

## STRATEGIC OUTLINES: BETWEEN VALUE AND DIGITAL ASSETS MANAGEMENT

Delia Băbeanu<sup>1</sup>  
Alexandru Adrian Gavrilă<sup>2</sup>  
Valerica Mareş<sup>3</sup>

*ABSTRACT: Enterprise content management leverages digital asset management to support business channel diversity. Business asset management technology is targeted to products and final services. By capturing photos, videos, logos and other creative assets in a central repository it becomes possible to control how, when and by whom these assets are used.*

*The ability to locate different images enhances collaboration inside and outside the organization. To provide full value, the system links to technologies that deliver assets to real time.*

*Managing Digital Assets is increasingly a core management discipline for both commercial companies and not for profit organizations.*

*The authors propose some directions to be accomplished when it is used digital assets.*

*Key words: Digital Assets Management (DAM), architecture of DAM, Strategy for DAM*

*JEL codes: M15*

### Introduction

First of all, it is important to know what represent a digital assets and how do we manage them. Wikipedia defines Digital Asset Management as the set of tasks and decisions surrounding ingesting, annotating, cataloguing, storage and retrieval of digital assets, such as digital photographs, animations, videos and music. Digital asset management systems consist of hardware and/or software systems that provide the individual services of digital asset management.

A digital asset is an asset that exists only as a numeric encoding expressed in binary form. Images, music, video and computer software distributions are all examples of digital assets. It is important to note that, in enterprise DAM, we are only concerned with managing the finished product, the asset. Works in progress are better managed by domain-specific management solutions. Enterprise digital asset management is about gaining maximum value from these valuable resources, with the key aims being to:

- Maintain a record of ownership and location of digital assets;
- Protect the economic value of digital assets and rights;
- Maximise the future benefit of digital assets and rights. [18, whitepapers]

Digital Asset Management can provide far more than basic control and management. Digital media services can facilitate the fluid use and exchange of digital materials. Analysis services can peer into the content itself and extract text to be used as metadata for search and retrieval. These analyses include such feats as voice-to-text, optical character recognition, facial recognition, sound recognition, and scene change detection.

---

<sup>1</sup> Academy of Economic Studies, Faculty of Accounting and Management Information Systems, Romana Square, no.6, Bucharest, delia.del@gmail.com

<sup>2</sup> Academy of Economic Studies, Faculty of Accounting and Management Information Systems, Romana Square, no.6, Bucharest, alexgavrilă@gmail.com

<sup>3</sup> Academy of Economic Studies, Faculty of Accounting and Management Information Systems, Romana Square, no.6, Bucharest, maresvalerica@yahoo.com

A highly advanced approach to digital asset management will treat metadata itself as an asset. Metadata added across the community becomes the collective interpretation of the original content.

Enterprise Digital Asset Management is a technical infrastructure for fine-grained control and management of digital materials across the institution. It supports the most commonly used data types in the form of documents, images, audio, and video, but can also include animation, three-dimensional modeling, and other large data sets.

Enterprise Digital Asset Management provides a common platform for digital content across the entire institution. Publishing venues and academic applications from web sites, through course management and e-portfolio, to the Library itself can take advantage of this infrastructure to serve the full and diverse array of constituencies in the community. [8, newschool].

### Literature review

If any of these statements apply to your organisation, then you should consider whether there is a business case for DAM through a DAM strategic review process.

There are four stages to this [12,eimagazine].

#### Phase 1: Classify the organisation

The first phase in this review process is to classify the organisation according to its interactions with digital assets. The requirements may be satisfied through a combination of the key digital asset management functions: *Infrastructure management, Archive management and Compliance*.

#### Phase 2: Identify needs

The second stage in the strategy review is to examine each of the DAM functions suggested by the classifications into which your organisation falls. This should be a consultative process, involving stakeholders responsible for IT, business and legal functions.

