THADL - A Successful Pilot Project

Authors: Jinfang Niu
In Brief

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Contributed by:
Jinfang Niu
Library of Tsinghua University
Beijing, China
< niuff@lib.tsinghua.edu.cn>

In 1930, Liang Si-Cheng, a world famous architect and professor, joined YingzaoXueShe, an institute studying ancient Chinese architecture in Tsinghua University. In the following 15 years, under the instruction of Professor Liang, the institute did much investigation and research on ancient architecture around China and produced many kinds of works and materials including series, monographs, theses, drawings/sketches and photographs. Today the works and materials still reside in the School of Architecture of Tsinghua University. Unfortunately, with so many years having gone by, the materials have become so old that if they continue to be used directly by hand, they will deteriorate rapidly. Meanwhile, although the materials are very valuable, not many people know about their existence, except professors or specialists who study Chinese Ancient Architecture. To protect those materials and make them shareable among national and international audiences, as well as to celebrate the coming centennial birthday of the great Professor Liang, the School of Architecture wanted very much to digitize the materials and provide them online.

At the same time, both the department of computer science and the library at Tsinghua University were conducting research and development in digital libraries. Thus, they teamed up with the School of Architecture to work on THADL (Tsinghua University Architecture Digital Library). The department of computer science was responsible for software development, web site and retrieval interface design, and storage of digital information. The School of Architecture presided over the digitization and description of the materials. They also developed animations, videos and audio tapes to demonstrate the building processes of ancient architecture. To make the materials more complete, they even sent some students on travel to take new photos of the ancient architectural sites along the route that Professor Liang and his comrades used to travel. The library was in charge of developing the metadata scheme.
The metadata scheme was based on Dublin Core. In addition to the entire list of 15 elements of DC, we added one element: management. We also deleted, added or made revisions to some of the DC qualifiers. Finally, a system of 16 elements with 66 qualifiers was generated. The resulting system seems complicated with so many elements and qualifiers but, in fact, some elements and qualifiers -- such as the management element and its qualifiers -- have constant values that can be provided automatically by the software. Additionally, the system was created on the basis of 7 kinds of architecture materials, including series, monographs, theses, drawings/sketches, photographs, videos and audio tapes. These are very different materials with the only commonality being that their contents are all about Chinese ancient architecture. Therefore, to describe them clearly, it is inevitable that the system will be a little complicated. In the practical description, every kind of material is given a different interface that includes only those qualifiers that are specific to it. Therefore, although the whole system is large, the practical description is not so onerous.

The project prototype was established successfully, and the collection is now accessible over the campus network of Tsinghua University and serves as a reference web site for some of the University professors. We are trying to revise the web site interface, the software functions and the metadata scheme. In the near future when it has been perfected, the collection will be open to the whole world. When it has been made accessible worldwide, the URL will be: <http://166.111.68.83/digital>. With this project, not only the School of Architecture has realized its goal, the workgroup also has obtained valuable experience in the field of image digitization, metadata production and related issues. We have compared THADL with digital libraries in other developed countries and have invited experts to evaluate our project. These comparisons and evaluations indicate that the project has been a success.

For further information, please contact:

Jinfang Niu
Librarian of Tsinghua University Beijing
P. R. China
ZIP: 100084
Tel: 8610-62785974
Email: <niujf@lib.tsinghua.edu.cn> URL: