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Graduate - An intuitive user interface for modeling semantic graph data

Monday 4 November 2024 16:00 (1 hour)

Research data management (RDM) is an important aspect of modern scientific research, which is heavily relying on interconnected data sets and corresponding metadata. For modeling and integrating these interconnections and metadata, the Resource Description Framework (RDF) has often been proposed as a standard, since it has been in use by search engines and knowledge management systems for decades by now.

The RDF provides a graph data structure for enriched vocabularies, so-called ontologies, and therein expressed information. However, the complexity of RDF and ontologies can be a barrier to adoption, especially for those without extensive training. To overcome this challenge, we are developing Graduate, a software tool that allows users to create RDF graph data in a user-friendly, graphical interface.

Graduate provides an intuitive visual representation of RDF graph data as an editable diagram, allowing users to create and modify RDF triples with minimal training. The software supports the use of terms from ontologies and enables users to create rich, structured data that conforms to established standards.

In addition it allows for versioning, sharing and collaborative work on graph datasets via GitLab. This can facilitate interdisciplinary research and collaboration, allowing researchers to work together on datasets and share their findings with a wider audience. The software's integration with GitLab also allows researchers to track changes via version control, improving the reproducibility and transparency of their research.

In summary, Graduate represents a significant advance in RDM technology and provides a user-friendly interface for the creation and management of RDF graph data. The visual representation of RDF data in the software provides an intuitive way to understand and engage with complex data structures, supporting knowledge transfer in teaching and research.

Please specify "other"

In addition, please add 3 to 5 keywords.

semantic
graph data
RDF
user interface

Please specify "other"

For whom will your contribution be of most interest?

Data professionals and stewards

Please assign yourself (presenting author) to one of the following groups.

Data professionals and stewards

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