#### Phase 3: Detailed business requirements

At this stage, having defined areas of need within the organisation, we begin to build a picture of the detailed business requirements. The process of defining business requirements must be driven by consultation with the personnel who will ultimately interact with any resulting DAM implementation. The requirements will not address technology issues at this stage, but should detail key functional requirements, interactions with existing systems, soft issues, such as the technical competence of staff, and use cases for key tasks and processes.

#### Phase 4: Planning for the future

The final phase of the strategy review examines how organisational DAM requirements will change over time. For most organisations, this is best looked at over a three- to five-year period. Asset agencies and some asset creators may also wish to take a longer term view. [18, whitepapers]

**Table no.1**

### Covering Data Assets Management

No.	Outlines	Questions	Elaborate Outlines
1	Key Trends in DAM	What is it? Who uses it?	Evolving DAM strategies: Creative works-in-process, marcom image portals, media service platforms, smart media factories DAM operations: moving from a project to an ongoing program
2	Metadata, Taxonomy and Search	What are the best and most innovative ways leading organizations handle taxonomies today? What's on the horizon for tomorrow?	Everyone wants information at their fingertips. Taxonomy is a core organizing principle of content management applications and related search tools that enables users to find information they need. In this information-rich briefing there are: <ul style="list-style-type: none"> <li>• A variety of ways that you can integrate and fully leverage taxonomies;</li> <li>• How to apply small controlled vocabularies in search applications and search systems;</li> </ul>

			<ul style="list-style-type: none"> <li>• Examples of advanced and innovative integrated search environments that leverage metadata and taxonomies with various classes of search tools.</li> </ul> <p>This is for Search optimization: Digital Asset Management: Content Management systems and strategy and Taxonomy development.</p>
3	DAM Services Groups: the essential roles, accountabilities, and skills of a DAM Operation	What services cover DAM?	<p>Evolving from a project mindset to an operations mindset</p> <ul style="list-style-type: none"> <li>• A scalable skills-resource model for all key personnel of a DAM operation</li> <li>• Maintaining financial and operational governance of a complex, growing DAM operation, enabling a group director to manage existing staff and plan future personnel requirements whether employees, consultants, system integrators or collaborative staff from other departments</li> <li>• Accelerate the exchange of institutional knowledge of the start-up project team to the on-going program manager</li> <li>• Ensure a smooth project handoff to cross functional DAM Services staff serving creative, production and distribution workflows</li> <li>• Obtaining confidence you've defined the right structure, functional roles, budget allocations, phased-in schedules, and operational controls of an effective DAM Services Group</li> </ul>
4	Rights Management and Enforcement	What are these rights? Whose are they? And how do we protect them?	<p>Where there are digital assets there are rights. We can be certain of two things: they can be complex and they have value. Whether you are a creator, a user or a digital asset manager it is essential that you know your rights. Important issues to be covered include:</p> <ul style="list-style-type: none"> <li>• What are intellectual property rights? And why you need to understand them.</li> <li>• Beyond IP rights – including right of publicity and privacy</li> <li>• The contract is the key</li> <li>• Inbound and outbound rights management</li> <li>• Enforcement solutions</li> <li>• Staying out of court</li> </ul>
5	Building a Business Case for DAM	How to build the financial plan and manage the project budget?	<ul style="list-style-type: none"> <li>• Areas of potential ROI, both tangible and intangible, eg process improvement, cost reduction, user experience</li> <li>• Why some improvements are better than others</li> <li>• Examples and reasons for successes and failures</li> </ul>
6	Developments in Technology		
7	DAM in Marketing Operations Management		<p>Marketing Operations as the Fifth Role of Marketing</p> <ul style="list-style-type: none"> <li>• The 4 imperatives for marketing today; the role of the DAM in creating and maintaining a corporate memory</li> <li>• The DAM in an Enterprise Marketing Management strategy; where does it fit in the architectural hierarchy?</li> <li>• Role of the DAM in a closed loop Marketing Planning to Execution business process</li> <li>• Integration of a DAM with a marketing resources management application; a retail company case history.</li> </ul>
8	Setting Expectations for Next Generation DAM	<i>Where do we go next?</i>	<p><b>Evolution of DAM:</b> Repository of final assets, Work in progress, Repurposing and file translation, Enterprise Asset, Management, Workflow tool, Collaboration and approval tool</p> <p><b>Integrating Evolving Technologies:</b> XML and XMP, Image recognition, Rights management, File tracking outside of DAM, Reporting applications, Project management applications, Financial applications, Time capture and billing applications</p> <p><b>Current integration Scenarios</b></p>

