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About DAMS Time! Asset Management to Streamline & Achieve Strategic Institutional Goals

Anne M. Young

Indianapolis Museum of Art, ayoung@imamuseum.org

Tascha Mae Horowitz

Indianapolis Museum of Art, thorowitz@imamuseum.org

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About DAMS Time! Asset Management to Streamline & Achieve Strategic Institutional Goals

Abstract

Through a digital asset management system (DAMS), institutions can more efficiently retain and supplement critical rights information in the image files' metadata as well as manage multiple image sets, such as museum objects, non-collection images, archival content, and document management (DM) collection.

Implementation of a DAMS can streamline image management and in turn expand partnerships with external distributors of collection images, by drastically decreasing the amount of additional work for both parties.

However, further efficiency can be achieved if an institution also has a document management system in place. Through document management, all non-media IP content generated by an institution can be retained in an organized, central, and efficient system that numerous staff members can reference and utilize. This article outlines the process by which the Indianapolis Museum of Art (IMA) researched various DAMS and DM options, eventually partnering with Piction for the implementation of both, and undertook a major copyright research project, which in conjunction with Piction increased content distribution and the introduction of Open Access (OA) imagery via the IMA's website.

Keywords

Digital asset management; document management; copyright; metadata; image management; content distribution; KE-EMu and Piction.

Author Bio & Acknowledgements

Anne M. Young has been with the Indianapolis Museum of Art since 2010 where she heads the rights and reproductions department. She currently serves on the IMA's Piction task force and co-led the DM task force. Young was formerly the photographic archivist for The Kinsey Institute at Indiana University and worked for the Art Gallery of Ontario and George Eastman Museum. She received an M.A. in photographic preservation and collections management from Ryerson University and a B.A. in art history and studio art (photography) from Indiana University. Young is the current chair of the Rights and Reproductions Professional Practices committee of the Registrars Committee of the American Alliance of Museums and the editor of the 2015 publication *Rights & Reproductions: The Handbook for Cultural Institutions*.

Tascha Mae Horowitz is the assistant director of photography at the Indianapolis Museum of Art. She joined the museum in 2008 after previously serving as senior photo editor at Jupiter Images and a photo editor at the LA Times. At the museum she leads the photography team and is responsible for overseeing the creative direction of all visual materials for publications as well as serving as the photo editor of the IMA Magazine. She oversees all things photography related from the production and art direction in the creation of imagery to the archiving methods and standards used. She led the DAMS task force and currently serves on the Piction task force. Horowitz holds a B.F.A. in photography from the Art Center College of Design.

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In the spring of 2016, members of a small, interdepartmental task force sat huddled around a computer screen with baited breath and crossed fingers. What, you may ask, could have this group of seasoned museum professionals tinged with such anticipation? The answer: awaiting the return of the first search results in the institution's digital asset management system (DAMS) pulling across multiple collections and types of ingested content. To everyone's delight (and relief) the search across all the collections was a success—returning results of a search for a single accession number that included not only studio photography of the collection object, but also non-collection images of gallery installations in which the piece appeared, including views of patrons interacting with the piece in situ; historic materials from the museum's archives; and a myriad of different document types from the newly integrated document management module. But, before these results are discussed in more depth, let us take you back to the beginning of the process to streamline the storage, organization, retention, usability, and distribution of content created by the Indianapolis Museum of Art (IMA).

Researching New DAMS

In 2013, the IMA made the conscious decision to assess the past and current DAMS it utilized, outline the IMA's true DAMS needs for the management of all digital assets—both media and document files—and created an interdepartmental task force charged with finding the replacement system(s). Before this task force began evaluating potential system options, a significant amount of time was spent identifying why the past and current DAMS were not fulfilling the needs of the IMA. Central to this was the sometimes painful analysis of why these were not the right fit, why their integration failed, and how to avoid similar results with the adoption of a new DAMS.¹

Over several months in late 2013 through early 2014, the DAMS task force undertook an in-depth analysis of the museum's DAMS needs prior to making a system recommendation to the IMA's senior staff.

1. Created a list of DAMS requirements, including:
 - backend and technical needs;
 - visual and keyword searching;
 - customizable collection and folder organization;
 - ability to batch upload and download media;
 - customizable metadata schemas for different collections and content types;
 - integration of metadata from the collections management system (CMS); and
 - outside vendor support.
2. Established an internship with an information science graduate student to research the various DAMS options on the market.
3. Analyzed the pros and cons of open source versus commercial systems.
4. After a short list of potential DAMS was identified, known cultural institutions, particularly museums, using these systems were interviewed about their experiences.
5. Looked internally at the IMA to identify resources with the potential to be leveraged in a partnership capacity with a DAMS vendor.

¹ For a more detailed discussion of the past DAMS utilized by the IMA, MediaBin and Nuxeo, see Horowitz, Tascha Mae and Anne M. Young, "The DAM copyright conundrum." *Journal of Digital Media Management*. Vol. 3, no. 3, 2015.

After several months of analyzing DAMS based on the aforementioned requirements, the interdepartmental task force recommended that the IMA select Piction.² Due to overwhelming support from a broad cross-section of staff, as well as the knowledge that a new DAMS was essential to the IMA's strategic goal of increasing its online presence, the budget for the purchase and integration of Piction was unanimously approved by senior staff. The IMA was now in the position to begin the process of integrating the Piction digital asset software with the IMA's existing programs and servers. This initial research period began a multi-year process to implement new DAM and document management (DM) systems at the IMA (Figure 1).

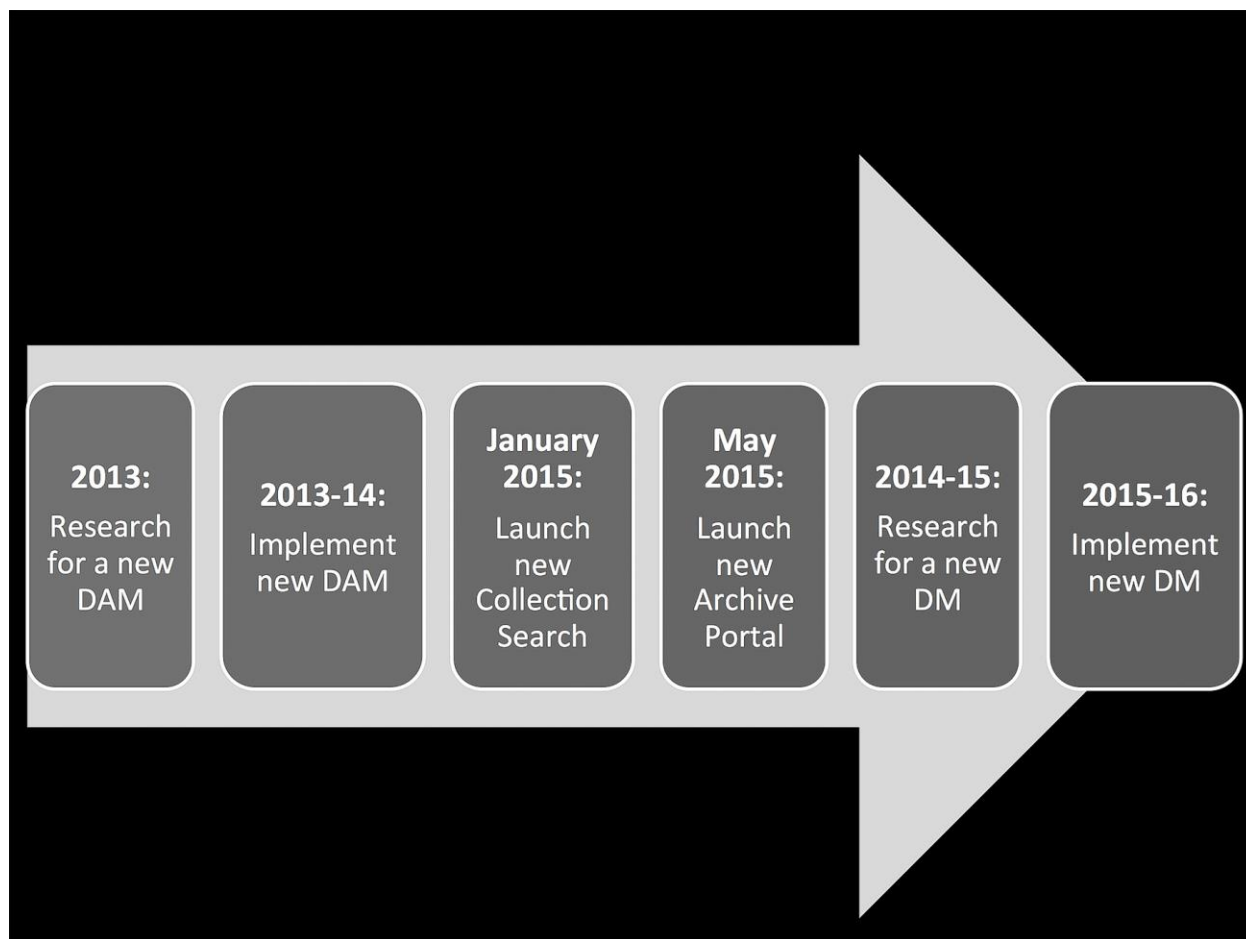


Figure 1: Timeline of the IMA's research and implementation of both DAM and DM systems.

Interdepartmental Task Forces

When the IMA began its DAMS discussions in 2013, the decision was made quickly to separate the evaluation and implementation of the selected DAMS and DM system(s). In the past, assessing systems was addressed simultaneously, leading to systems that tried to be both a DAMS and DM without effectively being either. While there was acknowledgement up front that these two might end up being the same software system, two separate interdepartmental task forces were identified to systematically analyze the institutional needs for both.

² Piction, accessed September 18, 2016, <http://www.piction.com/>.

Each interdepartmental task force consisted of staff selected from vested partners across the museum's divisions. The DAMS core task force was led by the assistant director of photography and included the director of IMA Lab, system and database administrator, manager of rights and reproductions, and registrar for exhibitions. The DM task force was co-led by the managers of rights and reproductions and exhibitions and included the director of IMA Lab, system and database administrator, registrar for exhibitions, and archivist.

Additionally, larger test groups that included at least one representative from each department within the institution provided input on system(s) selected and eventually served as the test group after implementation. Bringing representatives from each department into the process of evaluating and selecting the new software, based on the recommendations of the core task force, was central to the IMA's successful implementation. The creation of this secondary test group led to a more complete implementation and greater adoption of the asset management system(s) by the daily end-users.

Piction Implementation—Image Collections

Once Piction was selected, the IMA's interdepartmental task force reconvened to discuss end-goals and next steps towards the full ingestion of the IMA's content. It was decided that the first institutional priority within the new DAMS would be the collection images. The workflow for the ingestion of new collection photography processes between all involved departments was fully developed and formalized (Figure 2). Furthermore, new work request forms were created within Piction for staff to request new object photography, new event photography, and copyright image use clearance. The IMA worked closely with Piction to both standardize the file naming conventions across departments as well as create a system to enable the automated connection between the DAMS and CMS.

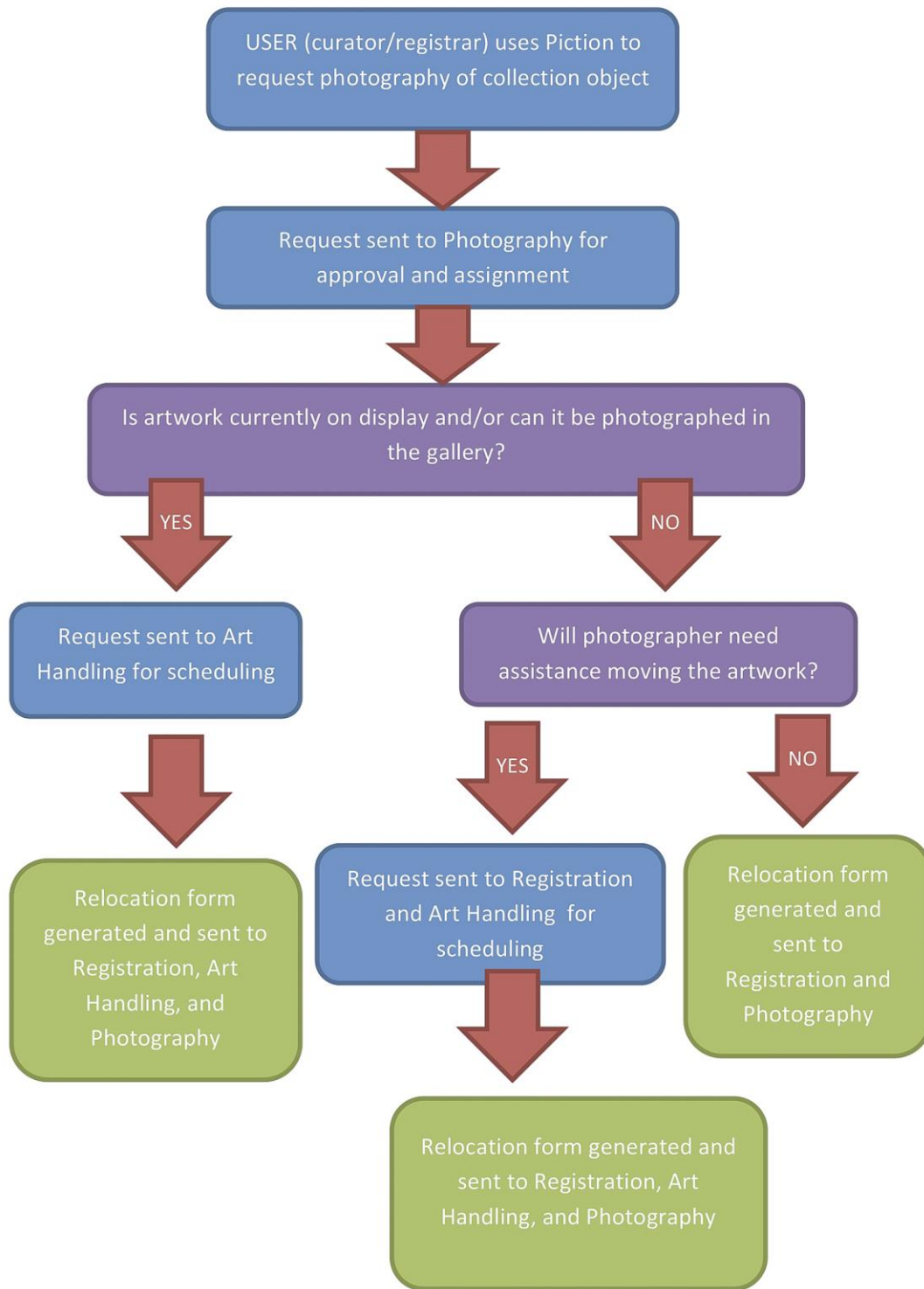


Figure 2: IMA workflow for requesting, processing, and ingesting new collection photography.

Piction's staff was in the position to move the ingestion and implementation forward on a very quick timeline, but more importantly was willing to work with the IMA to slow this to an eighteen-month process. The IMA made a very conscious and strategic decision to slow the process down recognizing that the museum would get out of the DAMS what was put into it. Taking the time to prioritize media collections for staged ingestions, "cleaning up" image files, standardizing file names, and selecting the metadata to push from the CMS to the DAMS was imperative to maximize Piction's potential. While this increased the implementation timeline, it was essential to the overall process that the collection images were organized, vetted, and approved prior to ingestion.

Staged Ingestion

While the IMA has numerous image and media collections that will all eventually be retained in Piction, the migration of all of these at the same time was not a viable option for the initial DAMS ingestion period. Priority was placed on the collection images, with non-collection images (patrons and public programs, exhibitions, gardens, and historic properties) being a secondary focus. Image ingestion is an ongoing process; new collection and non-collection files are added on a daily basis as new photography is created of new acquisitions, programs, exhibitions, etc.

Additional image sets continue to be added, many of which previously had limited staff access and were isolated to those in the departments that had created them. The first additional image set to be added was the Archives collection in 2015. While many materials have followed the initial ingestion, the Archives collection began in Piction with the ingestion and launch of over 17,000 images from the Miller House and Garden collection. This launch was the culmination of a three-year project funded by the National Endowment for the Humanities to digitize and disseminate the materials. As IMA archivist Samantha Norling noted: "...the digitized Miller House and Garden Collection is the IMA Archives' first contribution to these efforts."³ In the future, digital assets created by the conservation, conservation science, and horticulture departments will be added as well.

"Cleaning Up"

It was essential to the IMA's implementation of Piction that the collection images were organized, vetted, and approved prior to ingestion. This was a monumental task that included evaluating over 120,000 image files. Each image file was evaluated for quality, color balance, and contrast levels. Every file was renamed according to the new conventions⁴ and the primary image⁵ for each collection piece was selected. The breadth of this undertaking led to the creation

³ "IMA gives mid-century Modernist masterpiece 21st-century treatment: Museum completes three-year digitization project for Miller House and Garden," press release, June 24, 2015. Indianapolis Museum of Art. Accessed September 12, 2016, <http://www.imamuseum.org/about/press-news/press-releases>.

⁴ New file naming conventions for collection image files: department prefix_accession number_version number. For example, PS_47-4_v01 or REG_47-4_v01 or CON_47-4_d01 easily differentiates the file created by the photography studio (PS) from the file created by registration (REG) from the file created by conservation (CON). Further, the utilization of v01 or d01 at the end within the version number part of the file name outlines whether the file is a different version (v01) of the work or a detail (d01) image.

⁵ The primary image file for each artwork is designated by the combination of the "PS" prefix *and* "v01" at the end of the file name.

of a temporary position to evaluate each image file for quality and accuracy, rename every file according to the new conventions, and select the primary image for each collection piece. Subsequently, three versions of each approved file were created: a DNG for archival purposes, a high resolution TIF for publications (high end reproductions), and a JPG with the color bar cropped out that is made available for staff to download for digital presentations, web, and research purposes (Figure 3). The creation of a JPG derivative ready for immediate use has been vital to increasing staff self-sufficiency in many areas, including the ability to find image options independent of photography staff for inclusion in presentations, as well as easing curatorial and interpretative research as part of exhibition preparations.



Figure 3: New derivative file versions, left to right: DNG, TIF, and JPG, that also illustrate the standardized file naming conventions.

Once collection image file evaluation was underway, attention was turned to the IMA's hundreds of thousands of non-collection image files. Again, this required evaluating, "cleaning up," and organizing image files. Guided by the assistant director of photography's past experience in the world of commercial photography, the task force modeled the organization of the non-collection images in Piction after a traditional stock photography site, such as Getty Images. An institutional approved vocabulary was created and the process for photography staff was changed to include the addition of these descriptors and keywords, which allow end-users to more intuitively search the collection in Piction. The star ratings imported from Adobe Bridge are utilized to inform staff of which image(s) the photographer thought were best from a particular event or program. Piction is able to integrate the metadata categories from Adobe Bridge making them searchable in the DAMS. The keywords and star ratings enable staff to be self-sufficient when reviewing the images without going through the photography department for every image request (Figure 4).

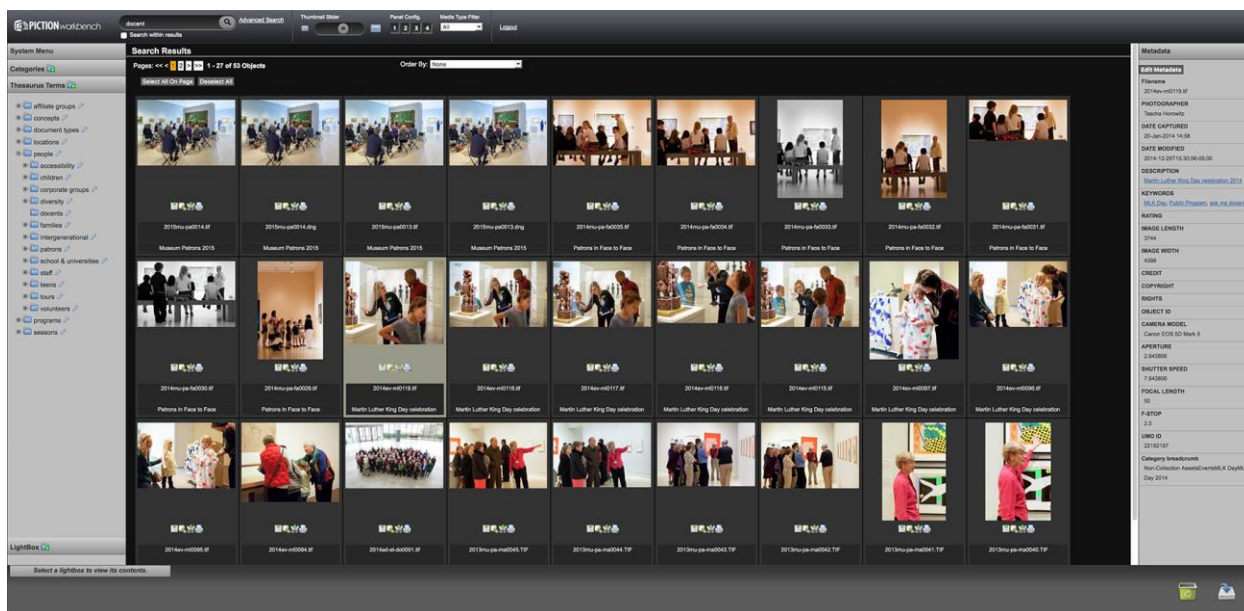


Figure 4: Thesaurus Terms (left) outline various "people" search terms, such as docent, which was used to search and return the selection of images seen above.

Piction Implementation—The Metadata

Prior to Piction, the DAMS at the IMA were completely separated from the CMS and the collection image files lacked important object information that could (and should) be retained within the metadata. Object metadata could be entered in the previous systems, but only manually, which left a sizeable margin for human error in the data transcription. During the Piction implementation, the registration and rights and reproductions staff mapped all of the fields, both back end and front end names, from all of the modules of the IMA's CMS, KE-EMu.⁶ Once this overall mapping was completed, the core task force determined which fields to push from KE-EMu. Knowing that additional fields could be added as IMA needs evolved, it was decided to begin the data push with tombstone information about the objects. Thus, the first fields populating Piction from KE-EMu were those required to generate a full caption and credit line.⁷ Over the implementation process, additional fields, including Current Location, Provenance, and Internal Record Number, were added to Piction to aid staff workflows within the DAMS and data migrations for public dissemination on the IMA's website.⁸

⁶ KE Software - EMU - Collection Management System, accessed September 18, 2016, <http://www.kesoftware.com/> and Axiell: Archives, Libraries and Museums, accessed September 18, 2016, <http://alm.axiell.com/>.

⁷ These fields, based on the KE-EMu front end name, included: Object ID; Title/Main Title; Date Created; Creator's Name; Attribution; Culture or People; Nationality; Period; Dynasty; Medium and Support; Converted Dims; Credit Line; and Acknowledgement.

⁸ As Piction is used more and more by IMA staff, additional functions and uses of the DAMS have led to the continued assessment and addition of the fields populating from KE-EMu, as approved by the task force with registration staff, to improve access to data without jeopardizing any sensitive information.

	A	B	C	D	E
1	Module	Tab	Front End Name (EMu)	Front End Name (Piction)	Back End Name
2	Catalogue	Summary/Title	Object ID	Object ID	TitAccessionNo
3	Catalogue	Summary/Title	Title / Main Title	Title	TitMainTitle
4	Catalogue	Creation (1)	Date Created	Creation Date	CreDateCreated
5	Catalogue	Creation (1)	Creator's Name	Artist or Designer	CreCreatorRef_tab.
6	Catalogue	Creation (1)	Attribution	Attribution	CreCreatorAttribution_tab
7	Catalogue	Creation (1)	Culture or People	Culture or People	CreCreationCultureOrPeople_tab
8	Catalogue	Creation (1)	Nationality	Nationality	CreCreationNationality2_tab
9	Catalogue	Creation (1)	Period	Period	CreCreationPeriod
10	Catalogue	Creation (1)	Dynasty	Dynasty	CreCreationDynasty
11	Catalogue	Physical	Medium and Support	Materials	PhyMediumAndSupport
12	Catalogue	Physical	Medium	Medium	PhyMedium_tab
13	Catalogue	Physical	Support	Support	PhySupport_tab
14	Catalogue	Physical	Converted Dims	Dimensions	PhyConvertedDims
15	Catalogue	Summary	Credit Line	Credit Line	SumCreditLine
16	Rights	Rights 2	Acknowledgement	Copyright	RigAcknowledgement
17	Catalogue	Physical	Department	Collection	PhyCollectionArea
18	Catalogue	Location	Current Location	Current Location	LocCurrentLocationRef
19	Catalogue	Creation (2)	Provenance	Provenance	CreProvenance
20	Catalogue	References	Image Type	Image Distribution Partner(s)	ReflImageType_tab
21	Catalogue	N/A	Internal Record Number	Internal Record Number	IRN
22	Catalogue	Security	Publish on Internet	Available in Online Collection	AdmPublishWebNoPassword
23	Catalogue	Location	Movement Type	On Display	LocMovementType

Figure 5: KE-EMu versus Piction front end names for metadata fields.

Crucial to the metadata ingestion was the development of different front end field names for presentation within Piction from their KE-EMu counterparts. New field names were created for an easier user experience (Figure 5). Most IMA staff does not have access to KE-EMu, and as a result, some of the terminology specific to the fields in KE-EMu is not intuitive for the end-users of Piction. In addition, the task force worked with Piction to create unique metadata fields that would help in allowing the IMA staff greater self-sufficiency. The most significant of the custom metadata fields created within the collection images set is the High-Res Available field that populates with either "YES" or "NO" for each collection object (Figure 6). This custom metadata field very clearly lets all staff viewing files within Piction know if a high-resolution TIFF version exists. Therefore, staff are able to identify without assistance of the photography department if the work they are looking to utilize only has a file appropriate for research needs (High-Res Available populated with "NO") or if a version of high enough quality for publication purposes exists (High-Res Available populated with "YES").

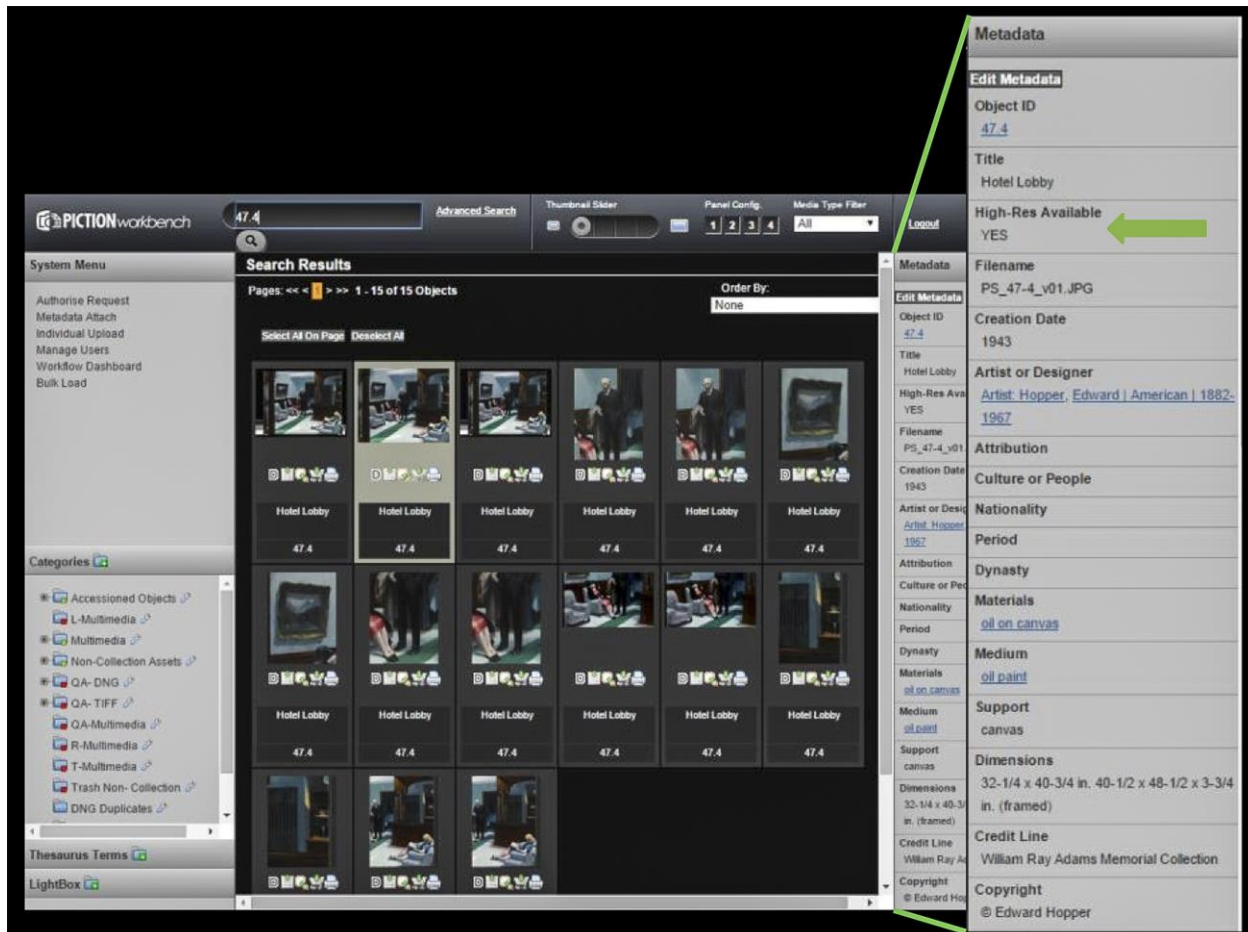


Figure 6: Integration of custom metadata fields, in addition to those populating from KE-EMu, add clarity and increase self-sufficiency for IMA staff.

Coupled with the custom metadata field of High-Res Available is the Copyright field that does populate from Ke-EMu. At the same time the core task force worked on the implementation of Piction, the rights and reproductions department undertook an extensive rights research and licensing project for the works in the IMA's collection. An internship with two law students was formed during which the rights records in the CMS were updated with not only the information of copyright holders, but also identified if works were in the public domain or were potentially orphan works with no known estate or heir(s). "Once a series of export and import templates were developed, over 44,000 rights records...were added to the object records...within less than two months."⁹ For each collection work that has had rights research undertaken, the Copyright field in Piction will state either public domain, no known rights holder, or © [insert rights holder name / organization]; for example, © Morgan Art Foundation / Artists Rights Society (ARS), New York for the works by Robert Indiana. Through this field, staff can tell if the work is in the public domain and no licensing is needed before they proceed with a project or if copyright

⁹ Young, Anne M. "Case Study: Rethinking the IMA's Collection Pages," Megan P. Bryant, Cherie C. Chen, Kenneth D. Crews, John ffrench, Walter G. Lehmann, Naomi Leibowitz, Melissa Levine, Sofia Galarza Liu, Michelle Gallagher Roberts, Nancy Sims, Deborah Wythe and Anne M. Young, *Rights & Reproductions: The Handbook for Cultural Institutions*, ed. Anne M. Young. Indianapolis Museum of Art and American Alliance of Museums, 2015.

clearance with a rights holder or licensing agency may be required before moving forward with a proposed use.

Piction Implementation—Document Collections

Modeled after the success of the DAMS task force, the DM task force undertook a similar process to assess and integrate a new DM for the IMA. The DM core task force followed a similar process to the one utilized to find a new DAMS for the IMA. Beginning in late 2014, the DM task force created an exhaustive list of DM needs with two tiers—a top twenty-five required functions and an additional twenty-five desired, but not required, applications. This list informed the review of potential systems for their applicability to the IMA's specific requirements. After analyzing systems that were solely a DM as well as those integrated as part of a larger DAMS, the decision was made to acquire and implement the DM module of Piction as well for the IMA.

Like the DAMS preparation, the DM core task force took a strategically slow implementation timeline. Over the course of more than a year-long implementation, the task force created a controlled vocabulary of document types to improve keyword searches and identified file naming conventions¹⁰ that incorporate departmental prefixes to quickly identify the document's originating department. Simultaneously, the task force worked with representatives from each department to organize their files for ingestion. Ingestion began with the export from the previous DM and then moved to exporting content from departmental drives and shared folders on the museum's servers.

Once this preparatory work was undertaken, the overall organization of the DM was outlined. Four top levels that contain numerous subcategories were created: departments, projects, archives, and institutional repository. Each IMA department has a folder in the departments level and can create as many sub-folders as they require. The projects level provides a location for cross-departmental projects to centrally store documents that all staff on the specific project can access. For example, all exhibitions and publications fall under the projects level due to the multitude of staff across the IMA that contribute to each. The archives level is modeled after the structures outlined for the departments and projects in order to retain folder structures for improved staff searches once documents transfer from active use into long-term institutional retention in the archives level. Finally, the institutional repository is a location where the IMA retains staff publications and presentations that are based on the IMA, but are not IMA created (conference papers and presentations, scholarly articles, etc.). For instance, this very article is a candidate for retention by the museum in its institutional repository. In this manner the IMA retains a more complete history and institutional memory of the museum and staff practices.

Piction Implementation—Bringing It All Together

Now, back to where this article began, task force members awaiting the first search across the collection, non-collection, and archives image sets as well as the document collection. As mentioned, the first search successfully returned results from all of these sets of content

¹⁰ New file naming conventions for document files: department prefix_project name_ document type_date created or updated_version number (if applicable). For example, RR_19Stars_ ApprovedImages_04-12-16_v07, which was created by the rights and reproductions department (RR) for the project that, in this case, is an exhibition (19 Stars), and identifies the document type (Approved Images).

within Piction (Figure 7). It also immediately raised the next, current stage of implementation for the IMA. The DAMS and DM task forces have now joined to establish a single Piction task force at the IMA.

