

Proposal of Application Profile for Digital Images for Libraries, Archives and Museums (DILAM) Conceptual Model

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1. Introduction

Images have grown on social media and the Web at an exponential level since digital cameras are increasingly available. Several media resources provide digital images, and the archives, libraries and museums need extend possibilities of images use and reuse. Due to the amount of information, the procedures for location and recovery of expressions are difficult tasks to the user. This is an effect of the variety of needed features to describe the digital image.

Therefore, this research focuses on the questioning the conceptual description of the digital image. It is based on the principles of archivology, librarianship and museology. These principles are characterized by the elements of the domain and the structure of the environment used to describe the characteristics of the resource.

The challenge was to represent digital image and specific elements with an investigative approach. Considering the integrative and divergent features among its descriptive principles of archives, libraries, and museums, the aim is to propose a domain model for digital image resources. The method used in this research is an applied theoretical and qualitative approach in relation to development objectives. In order to clarify the problem of study, the work is also exploratory because the data collection consists of a bibliographic survey at a worldwide level.

2. DILAM conceptual model

The Digital Images for Libraries, Archives and Museums (DILAM) conceptual model was created based on the entity relationship modeling (Simionato, 2015a) that includes the abstractions that these contexts bring to the digital image and the difficulties in creating an image domain. It is important say that DILAM is not a new metadata standard. The DILAM conceptual model was a consequence of the study of conceptual models for specific domains--for example, Functional Requirements for Bibliographic Records (FRBR), Authority (FRAD) and Subject (FRSAD), Conceptual Model for Archival Description (CMAD), Modular Requirements for Records Systems (MoReq) and Conceptual Reference Model (CRM).

The modeling process was based on three steps:

1. The first step derived functional requirements from the parameters of the models studied and descriptive essence of a digital image. The functional requirements to the DILAM are: (a) find or explore the features of image collection, (b) choose the desired pictures between the subjects, using attributes and relationships, (c) recognize the responsibilities of creating a digital image resource, getting the credit, using attributes and relationships, (d) obtain image feature, selected and identified (Simionato, 2015a).
2. The second step consists of choosing the appropriate metadata derived from the crosswalk method (St. Pierre & LaPlant, 1998). Some metadata standards were used, such as: Anglo-American Cataloguing Rules second edition revised (AACR2r), Cataloging Cultural Objects (CCO), Categories for the Description of Works of Art (CDWA), Categories for the Description of Works of Art Lite (CDWA Lite), Describing

Archives content standard (DACS), Dublin Core (DC), Encoded Archival Description (EAD), Graphic Materials, International Standard Archival Description General (ISAD(G)), International Standard Bibliographic Description consolidated edition (ISBD), Resource Description and Access (RDA), Rules for Archival Description (RAD) and SPECTRUM.

- The last step determined that the qualities of entity relationship modeling could be compatible with entities composed of the FRBR family. Figure 1 shows the DILAM conceptual model, it can also be viewed through the link in references (Simionato, 2015b).

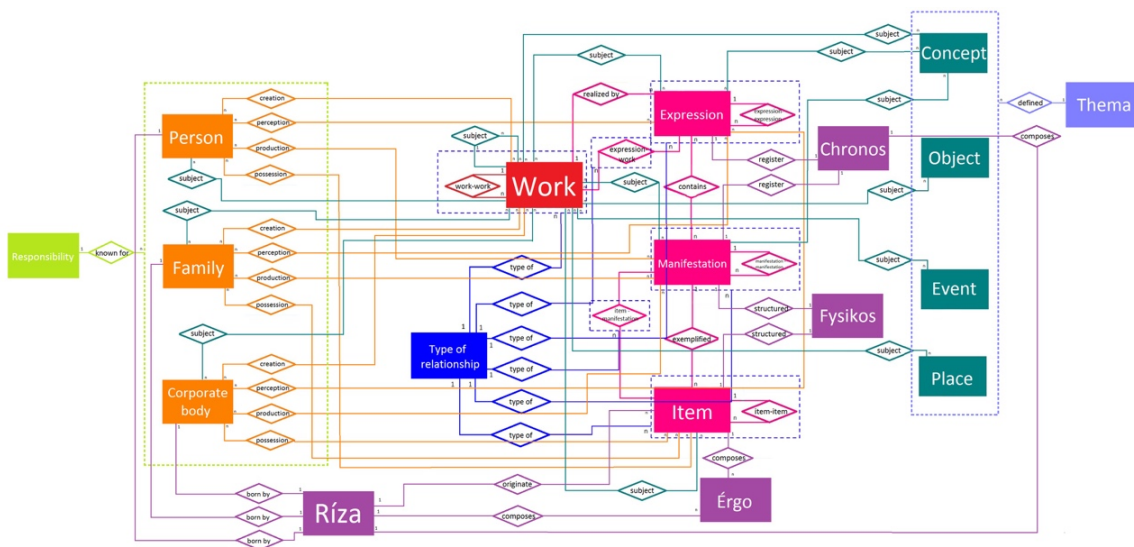


FIG. 1. Digital Images for Libraries, Archives and Museums (DILAM) conceptual model

The entities could also be compatible with the entities that match the integration of contexts. *Chronos*, for instance, is an entity identified in contexts and in the definition of the attributes needed on archives and museums. *Fysikos* is an entity needed for physical properties, as EXIF data. It is a part of the scope of museology in the cautious evaluation of analog image resources and whether there was any damage or other occurrences. *Riza* covers the specific needs for the identification of the origin and provenance. At last, the *Érgo* entity matches the needs that have to be reported, such as the classification, evaluation and curation (Simionato, 2015a).

3. Final considerations

This research brings an approach to the context we live and know, the description in archives, libraries and museums, considering the new needs of linking and integration of data. After all, the sense of this subject among institutions converges and still presents differences. This context is important and it can be collaborative and cooperative with regard to technological advances in the information organization.

Although this research is under development, its results might enable the construction of an application profile based on guidelines for Dublin Core application profiles (Coyle & Baker, 2009). As a result, the domain model DILAM corresponds with the characteristics of the digital image resource. Furthermore, it confirms the collaboration between the descriptive principles of archives, libraries and museums.

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