

Digital Asset Management (DAM) System Market Scan

February 2024 Summary of UVA Library [Report from July 2023](#)

Background Statement

The UVA Library currently manages at least seventeen servers (local and cloud hosted), multiple repositories, and additional external hard drives to store 250TB of digitized and born-digital assets for research, teaching, preservation, communications & marketing, and publishing. The lack of holistic planning and strategic management has resulted in limitations in accessing, reporting, and utilizing these assets effectively. The UVA Library staff has faced challenges in finding, using, and reporting on digital assets due to the current multi-system storage approach. The term 'Digital Asset(s)' includes digital collections, digital content, digitized collections, and born-digital content. It also encompasses multiple file types, including image, text, video, audio, and 3D objects held or created by the UVA Library for the purposes referred to above.

Proposed Solution

To address current issues and create a successful and sustainable digital asset management program, the UVA Library should 1) procure a digital asset management system (DAM) and 2) allocate resources for a full-time DAM Administrator.

Procuring a DAM System for the UVA Library offers improvements & opportunities including:

- Consolidation of the number asset management systems and storage locations
- Standardized workflows for acquisitions, processing, metadata, description, tagging, content editing
- Standardized access and rights management for assets and user groups
- Enhanced self-service capabilities for staff and patrons to access open digital assets or request restricted content
- Support for consistent Library and UVA branding and content creation activities
- Support for storage, description, and viewing of multiple file formats (image, video, audio, 3D, text) and preservation workflows
- Improved user experience through accessible and optimized search functionality
- Integration with content management systems and single sign-on for seamless operation

Vendor Recommendation

The market scan team recommended the following vendors ranked on their ability to meet the user needs of library stakeholders and patrons:

1. Censhare
2. Tied - Capture Ltd or TIND DA

After reviewing and comparing the bids and system demonstrations of the final four vendors, Censhare consistently outperformed the others in terms of meeting user requirements. Capture and TIND DA were also identified as viable options but had fewer built-out features that aligned with the broad range of stakeholder requirements. AM Quartex, the fourth vendor, was deemed high risk for sensitive data and better suited for smaller organizations with limited IT support.

The following comparison outlines the projected pros and cons of procurement and provides licensing and implementation costs for the three final vendors (Quartex was removed):

	Censhare	Capture Ltd	TIND DA
Pros	<ul style="list-style-type: none"> - Meets nearly all requirements - Supports Linked Open Data - Open infrastructure – UVA able to tweak system as needed - GLAM (JFK, National Archives) and large commercial clients - Fewer additional third-party plugin costs to competitors (eg. AI tagging, OCR) - Best for multi-Language UI - Low Risk for InfoSec 	<ul style="list-style-type: none"> - Meets all core and many secondary requirements - GLAM and Arts/Media clients - Longstanding commitment to Accessibility - Privately held company, all services provided inhouse - Lowest cost provider 	<ul style="list-style-type: none"> - Meets all core and many secondary requirements, with some on roadmap - Focused on GLAM - Positioning for Linked Open Data support - Could grow with library - Comparable fees - Utilizes Open-Source software
Cons	<ul style="list-style-type: none"> - Not currently WCAG compliant but on roadmap for Q1 2024 - Training efforts may be higher due to complexity of system - More expensive initial implementation but ongoing costs are competitive with similar sized vendors and systems 	<ul style="list-style-type: none"> - 20-year-old code base, harder to modernize. Rolling out new backend UI, which may improve system performance and UX - Flagged as moderate security risk by InfoSec for fuller investigation - No Linked Open Data support - Much lower cost - Good project plan but much of the pricing included “additional scoping needed” 	<ul style="list-style-type: none"> - Newer company, smaller staff, playing catch up on some feature development - InfoSec - Medium risk for SaaS, which requires more review - Partial 3D support currently
Annual - License - Support	Local AWS Hosting - 3-5 year agreement	SaaS Hosting - Local AWS Hosting - 3 -5 year agreement	Local AWS Hosting - 5 year agreement

Meeting Stakeholder Needs - Solution Comparison

Censhare and Capture Ltd meet most of the specific needs of each stakeholder's service area, while TIND follows closely behind.

Stakeholder Area	Censhare	Capture Ltd	TIND-DA
Metadata and Authority Records	Yes	Yes - Some concern regarding limited number of fields (70)	Yes
Digital Production Group	Yes	Yes	Yes
Library IT, Development Group	Yes	Yes	Yes
Library IT, Technology Solutions	Yes	Yes	Yes
Communications	Yes - InDesign integration	Yes - InDesign integration on current development roadmap	No
Fine & Decorative Arts	Yes	Yes	Yes
Special Collections, Ops & Research	Yes	Yes	Yes
Exhibitions & Curation	Yes - site hosting module or Open API for 3rd Party platform	Yes - Open API with third party platform	Yes - Open API with third party platform
Archival Processing	Yes	Yes	Yes
3D Assets	Yes	Yes	Partial - Storage but currently no viewer
Audiovisual Assets	Yes	Yes	Yes
Digital Preservation	Yes	Yes	Yes
Mandala Project, Linked Open Data	Yes	No – open to scoping	Partial - JSON-LD available
Data Repository Capable	Potentially - Need further scoping	No	Yes - Additional Product – TIND-IR
eCommerce Capable	Yes - 3rd Party integration capable	Yes - Addon Module	No
Controlled Digital Lending Capable	Yes	No	No – On dev roadmap
Accessibility, WCAG 2.1 AA	Partial – No VPAT. Dev for 2.0 AA compliance Q12024	Partial – VPAT Minor concerns	Partial – VPAT Minor Concerns
Security - OneTrust - Sensitive Data	SaaS – Low Risk Local – Low Risk	SaaS – Low Risk Local – Low Risk	SaaS – Medium Risk Local – Low Risk
Publishing Services File Repository	Yes	Yes	Yes

Partially Meets or Does Not Meet User Requirements – Solution Comparison

Below highlights the specific user requirements each vendor identified as partially meeting or not meeting based on the three priority levels of Must, Should, or Could do within the system to meet user needs. Censhare and Capture Ltd, again, are meeting most of the needs of the UVA Library.

Priority Level	Censhare	Capture Ltd	TIND-DA
Level 1 User Requirements (Must)	Partial - WCAG 2.0 AA won't be fully met till Q1 2024	Partial - Limited auditing capabilities, enhancements coming 2023	Yes, meet all requirements
Level 2 User Requirements (Could)	Partial - No simultaneous editing, instead they have a checkin/out approach that locks an asset for editing if claimed to edit	Yes, meet all requirements	Partial - 3D objects can be stored but not viewed presently - Records can be batch edited but not merged - Access restrictions set universally but some are set to collection level No - No collaboration comments/annotations ability, only creation of new static notes field for an asset - Compatible with all web browsers, some UI features are not responsive to mobile and are currently better viewed on desktop or tablet. - Derivative creation at download limited to PDF and txt files that are zipped together - Allows social media sharing but no embedding - Site customization supports institutional branding but is fairly strict for individual users to maintain WCAG 2.1AA rating. Can be customized with guidance. - Collaborative editing not supported. Editors lock asset for up to 60 minutes until it times out or they save the asset.
Level 3 User Requirements (Would Like)	Partial - IP Address restrictions to file level not within Censhare but UI web server No - Crowdsourcing could be integrated in at implementation but not currently offered - Blurring part of an image could be developed as part of their annotation/tagging feature.	Partial - Automated Tagging Provided by third-party tool - Integrates with external authority lists but additional cost - Blurring specific parts of images available through 3rd-party integration and additional costs - OCR/Transcription can be supported but at additional cost after scoping - Crowdsourcing offered at additional cost No - Does not recommend Citations - No ability to restrict for CDL needs	Partial - Can offer predefined citation to users but not user requested on the fly - Related record recommendations have to be manually entered by field - May be able to work out digitization workflow with upcoming integration with Aeon or other third party integration No - Cannot survey users when they download content on intended use - Does not have crowdsourcing functionality but may be able to use Disqus app integration for some of this need. - No image recognition but can offer OCR with third party integration - No ability to restrict for CDL needs but on roadmap - Cannot blur specific parts of image - No InDesign integration - No payment module but TINDLS can integrate in with Paypal

Potential Cost Savings

Storage & Open-Source Communities: As assets migrate out of specific servers or systems, the Library would determine if a current system could be abandoned or servers shut down. Community membership fees associated with abandoned systems would also decrease. As assets enter into the AWS S3 tiered storage structure, an initial increase in storage costs are expected when copying and testing. However, a certain amount of cost savings is also expected for assets that are less frequently accessed. Additionally, the DAM system will allow for master images to be down converted to access copies “on demand” so that the library won’t have to store as many copies of assets and therefore use less storage space. Patrons could generate their own access copies on demand as well. Finally, the migration work would incorporate a deduplication process to identify and delete copies of the same asset.

IT Staff: Development and infrastructure support time could be freed up and reallocated to other strategic work or new services if certain systems were abandoned or functionality/integrations was/were no longer needed.

Collection Managers: The demands on asset management time for staff will likely go down once migrated into a new system and metadata updated. The new system will empower a percentage of patrons to “self-service”, which will decrease the demand on library staff time to identify, locate, share, and consult on reuse. Time and friction to assign, review, and report on collection processing and usage is expected to decrease as well, freeing up staff time for other activities.

Recommended Next Steps

1. Secure Funding (completed December 2023)
2. Set up Sandbox – Trial training with one or two vendors and stakeholder representatives
3. Select and Negotiate Final Contract (completed February 2024)
4. Hire Project Manager (PM) & DAM Administrator (completed December 2023)
 - a. One combined role
5. Implementation and Launch
 - a. Year 1 – Metadata mapping & clean up, migration of 1st asset group, launch
6. Transition to Service
 - a. Transition from PM to DAM Administrator
 - b. Continued Migration - Years 2 & 3 – Migrate remaining assets and manage service

Appendix A. Stakeholder Focus Group

The stakeholder group included representatives from essential areas and services of the UVA Library. No patron user experience research was undertaken as part of the market scan. Due to the complex storage and access systems and time constraints of the review process, the stakeholder focus group was relied upon to provide insights into both the staff and patron needs that a DAM system could support.

- Carla Arton, Project Manager, Technology Solutions
- Kristin Jensen, Project Manager, Cross Unit Projects
- Jeremy Bartczak, Metadata and Discovery Services
- Whitney Buccicone, Special Collections
- Christina Deane, Digital Production Group
- Michael Durbin, Library IT Development Group
- Elyse Girard, Communications
- Dave Griles, Fine & Decorative Arts Inventory Project Manager, Technology Solutions
- Jack Kelly, Accessibility, Technology Solutions
- Rennie Mapp, Mandala Project
- Heather Riser, Operations & Research, Special Collections
- Holly Robertson, Exhibitions & Curation, Special Collections
- Perry Roland, Metadata Operations
- Will Rourk, 3D Assets, Scholars Lab
- Steven Villereal, Audiovisual Assets, Special Collections
- Lauren Work, Preservation, Special Collections

The approved User Requirements document shared with vendors included 94 specific requirements in the areas of:

- Accessibility
- Asset Types
- Company Information
- Implementation
- Metadata, Taxonomy, and Search
- Reporting & Analysis
- Rights & Access Management
- Support & Maintenance
- Technical
- User Interface

All requirements were prioritized on a 1-3 rating for UVA, with 1 = Must have, 2 = Should have, 3 = Would like. Vendors then were asked to mark Yes for fully meets requirement, Partial for partially meets, and No for does not meet requirement. Vendors responses were then compared by the project managers as part the overall bid review process that included considerations for proposed project plan, implementation, licensing, security and accessibility compliance, hosting, sustainability, support & training, and stakeholders' preferences.

Appendix B. Market Overview

The Digital Asset Management (DAM) Systems market is growing as organizations increasingly adopt DAM systems to manage digital assets like images, videos, and audio files. Cloud-based DAM solutions are gaining popularity due to their scalability, cost-effectiveness, and ease of implementation. DAM systems are also incorporating artificial intelligence and machine learning to allow for more advanced metadata tagging and automated workflows. Demand for DAM systems with strong security features and compliance with data protection regulations is driving the development of more secure and privacy-focused solutions.

In the Galleries, Libraries, Archives, and Museums (GLAM) sector, DAM systems are supporting institutional shifts to an omnichannel infrastructure, allowing customers to interact through multiple channels while maintaining a consistent experience. User-friendly DAM interfaces enable staff to easily search and retrieve digital assets and to annotate, tag, and categorize them. DAM systems are additionally maturing to support long-term preservation needs and international standards. Overall, DAM is transforming the way libraries, museums, and archives manage their digital collections, improving access, security, preservation, and research capabilities.

Pricing for a DAM system ranges significantly by provider and individual client needs, from \$10,000 to over \$250,000 per year. Lower priced systems tend to be open-source and not able to scale to accommodate increased network, storage, or multi-system integration needs. Many GLAM institutions have reached a tipping point with their digitization efforts and the increase in digital acquisitions to recognize the need for a scalable enterprise system, like commercial industry asset management needs, but with a GLAM sentimentality.

Appendix C. Current & Future Digital Asset Management - Process Maps

The process maps featured on the following pages were informed by the Stakeholder Focus Group sessions and designed by the project team to highlight the current state of digital asset management across UVA Library services, as well as what a future state could look like with a DAM system streamlining intake, processing and access.

Future State - UVA Library Digital Asset Management Process Map