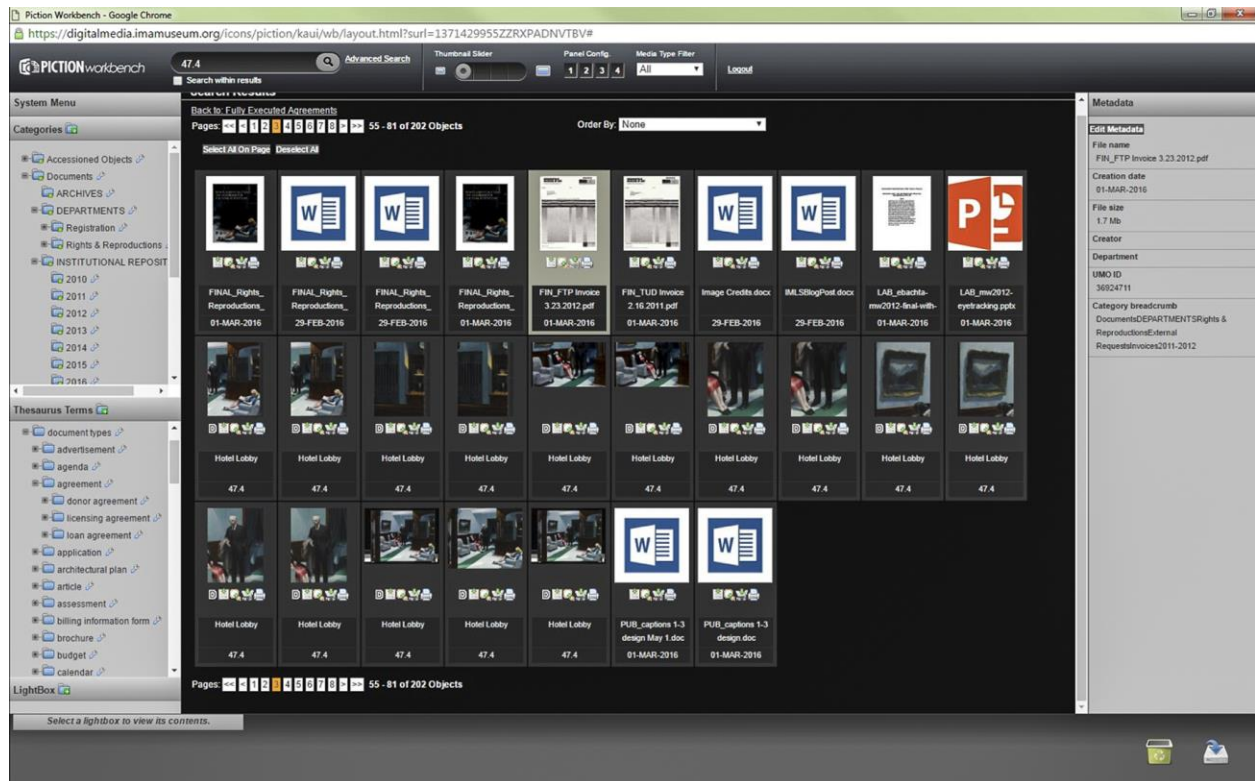


Figure 7: Search for accession number 47.4 (Edward Hopper's *Hotel Lobby*) that returned the collection object photography, archival materials, and a variety of documents that reference the piece.

Since the initial preparatory work for the ingestion of both digital assets and documents has been completed, the task force is turning its attention towards fine-tuning the many facets of Piction. With an eye on the future possibilities that Piction offers, the task force has begun exploring several functions that will both offer an end-user experience that is simple and intuitive, and position the IMA in the optimal spot to leverage content for a variety of platforms. Over the course of the next year, the Piction task force will address the following:

1. Advanced searching, including the ability to:
 - search and view multi-collection returns;
 - search and target one collection for streamlined results; and
 - sort results based on priority criteria.
2. Expand metadata schemas:
 - continue to fine tune and customize metadata schemas;
 - open up access to additional staff to add metadata to collections; and
 - implement multiple metadata schemas per object.
3. Leverage reporting capabilities:
 - identify existing reports that are optimal for the IMA's many workflows;
 - create custom reports; and

- train staff on use of reporting for incorporation with current workflows.
4. Additional integration between the CMS and DAMS:
- communication that goes both ways between the two systems; and
 - using Piction as the communication manager for all data that pushes to the IMA collection pages.

Distribution and Tangible Results

As noted throughout the discussion of implementing Piction, a strategic goal was streamlining processes and improving staff self-sufficiency. The latter had immediate, tangible results as photography staff saw a drastic decrease in the number of direct requests and image searches they conducted for other staff members and the rights and reproductions staff witnessed an increased understanding of copyright, licensing, and usage. Streamlining processes and workflows for other activities has been more evolutive as staff have become more familiar with the Piction platform and begun to flex their (and Piction's) muscles for rethinking how projects are completed. Essentially, the phrase "we've always done it this way" has been thrown out the window, or at least those on the Piction task force would like to think that is what is occurring.

A notable task that has been overhauled top to bottom by the implementation of Piction is the processing of external requests for IMA collection and non-collection images. Prior to Piction, rights and reproductions staff would have to consult with photography staff to determine if a suitable digital file existed or if new photography would be required. Then, photography staff would either download the high resolution file or, after new photography was completed, send the high resolution file to rights and reproductions staff that would then upload the file to an FTP service, such as Hightail or Dropbox, in order to send the file to the end user requesting the image. This process was time-consuming and not the most efficient use of time for all staff members involved. Thankfully, Piction has revolutionized this process.

Today, this process is much simpler. Once rights and reproductions staff receive a request, a simple review of Piction will quickly let them know if new photography will be required or not. The High-Res Available field informs this analysis, and if there is no high resolution file available, the Piction request form for new object photography is submitted directly to photography staff for review and scheduling. Conversely, if there is a high resolution image file available, the rights and reproductions staff simply drags the corresponding TIF or JPG file (depending on end use and request preference) into a lightbox. The lightboxes within Piction are editable by the user, to create as many or as few as are needed, including any sub-lightboxes. For instance, rights and reproductions maintains a single External Requests lightbox, with a sub-lightbox for each fiscal year, and within each fiscal year, as many sub-lightboxes as are needed can be added (typically one for each new request that has to be sent). Once the image file is in the lightbox, the rights and reproductions staff simply selects the email option to send a link to as many recipients as necessary for them to download the requested file.

New Collection Pages and Open Access

The implementation of Piction as the IMA's new DAMS and the subsequent "cleaning up" of collection image files could not have been better timed as the museum looked to redesign its online collection pages in late 2014. The new collection pages place an increased focus on the image(s) available, which is possible because of the standardized file naming conventions

developed with the Piction implementation that clearly identify primary (largest image at the top of the page) and secondary views (if available, these appear as thumbnails below the primary image) of each collection object. Navigation and zooming tools to the right of the primary image permit the user to view details within the image, as well as jump down the page to the object information and download the file, if available for that particular image (Figure 8).

