

How to Secure the Future of your Media Archive

**Key considerations to ensure the longevity, accessibility,
and relevance, of your content in the years to come.**

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Introduction

Managing and maintaining growing volumes of media content is challenging. The demand for alternative viewing options and better quality is driving providers to create and share more content that resonates. However, this brings challenges for archiving systems. Archiving is no longer just about saving files - it's a crucial part of preserving our digital history. And as media volumes grow, so too does the responsibility to protect these assets both now and into the future.

The continuous evolution of the industry introduces a multitude of formats, resolutions, and delivery methods, adding layers of complexity to the task of maintaining and safeguarding valuable content. As a result, archivists need flexible and agile storage systems that can seamlessly handle storing, organizing, and retrieving media. Archiving strategies must not only cope with the sheer volume of data but also anticipate the ongoing changes in media formats—from old film reels to modern digital files.

The importance of preservation goes beyond technicalities. As guardians of our digital legacy, we have a duty to ensure that the content we create today lasts for future generations. Preserving assets isn't just about today's usefulness; it's about the cultural and historical stories they carry. It's a commitment to keeping our digital stories alive, connecting the past to the future through digitized narratives.

With the evolution of media archiving at a crucial turning point, maintaining accessibility and usability of assets for 100+ years is critical. Therefore, a focus on interoperability and the removal of proprietary vendors and solutions is vital. If standards continue to enable the concept of lock-ins, the future of archiving and content preservation may be compromised. So, what's the alternative?

From understanding the true value of media to establishing robust preservation policies, this eBook aims to provide insights and strategies to meet the challenges posed by the continuous growth and transformation of media content.

Chapter 1

The Importance of Preserving Media

If you don't work in the world of media, it's hard to gauge just how important every data asset is. And it's not just the images, videos, and sounds that matter - it's also the additional information that comes with each piece of content that makes the data so valuable. Insights such as metadata, usage patterns, and analytics, drive innovation and enable smart decisions within media organizations.

The value of media content

For the consumer, media content sparks emotional connections. Whether it's a podcast, a feature-length film, or a YouTube Short, audiences turn to various sources of entertainment to enrich their lives. And it's the job of content providers to deliver media that resonates. The insights above supply the foundations that enable content owners to meet the demands of their viewers and listeners. Often, this is done by leveraging media that lives in the archives. Not only do these existing assets provide reuse and re-monetization opportunities for the provider, but they can also be used to maximize engagement and drive consumer satisfaction.

All content, old and new, is valuable. The media that is generated today will one day become history. And the media that was generated in the past can now be used in creating documentaries, news programmes, sitcom re-runs, bite-size content, and much more. By preserving these pieces of media, we are essentially bottling history, and that in itself, provides a great deal of value.

However, without proper archiving, we risk losing these precious assets, and the consequences of data loss extend far beyond the inconvenience of misplaced files or accidental deletions.

Modern challenges in data preservation

There are many reasons for asset loss, from human error to natural disaster, or poor safeguarding to high costs. Whatever the reason, lost data from ineffective archiving practices impacts continuity, disrupts operations, and hinders productivity. Further still, it jeopardizes potentially critical information, negatively impacts customer trust, and can come with financial implications.

More than ever, media teams are having to take proactive steps to ensure the long-term preservation and integrity of their assets. However, navigating the modern challenges of data preservation is no easy feat, and getting the balance right between security and accessibility is critical. But media organizations can't do it alone. Technology providers need to support production and distribution teams to continue creating and delivering vital content. This means costly cloud solutions, proprietary technology and vendor lock-ins have to go.

The long-term data preservation strategy

Storage providers have an integral part to play in the future of media archiving. As the need for data creation and management grows, so too does the demand for solutions that can handle large volumes of unstructured data. The key to preserving our valuable media libraries for decades to come, lies in the industry's ability to evolve. If we want future generations to view the content of today, we have to take action now.

Chapter 2

10 Ways to Ensure the Future of Your Media Archives

It's a great thought: Today's content is tomorrow's history, and in 100 years', media teams could be using the assets of today to generate new content, supported by meaningful and accurate data. It is, therefore, our duty to ensure these archives make it through the next century.

The 10 Principles



1. Digital governance

Establishing a digital governance policy whenever your data is stored provides assurance that your content is both protected and authentic. Considering the balance between data security and affordability, the policy should include factors such as loss protection, value, and governance requirements, and while it's crucial for storage, the policy should remain flexible.



2. User security

Media archives should feature the highest levels of user authentication. Management systems should facilitate permission granting, ensuring only those authorized are able to access data. Additionally, stored assets should be immutable to provide an added layer of protection against ransomware.



3. Open formats

To maintain the integrity and accessibility of archived materials long into the future, any data, metadata, audits, and policies should be stored in an open format. This ensures that the assets remain readable and usable with future technologies.



4. Multi-platform support

Don't assume that the technology of today will be around tomorrow. Trends change, technologies change, and working practices change. Storage platforms - on-premise, cloud, edge, etc. - should allow archives to remain protected, accessible, and migratable, regardless of the initial platform choice.



5. AI/ML support

Despite artificial intelligence being in its infancy within archiving workflows, its potential is massive. From automating processes to enhancing search capabilities and deeper analytical understanding, AI and ML (machine learning) should be considered for optimizing future archive decisions.



6. Data Gravity

Media assets hold huge value, and maintaining their security and usability is crucial. As data volumes grow, this will become more challenging. However, by sending applications to the content, rather than the other way around, organizations can streamline data- and resource-intensive tasks.



