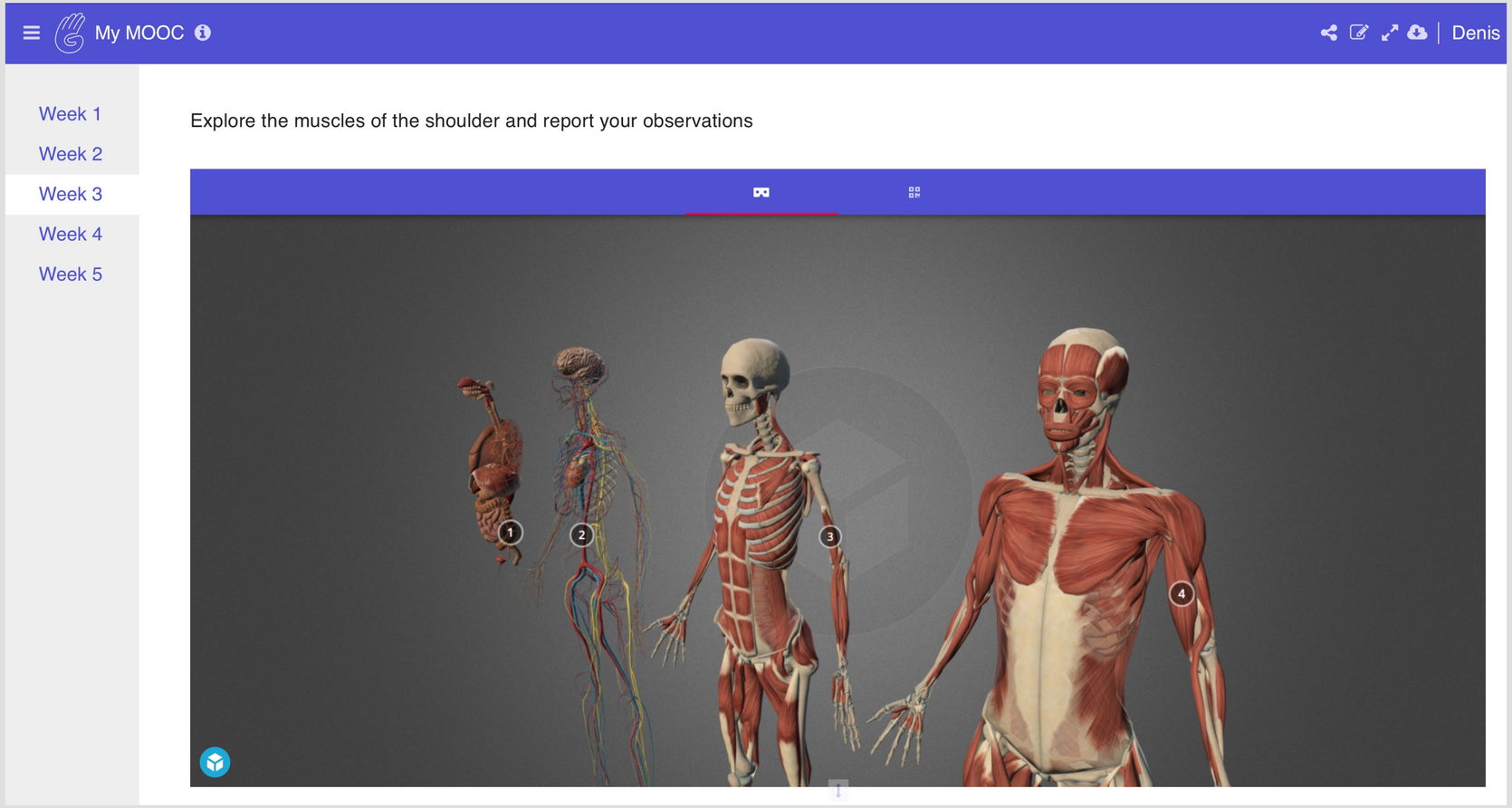
Accessible on the golabz.eu repository

Inquiry learning STEM activity with a PhET lab

https://phet.colorado.edu

PhET INTERACTIVE SIMULATIONS

Open Educational Resources

