Embedded Metadata – A Tool for Digital Excavation

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Introduction

In June of 2012, I commenced the weighty task of searching the far reaches of Phoenix Art Museum’s digital storage spaces to import images into a recently acquired collection management system, The Museum System (TMS). Before my newly created position as Visual Resource Coordinator began, each department generated and stored assets with their own organizational system in digital silos. I excavated long forgotten folders on various servers and desktops, hunting for visual documentation of the art collection and past installations.

Embedded metadata was used as a tool to identify subject matter of images and indicate which folders had been searched. These assets were then reorganized with a new file name convention and folder structure.

This method could be implemented by other cultural organizations as a low cost approach to tracking basic metadata, content creators and copyright restrictions.

Workflow

1. Review files on server and use labels in Adobe Bridge to:
   - mark which files and folders have been reviewed
   - mark which images were copied and cataloged according to the new file taxonomy
   - which images require identification (object accession number)

2. Catalog embedded metadata regarding how the image was created (ex: photographer, copyright restrictions, date created)

3. Transfer caption information from TMS to embedded metadata using the VRA Panel Export-Import Tool via an Excel spreadsheet

4. Import images and image creation metadata into TMS

Adobe Bridge provides several tools and features that allow the user to add embedded metadata to large batches of images as well as automated file renaming tools, which greatly improve workflow.

Challenges and Opportunities for Development

Pro: Open source tools provided by the VRA EMWG make tracking digital assets through embedded metadata a low-cost, fast solution for digital asset management. For small to mid-size cultural organizations this method can effectively organize institutional history.

Con: In order to read every field in the VRA Panel, a staff member would need to download the panel and install it in the Adobe Creative Suite. If an organization does not own an Adobe license, there could be a cost barrier in acquiring this software and investing in staff training.

Pro: The concatenated artwork caption appears in the description field in the standard IPTC panel, which can be read by a staff member using any tool that reads embedded metadata, such as Finder or Windows Explorer. This facilitates the ease of object identification.

Con: Caption information is not static. For example, if the Registrar completes a vault inventory, is it worthwhile to correct all the updated measurements? Similarly, if the work of an artist moves into the public domain, is it worthwhile to update every image by this artist in the copyright restrictions field? Using this method for variable information could prove time consuming and requires constant attention and editing.

Pro: The main benefit of using embedded metadata to track digital assets is that it is a tool to recognize images that have previously been ingested into a digital asset management system. For example, a staff member may create a copy of an image and rename the file to store in their digital silo. The embedded metadata is copied as well, thus providing a provenance for the file.

Con: Monitoring copyright restrictions is difficult. If a work moves into the public domain, is it worthwhile to update all the images of this artist? Similarly, if an artist moves into the public domain, is it worthwhile to update every image by this artist in the copyright restrictions field? Using this method for variable information could prove time consuming and requires constant attention and editing.

Tools

- VRA XMP Info Panel and Export-Import Tool developed by the Visual Resource Association
- Embedded Metadata Working Group (VRA EMWG)
- Viewed in Adobe Bridge
- Art centric fields beyond standard IPTC panel (International Press Telecommunications Council)

These tools support controlled vocabularies such as Dublin Core and VRA Core

Embedded Metadata Fields

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<thead>
<tr>
<th>Artwork Creation</th>
<th>Image</th>
<th>Administration</th>
<th>Summary</th>
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<tr>
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<td>Collection</td>
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<td>Custom Field</td>
<td>Number</td>
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</tbody>
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Two custom fields were independently developed that were not included in the VRA Panel:
- Image Type controlled vocabulary: scanned transparency (reference image)
- professional collection photography

Results

- 10,000 files imported during the first five months
- 280% increase from files available in the previous database
- established procedures for cataloging and importing new assets
- 18,610* files loaded in TMS
- 90,000* assets with embedded metadata added to the digital archive

*These numbers grow daily

Despite these challenges, utilizing embedded metadata to track and describe digital assets is a low cost digital asset management solution for galleries libraries archives or museums.

Embedded metadata is not only a useful tool for digital excavation, but can also provide opportunities as a starting point for more nuanced digital asset management system.