Building an Encyclopedic Digital Image Repository at the Metropolitan Museum of Art
- Its Implications and Effects on the Museum’s Image Services and Licensing Processes

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The Metropolitan Museum of Art
New York, New York
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Background Information:

• The Museum:
  – One of the largest art museums in the world.
  – Known for its encyclopedic collections of works of art.
  – 17 curatorial departments.
  – >12 libraries and study centers.
  – >2 millions works of art from around the world and from all eras.
Background Information:

• Challenges:
  – Sheer volume of our objects and images→the scale of the digital image repository.
  – Diversity of our collections from various cultures and periods→different metadata needs for describing our objects.
  – Inconsistencies and discrepancies among the curatorial departments to apply the metadata standards.
  – The complexity of our institutional structure:
    • E.g., > 21 separate TMS (our collection management system) databases for 17 curatorial departments.
The Image Library:

- Formerly known as Photograph and Slide Library.
- Providing image services to the Museum and the public for almost 100 years.
The Image Library’s Collections:

- >850,000 35mm slides.
- >35,000 large-format color transparencies in the master files.
- >1 million negatives for reproducing black-and-white photographs for study/publication purposes.
- >200,000 digital images produced by the Museum’s Photo Studio in the last decade (the number is increasing by hundreds on a weekly basis because of the Museum’s vigorous publication and exhibition programs).
Roles of the Image Library:

- Similar to other visual resources/image centers: providing images/visual resources in various formats for research and scholarly purposes.

- Serving as an archive for the photographic records of our objects.

- Licensing activities: e.g., publications, films, lectures, broadcast, various electronic and commercial uses.

- Providing high-quality images for licensing purposes (e.g., large-format color transparencies and high-resolution image files).
Challenging Conditions of Image Use at the Met:

- Need to transition from analog to digital format.
- Decentralized and uncontrolled digital images created throughout Museum.
- Multiple formats and finding aids complex and confusing.
- Difficulties with distribution both internal and external.
- Lack of standardized cataloguing.
- Lack of file-naming conventions.
- Unnecessary duplication of images.
- Existing analog collections at risk.
Our solution is …

The Met Images Project

• A comprehensive approach to the creation, description, storage, and retrieval of digital images.
Major Constituents of the Met Images Project:

- Director’s Office
- Information Systems and Technology
- Image Library
- Photo Studio
- Curatorial Departments
Other Stakeholders of the Project:

- President’s Office
- General Counsel’s Office
- Finance
- Collections Management
- Editorial
- Education
- Libraries and Study Centers
- Website
Phased Approach of Implementation:

- Preparatory Phase
- Phase One: Preservation and Storage
- Phase Two: Integration & Configuration
- Phase Three: Presentation and Utilization
Preparatory Phase:

• Research: RFP development and analysis of vendor responses.
• Refinement of technical specifications.
• Vendor selection.
• Contract negotiation with vendors and third-party licensors.
• Refinement of Museum project implementation team.
Phase One: Preservation and Storage
(i.e., building the digital image repository)

• Implementation of the digital asset management (DAM) system, including hardware, software, customization and metadata.
• Initial load of existing inventory, including digital files + catalogues of museum objects, digital and analog image assets.
• Digitization of our 8” x 10” large-format color transparencies from the Image Library’s collection.
• Cataloging and evaluation of digital images.
• Entering into third-party licensing agreements.
Phase Two: Integration and Configuration

(i.e., access and workflow)

• Access and rollout plan to the entire Museum staff: creation of security profiles and user accounts.
• Integration with Museum’s collection management system (TMS): e.g., systematic deployment of new images from the DAM system to TMS, and daily upload of new and revised object metadata from TMS to the DAM system.
• Development and integration of Photo Studio’s image production workflow tool.
• Inclusion of image inventory from curatorial, conservation and other departments—Local Image Contribution tool.
Phase Three: Presentation and Utilization

– Some of original components of Phase Three:
  • Licensing and distribution of digital images via the Museum’s public web site.
  • E-Commerce system.
  • Development of a business system for the Image Library.

– Re-evaluate the scope of Phase Three based on funding, more thorough research on art image market, and the Museum’s mission.
Building the Digital Image Repository—Metadata Sources for Migration:

– TMS (Museum’s collection management system)
  • Provide object metadata to our image records (>330,000 TMS records have been loaded into DAM as placeholders for linking/matching; object metadata are also linked and copied to the ingested image records).