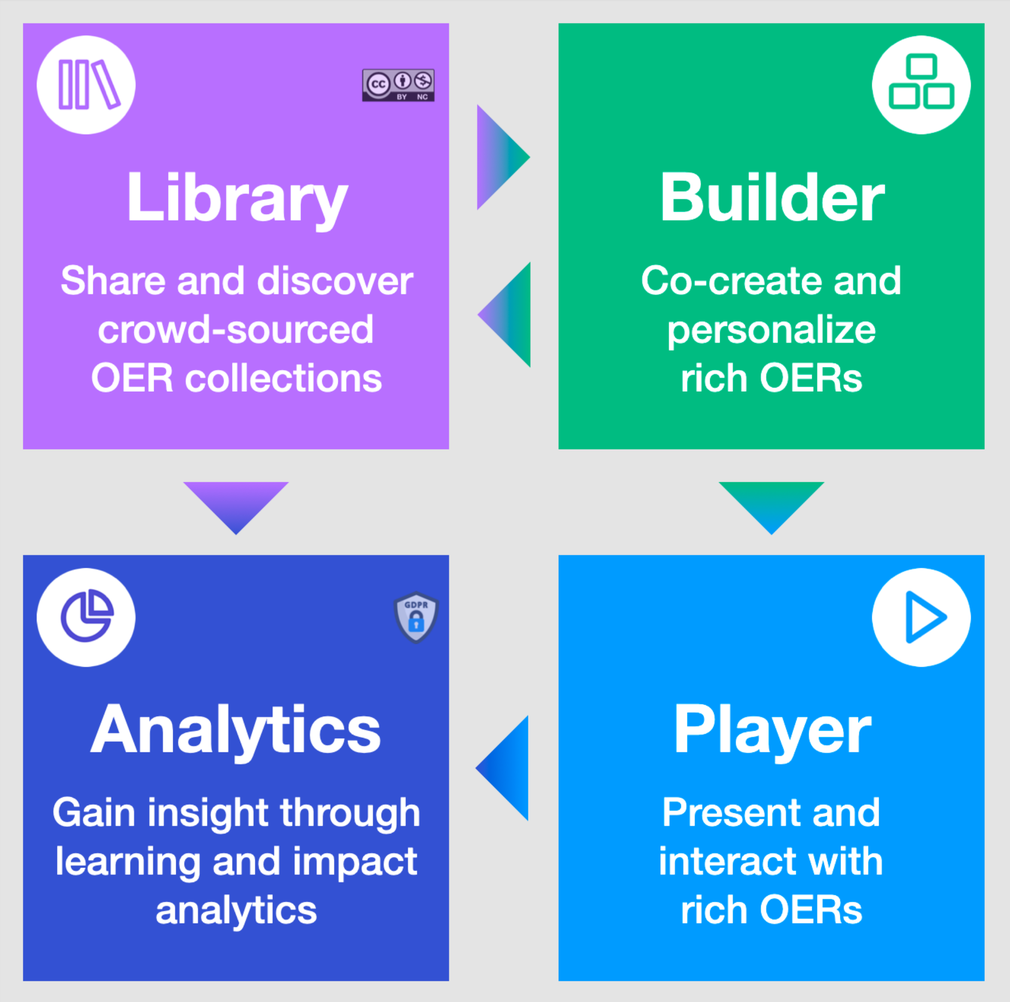


A MOOC with a Sketchfab VR model

https://sketchfab.com/3d-models

Sketchfab

Full OER life cycle support



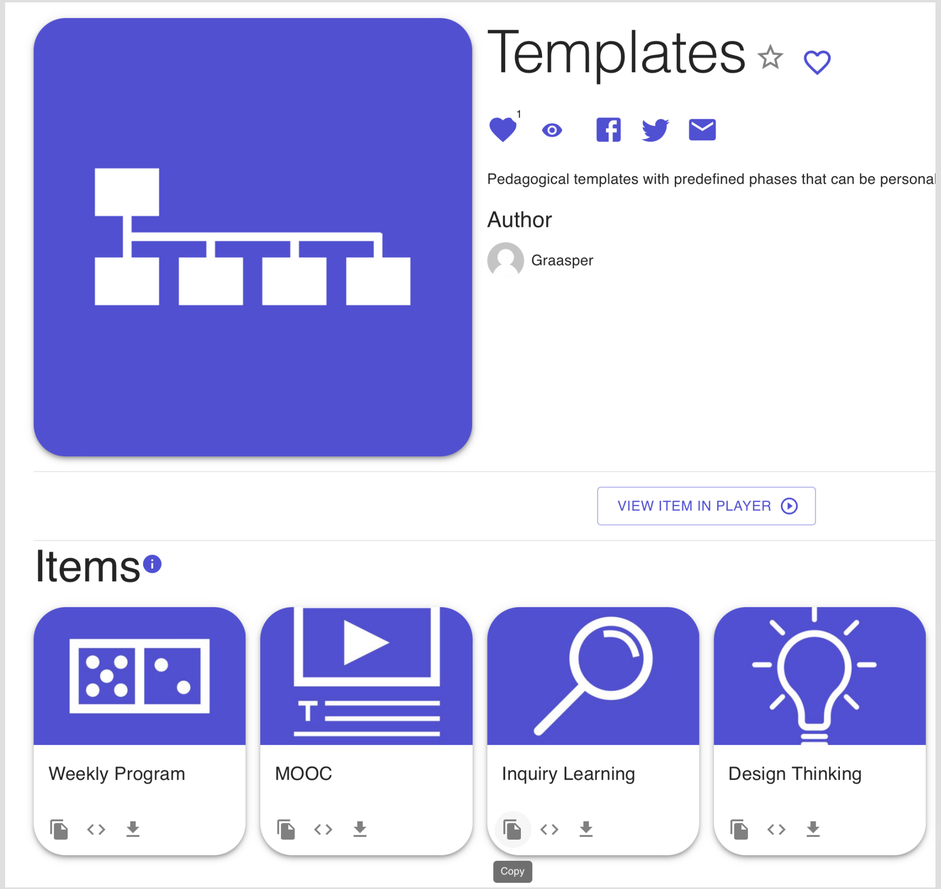
graasp.org

