Original Article

Why good DAMs go bad: Building an operational capability

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ABSTRACT Post-mortem analysis of under-performing DAM efforts reveal nearly universal points of failure and disconnects among user populations and support functions. Targeted toward DAM program leaders and executives, this article surfaces the missing elements, typical challenges and how to identify and fulfill these requirements, gleaned from experience leading many DAM projects. Methodologies for properly structuring DAM projects are introduced along with candid examples of do's and don'ts. DAM projects often flounder because of the misconception that the firm will realize strategic and process efficiency gains simply by rolling out a DAM system and training users on its functionality, only to discover teams don't understand how they should use it in their normal operations. DAM operations that produce real gains, whether realized straight away or in fits and starts, are distinguished by prime focus on operational design. Successful DAM projects are approached as fundamentally operational design efforts with DAM system implementation a crucial but separately scoped and staffed component of the project.

- Learn what stalls DAM projects, why and how to ensure you will avoid these threats
- Focus on business process design – approaching DAM as an operational capability versus functionality of DAM software.
- Establish permanent DAM services to manage and grow DAM operations to achieve the long-term gains promised in the business case that demands governance, standardization and structure in a complex network of user teams among a content development ecosystem.
- Gain confidence you have scoped and set up your DAM project properly, backed by a sound business case with the organizational support and accountabilities essential to DAM-enable complete business processes and ensure the deployment is well received and adopted.
- Collect the ammunition needed to build unassailable arguments to support and fund on operational design project that reaches above and beyond typical IT system implementation activities, resources and schedules.

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INTRODUCTION

This article strives to expose the requirement for crucial components of DAM projects that are often neglected or avoided. These findings and an approach to fulfilling these requirements have derived from hands-on experience leading numerous DAM projects and corroborated by further anecdotal evidence from consultants, vendors and end-use firms in marketing, broadcast, media and publishing. The goals of this article are to:

- Convince readers that firms must approach DAM as an operational capability – identifying the scope of issues that fall on program leaders and the impact of failing to recognize and address these requirements.
- Demonstrate that building an operational capability is a complete solution compared to just implementing software – define operational design, the work it entails and highlight the ramifications if this work is not sufficiently addressed.
- Outline the DAM services model for establishing the right resources to execute operational design during system implementation projects and post-deployment structuring and planning these projects and how a DAM services approach can grow DAM more quickly and at less expense than a series of phased IT projects.
- Convey the imperative to garner support for operational design, including how to justify the perceived cost increase and schedule extensions compared to just implementing a system and more importantly securing organizational support essential to promote and coordinate fundamental changes in how teams execute their work.

WHAT CHARACTERISTICS DO UNSUCCESSFUL DAM PROJECTS SHARE?

DAM projects that fall short of objectives are almost universally characterized by insufficient or entirely absent operational design efforts. The root of the issue is the crucial distinction between implementing a DAM system and changing how teams accomplish their work. The gains firms seek from DAM, such as

decreased cycle time or reducing redundant content licensing, are not produced by DAM system functionality. The gains are achieved by improving business processes, usually including greater integration and collaboration between multiple content-producing groups.

Figure 1 highlights what happens when operational design is insufficient. In the end, poor adoption is responsible for prohibiting business process changes that drive the gains firms seek from DAM.

The result of rolling out to users for which there has been insufficient operational design is poor adoption. A common outcome firms report is that the teams that chose to adopt the system at all end up using it as their own independent DAM system. In the absence of coordination or standardization across teams, one team may use it as a finished work library containing only final form PDFs while another uses it as the photo archive containing only the raw source images from photo shoots. They tag and organize assets differently, likely modeling it after their existing operations and of course put no thought into what content would be useful and relevant to other teams.

When poor or inappropriate adoption occurs, garnering support for follow-on or next-phase projects is often very difficult. Gaining support for improvements to a system that is widely perceived to not work, while asking teams using the system incorrectly to abandon their methods and reform their practices present more difficulty than implementing a DAM project from scratch. Communicating these risks to executive stakeholders is crucial to securing support for operational design from the start and to justify deployment to a narrower scope of users than the whole user population.

DAM offers a range of potential gains, most commonly increased production efficiency and reduced operating costs, faster time to market and message synchronization, or to drive new media channels generating new revenue or to expand offerings. Although these are distinctly different benefits all are realized by changes to business process fundamental to how content-producing groups conduct their operations. How does DAM functionality lead toward achieving these gains then?

