

4. Taiwan library history digital library with the annotation tool for archiving and sharing reader knowledge

4.1 System architecture

Figure 7 presents the system architecture of the proposed annotation tool in the Taiwan library history DL for archiving and sharing reader knowledge. The proposed DL with the user annotation tool consists of the Taiwan library history DL, the annotation module, an annotation interface, and two databases. The DL provides materials readers browse, search, read, and annotate. The annotation service module integrates original material archived in the DL with annotations from readers to form new DL material with additional information and/or contexts. To avoid destroying the original version of archived materials, the annotation service module uses an independent annotation database, which differs from the DL database, to store annotated information and contexts from readers. Moreover, the annotation interface provides several powerful annotation functionalities, such as annotating key paragraphs in a text via underlining, explaining unknown terms, providing comments on marked words or sentences, and assigning hyperlinks to marked words or sentences, to assist readers annotating an original archived material in the Taiwan library history DL. The annotation interface also has a knowledge-sharing interface that facilitates knowledge exchange among readers who read annotated materials in the DL.

4.2 System operation procedure

Based on the system architecture, the system operating procedure is described and summarized as follows.

A user requests a webpage archived in the Taiwan library history DL for reading by assigning a URL for browser. The DL system then accesses the webpage that the user requested from the DL database.

The DL system shows the original webpage in HTML for reader annotation. The DL system then passes the URL address given by the user to the annotation service

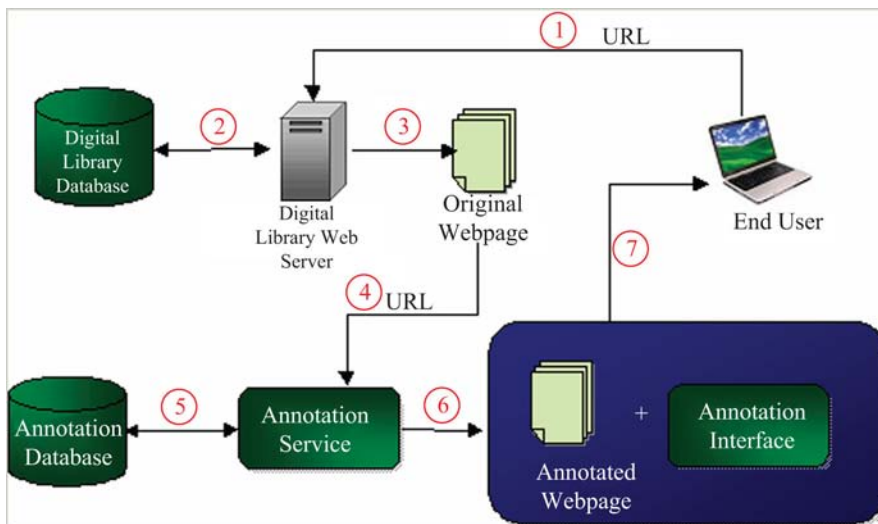


Figure 7.
System architecture of the
proposed annotation tool
on Taiwan library history
digital library