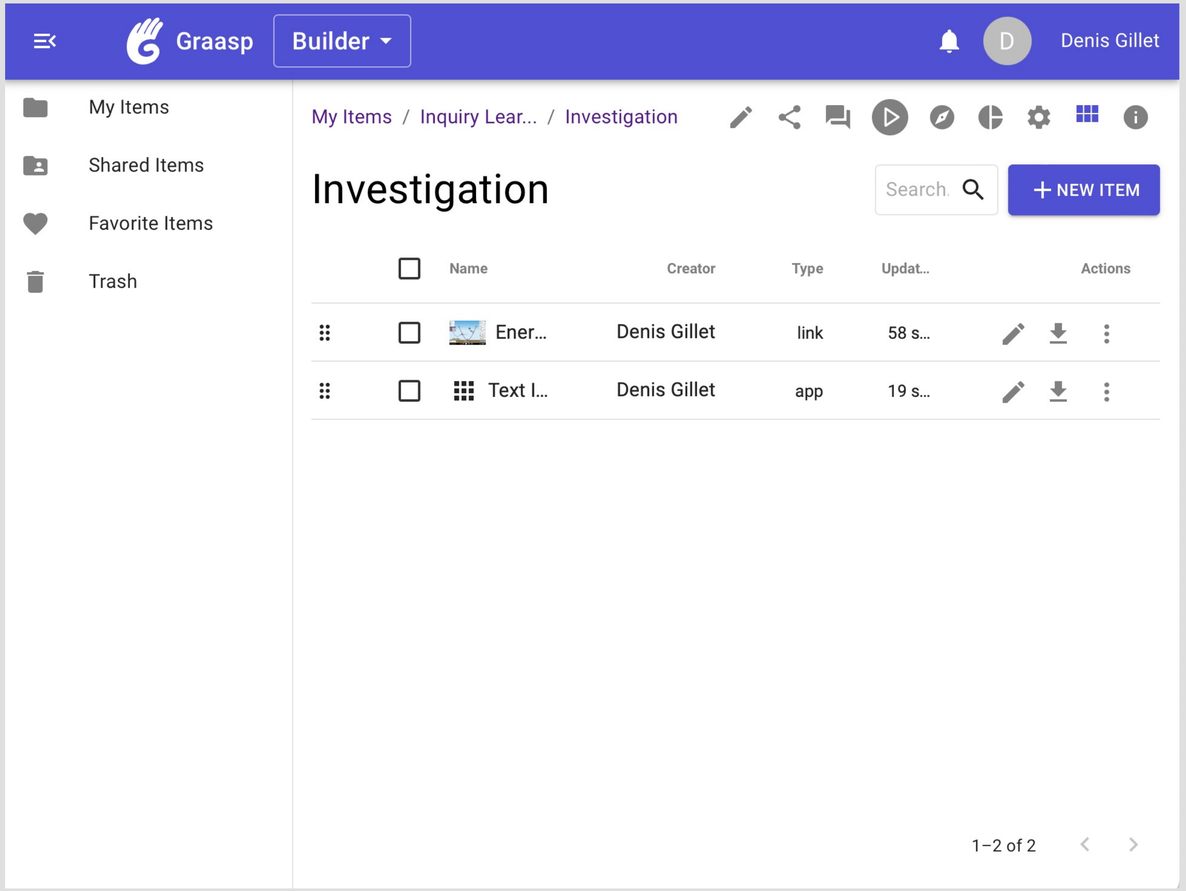
Learning Experience Platform

library.graasp.org

Full OER life cycle support

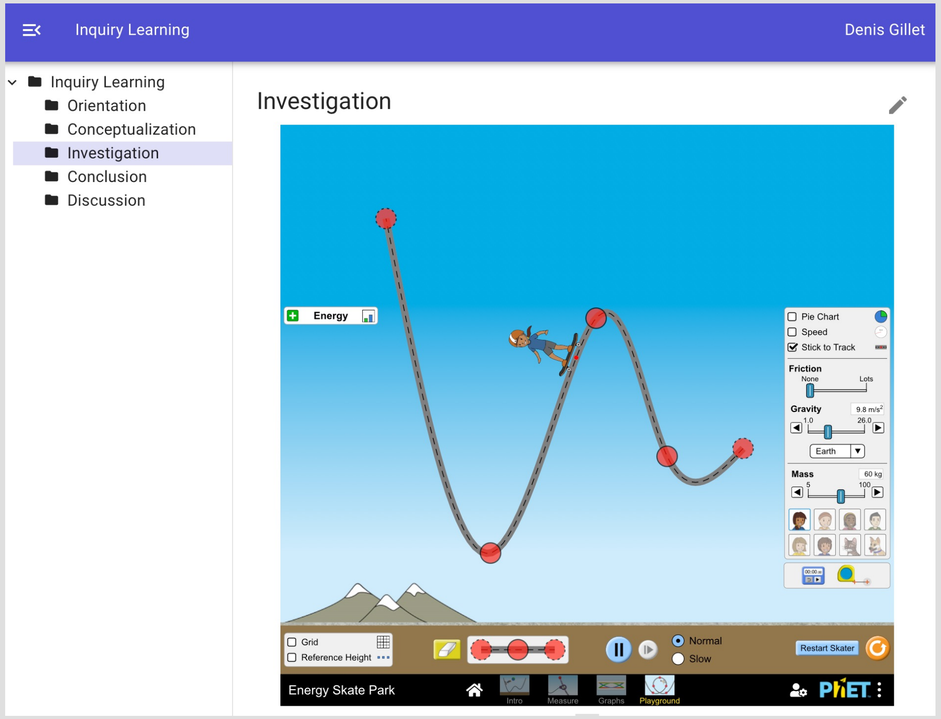
Create from a template: *Library* to *Builder*

