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European Network for Catalysing Open Resources in Education

D3.4 Creating and Demonstrating the H5P OER Content Hub

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Version 1.0 – Novembre 2023

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European Network for Catalysing Open Resources in Education

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Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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Abstract

Introduction

The digital era has democratized the creation and sharing of educational content, but the ecosystem remains fragmented.
The H5P OER Content Hub aims to streamline this landscape by providing a unified platform and a format that can handle any type of content and opens up for anyone to contribute new forms of content.
Building on the existing H5P Hub for sharing H5P content templates(not content), the deliverable details the addition of a comprehensive content repository that not only facilitates sharing of templates but also directly shares content. A template may be for instance a template for building interactive videos. You fill the template with an actual video, questions and explanations to create interactive video content. The hub for sharing templates has existed since 2013. The Hub for sharing actual content existed in an early alpha version prior to this project and has been evolved during this project.

The Evolution of the H5P Hub

The existing H5P Hub provides an invaluable foundation, predominantly for sharing content templates. Our initiative will augment this by introducing the ability to directly share content—be it textual, visual, or interactive. This is particularly significant given H5P's existing penetration, with plugins used on about 200,000 websites. This makes the H5P OER Content Hub not just an extension, but an integral component in the global educational content ecosystem.

A central component of H5P prior to this project was the H5P Hub allowing users to select what content template they wanted to use:

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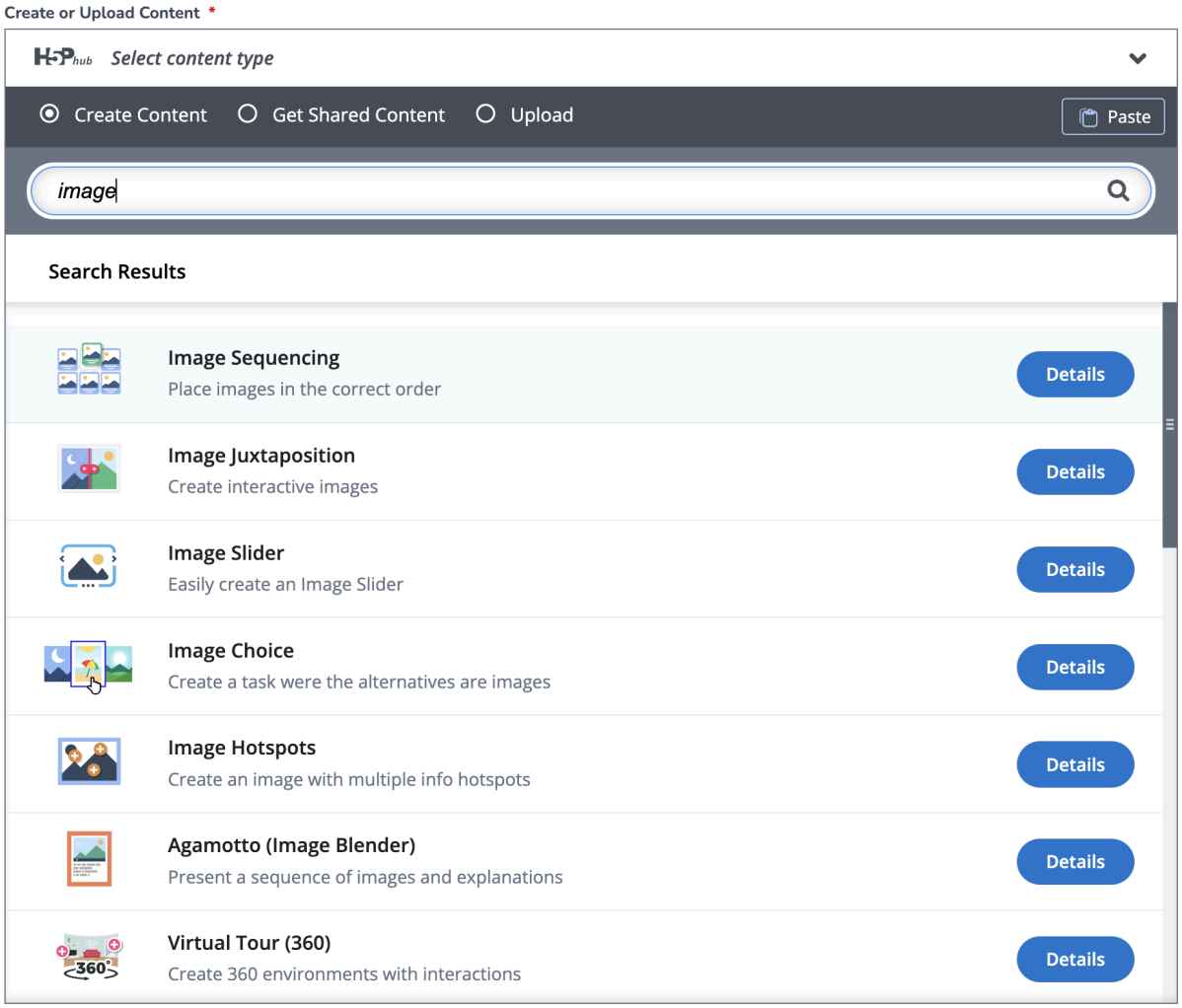