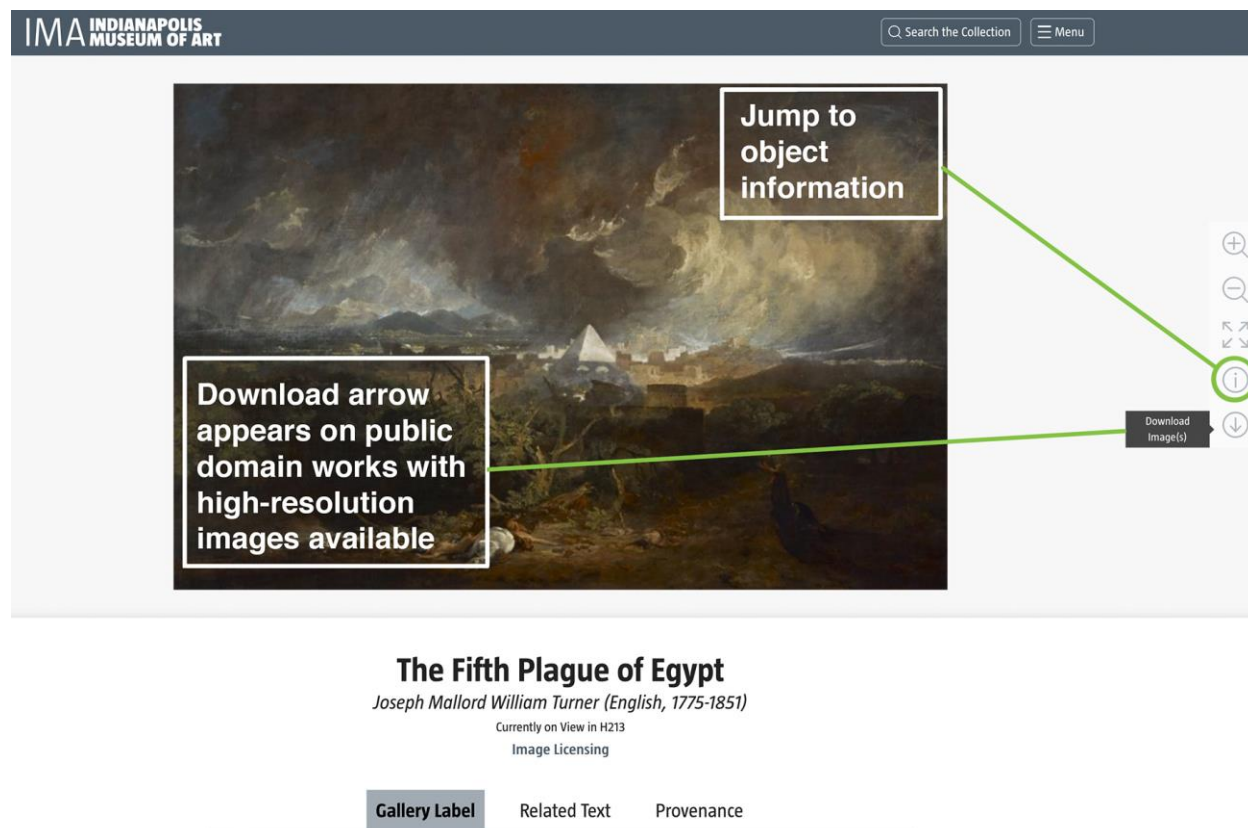


Figure 8: Sample collection image page on the IMA website, noting some of the navigation features at the right side of the screen.

The culmination of the Piction implementation, rights research project, and collection page redesign was the ability for the IMA to launch Open Access (OA) images for direct download from its website. As the "Case Study: Rethinking the IMA's Collection Pages" noted in *Rights & Reproductions: The Handbook for Cultural Institutions*:

The combination of a new DAM with improved image file naming and more complete rights information in the CMS simplified the ability to identify public domain works with publication-quality, high-resolution image files available. This combination of information then pushes to the new collection pages where high-resolution JPEG files are available for instant download; an arrow appears on the right side of the screen beneath the zooming tools to indicate the works with OA download available. The IMA simply requires the downloader to select the type of use: personal, scholarly or commercial. If personal is selected, no further information is captured and the file is immediately available to download. For scholarly and commercial uses, the IMA requires that a short form be completed

before the download is enabled. This is not to deny or approve a use, but rather to capture information about where and how images of IMA works are being reproduced. Once the form is completed, the image file can be downloaded.¹¹

Launched with the redesigned collection pages in January 2015, the OA program has been immensely successful with just over 15,000 images downloaded for scholarly, commercial, and personal uses.¹² Through OA, the IMA reaches a wider audience through direct interaction on its own website and can directly track the number of downloads as well as the intended end-use of the image file.

Archives Portal

As noted earlier in this article, the Archives collection was the first image set after the collection and non-collection images to be added to Piction. Due to the recent collection page redesign that the IMA had undertaken for its website, this same format was broadly used as the basis for the new online Archives Portal,¹³ which allows the public to search, view, and download images of archival materials from the IMA. "Launched in summer 2015, the Archives Portal is an ongoing collaboration between the IMA Archives and IMA Lab teams to make rare items from the Archives easily accessible online for public viewing and research. IMA Archives staff has digitized thousands of historic documents and photographs..."¹⁴



Figure 9: Landing page of the Archives Portal on the IMA's website.

¹¹ Young, Anne M. "Case Study: Rethinking the IMA's Collection Pages," Megan P. Bryant, Cherie C. Chen, Kenneth D. Crews, John ffrench, Walter G. Lehmann, Naomi Leibowitz, Melissa Levine, Sofia Galarza Liu, Michelle Gallagher Roberts, Nancy Sims, Deborah Wythe and Anne M. Young, *Rights & Reproductions: The Handbook for Cultural Institutions*, ed. Anne M. Young. Indianapolis Museum of Art and American Alliance of Museums, 2015.

¹² As of September 2016 just over 15,000 images have been downloaded.

¹³ Archives Portal, Indianapolis Museum of Art, accessed September 19, 2016, <http://archive.imamuseum.org/>.

¹⁴ Norling, Samantha, "Hoosier History Revealed through the Archives," IMA Magazine, May-Aug. 2016, 6. Accessed September 19, 2016, <http://www.imamuseum.org/about/ima-magazine/summer-2016>.

Streamlined Image Distribution

Through the Catalogue module of KE-EMu the IMA records the objects contributed to its various image distribution partners.¹⁵ Previously, this information was not integrated with the IMA's DAMS, which created challenges when staff tried to assess what image files had already been contributed to these distributors versus what was pending or newly available to send. The conversion to Piction has allowed for greater integration of this metadata field from KE-EMu and ease while searching. In turn, the IMA has further expanded its partnerships with its current image distributors providing them with additional image files for works in the collection. The IMA is also able to consider additional, future partnerships with other image distributors due to the ease of sending materials through Piction. In turn, this increases the global exposure to the IMA's collections.

Because the metadata required by these partners about the images now pushes from KE-EMu into Piction, a single Excel report can be exported from Piction that includes all the metadata (CSV, or Comma Separated Values, formatting if needed) as well as a low resolution thumbnail of the high resolution image file that will be sent to the distribution partner. The inclusion of a thumbnail image helps reduce any confusion and error when the distributor is preparing the files and metadata for presentation on their platform(s). This has also significantly reduced staff time, as the export from Piction is fully formatted and requires little to no intervention or edits from staff. Previously, the CSV export from KE-EMu would splice into two reports (object information and creator information) that would have to be manually merged. The addition of a thumbnail reference and image file name also had to be added manually.

The IMA has been a contributor to Bridgeman Images¹⁶ for several years and with the integration of Piction, the IMA sent over 7,500 images of collection objects, including images of the gardens at the IMA, to be made available for scholarly, editorial, and commercial uses. The IMA expanded its agreement with Artstor¹⁷ in 2011 to contribute at least 10,000 collection images over five years. Furthermore, the IMA worked closely with Artstor to also contribute IMA images to Artstor's Images for Academic Publishing (IAP)¹⁸ and the Digital Public Library of America (DPLA).¹⁹ With the adoption of Piction, the IMA was able to send over 10,000 images, including collection objects, historic house properties, and art park, to Artstor in early 2014. Public domain works from the IMA are contributed automatically to IAP and the DPLA by Artstor on the IMA's behalf.

Also in 2011, the IMA partnered with the Google Cultural Institute to select works from its collection to contribute to the Art Project.⁸ This selection was based on the following criteria: works on view in the galleries; no loaned pieces or temporary exhibitions; and works in the public domain, or if under copyright the IMA owns or will clear the rights. Due to these criteria

¹⁵ The IMA's image distribution partners include, but are not limited to, Artstor, Artsy, Bridgeman Images, Digital Public Library of America, and the Google Cultural Institute.

¹⁶ Bridgeman Images, accessed September 19, 2016, <http://www.bridgemanimages.com/en-US/>.

¹⁷ Artstor, accessed September 19, 2016, <http://www.artstor.org/>.

¹⁸ IAP allows the IMA another outlet to license its images for scholarly publications with print runs up to 5,000 copies free of charge. Images for Academic Publishing, accessed September 19, 2016, <http://www.artstor.org/content/collaborations>.

¹⁹ DPLA provides Open Access to the IMA's public domain images. Digital Public Library of America, accessed September 19, 2016, <https://dp.la/>.

and the short timeframe for the IMA to prepare the content, only images of public domain works or works for which IMA held the copyright were sent and launched to the public in 2012—a modest total of 209 IMA images. With the implementation of Piction and the launch of OA from the IMA's collection pages, the IMA was able to further streamline the means by which it contributes additional content to Google. In late 2015, Google approached the IMA about utilizing an API integration with the collection pages to identify the public domain works with high resolution image files available (essentially works in the IMA's OA program) that could be exported and prepared for ingestion in the Art Project platform. Once Google completed this exporting process, it was simply a matter of IMA staff review to confirm the content being sent included the correct (primary) image file with all of the metadata, which led to over 5,500 works being staged for finalization with Google in the summer of 2016.

Luce Project

Additionally, increased accessibility to collection images and the corresponding object metadata through Piction and the relaunched collection pages has provided the IMA with unique leverage when applying for grant support for the continued documentation of its collection objects. In the fall of 2014, the IMA began a two-year American Art digitization project funded by the Henry Luce Foundation. "The 22-month \$300,000 grant allows four new employees to photograph and catalog approximately 2,200 works of American painting, sculpture, decorative arts, textiles, fashion arts, and Native arts of the Americas, making them available publicly on the collections section of the IMA website."²⁰ Visitors can zoom in to examine minute details on an object or explore several angles of a sculpture. Rebecca McNamara, the curatorial coordinator for the Luce project, notes "...multiple photographs of a single work—offering different angles and details of signatures, hallmarks, and other stamps and inscriptions—allow both casual and scholarly researchers to understand the Museum's three-dimensional objects in a new, more complete way."²¹ The IMA's work with Piction and the dissemination of collection images through this platform was integral to this successful grant application to the Henry Luce Foundation.

Collection Ranking Project

In the fall of 2015 the IMA began a two-year comprehensive ranking project to review each object in its collection. The goal of this review is to systematically review and rank each work of art in the IMA collection through evaluation by the museum's curators responsible for the various IMA collections area. The collection ranking project will assist the IMA in further understanding the strengths, weaknesses, and breadth of its collection to promote acquisition planning and judicious deaccessioning. Systematically evaluating objects by collection will create a vast set of data, permitting the museum to assess its collection based on rank and allocate resources accordingly. Integral to this was access to previously vetted digital imagery of the collection.

Future Piction-Related Projects

Looking to the future, the IMA departments of conservation, conservation science, and horticulture will utilize the framework created by the initial task force to aid with the ingestion of

²⁰McNamara, Rebecca "Digitizing the American Arts and Design Collections: Recent Discoveries," *IMA Magazine*, Sept.-Dec. 2015, 8. Accessed September 18, 2016, <http://www.imamuseum.org/about/ima-magazine/fall-2015>.

²¹ Ibid.

their vast collections of images, each with their own unique metadata schemas, into Piction. Beginning with conservation's images (infrared, X-ray, pre/post treatment, etc.), small interdepartmental groups of staff will analyze the existing imagery of each collection and create unique metadata schemas appropriate to each. Staff will then begin the work of cataloging, organizing, and renaming imagery prior to ingestion. Each department will use the model set forth by the initial task force to best prepare and stage the images so they are eventually available to staff, visitors, and scholars alike.

In a continued effort to bring this to fruition, the IMA is once again turning to the resourcefulness and expertise that a narrowly defined internship project can provide. Thanks to the recent announcement of the Visual Resource Association Foundation (VRAF) 2016-2017 Internship Award and the generous support of the Samuel H. Kress Foundation, Rebecca Pattillo will soon begin this internship at the IMA.²² Pattillo will work closely with staff from the IMA's photography, conservation, archives, and curatorial departments to target seventy-eight paintings from the Clowes Collection of Old Masters, which are slated for inclusion in an upcoming digital publication. This publication will focus on these particular paintings and include imagery, data, and assets from across all four departments previously noted, with a particular emphasis on "the conservation history of each work as documented in thousands of images, including X-ray and infrared photographs."²³

A main goal of Pattillo's internship will be to determine metadata standards and implement them by "cleaning up" all of conservation's imagery related to these 78 paintings and stage the prepared files for ingestion into Piction. Although this project will target only a small area of conservation's imagery of works in the IMA's collection, the metadata and ingestion standards that are developed during this project will be the platform for future conservation projects at the IMA as well as being a model for when the broader archive of conservation's imagery is addressed and prepared for ingestion. The VRAF internship is a wonderful opportunity for the IMA and will help contribute to best practices for visual documentation created by art conservators, as well as make valuable information available to art history scholars.

Thinking even more long term than the current Piction and conservation work over the course of the next year, the museum is aligning all of its projects with the IMA Strategic Plan, 2015-2025,²⁴ which will include Piction in many capacities. To this end, the task force is aiming to achieve the summative end goal of having all of the IMA's digital content within a single repository. With the addition of each new collection and the ingestion of more content, this goal becomes more real and allows for greater integration between the DAMS, CMS, and website. Ultimately, there will come a day when a search of the IMA's online collection pages will return not only the collection images and metadata that are currently available, but all additional videos, conservation images, and archival historic content.

²² "VRAF Award Kress Grant for the 2016-2017 Internship Award," press release, September 15, 2016. Visual Resource Association Foundation. Accessed September 18, 2016, (http://vrafoundation.org/index.php/about/news_events_entry/369).

²³ Ibid.

²⁴ IMA Strategic Plan, 2015-2025, accessed September 18, 2016, <http://www.imamuseum.org/sites/default/files/attachments/IMA-Strategic-Plan-Board-20May2015.pdf>.