



Persistent identifiers & catalogues – A library's perspective

Jan Bräse

DataCite - German National Library of Science and Technology, Welfengarten 1b, 30167 Hannover, Germany

Knowledge, as published through scientific literature, is the last step in a process originating from primary scientific data. These data are analysed, synthesised, interpreted, and the outcome of this process is published as a scientific article. Access to the original data as the foundation of knowledge has become an important issue throughout the world and different projects have started to find solutions. Today libraries face more and new challenges when enabling access to information. The growing amount of information in combination with new non-textual media-types demands a constant changing of grown workflows and standard definitions.

In the last four years the German National Library of Science and Technology (TIB) has successfully widened its range of services adapting to these new challenges:

TIB developed and promotes the use of Digital Object Identifiers (DOI) for datasets. A DOI is used to cite and link to electronic resources (text as well as research data and other types of content). The DOI System differs from other reference systems commonly used on the Internet, such as the URL, since it is permanently linked to the object itself, not just to the place in which the object is located. As a major advantage the use of the DOI system for registration permits the scientists and the publishers to use the same syntax and technical infrastructure for the referencing of datasets that are already established for the referencing of articles. The DOI system offers persistent links as stable references to scientific content and an easy way to connect the article with the underlying data. For example:

The dataset:

G. Yancheva, N. R. Nowaczyk et al (2007)
Rock magnetism and X-ray fluorescence spectrometry analyses on sediment cores of the Lake Huguang Maar,
Southeast China, PANGAEA
doi:10.1594/PANGAEA.587840

Is a supplement to the article

G. Yacheva, N. R. Nowaczyk et al (2007)
Influence of the intertropical convergence zone on the East Asian monsoon, Nature 445, 74-77
doi:10.1038/nature05431

Since 2005, TIB has been an official DOI Registration Agency with a focus on the registration of research data. The role of TIB is that of the actual DOI registration and the storage of the relevant metadata of the dataset. The research data themselves are not stored at TIB. The registration always takes place in cooperation with data centres or other trustworthy institutions that are responsible for quality assurance, storage and accessibility of the research data and the creation of metadata. In cooperation with several World Data Centres over 3,700 datasets are directly accessible through the online catalogue at TIB.

Through the assignment of DOI names these datasets can be handled and cited as independently published scientific items.