

## DOI Minter: A Service for Flexible Generation of DataCite DOIs in Connection with a DSpace Repository

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### Session Type

- Poster

### Abstract

As institutional repositories seek to better support the release of unique research outputs (as opposed to open access versions of separately published materials), they increasingly turn to DataCite DOIs as the most appropriate form of persistent identifier. While DataCite DOI registration support is built into many repository platforms<sup>2</sup>, the native configuration options may be limited. For institutions like ours who opt to use commercial repository hosting services, contracting customizations to features such as the DataCite integration within the existing software also complicates future upgrade or migration paths for the platform as a whole. In addition, locating the DOI minting service of an institution within a single platform or database may be inappropriate when the institution has several different systems that would benefit from the use of DOIs.<sup>1</sup> Due to these factors we developed a local DOI Minter service connected to our hosted DSpace repository via REST API. This has allowed us to have greater immediate flexibility and also better positions us for future expansion of our DOI related services.

### Conference Themes

- Repositories - evolution or revolution?
- Supporting open scholarship and cultural heritage
- Open and sustainable
- How can metadata and standards help our users?

### Keywords

DataCite, DOI registration, DSpace REST API, Datasets, ETDs

### Audience

Of interest to repository managers and developers considering connecting DOI registration services to a repository.

### Background

Repository platforms often support registration of DOIs for deposited items. However, actions that may be of use in a local context, such as triggering DOI registration on demand for specific items or subsets of items, pointing DOIs to landing pages outside of the repository, or enriching metadata deposited with DataCite with information (author affiliations and ORCID iDs, relationships between items, etc.) either not

well supported by the internal repository metadata model or the default metadata mapping, are not often supported by the core repository software. As an alternative, some institutions may choose to run DOI minting services independent from, but connected to, their repositories.

## **Presentation content**

Visualizations in the poster will show the structure of the code developed for our local DOI minting service, the features of the information flows between it, the repository and DataCite, as well as examples of several ways in which this structure allows for greater control of the registration process, enrichment of the exchanged metadata, and future extension of the service.

## **Conclusion**

By submitting metadata to DataCite as part of DOI registration, repositories have an opportunity to make unique research materials discoverable, while also contributing to a rich global metadata resource. Rather than locating the DOI registration process within a particular repository platform, maintaining DOI minting as a separate, but connected, service provides needed flexibility and preserves room for innovation and expansion of the service.

## **References**

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