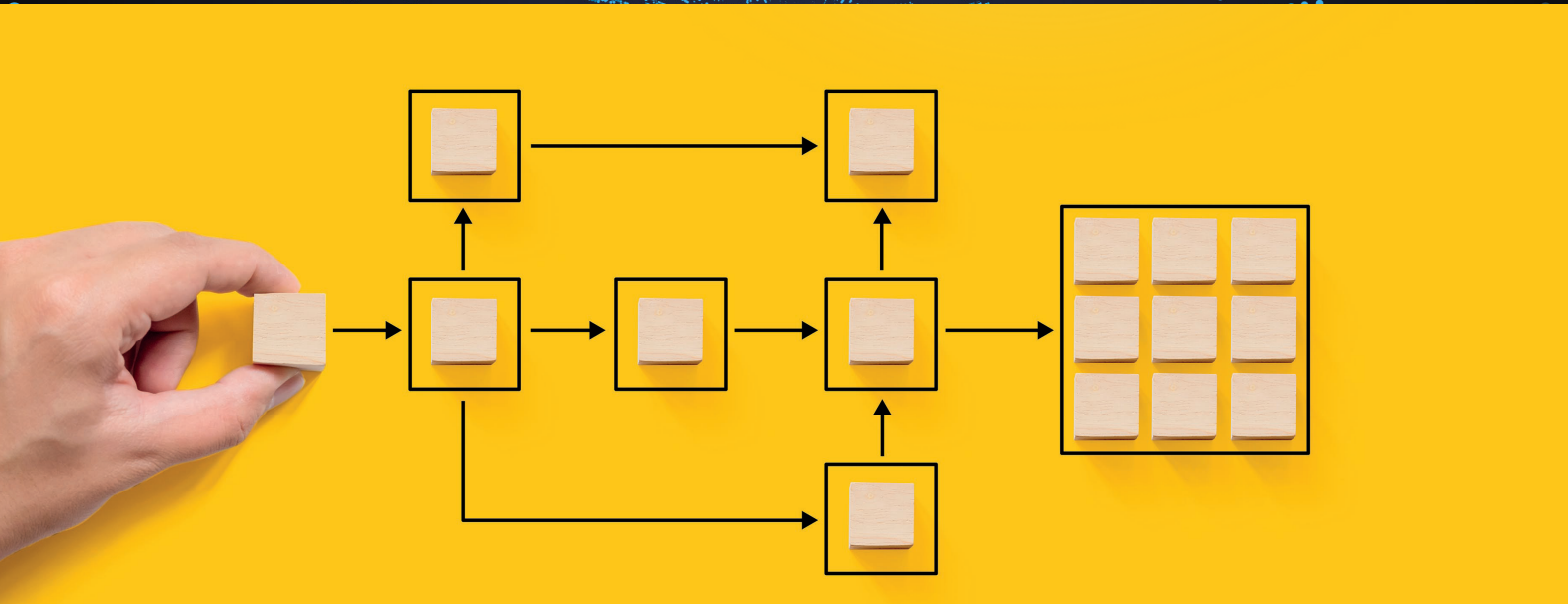
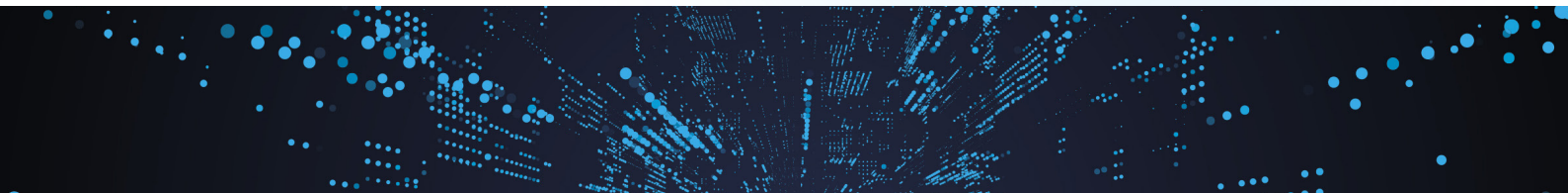




Implementing RO-Crate in Research Space



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Support action:

FAIR Signposting and RO-Crate. During the 3-month support action, participants took part in three virtual workshops to implement FAIR Signposting and RO-Crate to improve the discovery and consumption of their content and metadata. Participants benefited from interacting with mentors representing FAIR Signposting and RO-Crate.

Keywords:

RO-Crate, ELN, RSpace, XML Schema

Summary:

Participants at Research Space sought to use ro-crate-java library to add metadata to their exported archives so that they satisfy the requirements of the Electronic Laboratory Notebook (ELN) File format. They selected RO-Crate as the exchange format, to facilitate data exchange among all those who exported through RO-Crate.



■ Introduction:

The team of participants operates as service providers at Research Space, an organisation dedicated to enabling “a Research Data Commons of interoperable research tools across domains, facilitating machine actionable passage of data and metadata through all stages of the research lifecycle.”¹ They joined the support programme to learn more about the functionality of RO-Crate and to use it as the exchange format for their exported archives.

■ Approach taken:

In learning more about RO-Crate and deploying it as the exchange format for their exported archives, the team of participants used the tools and methods specified for RO-Crate,² Schema.org,³ ro-crate-java library,⁴ and the ELN file format.⁵

■ Challenges encountered and addressed:

Confusion existed over what role the ro-crate-metadata took, whether it operated as an actual new data format for exchange between ELNs rather than a source of metadata. It would be a huge task to convert RSpace data holdings to RO-Crate, but creating a metadata file is much easier. Many idiosyncratic files that someone would have to read previously would now have some metadata to guide them. The core case was figuring out the actual vocabulary to use going through the RO-Crate documentation and matching them, such as tags = keywords.

■ Impact:

Changes to practices resulting from the support action include adding structured metadata to exports.

■ Future plans:

The team of participants is likely to enhance the metadata added to their export archives, especially as regards export to repositories such as Dataverse, IROds, and Argos. RO-Crate needs a parsing tool to read XML and then manual conversion to correspond to the data that RSpace uses. RO-Crate gives a head start, but 90 percent of the work needs to be done.

1 <https://www.researchspace.com/about>

2 <https://www.researchobject.org/ro-crate/>

3 <https://schema.org/>

4 <https://github.com/kitt-data-manager/ro-crate-java>

5 <https://github.com/TheELNConsortium/TheELNFileFormat/blob/master/SPECIFICATION.md>





■ ■ Key message:

RO-crate-metadata is to be used as a source of metadata, but it is not a new standard for data interchange between ELNs. Make sure to check the RO-Crate website for how to structure and get the range of possible values to use in JSON.



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