Adapted by source: [2, DAM Chicago Conference]

## Research methodology

### Objectives

Many businesses and organizations are adapting to Digital Asset Management (DAM) as a business strategy because managing image, video and other media assets presents unique challenges and requires solutions designed specifically to streamline the acquisition, storage and retrieval of digital media. [10, igi]

DAM has three main areas of function:

First, is to *facilitate* the work of those responsible for producing and managing content collateral. This helps creative teams work more efficiently as they author, review, approve and produce new marketing materials.

Secondly, DAM can serve as a sort of *central library* for all of an organization's employees. This function is the overriding objective of most corporations putting together a digital asset management system.[9, vig]

The third key function for a DAM system is to provide a *media database* that can render and deliver content into automated publishing applications.



**Fig. No. 1 - The Activities of Digital Asset Management**

*Source: [3, DAM 2007]*

#### 1. Storage and Retrieval of digital information (fig.no.1):

The explosive growth of digital information resources necessitates the demand for the reliable methods to archive and disseminate the information. Reduced hardware costs, improved performance make it possible to host these collections in terms of gigabytes/terabytes of storage.

2. Digital Content Preservation: Digital preservation means the planning, resource allocation, and application of preservation methods and technologies necessary to ensure that digital information of continuing value remains accessible and usable.

3. Hardware / Software Management: Hardware systems refer to the servers on which the digital collection is held, scanners, printers and other peripherals. The functions of system and network administration are required at the library.

4. Backup and Recovery Policies: The data that is acquired over a period of time is a big asset of any organization. All the efforts put by the library in digitizing the contents may go in vain if they are not backed up periodically.

All 4 key elements discussed above have key challenge that is "Storage". Operational

Efficiency, compliance and long term retention of data each has a set of required capabilities that must be met by a storage solution: Access Control, Backup Options, Choice of Network Storage Protocol, Data Classification and Search, Data Integrity Assurance, Access to Data in the Event of Failure, De-Duplication, Storage and Access in Native Format, Ease of Application Integration, Seamless Migration, Audit Logging, Selective Data Locking, Selective Encryption.

5. Authenticity and Security of Document: Information is no longer bound by the physical restrictions. It can be accessed at any time. It is necessary to ensure the authenticated and authorized access to contents for their security. Authentication identifies who a person is and authorization defines the individual user rights.

6. Information Description (Metadata): Metadata has become a buzzword in many communities that design, create and preserve information systems. Metadata is structured description of and information object or collection of such information objects. [3, DAM 2007]

### Architecture

Figure below shows all the four component modules have been integrated into one single functional framework. The functionality that DAM system is required to provide is vastly different for different media types (simply because each media type has to be processed in a different way). The functional requirements, the logical workflows and the use cases are different.

The production and processing module that “inputs” assets into the repository needs to consider separate workflow sub-components for each media type because each media file type warrants customized treatment. Once the assets are created along with their metadata, there are deposited in the asset repository. Metadata enables the assets to perform functions in conjunction with certain applications. The asset repository manages the assets with metadata.