DAM facilitates new, improved business processes. In many cases the new process is

Figure 1: Insufficient operational design.

simply not possible without DAM capabilities, while in other situations DAM offers faster, less error-prone methods than existing processes. A business process is the entire chain of activities that must be executed to produce content outputs. For a publisher it might be creating an issue of a magazine or updating a section of a website. For marketers it could be producing and distributing materials for a campaign or product launch. A business process is much more than just a workflow – it is everything that needs to happen, including all the inputs, activity and outputs needed to fulfill the purpose and function of the operation. In order to realize benefits, such as reduced cycle time or decreased production costs, the entire business process must ‘perform better’.

Operational design includes all the elements required to transition to new business processes. This includes implementing a DAM system but also the standards, policies, structured workflows and all the other aspects that affect content operations and the business processes employed. Unsuccessful projects do not sufficiently address many of these issues often because those driving the project, executive sponsors, IT personnel the DAM project team are not aware of the issues and assume some other group will

figure out these concerns and make it all work effectively.

Most project leaders and executives recognize that technology by itself does not create a solution, rather it is about how the systems are implemented and used in practice. Despite understanding this principle when we look at how firms actually approach DAM the projects that result are almost exclusively focused on system implementation. The DAM project is the DAM system implementation project. This article argues that DAM leaders must structure DAM projects to focus on designing how teams should execute their work by leveraging the capabilities of DAM with success measured by improvements in business processes.

Some of the issues are exposed as DAM project teams seek requirements that directly inform design of the system, such as the metadata model or inputs to trigger automation through business rules. These aspects of operational design will be exposed and satisfied; however, there are many other components of operations that, when not considered in the design of the system and processes for using it, create barriers to sound use and adoption. A simple example is supporting increased sharing and collaboration between teams, such as print

and online. Despite the fact that DAM system offers robust sharing capabilities, such as notifications and routings, review and approval environments and soft proofing, these teams have not coordinated their sourcing practices and no cross-channel rights are secured so that they cannot share the content. This one issue negates the benefits of all the other elements that support sharing and prohibits application of new business processes, and in practice presents a frustrating experience that inhibits adoption. Many aspects of operational design do not require complex solutions nor even difficult trade-offs for content teams but just need to be properly understood, and agreement reached on a coordinated way to work together.

Projects that have not been structured to include operational design work run into trouble primarily because they simply do not have the time and resources to investigate and determine appropriate solutions for the many elements of a business process. Experience leading numerous DAM projects, in addition to anecdotal information about other project outcomes, indicates that operational design work often demands as much resource commitment as system implementation work. It is simply this lack of planning and expectation setting that forces DAM project teams to work around all the issues they do not have resource to address. One should not put all the blame on the DAM project team however. In most cases it is the confluence of a number of factors, one of which is a lack of clarity about who is responsible for operational design. It is attractive, especially for IT teams, to seek to separate software implementation work from non-technical or business-side work. This distinction is valid, especially considering the different skill sets needed to perform each, however the relationships between technical functionality and how it's integrated with processes is extremely intertwined and laden with dependencies. This means that the operational design work needs to be executed along with the system implementation work – to the degree that it is essentially the same project. The root cause of insufficient operational design is the lack of accountability to ensure business processes are achieved and that the gains sought are actually achieved. No one is responsible for making sure the project results in change that render value.

This perspective into operations is typically not offered by any existing role – and why a role with this accountability must be explicitly assigned and fulfilled.

Some of the operational design challenges that arise directly affect the apparent performance of the DAM system, whereas others do not affect the system directly but impact the ability to implement the business process. When operational design is neglected, some of the issues will be exposed by the DAM project team, however others may not be revealed until users try to adopt DAM-enabled operations. When teams belatedly recognize the need for operational design work that they do not have the time or resources to execute, they have a couple of choices, both of which involve sacrifices and will fail to meet all prior expectations. How teams choose to respond has a major impact on the future of the DAM initiative, and exemplifies the concept that if a team skirts the issue now, then they will pay for it later.

The ideal solution is to secure additional resources, expand the schedule and perform the operational design work. As one might guess, this is rarely how firms respond as acquiring additional funds for a project is difficult and DAM leaders are loathe to disappoint stakeholders they have just convinced to fund and support the project. The scale of the problem often is not clear either, with teams thinking they only have a few aberrant, one-off issues like a rights or workflow snag, and thus restructuring the project may seem excessive.