We have extended the H5P Hub to include a hub for reusing existing content:

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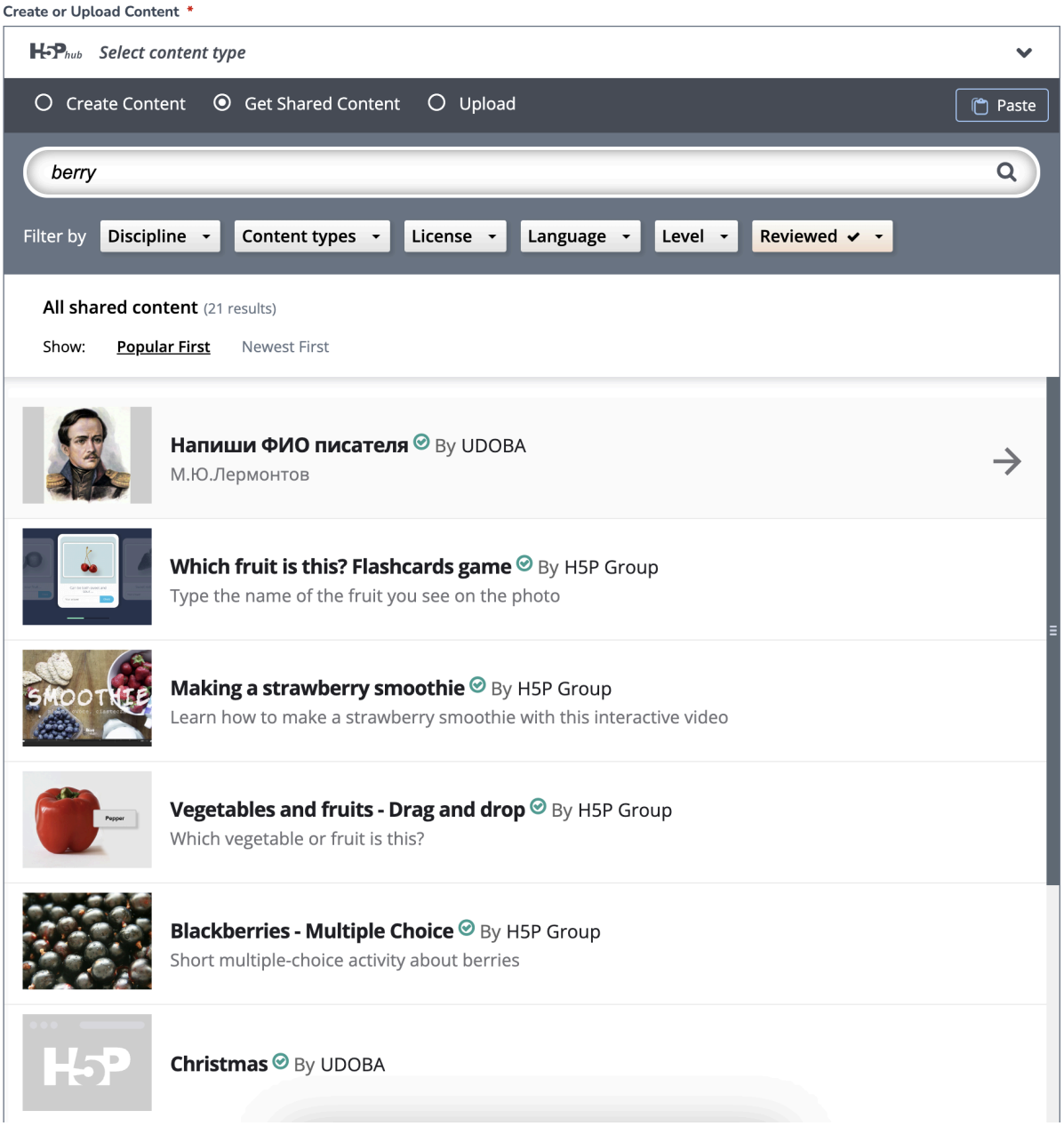

