Baroque AI

Publication prototype: A computational publishing and AI assisted writing course unit with students of the Open Knowledge class – at Hochschule Hannover with the Open Science Lab, TIB.

The prototype publication exercise involves creating a fictional 'exhibition catalogue' drawing on Wikidata based cataloguing of seventeenth century painting deposited by the Bavarian State Painting Collections. The prototype demonstrates how computational publishing can be used to bring together different distributed linked open data (LOD) sources. Additionally AI tools are used for assisted essay writing. Then both are encapsulated in a multi-format computational publication — allowing for asynchronous collaborative working. Distributed LOD sources include: Wikidata/base, Nextcloud, Thoth, Semantic Kompakkt, and TIB AV Portal. AI tools used for essay writing are — OpenAI and Perplexity.

Eleven students completed the class unit which was carried out over March to April 2023. An open access OER guide to running the class, a template publication for use in the class are online on GitHub and designed for OER reuse. Full class information and resources are on Wikiversity.

The open source software used is brought together in the ADA Pipeline.

Prototype series: Baroque TOC

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Publication type: Use case – An exhibition catalogue

1. Demonstration prototype: An exhibition catalogue about a baroque painting collection.
2. Objectives:
    1. Write an exhibition catalogue essay using AI tools
    2. Review the 'catalogue essay and AI tools' as open peer review
    3. Create the parts of the catalogue:
        1. Cover
        2. Colophon
        3. Essay
        4. Collection
3. What is the collection?
    1. The catalogue uses part of a Wikidata based collection of Bavarian collections of Baroque paintings. See: 17C Bavarian painting link.
    2. The focus is on the Baroque period: Bavarian Collections, 1590-1750
    3. Make a small collection of paintings - 9 in this case.
4. How are we using computational publishing and what is the prototype experiment?
    1. Creating a publication from different distributed (federated) remote sources using linked open data.
    2. Showing how asynchronous work can be carried out by team working on a single publication - this is the power of the TOC part! Which in more advanced domains becomes package management.

Learning points

1. Real-time collaborative editing,
2. Creating a Wikidata query of a collection,
3. Displaying a painting catalogue sample collection from Wikidata LOD query for a multi-format publication,
4. Editing a Jupyter Notebook in MyBinder,
5. Embedding media objects: Video - TIB AV Portal, and; 3D - Semantic Kompakkt,
6. Using GitHub,
7. Accessing API content for colophon from Thoth.pub,
8. Editing Wikidata collection query in Juypter Notebooks,
9. Asycronous collective working and making a publication from multiple remote Linked Open Data (LOD) sources, and
10. Rendering a multi-format publication with CSS styling.

Student publications Hochschule Hannover

- Ahmad Hasan Ahmad - https://ahmad19111.github.io/catalogue-003/
- Ahmad Aroud - https://ahmadaroud.github.io/catalogue-003/
- Jana Lisa Cornelius - https://janacnl.github.io/catalogue-003/
- Fynn/Anna Rahr - https://calnfynn.github.io/catalogue-003/
- Memo Loran Tuku - https://mloran.github.io/catalogue-003/

Links

- Guide: https://nfdi4culture.github.io/class-ADA-CP-pipeline/
- Template publication: https://nfdi4culture.github.io/catalogue-003/
- Class info 'Modul "BIM-224, SoSe 2023, Blümel" im Kompetenzfeld Data Science des Studiengangs Informationsmanagement an der Hochschule Hannover': https://de.wikiversity.org/wiki/OpenKnowledge23
- Prototype series Baroque TOC: https://github.com/NFDI4Culture/baroque-toc
- ADA Semantic Publishing Pipeline: https://github.com/TIBHannover/ADA
- Bavarian State Painting Collections/17th Century, Wikidata - https://www.wikidata.org/wiki/Wikidata:WikiProject_sum_of_all_paintings/Collection/Bavarian_State_Painting_Collections/17th_Century

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