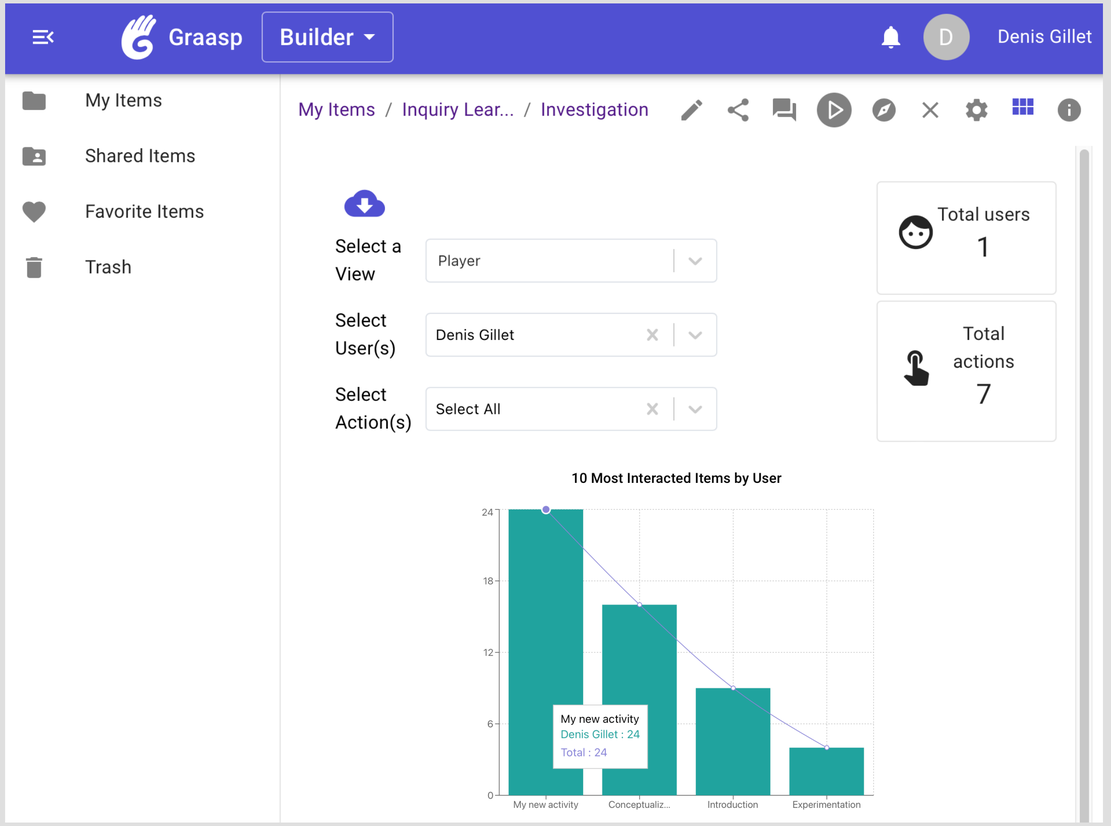




Full OER life cycle support