Another response is to scale back the deployment scope, such as less content, fewer users and workflows to match the level of operational design work the team can sufficiently complete. This involves less risk but requires greater upfront sacrifice. The principle here is that a firm should not deploy to operations that have not been properly studied and redesigned for DAM, meaning thoroughly understanding teams' content, users and workflows then coordinating them across multiple teams through policies, standards, structured workflows and so on. DAM teams scale back the scope to the limits of what has been properly evaluated and the level of agreed upon coordination between teams. The drawback is simply that many of the expected

benefits would not be realized or will be insignificant because of the narrow volume of work being supported by DAM. Experience developing DAM projects indicates that choosing a narrower deployment scope then thoroughly evaluating and designing operations within that scope ensures that the system will perform well and carries the least risk of adoption failures. The challenge is convincing stakeholders to accept a narrower scope than the previous expectations. In fact, sound DAM project design reflects the notion that scope of the deployment will be defined but the scope of operational design regardless of what scope the software implementation can support.

The most common response, unfortunately, is to simply ignore the missing operational design work. This typically results from focusing only on the system implementation and escaping responsibility for business process changes and whether overall gains will be realized. System-focused IT deployment teams often exhibit this approach without realizing the extent of the problem and ramifications. These IT teams deploy to the target user base regardless of whether their operations will actually be improved by using the system and whether they are capable of transitioning to DAM-based operations. The focus is on providing the new tool rather than on determining exactly how to use the tool to execute the work. IT teams often do not realize that users will experience some of the problems when actually using the DAM system and which they perceive as poor system performance. So, even if IT teams claim no responsibility for overall business process improvement, there is still a good deal of operational design required to ensure that the system is well received and adopted. When users cannot find or cannot use the content they seek, they see it as a problem with the system because it is not giving them what they need. Ironically, end users, such as executives, IT and DAM teams, often get caught up in the misconception that DAM software provides the solution. This perspective is both one of the reasons why operational design is overlooked in the first place and reinforces why users feel the system faulty when in fact the implementation is sound and functioning perfectly.

WHAT IS OPERATIONAL DESIGN?

Figure 2 illustrates the major components of operational design. Some outcomes of this work directly inform system design, such as the metadata model. Other aspects of this work defines how users will properly use the system as part of new business processes. While some operational design work has no relation to the system it defines other aspects of operations that if not evaluated and could bring the intended business processes to a halt. The level of effort and timing of when to perform each activity varies depending on the goals for DAM and nature of the firms operations, such as DAM for marketing versus DAM for magazine publishing. All these activities and designs are highly interdependent and the sequencing of when teams tackle each is important to minimize design reworks. Likewise, some issues, especially in the area of organizational alignment, require a significant amount of time to engage senior leaders and conduct cross-team negotiations and agreements.

A good deal of operational design work comes down to achieving alignment and coordination between distinct content operations. Most DAM initiatives focus to increase access and collaboration across operations as a primary goal and source of expected gains. Here many firms fall into a common misconception that DAM will be the driving force behind creating these new interactions. In truth DAM systems simply support these exchanges, in which most activities along the process chain occur outside the DAM. Firms often carry an enormous assumption that by designing the new creative and production workflows based on DAM all the other issues of how organizations work together will naturally be resolved in that process. The fact is that explicit study, agreement and definition of the new business processes is the required approach and in the end saves a tremendous amount of cost and time.

One important area of operational design work is content analysis, described here in greater detail as an example of the type of work involved in operational design and the skills required. DAM teams must understand all aspects of the content used and produced by the target user teams. Some info is required for

STANDARDS	WORKFLOW	RIGHTS
<ul style="list-style-type: none">• Asset specs & formats• Desktop tool alignment• Asset construction & assembly practices• Metadata: taxonomies, vocabularies, UI pick lists• Vendor sourcing standards	<ul style="list-style-type: none">• Process integration & organizational interactions• Peripheral process redesign• Accelerate existing workflows, foster new exchanges• Process controls & safeguards	<ul style="list-style-type: none">• Sourcing practices & controls• Cross-operational agreements• Clearance processes• Reuse planning & validation
USER / ASSET SCOPE	ORGANIZATIONAL ALIGNMENT	CAPTURE & MIGRATION
<ul style="list-style-type: none">• Content discovery & analysis• Content ops relationship mapping & scoping• Asset mix – volume, relevance, legacy vs. new• Visibility & access control• Portfolio alignment	<ul style="list-style-type: none">• Budget alignment, subsidies, metrics, management insight• Multi-project management & coordination• Cross-operational negotiations & accountabilities• Strategic alignment & commitments to organizational change	<ul style="list-style-type: none">• Legacy systems & file stores• Variability Assessment & normalization processes• Migration & cataloging processes & support• Metadata accuracy, completeness & consistency