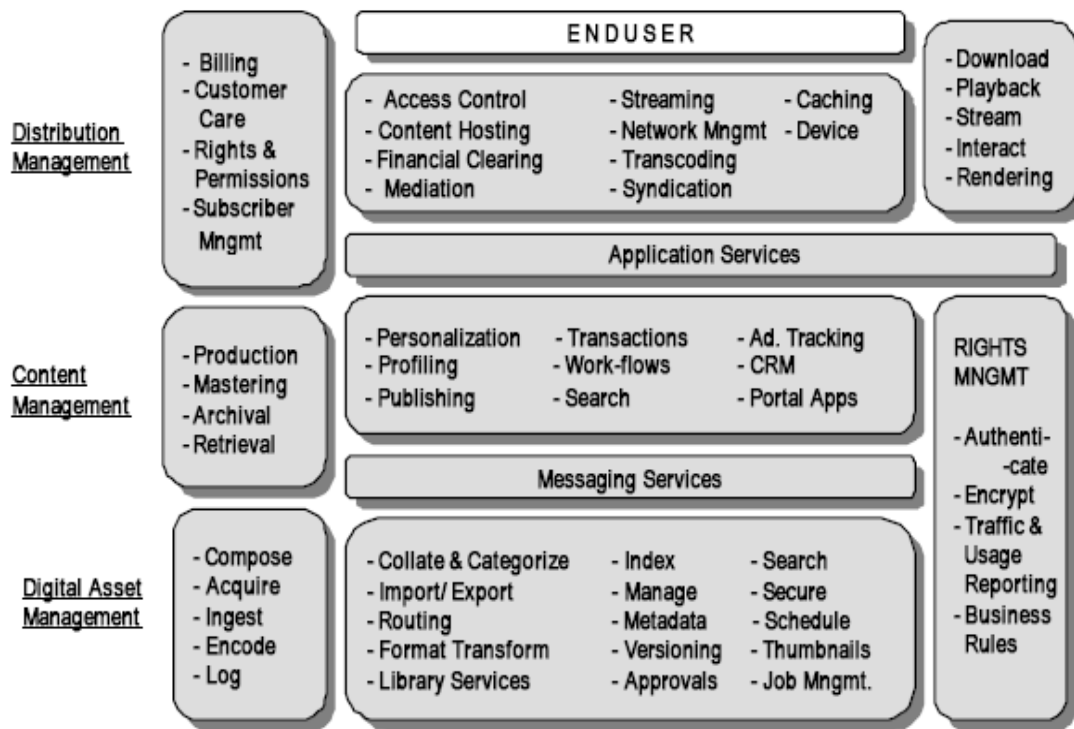


Fig. No. 2 - DAM –n Tier functional Architecture

Source:[17,cognizant]

The content and transaction management module makes the assets available, publishes the assets and makes them searchable. It enables content syndication and transaction activities. Digital

Rights Management is one such bundle of activities. [18, whitepapers]

### **Strategy**

A review of DAM benefits will help determine the classes of assets or aspects of an end-to-end DAM strategy that yield the most benefit to an organization. Once these areas are identified, a prioritization exercise can lay the foundation of a DAM roadmap.

The business benefits of an end-to-end DAM strategy include:

#### *Cost Savings*

Increased efficiencies and better utilization of creative talent time are key contributors to cost savings. However, DAM also creates shorter editing cycles in post production reducing time to market, minimizes distribution costs, creates a vast repository of assets for reuse and minimizes re-inventing every process of the creation-production-distribution value chain. Additional cost saving include the lower shipping fees and other distribution related expenses.

#### *Competitive Positioning and New Services*

A digital repository of content enables new services including availability of news, sports and feature stories. These can be delivered via multiple channels and forms to both internal and external audiences, e.g., blogs, websites, broadcast, hard or soft copy, Podcasts and many other media.

#### *New Revenue Streams*

New revenue sources can emerge from increased reuse and syndication. Archives can be structured with intuitive tools that enable new product packaging and pricing options. Enhanced advertising opportunities can be created with cross channel packages and more targeted distribution models.