– PSDB (former database for black & white negatives)
  • Provide records for our current black & white negatives (>270,000 records were loaded as placeholders initially + additional negative records identified and loaded into the system subsequently).

– PSLWeb (former database for color transparencies)
  • Web-based database containing >21,000 records of our color transparency circulating files, also loaded as placeholder records in DAM.
Building the Digital Image Repository—Image Sources for Migration:

– Studio Workhorse
  • Photo Studio’s former digital photography workflow system (estimated 7500 digital images).

– Digital images
  • Approximate 200,000 back files of Photo Studio’s direct digital photography on hundreds of CDs/DVDs.
  • Scanning of >35,000 large-format transparencies from the Image Library’s collection.
Image Specifications and Standards:

- High resolution publication-quality digital images
- Rough/fine edited
- Color-corrected
- File format: TIFF
- Bit depth: at least 8 bits per pixel
- Color mode: RGB
- Color space: ProPhoto RGB
- PPI: 600
- Image dimensions: constrained to 8 x 10 inches
- Image file size: ranging from 180 MB to ½ GB per image (depends on the bit depth, dimension and resolution of the image)
Selection of Interwoven’s MediaBin as the Museum’s Digital Asset Management (DAM) system:
Criteria for Selecting MediaBin:

- Functionality: the need to generate derivatives of various image sizes and formats on the fly.
- Ease of user interface.
- Scale of the system: has to support millions of records and terabytes of high-resolution images.
- Fit with IS&T’s current technology infrastructure.
- Degree of required configuration and customization.
Interwoven’s MediaBin:

- Interwoven specializes in Enterprise Content Management solutions for business; MediaBin is the DAM module of Interwoven’s content management system suite.

- Its customers are mainly financial and commercial corporations, e.g., Deutsche Bank, Coca-Cola, General Motors, Reebok and some advertising and media companies.

- Their original metadata structure and nomenclature are quite different from the standards of the art/visual resources community.

- Flat-file structure of the database, different from the relational structure of work, image & collection records recommended by VRA Core 4.0 and Cataloging Cultural Objects (both are XML data standard and cataloging guidelines developed by Visual Resources Association).
One object may have multiple views.
The Image Library

One image may contain multiple objects.
Metadata Schema:

• During the initial implementation, attempts were made to map MediaBin’s metadata structure to CDWA Lite (Categories for the Description of Works of Art, an XML schema developed by the Getty).

• At that time, the XML standard of VRA Core 4.0 was not fully established.

• Subsequent reviews and revisions of MediaBin’s metadata structure have made the system slightly closer to the VRA Core 4.0 XML standard and CCO guidelines.
MediaBin’s Metadata Groups:

• **Object Metadata:**
  – Department, Object Number, Object Maker, Object Title, Object Name, Object Description, Object Culture, Object Geography, Object Date, etc.

• **Image Metadata:**
  – Image View, Image Description, Image Notes, Photographer, Image Source, other image technical metadata, e.g., Resolution (ppi), Dimension (pixels), Colorspace, Bit Depth, Filesize, Image Creation Date, etc.

• **Image Rights Metadata:**
  – Image Copyright Status, Image Copyright Notice, Photographer Credit Line, Allowable Use, Licensing Restrictions, Image Rights Contact Info, etc.
The Image Library

Image Metadata

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The Image Library

Rights
Metadata

The value "unassigned" means that this metadata field has not been assessed by the Image Library staff.

The license will constitute your agreement to abide by our terms of use. The Metropolitan Museum of Art requires that you limit the use of its digital images to educational purposes via classroom projections and closed network study by on-campus users. If images are displayed on educational web sites for closed network study by on-campus users, they must be password protected and the accompanying metadata must include the link back to The Metropolitan Museum of Art as provided to you in this corresponding metadata.
Effects on Museum’s Image Services and Licensing Processes:

- Transition from analog to digital imaging made new channels of distribution possible:
  - Early development of the Museum’s website made possible the publication of small and low-resolution JPEGs to website and allowed individuals to download for teaching and study.
• New channels of image distribution:
  – Later the Timeline of Art History on the Museum’s website became a well-respected teaching tool and resource for images of the Museum’s objects.
• New channels of image distribution:

  – Systematic deployment of images from the DAM system to the Collection Database on the Museum’s website.

