A work environment for a digital library of historical resources

Work Environment for a Digital Library of Historical Resources

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Abstract. A work environment for the National Archives of Singapore (NAS) digital library is described. The system provides an integrated platform for supporting scholarly tasks such as browsing, querying, organizing and annotating of resources using a spatial metaphor. When complete, the system will allow users to build and share personal collections of resources as well as author new resources of various types through application plug-ins.

1 Introduction

The NAS digital library project [1] aims to build a web-based digital library of historical resources offering a range of services (e.g. searching) and applications (e.g. virtual exhibitions) to users and staff of the NAS. The interfaces currently being developed are HTML-based to cater to most browsers in use today and hence allow more users access to the digital library. A shortcoming is that user interaction is limited, and scholarly tasks [2] such as annotating and organizing of resources become cumbersome. We are thus exploring a direct manipulation interface that will form the basis of a work environment for users of the NAS digital library.

A prototype of the work environment is shown in Figure 1. There are three major components of the system. The work area is the focus of the system. It employs a spatial metaphor and functions like a desktop in which users organize their resources. Users may also add annotations and view resource metadata by right-clicking on a resource and selecting an appropriate option from the popup menu. The size of the work area is arbitrarily large and panning and zooming is supported for navigation.

The browsing tree provides access to the collection through a hierarchical organization of resources in which leaf nodes represent resources while non-leaf nodes represent categories and subcategories to an arbitrary depth. Resources may be viewed by double-clicking or dragging-and-

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1 Resources used in this project were obtained in collaboration with the National Archives of Singapore.
dropping on the work area. The query area supports a variety of search options through a single text field. It is deliberately kept simple to reduce clutter on the interface. A list of search results appear below the text field and resources are viewed in a similar fashion as in the browsing tree.

Fig. 1. The NAS digital library work environment

The work environment is an integrated platform for users to browse, query, organize and annotate resources. In addition, users can build personal collections of resources through the saving and reloading of the contents of their work areas. Various authoring tasks may also be performed. These are done through various application plug-ins which are components that allow users to author application-specific resources. Finally, resources may also be shared with other users. Most interfaces to digital libraries support individual access and manipulation of resources. We are designing the work environment to be collaborative so that users may share and manipulate personal collections with other users, and in the process, create communities within the digital library.

2 Conclusion and Future Work

The work environment is an initial step in the development of an integrated platform for supporting a variety of scholarly tasks in the NAS digital library. Support for basic digital library services is nearly complete. The next phase in the development of the system will focus on the design and implementation of a framework for application plug-ins. Testing of the initial design of work environment will also be conducted in parallel to assess the usability of the system in supporting scholarly work.

References