

# Chapter XIX

## Guidelines for Developing Digital Cultural Collections

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### ABSTRACT

*This chapter presents basic guidelines for maintaining digital cultural collections in order for them to be interoperable and easily retrievable from users. The requirements of cultural material are discussed and it is shown how in combination with the adequate metadata schema policy a digital cultural collection can cover the various needs for learning and retrieving information. The authors emphasize the fact that various metadata schemas are used for describing cultural collections and that this leads to problems for interoperability. It is analyzed that while designing a digital collection, the internal structure of material must be followed and the metadata model must cover specific needs; furthermore, a data preservation policy is a considerable issue in the digital era.*

### INTRODUCTION

Cultural heritage, especially in the digital era, is the cornerstone of the unique identity of a society or a nation; cultural heritage sources enable people to anchor themselves in a historical period, create a reference framework for their way of living, and provide a value base for their lives. Thus, cultural heritage can be perceived as a multidimensional

and multiform representation of a nation or a society over time and place. In view of cultural material importance, the last few years many digitization projects related to cultural collections have taken place, trying to expose their material to a wider audience through the Web. Most of these digitization efforts are following guidelines published by international organizations and are based on general practices and experiences gained from similar projects.

In the following, guidelines are discussed considering the requirements and issues concerning the planning and organizing of a digital cultural collection in order to be functional for all user categories and easily retrievable through the Web. The focused issues are: i) material organization and management policy, ii) metadata standards, and iii) data preservation practices. There is a great need for cultural institutions (e.g., library, museum, or archives) to offer wide and easy access to qualitative cultural data demands to approach all the issues above from an integrated aspect without concerning institutional or national boundaries. Proposals need to satisfy various and sometimes different information seeking behaviours by always keeping the authenticity and integrity of cultural material.

## **MATERIAL ORGANIZATION AND MANAGEMENT POLICY**

Cultural heritage institutions should adjust their digital collection planning according to user needs and the nature of material. In most cases, cultural collections contain heterogeneous material with unique characteristics, like written texts, photographs, physical objects, sound recordings, maps, or even born-digital material. Consequently, it is justifiable to have collections and subcollections with complex structure and rich semantics.

Since cultural objects are heterogeneous, they should be grouped according to criteria either, facilitating users with easy access or expressing internal standards following the holding institution (owner of the collection). As such, criteria can be, for instance, the topic coverage, the specific usage or purpose that each resource has in the context of the collection, the provenance, the type of material, or the geographic region and historical period the object covers. It is useful to create subcollections (if they do not preexist), since it is easier to represent composite structures and accredit rich semantics to any level. By defining

specific groups of objects, the whole collection and subcollections can easily be manipulated as separate objects with their characteristics and metadata elements; like all the other digital items, the attributes inherited from the collection to subcollections are identified and the overall collection can be effectively navigated by users (Lourdi, 2005).

In case a cultural heritage collection consists of composite objects like texts with photographs or traditional dressings, it is a good practice to separate them into their parts and represent their structure. Composite objects must be decomposed into their disparate parts since it is possible to characterize them individually with the appropriate metadata elements, as it is proposed above.

Besides material organization, another crucial issue for a cultural collection is the management policy, and more specifically the administration policy. In a digitization project, it is important to preserve the holding institution policy concerning the access restrictions and material protection rules. For instance, whether it is about unique and rare material with copyright issues or the purposes of the institution is not to provide the material freely to audience, digital collection plan shall respect these matters and shall not give full access to a collection and its contents.

The most prevailing factor for a digitization project is material preservation. Most cultural heritage institutions consider digitization as the best solution for preserving rare and vulnerable material in the future. So for administration purposes, a digital collection shall follow the most accepted digitization practices and shall preserve all the information related with digitization process and devices.

The main requirements for the cultural information management and dissemination process can be summarized by the following: a) the material should preserve its unique characteristics; b) the semantic context of the collection and of its objects should be expressed clearly; and c) cultural data should be retrievable at any structural infor-

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