And of course also added widgets allowing anyone who uses H5P to share their work in the H5P OER Hub without leaving the H5P authoring environment:

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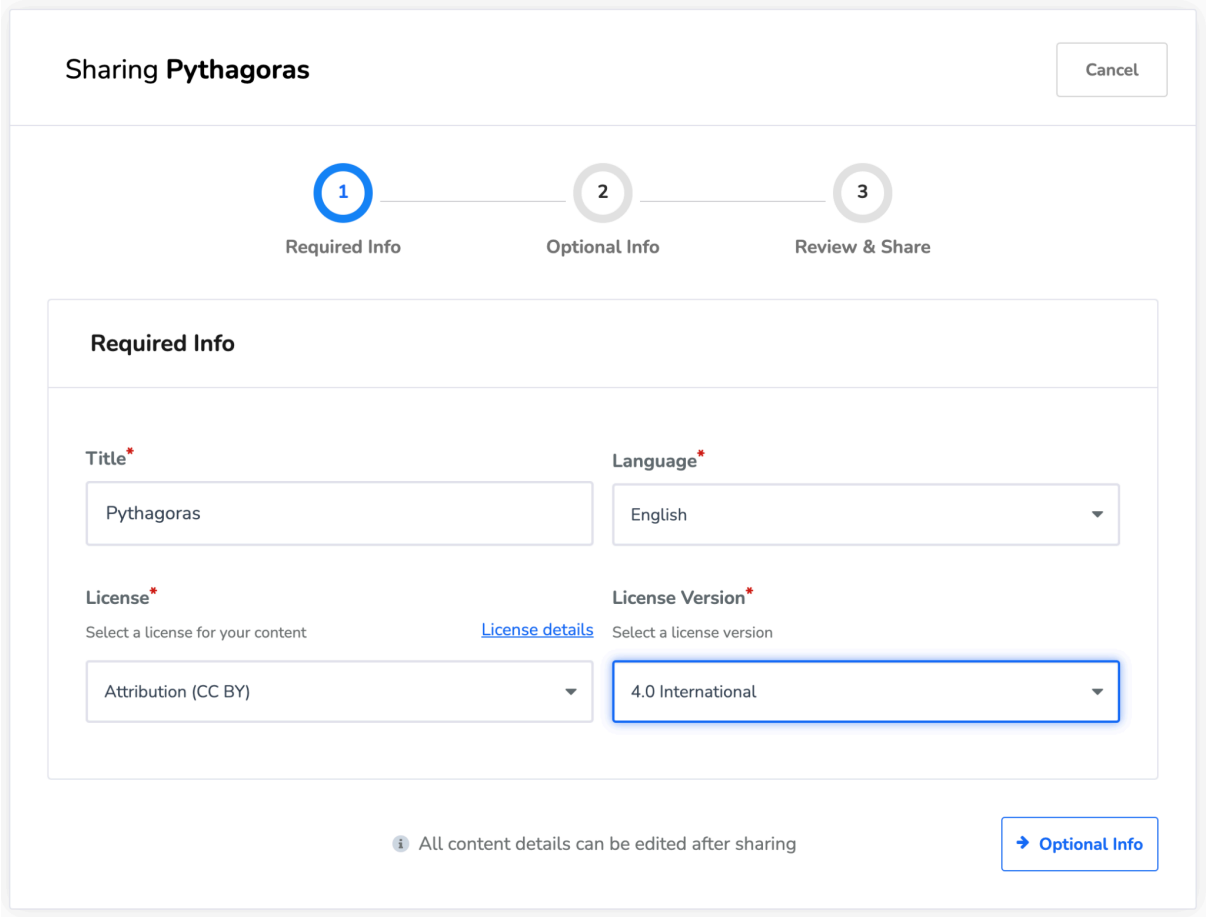