#### *Rights Management and Compliance*

A centralized content repository provides seamless integration with the database of rights information and licensing details. An end-to-end digital strategy has to include parallel efforts for creating, managing and distributing content as well as maintaining important data that describes and defines that content at every stage of the value chain.

#### *Data Mining and Analytics*

Once content is stored and accessed through consistent interfaces and processes, the databases can capture information on usage patterns including the degree of reuse and repurposing. This information can be valuable for planning storage strategies and validating or enhancing business models. [1, DAM strategy]

### **Conclusions**

The conclusion of strategic review process is a business case for an investment in DAM within an organization. The business case will clearly outline the position of the organization within the digital asset system, define DAM needs, requirement complexity and value to the business and provide a forecast for future requirements.

It was presented one method aimed at helping line-of-business managers ("business owners" of digital assets) make economically rational decisions.

The outlines described leaves out all the "option value" of digital assets. It is easy to make decisions in the future to do different things with digital assets, and some of these possibilities could change the payoffs or even the whole business model.

Sometimes a digital asset is a "platform" for a bunch of other assets or capabilities. The outlines described undervalue such platforms.

It also leaves out critical interdependencies between digital assets. It might have some Class 1 asset that is, in turn, dependent on the existence and well-function of several Class 2 assets. Some of that can come forward in the "willingness to pay" exercise, but only if the business owner understands all the interdependencies and can make smart tradeoff decisions.

Implementing the strategy to manage data assets is the future research.

## **References**

1. DAM strategy by Magan Arthur, Subhakar Bhattacharya, Gautam Shekar, ViewPoint, December 2005
2. DAM Chicago Conference, 29 October 2009
3. Digital Asset Management – Challenges, Evaluating Solutions and Thinking beyond “Repository” Mayur Jain & Arvind Sinha, PB Systems Inc. 8/24/2007
4. Dimitris N. Chorafas, 2008, IT Auditing and Sarbanes-Oxley Compliance: Key Strategies for Business Improvement Edition: illustrated Published by CRC Press, ISBN 1420086170, 9781420086171, 316 pages
5. Journal of DAM [http://www.henrystewart.com/digital\\_asset\\_management](http://www.henrystewart.com/digital_asset_management)
6. Andreas Meier, Henrik Stormer Translated by Elizabeth Gosselin, 2009, Ebusiness & Ecommerce: Managing the Digital Value Chain, Published by Springer Verlag, ISBN 354089327X, 9783540893271, 160 pages
7. <http://digitalassetsmanagement.blogspot.com/>
8. <http://newschoolsecurity.com/2009/10/how-to-value-digital-assets-web-sites-etc/>
9. [http://vig.pearsoned.co.uk/catalog/uploads/SFEB\\_C02.pdf](http://vig.pearsoned.co.uk/catalog/uploads/SFEB_C02.pdf)
10. <http://www.igi-global.com/downloads/excerpts/8383.pdf>
11. [http://www.sun.com/storage/archive/corporate\\_repository.pdf](http://www.sun.com/storage/archive/corporate_repository.pdf)
12. <http://www.eimagazine.com/xq/asp/sid.0/articleid.5e1ee90b-4f20-4f5d-88c4-6c2c4603e2bf/qx/display.htm>
13. <http://www.edges.net/digital-strategies.pdf>
14. <http://www.researchandmarkets.com>
15. <http://www.widen.com/what-is-dam/hosted-digital-asset-management.php>
16. <http://www.pbssystem.com/Evaluating%20DAM%20and%20Beyond.pdf>
17. [http://www.cognizant.com/html/content/bluepapers/PCM\\_WhitePaper\\_Digital%20Asset%20Management.pdf](http://www.cognizant.com/html/content/bluepapers/PCM_WhitePaper_Digital%20Asset%20Management.pdf)
18. <http://whitepapers.technologyevaluation.com/Category/>