Figure 2: Major components of operational design.

software implementation such as sources of metadata, file specs and existing organizational hierarchy. Then there are aspects of how users categorize content and the relationships between it and the different versions, renditions, derivatives and work products generated at each workflow stage. Capturing the relationships between content is crucial and quite powerful if it can be reflected in the system. For example, a magazine publisher will want all the assets associated to the story they were developed for. Users can then search for stories and be presented with a collection of assets, perhaps organized by different stages of development such as, for images, raw source candidates, final edited and press-ready. Understanding these relationships also provides inputs to support batch tagging processes and for developing the asset migration process.

In practice DAM staff must actually look at the content in each location, categorize it, define each category's attributes, map each group to the points in the workflows where it is created and used, and map each category in terms of usefulness for other teams as part of the asset sharing and distribution strategy. The skills and experience required is less about enterprise system implementation and more reliant on a sufficient understanding of magazine editorial and production practices along with the ability to conduct detailed analysis along the lines of a business analyst at a consulting firm. This glimpse

into the work of operational design hopefully highlights that it is a lot of work and results in a significant amount of documentation – workflow diagrams, content analysis spreadsheets, sharing strategy maps and a number of other materials needed to communicate and track the findings and solutions designed.

WHY IS OPERATIONAL DESIGN NEGLECTED?

This work is often neglected due to a number of conspiring problems with the project structure and accountabilities, the resources conducting the work and the level of organizational support for DAM.

Successful initiatives require clarity on what team is responsible for working out all the non-technical, business-oriented considerations. System implementation teams (often IT) assume that the end-user teams remain responsible for changing their processes to leverage the DAM system, while in many cases no one is responsible to ensure that different end-user teams can share assets and collaborate among themselves effectively. Technical and IT people are often resistant to what they may perceive as mixing up implementation work with business issues specifically how end-user teams choose to structure their operations.

Figure 3 depicts a common scenario where project teams are decommissioned after the system is deployed. This leaves no one focused

on DAM operations, especially coordination between teams. Typically each user team manages their own adoption and operational design, to varying degrees of success given that these teams rarely have resources available not to mention the right skill set. However, the larger problem is that no personnel are positioned to develop solutions across multiple teams, with accountability for ensuring cross-team benefits and that they consistently adopt the new business processes defined. The graphic shows that a certain level of gains are achieved based on the scope of operations supported in the initial deployment. This assumes that operational design was sufficiently addressed, but only for those operations in the initial rollout scope. Nearly all ROI models and business cases assume increased benefits over time as the systems are applied to more aspects of operations and to a greater depth of capability. Expanding DAM to support more of the firm's operations, meaning more users, content, workflows, practices and controls, obviously requires additional operational design work and resources available to perform it. In the absence of personnel at the right organizational and political position to oversee multiple teams' operations, expansion of DAM does not occur and therefore the growth of gains projected in the business plan are never realized. In fact the gains achieved during initial roll out often become diminished without such ongoing DAM management as a result of changes implemented by teams independently from insular requirements. This leads to inconsistent metadata fouling the database or new practices that conflict across teams and actually create new barriers both of which can squelch some of the original gains.

DAM projects, in association to a system implementation focus, are often approached as efforts that will be executed by a team temporarily assigned to the project until it is completed. This view aligns with an IT-driven approach in which the IT team builds the system on behalf of content-producing teams. Figure 3 demonstrates the concept that when projects are finished and teams decommissioned the projected increases in benefits cease or actually decline. The business case usually relies on a multi-year roadmap based on assumptions that the scope of users, content and workflows will continue to increase after deployment. This

Figure 3: Scenario where project teams are decommissioned after the system is deployed.

is based on massive assumption that the content-producing teams will properly manage and expand their use of DAM. Feedback from countless DAM initiatives rolled out and managed in this way reports that management of the system becomes fragmented and insufficient. Expanding the scope of DAM requires additional operational design work. Even just maintaining DAM as organizations and operations naturally change requires dedicated resources that hold accountability for overall results and are positioned in the organization to operate independently of any of the user teams. The ability to design and change processes, often leveraging the functionality of DAM system, must become an ongoing operational capability.

