

Documentation: Climate Knowledge Graph

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About

1 Roadmap

In summary, this book has no content whatsoever.

2 Workflow

2.1 Goals

The goals are to enable easier use knowledge from complex corpora by enabling:

1. Publishing of search results, and
2. Providing FAIR structured linked open data from a knowledge graph.

2.2 Workflow steps

The workflow represents the stages that go from harvesting an unstructured document corpora, web or PDF, to structuring the content.

Wikibase is used for storage and knowledge graph creation and in supporting: community annotation, search for outputting ‘publication ready documents’ - including via LLMs, and for providing knowledge graph data services.

- Report sources
- IPCC web scrape report texts (harvest)
- Generate initial graph data model (iteratively developed)
- Wikibase report import
- Wikibase to Mediawiki report navigation mapping for report browsing
- Harvest data:
 - Authors
 - Glossary
 - Acronyms list
 - References
 - Bibliographic
- Import data to Wikibase
- Annotate report using data
- Community annotation: #semanticClimate, Stockholm Climate Institute (SEI), Potsdam Climate Institute (PIK), UNESCO, UNFCCC, etc.
- Wikibase to Wikidata data mapping
- Wikibase data visualisations

- Publications available as:
 - REST API
 - Command line
 - Jupyter Notebooks
 - Python CMS (e.g., Jackdaw)
 - Graph RAG LLM
 - * All of the above using the following for publishing. Computational Publishing Service (CPS) using the publishing engine (CPS_Impress). CPS_Impress publishes from Wikibase to HTML using Jinja templating using an Model View Controller architecture. Paged Media CSS style are used to create PDF like layouts. Publications are saved back to the knowledge graph and online as sharable resources.
- Knowledge Graph and semantic outputs
 - From Wikibase:
 - * REST API
 - * RDF export
 - * Dokeli RDFa
 - * Wikidata export

3 Styles

<https://github.com/TIBHannover/climate-knowledge-graph/issues/26>

4 IPCC Reports

<https://github.com/TIBHannover/climate-knowledge-graph/issues/18>