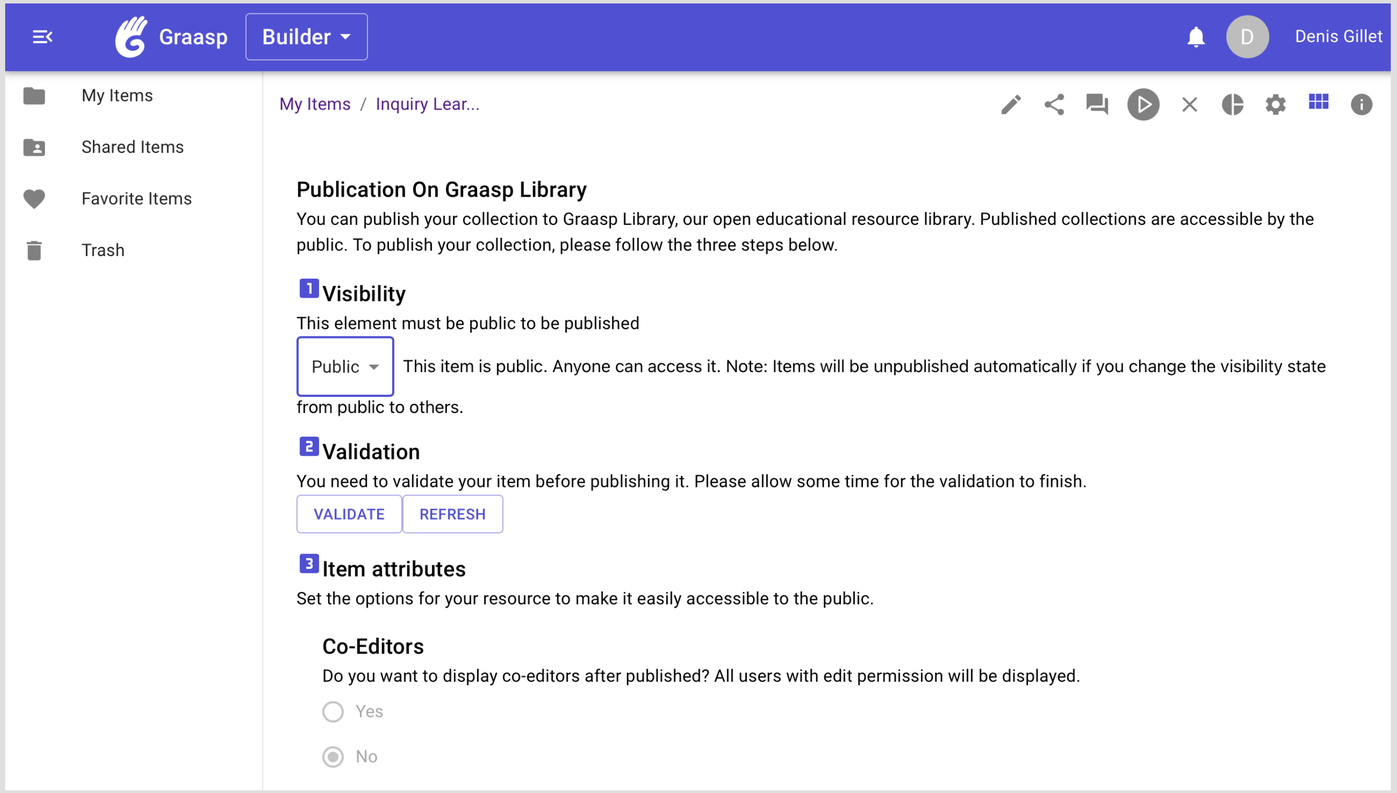
Let students explore: *Player and Analytics*

