

Constructing Large-scale Cultural and Research Linked Data

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This paper discusses the model of Linked Data compiled by the National Institutes for the Humanities (NIHU), in Japan. Researchers at NIHU are experimentally compiling Linked Data from the historical information of Japanese *shoen* (a manor in Japan). These trial bases showed that connections between material information and literature, and between geographical information and literature are more useful for the studies of history and relational humanities. Similar trials are being conducted to extend almost 100 such databases using these Linked Data.

The National Museum of Japanese History, which is a research institute of NIHU, utilizes Linked Data for connecting databases across various research institutes. Its multidisciplinary project, “Integrated Studies of Cultural and Research Resources”, aims to link material catalogs of all the local museums in Japan.

In general, museums store a variety of cultural and research material, including historical documents and natural history material, such as stuffed specimen and plant samples. These data sources need to be integrated for the complementary understanding of the Japanese culture. In doing so, the following three requirements are accepted: building of a model for allowing one material to have plural catalogs; enabling the semantic searching and informative finding one after another for multidisciplinary approaches; consideration of a multidisciplinary and non-integrative model for searching catalogs of various museums. To achieve these objectives, the database relying on Linked Data was applied.

As a result, this collaborative method can connect a variety of museum collections and enable innovation of research information in various fields. Connecting to geographical information enables the visualization of the diversity of material in Japan. Assigning individual URLs to each museum resource can define its relational description. These Linked Data are helpful in connecting materials, resolving various problems in humanities, and showing critical evidence of academic papers containing URLs. The global application of Linked Data can thus provide richness to the digital resources in the studies of humanities.