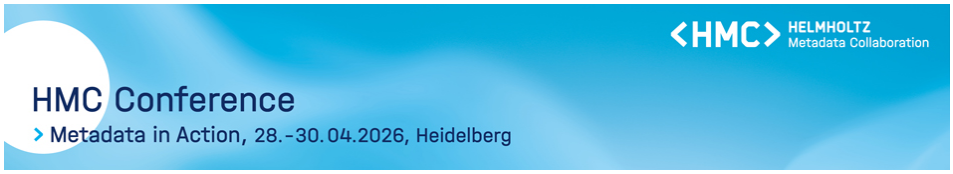

Beitrag ID: **48** Beitragskennung: **D18** Typ: **Demo Poster**

Demonstration of Continuous RDF and OWL Vocabulary Quality Checks with LintedData

RDF and OWL vocabularies are an important prerequisite for the FAIR representation of metadata. These vocabularies itself must adhere to certain quality standards to be useful. Over the last years, the Semantic Web community has come up with many recommendations as well as anti-patterns for the development of vocabularies. But, checks for compliance to these best practices can still only be automated partially and require considerable effort. However, learning from software development, quality checks must be performed regularly and completely automated to fully come to effect.

To address this gap, we develop LintedData, a command line tool for automated quality checks of RDF and OWL-based vocabularies. Currently, LintedData is able to perform more than 60 different quality checks. It covers a large part of the best practices that have been broadly accepted in the Semantic Web community as listed in the Ontology Pitfall Catalog or the OBO Foundry Principles. Due to the command line interface and an available Docker image, LintedData can easily be used in context of Continuous Integration (CI) pipelines to be automatically executed each time changes are pushed to an ontology development repository. Using JUnit XML or Markdown files as output formats enables the direct result presentation in the interface of platforms like GitLab or GitHub. An optionally provided configuration file allows to parameterize individual checks and define which checks to execute for a particular pipeline.

During the demonstration we showcase the automated use of LintedData in a CI pipeline of an ontology development repository. Visitors will be able to trigger changes to an ontology, introducing either improvements or new issues, and to experience the automated timely response of LintedData on these changes, pointing to contained problems.

LintedData is publicly available under a permissive license on: https://gitlab.com/dlr-dw/linteddata/

ONLY WORKSHOPS - Proposed interaction format

Alternative Track

1. From Minimum Requirements to FAIR and AI-Ready: Assessing Metadata Quality

ONLY WORKSHOPS - Tentative audience

ONLY WORKSHOPS - Maximum number of participants

ONLY WORKSHOPS - Special technical requirements

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Sitzung Einordnung: POSTER & DEMOS

Track Klassifizierung: HMC Conference 2026 Track Topics: 11. Semantics in Practice: Domain & Application Ontologies