Prior to this project the H5P Hub only allowed for the sharing of templates for building OER. It now also supports sharing the OER content itself.

The continued need for OER repositories

It is possible to create OER on the fly with the help of generative AI. The quality of such content is questionable though. Piloting of H5P Group's generative AI products has shown that reviewing and improving the results of the generative AI work takes about ⅓ of the time it would have taken to build the content making content creation three times faster with the help of AI. OER Hubs allow sharing the combined work of the AI building the first version and humans improving it. Esteemed organizations sharing their quality approved content will reduce the auditing need for others using the content making content creation even faster than what AI alone may provide. Many users of OER are not themselves fully qualified to review the results of generative AI content creation either and for them quality assured content is the only option.

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Innovations Supported

New Possibilities for Content Creation and Remix

The hub enables content mashups, where educators can pull different types of content to create or "remix" new learning resources. This becomes particularly important for interdisciplinary subjects, where blended approaches are more effective.

AI and Machine-Assisted Content Creation

Classic OERs in the form of for instance static web sites or videos may be converted into more engaging interactive books or interactive videos using emerging AI models like GPT 4. The AI may add explanations and self correcting tasks to the resources and humans audit the results. This allows for very efficient enrichment of existing material. Feedback from H5P Groups piloting of such AI features suggests that generative AI is making authors three times more effective.

We have demonstrated how existing static content from OER repositories like MERLOT may be automatically converted to engaging interactive H5P content with auto generated tasks using generative AI and after that shared in the H5P OER Hub.

Building Adaptable OER

Through analytics and machine learning, the system can, in the future, adapt content delivery based on individual learner preferences and performance. In the past the cost of adaptable OER has made it difficult to achieve. With generative AI and the sharing economy OER facilitates the cost of producing adaptable OER has become much lower.

Plugins and Templates

Beyond content, the hub also provides a platform for sharing H5P plugins and templates, allowing educators to customize their LMS environments.

Conclusion

The H5P OER Content Hub aims to reduce fragmentation in the OER landscape. The hub acts as a catalyst for rapid innovation, offering a feature-rich, integrative platform for creating, sharing, and reusing educational content. Its open-source architecture ensures that it can be widely adopted, setting the stage for future educational innovations.

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Therefore, the hub not only serves the immediate goals of the ENCORE+ project but also lays a strong foundation for a unified, advanced, and accessible OER ecosystem.

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References

Website

For further and updated information about this project please see:
www.encoreproject.eu

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