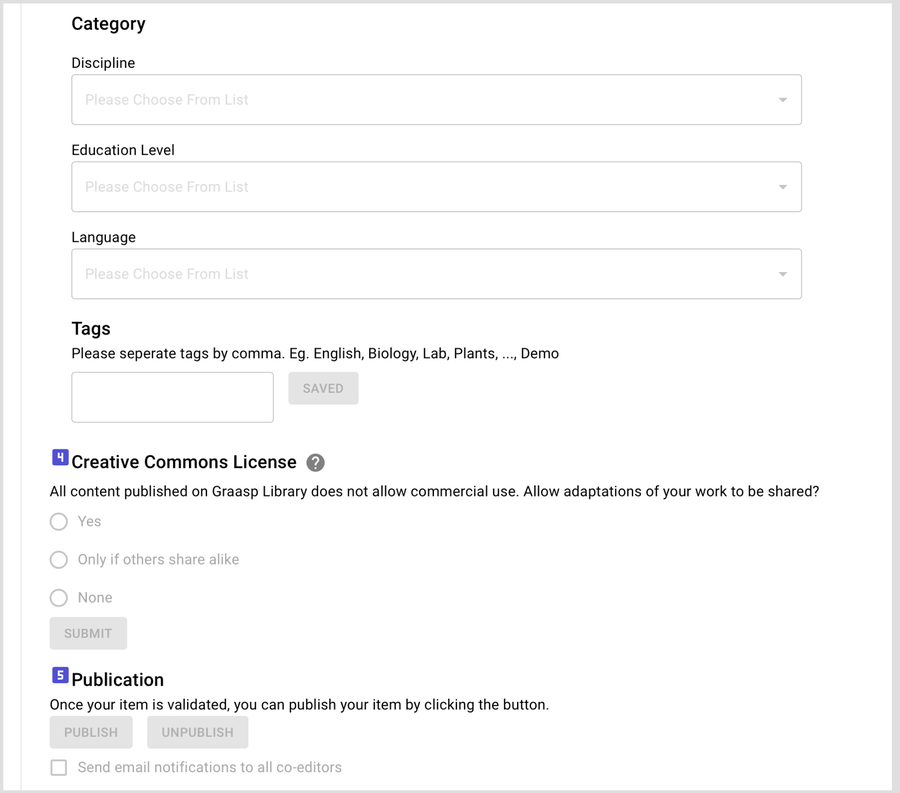




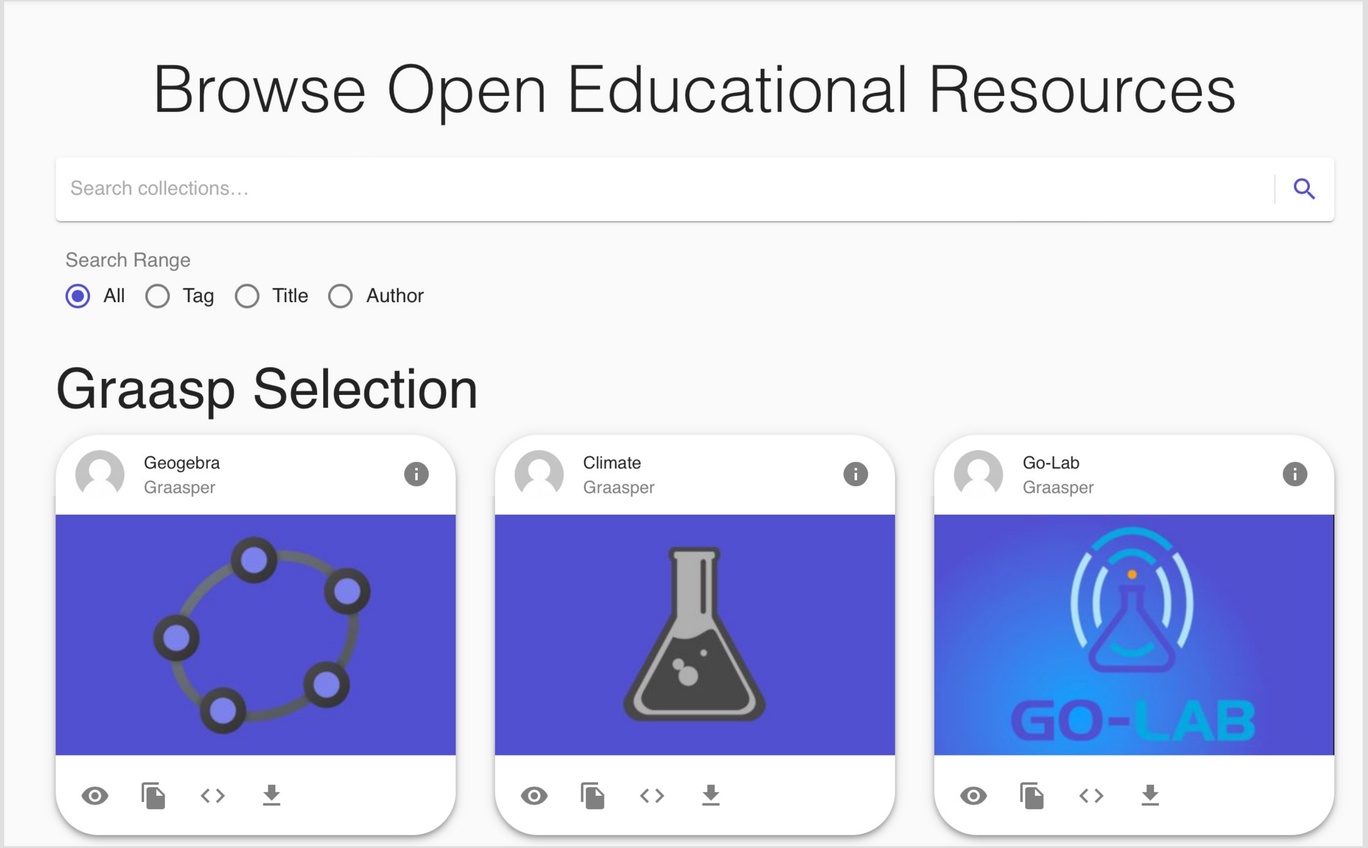
Full OER life cycle support

Share openly when ready: *Builder and Library*





Open OER Library

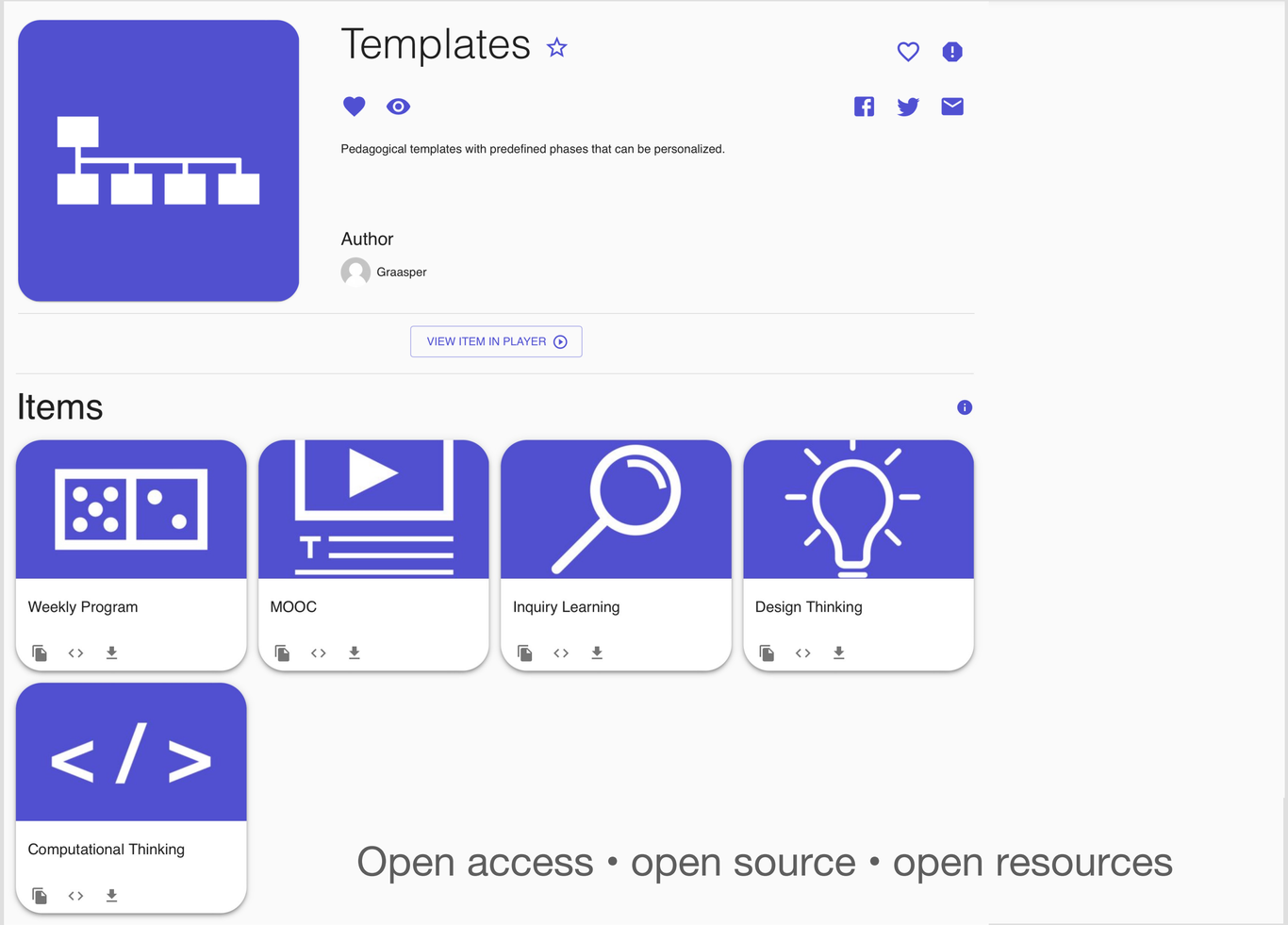


Open access • open source • open resources

Key features

- Granularity variety
- Personal collections
- Social filtering
- Impact analytics
- Discipline and level agnostic (7 to 77 yo)
- Scalable (AWS)
- Automatic content validation
- Low sharing friction

