

# A Study on a Metadata Model of Cultural Heritage Digital Archives as an Intellectual Creation by Memory Institutions

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Adoption of Web 2.0 and Semantic Web technologies in cultural heritage digital archives have brought significant changes to memory institutions such as Museums, Libraries and Archives. Digital exhibition of cultural heritage is an important function for memory institutions. Digital exhibition requires highly intellectual process for their creation - from planning, selecting, editing, creating the digital surrogates of cultural heritage objects (CHOs) to providing access to the digital surrogates. In this study, the overall process to create digital exhibitions and people who engage in this process are called digital curation and digital curators, respectively.

There are several metadata standards useful for digital archives. CIDOC CRM (Conceptual Reference Model) is a well-known standard ontology for museums. FRBRoo, which is an extension of CIDOC-CRM, defines ontology for describing bibliographic entities defined by an IFLA standard Functional Requirements of Bibliographic Records (FRBR). IFLA - Library Reference Model (LRM) is a model which is covering all aspects of bibliographic data (a consolidation of FRBR, FRSAD, and FRAD). These standards are used in this study as its basis. In a preliminary study, the author proposed a model to describe cultural heritage resources presented in digital space and investigated an applicability of FRBR WEMI to the cultural heritage resources. The preliminary research had a basis on the CHDE (Cultural Heritage in Digital Environment) model designed for digital archives of intangible and tangible cultural heritage.

Based on the preliminary study and an analysis on metadata extracted from British Museum and Europeana, the author found that a digital exhibition of cultural heritage deals with multiple levels of metadata, i.e., metadata for describing an exhibition as a single instance, parts of the exhibition and each component of exhibition. She analyzed entities of exhibitions to define a metadata model from the viewpoint of “digital exhibition as an intellectual creation.” The result showed that FRBR WEMI is a suitable model to identify entities of the digital exhibition and describe them based on the intellectual creation process occurred in the digital exhibition.

This thesis shows that digital exhibition metadata is item-centric, where *a curated digital instance* and *digital instance* are considered as an *Item*. Links enable to comprehend the description of the contextual information. Through the connection of *Items*, *Work* and *Expression* can be eventually identified. On the other hand, as links will make connections among objects complicated, we need a metadata model which appropriately represents digital exhibitions in which links across objects may be more complicated. The author defined a model for describing digital exhibitions and their components based on FRBR WEMI. This study used RDA to experimentally describe the proposed model. From these investigations, the author concluded the applicability of FRBR WEMI to digital cultural heritage archives to clearly identify entities of intellectual creation and physical embodiments.

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