

GERBIL PG

Summer Semester 2022

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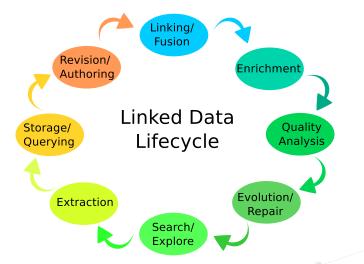
Data Science Group Paderborn University

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Linked Data Lifecycle







Benchmarking



Benchmarking? What is that?

Very briefly: Evaluate a system in a controlled environment and measure its effectiveness and efficiency.

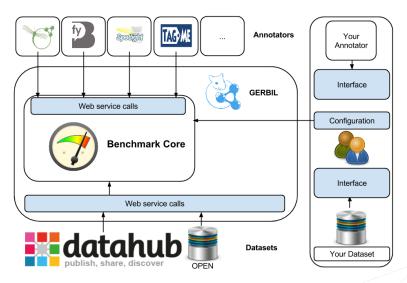








Knowledge Extraction

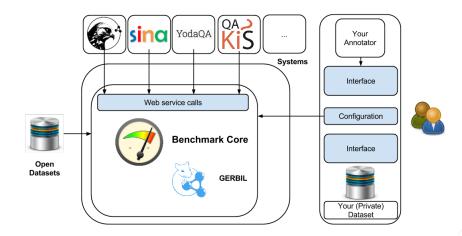








Question Answering





GERBIL



Variants

Domain	Input	Output
Knowledge Extraction	Text	Structured data
Question Answering	Questions	Answers
Fact Checking	Facts	Veracity values
Machine Translation	Text	Text



GERBIL



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Knowledge Graph Embedding (Link Predication)	Graph	Embeddings







Goals

Summary

 Problem: Development and maintenance of new GERBIL instances for different domains







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- Problem: Development and maintenance of new GERBIL instances for different domains
- Solution: Extend GERBIL to become a light-weight benchmarking platform







Goals

Summary

- Problem: Development and maintenance of new GERBIL instances for different domains
- Solution: Extend GERBIL to become a light-weight benchmarking platform
- Develop GERBIL 2.0
 - Basic platform implementation
 - Variants only extent the platform as needed
 - Usage of patterns like Dependency Injection
- Implement a new variant based on the new platform
 - Task related to Knowledge Graph Embeddings







Further Information

Publications:

- M. Röder, R. Usbeck, and A. Ngomo: GERBIL Benchmarking Named Entity Recognition and Linking consistently. 2018
- R. Usbeck, M. Röder, M. Hoffmann, F. Conrads, J. Huthmann, A. Ngomo, C. Demmler, and C. Unger: Benchmarking Question Answering Systems. 2019

Github projects:

https://github.com/dice-group/gerbil

Technologies:

- Java / Maven
- ► UML
- ► Knowledge about RDF can be helpful