Contribution ID: **44** Type: **Talk**

# Recent metadata enhancements in the RSpace digital research platform

*Wednesday 11 October 2023 09:50 (20 minutes)*

**Summary**

Our presentation reflects the topic 'Facilitating connectivity of research data', in particular the subtopics: 'Metadata annotation and management during and close to the research process', and 'Data interoperability through harmonised metadata and interoperable semantics'.

The presentation describes significant advances in incorporating metadata into the RSpace digital research platform, which comprises an electronic lab notebook integrated into a sample management system. The presentation will present highlights from the just completed Interoperability Guideline, which reports on the Enhancing Interoperability through Incorporation of PIDS in Tools project done jointly with Research Space and DataCite under an EOSC Future –RDA grant. In addition to describing incorporation of the new IGSN ID' s into the RSpace sample management system, the report also includes general guidelines for incorporating IGSN IDs into research tools. Thus the presentation also contributes to the third conference topic, 'Transforming (meta)data recommendations into implementations'.

We also cover recent enhancements for controlled vocabularies/ontologies in RSpace.

**Overview**

The EOSC Future RDA project involved interaction with researchers and research administrators from UiT the Arctic University of Norway and Rothamsted Resarch to understand their workflows and requirements for use of IGSNs in the context of RSpace, and touched on pain points related to interoperability, PIDs and collaboration in general.

The project work was informed by the following design principles:

- Ensure shared understanding of roles and responsibilities that comes with the realisation of interoperability - particularly regarding metadata creation and management
- Define PID integration goals based on use cases
- Reuse existing metadata frameworks, local and general
- Leverage the open infrastructure to fortify data management workflow
- Work with the disciplinary communities to define best practices

In the presentation we describe the support for a basic IGSN workflow implemented in RSpace, including how we integrated with DataCite for handling IGSN registering and publishing actions. This resulted in a fully working prototype that enables IGSN registration, metadata entry, and publishing all within RSpace Inventory. RSpace now supports:

- Identifier section present on each sample, subsample and container
- Register an IGSN for a sample
- Delete a draft IGSN
- Fill in IGSN mandatory metadata fields
- Fill in IGSN recommended fields: subject, description, date, alternate identifier
- Preview landing page
- Publish an IGSN
- Generate public RSpace landing page with metadata
- Re-publish with updated metadata
- Retract a published item
- Publish a retracted item

We also briefly describe ongoing work to improve the supported workflows.

Finally, we cover enhancements for controlled vocabularies/ontologies in RSpace, including associating metadata with ontologies, enforcing ontologies, and importing domain standards ontologies, e.g. from BioPortal Ontologies. Also, we have enhanced interoperability of metadata and tools by automatically including tags as vocabulary term URIs when exporting an RSpace data archive to a repository such as Dataverse or Zenodo. This ensures that richness of metadata is preserved between tools used in the active research phase and archival phase, enhancing findability.

## Please assign your contribution to one of the following topics

Metadata annotation and management close to the research process

## Please specify ”other” (stakeholder)

## In addition please add keywords.

metadata, ontologies, interoperability, IGSNs

## Please assign yourself (presenting author) to one of the stakeholders.

Data professionals who provide and maintain data infrastructure

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**Session Classification:** Parallel Track 2

**Track Classification:** Facilitating connectivity of research data: Metadata annotation and management during and close to the research process