Another factor that leads to project challenges is insufficient support from the leadership from teams being asked to change how they conduct their work. Firms often dive into a DAM project without really understanding, nor securing agreement on the level of organizational and operational change required to achieve target gains. Demanding significant changes to the way groups operate involves executive-level decisions, many of which affect groups' autonomy and often create new accountabilities and dependencies across previously independent teams. Clearly the benefits of greater coordination and collaboration across content-producing teams justify these changes; however, there are indeed limits on how quickly and dramatically teams can change, especially for groups that work in a deadline-driven environment. When these groups are unprepared for the need to make dramatic operational changes and achieve

agreement on the processes, policies, controls, standards and rules between teams, DAM teams run into significant resistance. System implementation teams often argue that user groups should determine how they want to work together before DAM is implemented. This is rarely the situation and, in the absence of anyone else working on it, the responsibility falls on the DAM project if gains are to be achieved.

One team uses the system as a library of source images, such as files from photo shoot, whereas another team uses the system as a historical archive of finished projects, such as final form PDFs of publications or marketing pieces. This is an example of unintended adoption resulting from the absence of cross-team design, often the result of the DAM implementation teams leaving all the operational design for end-user teams to figure out their own.

Implementing DAM involves much more than implementing a DAM system. Most managers and executives realize that operations must change to realize benefits. However the projects are IT teams must be convinced that neglecting this work will have an effect on the perceived performance of the system. A straightforward way to explain it is to ask how the project team will train the users – will the trainers be able to teach users what content to post, how to tag it, how to find it, when to perform these actions, what policies and standards must be adhered to? The system may function beautifully, but if people use it the wrong way, it will appear not to function properly, such as the inability to find useful content, the inability to use what is found and perceptions of the system requiring more work to use rather than saving time. System implementation does indeed comprise a significant portion of the overall effort for a DAM project that includes a new system; however, the project must be approached as a business process improvement initiative where system implementation is one of the major components.

Issues such as capturing the wrong content, poor tagging, absent rights, unclear policies, mismatched standards and so on are all experienced as ‘I can’t find it or I can’t use it’. To many implementation-focused personnel it is

an issue of user error and poor training. The question is what to train the users to do? Training users on the features and functions of the software does not address the problem. Rather what is required is a clear understanding of how personnel in content operations accomplish their work in a DAM-enabled environment, with much of the work involved occurring outside the DAM system. Operational design defines the what, where and how of new business processes that forms the basis of what personnel must be trained to do.

WHAT ARE DAM SERVICES?

DAM services represents a model for ongoing DAM management and growth (Figure 4). The director position represents a full-time role, while the other activities listed are job functions that may be performed by various resources scattered among the user teams and from other departments. For example, workflow design requires intimate knowledge of a team’s processes and must be performed by staff from those teams, while developing sourcing standards and policies requires thorough understanding of the licensing contracts and the explicit approval requires work with the legal department. Many firms, even those with large DAM implementations, maintain only one dedicated staff member for DAM (the director position) but have achieved the organizational support needed to engage and leverage resources from other teams. The job functions listed are oriented toward post-implementation management however they map fairly well to the activities performed in operational design in Figure 2.

The ideal scenario for building an operational capability from the start creates a DAM services group, run by a DAM director, with oversight of resources to conduct both operational design and system implementation. The initial DAM project is executed as a component of building out an operational capability delivered through DAM services. After the system is deployed, many of the system-implementation resources can leave but expansion involves more operational design work from DAM services. Compare this to a typical phased roadmap where each phase is a full IT project, with major costs and major hurdles to overcome to secure management attention and funding –

Figure 4: A model for ongoing DAM management and growth.

often resulting in delays between phases. A DAM services group can grow DAM for a fraction of the costs involved in phased, IT-driven project roadmaps.

The arguments in this article for focusing on operational design and building DAM

services should prove useful tools for DAM program leaders to secure support for them. It is never too late to tackle operational design or start up a DAM services group, and any firm's DAM efforts will greatly benefit from them.