  – Website currently contains over 130,000 images of the Museum’s objects.
• Significant growth of digital inventory of high-resolution publication-quality images:
  – Aggressive program of digital photography and scanning of existing large-format images have become more accessible, lower transaction cost of retrieving and generating image derivatives for publication and licensing purposes.
  – Instead of circulating analog materials, transparencies and B&W negatives are being digitized, and the digitized images are being distributed electronically.
  – New mechanism of delivering images and licensing agreements/paperwork electronically, via CDs, DVDs, FTP server, or PDF format.
Third-party Licensing:

• Growing inventory of standardized high-resolution images allows the Museum to deliver images in batches to third-party vendors for licensing purposes.
• Advantages and disadvantages.
• In-depth and careful market research and analysis.
• Institutional concerns over the process and potential image misuses.
• Lengthy process of negotiating legal terms and conditions with vendors.
• Eventually, the Museum decided on a phased and incremental approach to releasing our images to selected third-party licensing vendors.
The Image Library

Selected Distributor:
Art Resource

- North American and European markets
- Museums
- Scholarly individuals
- Commercial
- High-resolution publication-quality images
- Fee
Selected Distributor: RMN

- French market
- Museums
- Academic institutions
- Scholarly individuals
- Commercial
- High-resolution publication-quality images
- Fee
Selected Distributor: Scholars Resource

- North American market
- Museums
- Academic institutions
- Low-resolution high quality images for educational and study purposes
- Fee
ARTstor & Images for Academic Publishing (IAP)

- Non-profit distributor.
- For print runs of 2,000 or less, scholars may access MMA images on the ARTstor Website and download them for free.
- Users are bound by a Scholar License.

- North American market
- Museums
- Academic institutions
- Scholarly individuals
- High resolution and publication-quality digital images
- Free
Other Implications:

• Museum-wide access to a vast body of copyrighted/non-copyrighted, restricted/unrestricted images
  – Image rights issues have become more visible in the digital world.
  – Restrict the download permissions to low-resolution images for educational and study purposes.
  – Codify the rights information in the metadata, however there is no universal standard.
  – Internal training surrounding image rights and uses.
The Image Library

MediaBin login page showing the Museum’s internal policy on image rights and uses

Welcome to MediBin at The Metropolitan Museum of Art. MediBin, the central repository for the Museum’s image assets, is a tool to facilitate access by staff to digital images of works of art in the collection, special exhibition materials, and other digital assets, as needed for work purposes.

Museum staff can download low resolution images directly from MediBin for research, lectures, and for standard educational uses in the classroom environment. Higher resolution images may be obtained from the Image Library for use in Museum projects or publications. All internal image use clearances are the responsibility of the user and should be completed in accordance with existing practices of the user’s department, including consultation with curatorial departments and review according to accepted Museum procedures. All non-Museum projects and requests must be submitted to, reviewed, and processed by the Image Library licensing staff.

IMPORTANT NOTICE: The images in MediBin have not been “cleared” for use in any overall sense. Some images will have conditions, such as copyright issues or lender restrictions that govern their use. MediBin contains a wide range of digital images in terms of size or other technical specifications; some images may not be suitable for all uses. Consult the Image Rights Metadata fields for information regarding such issues. The cataloging of rights information into the individual image records in MediBin is ongoing. Note: Some rights information drawn directly from TMS will reside in Image Rights Metadata fields with TMS in the field name. The information in these fields should NOT be interpreted as an indication that an object or image has been cleared for all internal uses. For images with rights issues, staff should continue to consult with the appropriate curatorial department for internal projects and the Image Library for external projects. Follow the links for additional information about TMS records in MediBin.

For further information about training or specific questions about using MediBin, staff can contact the Image Library at ext. 3130 or via email image.reference@metmuseum.org. A MediBin Training Manual is also available in the Help menu within MediBin.
Codifying the image rights information: e.g., modern work still under artist’s copyright, donor’s restrictions, or photographer’s copyright.
Latest Trends and Developments:

• Social tagging of images:
  – Library of Congress’ pilot project of making their photo images available on Flickr for tagging and download.
    • Trend of making museums’ images of cultural objects accessible to the online communities.
    • Increasing availability of copyrighted materials in the online environment.

• DRM and PLUS
Thank you!

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