



LIBER Case Study:

Promoting Data Citation by DataCite Netherlands, a DOI Registration Service of TU Delft Library

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1 What was the starting point?

TU Delft Library is a founding member of DataCite and a regional office for the Netherlands. TU Delft Library established DataCite Netherlands to serve as a central research dataset registration service that will enable Dutch research organisations to register research datasets and assign digital object identifiers (DOIs) to them. Our aim is to support researchers by improving access to research data and to increase acceptance of the research data as legitimate, citable contributions to scientific records through trustworthy registration and identification of datasets. The current focus of DataCite Netherlands is promoting the use of digital object identifiers for datasets. Organisationally, DataCite Netherlands is part of the TU Delft Library. Beyond DOI registration, DataCite Netherlands is also responsible for managing the metadata. DOI registration is linked to the provision of a defined metadata set for each object. The metadata is stored at TU Delft Library and DataCite, and can be searched publicly in suitable portals.

2 What kind of research data is targeted?

DataCite Netherlands registers DOIs for research data that are of scientific interest in the long term and for secondary data (publications, grey literature). The data are retained at the local data centres. One of the benefits of the DOI system is that DOIs can be assigned at any level of granularity. For example, a DOI can be assigned to a data collection and also to each item within the data collection. When deciding what level of granularity to apply a DOI to, consideration should be given to the expectations of data users. The data format is open but, wherever possible, formats should be selected that enable their long-term archiving to be guaranteed in accordance with the current state of knowledge. Long-term data protection is up to the customer as the data's owner.

3 What is the organisational framework?

Roles and responsibilities

Any organisational unit, i.e. not individuals, wanting to link an identifier to a digital object can become a DataCite Netherlands client. Before registration, an agreement should be made with the TU Delft Library. The aim of this agreement is to guarantee the persistence and availability of the referenced objects and the fulfillment of the quality standards for metadata in the long term. A client is required to pay a one-time registration fee of EUR 1,000 which entitles the account holder to create and manage an unlimited number of identifiers. Individuals who need a DOI for their dataset are able to submit the dataset to 3TU.Datacentrum. The dataset will then automatically receive a DOI name.

DataCite Netherlands is managed by TU Delft Library's Research Data Services, which is a product team that was recently established to respond to the emerging concerns surrounding research data management and sharing. With these services, we support researchers in managing, organising and archiving their data, and includes a data repository service provided by 3TU.



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Datacentrum, consultancy and training, support for data labs, and assistance in making the data citable, discoverable and accessible.

DataCite Netherlands has assigned an administrator role who is responsible for performance issues, maintenance and accessibility.

Policies

DataCite Netherlands does not have a written policy. However, the procedures and guidelines underlying this service were created as a consequence of the design and architecture of the global DOI and DataCite infrastructure which supports this service.

4 What kind of infrastructure is provided?

DataCite Netherlands provides a local user interface which enables our clients to register and edit DOIs. Each client is able to use this service when a personal account is created. DOIs can be created or updated manually by using a metadata upload form, by bulk upload or via an API. DataCite Netherlands runs on Django, a high-level Python Web framework, and utilises standard HTML/CSS/JavaScript-based pages to provide interactive storage and modification of DOIs and DOI Metadata in all web browsers. The framework stores all DOIs locally in a MySQL database and continuously manages the registration and minting of the DOIs at the Metadata Store of the global DataCite organisation, which is performed via asynchronous requests at the public DataCite Restful API. The TU Delft application uses standard Django packages to provide an enhanced DOI management service which includes webform-based DOI management and versioning.

5 What have you learned so far? What's next?

Lessons learned:

- Cooperate closely with clients to improve functionality.
- Provide a stable infrastructure and support integration of DOI services in other repositories.
- Learn from other DataCite registration agencies (best practices).

Challenges ahead:

- How can we use metrics and altmetrics to track data citations?
- Keep in touch with clients and establish new relationships with potential clients.
- Identify which services can be offered locally and which services can be offered centrally by DataCite
- How to increase data citation awareness?

Further information

WEBSITE: <http://datacite.tudelft.nl/info/home/>

API: <https://datacite.tudelft.nl/dataciteapi/v2/>

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