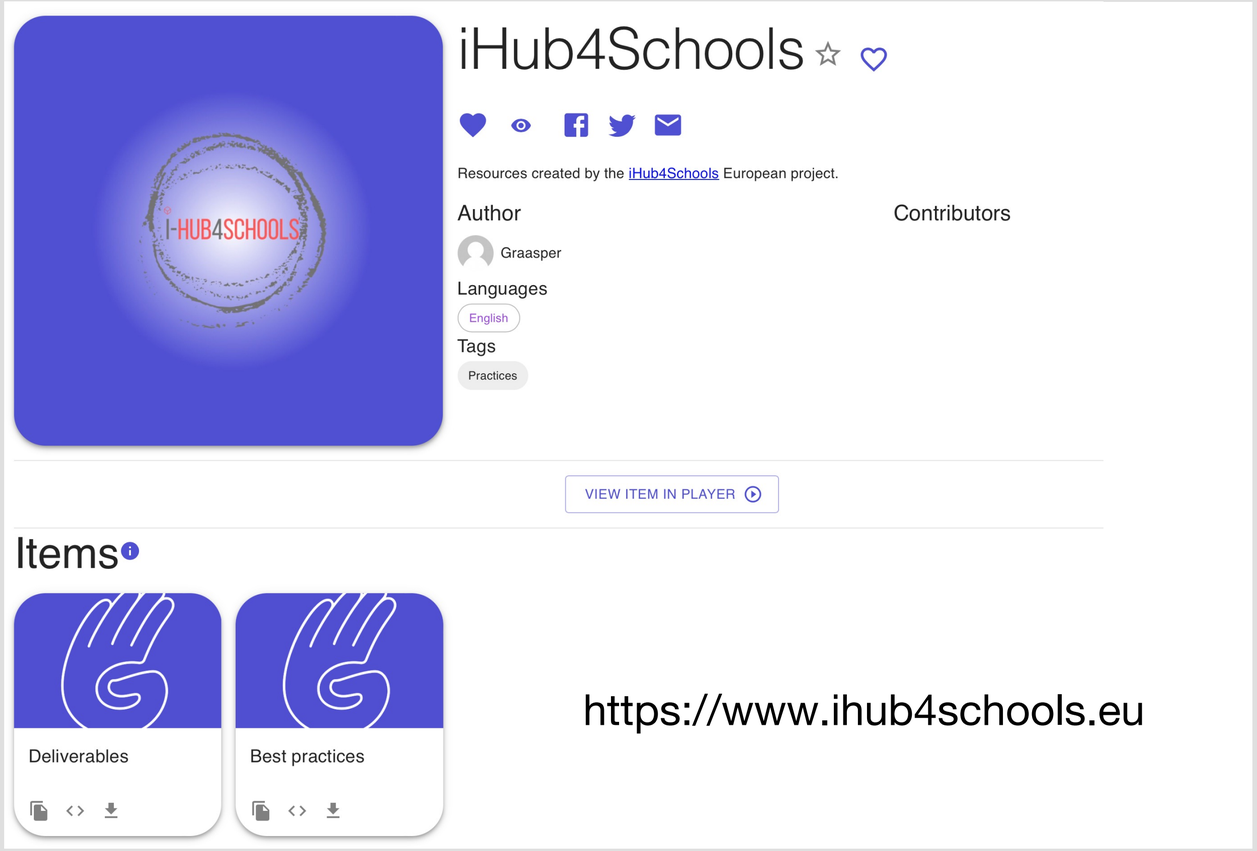
Open OER Library



Key features

- Granularity variety
- Personal collections
- Social filtering
- Impact analytics
- Discipline and level agnostic (7 to 77 yo)
- Scalable (AWS)
- Automatic content validation
- Low sharing friction

Open OER Library



Open access • open source • open resources

Key features

- Granularity variety
- Personal collections
- Social filtering
- Impact analytics
- Discipline and level agnostic (7 to 77 yo)
- Scalable (AWS)
- Automatic content validation
- Low sharing friction

Concluding Remarks

Abondance of **quality and accessible digital content** is not yet there but is the core digitalization enabler

Digital educational content should be shared as **OERs** as much as possible and as trustful of themselves teachers are

Co-created **open learning experience platforms** should be used to co-create and share **open education resources**

Adoption and sharing friction should be reduced as much as possible at all stages

Digitalization **policies** should encourage sharing of OERs

Contact Details

denis.gillet@epfl.ch
https://react.epfl.ch

https://graasp.org