7. Costing

Costing feedback is an essential factor for modern and future-conscious archivists. Cost considerations drive key decisions, and should therefore, form part of an archive's core.



8. Notifications

Potential security breaches can be reduced by simply preparing. By including functionalities that warn of unauthorized access or suspicious activity, administrators can respond and protect their archives in a timely manner – before any damage is done.



9. Content Protection

Protecting your data management solution through digital rights management (DRM) is highly beneficial for the future of your content. Additionally, DRM can feed other aspects of maintaining an archive, such as costing and AI algorithms.



10. Support for 'delete'

Contrary to belief, it is possible to have too much data stored in your archive. Deleting unnecessary content is completely rational, but it needs to be done in a failsafe manner. Archives should support the deletion of data, but there should be layers of protection around this capability.



Chapter 3

How Vendors Can Support Your Long-Term Media Archiving Goals

With the rapid advancements in the media industry, it's crucial to adopt a resilient and future-ready approach to archiving. Lock-ins are posing significant challenges for media archivists; a proprietary approach significantly impacts an organizations' ability to respond to evolving and dynamic demands of media archive workflows.

Problems with vendor lock-ins

One of the main issues of vendor lock-ins is the lack of flexibility they enforce. And with the media sector being diverse and dynamic, the need to react and adapt quickly is crucial. Archivists need to respond rapidly to changing requirements and workflow needs, but vendor lock-ins often cause restrictions in their ability to stay responsive and agile. When confined to a single vendor, organizations are essentially bound to a specific set of tools that may not align optimally with their needs. This lack of flexibility can also lead to issues with scalability, meaning archives can't expand as needed, or if they can, archive owners are hit with unavoidable costs.

The diversity of media formats and technological standards requires a high degree of interoperability, which enables seamless integration of different systems. However, single vendor lock-ins can lead to issues when needing to exchange data with other systems or collaborate with external teams. The inability to integrate diverse technologies into workflows can leave media archivists isolated against sharing and migrating assets.

As well as the operational challenges, lock-ins leave archivists vulnerable to vendor risks. Structural changes, discontinuation of products, or

the unfortunate scenario of a vendor going out of business can have severe consequences. Archivists may face the sudden loss of support, updates, and even access to their systems, jeopardizing the integrity and accessibility of valuable data.

However, by evaluating and choosing solutions that prioritize flexibility, interoperability, and innovation, archive teams can ensure the longevity and relevance of their archives.

The future is open

In contrast to providers that lock customers into their systems, there are vendors that support open formats. Unlike restrictive lock-ins, these vendors encourage interoperability and data exchange across platforms. When organizations choose these open formats, they gain the flexibility that will ensure future archivists can pick the best tools for preserving assets. With open formats, data can easily move between systems, ensuring assets remain accessible and intact for centuries.

Although it's important to ensure your archive media is accessible, usable, and moveable now, it's crucial to consider the future of those assets. Breaking free from proprietary technology is the key to long-lasting preservation.

Chapter 4

Open Asset Management

For any media archivist, having a robust asset management strategy underpins the ability to preserve, navigate, and leverage a diverse catalogue of digital content – from old movies to the latest trending bite-sized media. But the best strategies don't just rely on advanced technologies, they also embrace open ways of managing assets.

Open asset management is about being flexible and adaptable – two critical factors in the world of archiving. This agility is crucial, especially in industries where collaboration often defines success, such as the M&E sector. An open approach allows different systems to work together seamlessly and ensures media can be accessed and used down the line, regardless of technology changes. Open formats and interoperability safeguard your media assets, making them timeless treasures that can withstand the test of time.

Open formats for data accessibility

Storing data, metadata, audits, and policies in an open format ensures they remain understandable and usable long after the original applications have faded away. This approach safeguards against the risk of proprietary systems becoming obsolete or inaccessible, giving archivists the confidence that their media assets will remain accessible well into the future. Further still, preserving data in open formats maintains the integrity of media assets their original form.

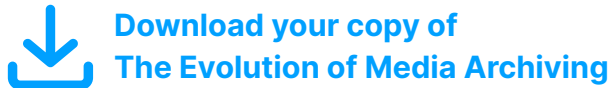
Modern data management typically relies on service-based architectures and APIs. But for interoperability, they should support the OpenAPI. By supporting OpenAPI, archives not only document their APIs comprehensively but also gain the flexibility to recompile them into various access technologies. This flexibility reduces the risk of getting locked-in to rigid systems, and instead facilitates interoperability.

Metadata, a cornerstone of asset identification and description, must also be kept in an open format, free from proprietary databases. Storing metadata in text formats like XML, YAML, or JSON ensures future readability and interpretability, crucial for archival purposes. In an ideal world, metadata should be stored in a way that is self-describing. And much like metadata, audits and policies should also be kept in open readable formats, as they contain critical details about the value of archived assets.

In our latest white paper, The Evolution of Media Archiving, Jonathan Morgan, SVP Product and Technology at Perifery, outlined the key requirements for addressing the 100-year archive:

- Secure control of security tokens
- Transportable data storage digital governance policies
- Flexibility for data to exist in various technologies and formats
- Metadata stored for future accessibility and understanding
- Full auditing options, with open audits readable without reliance on specific software.

Unconstrained by proprietary formats or technologies, archivists can ensure that their assets remain *“secure; retained in a bit-perfect form; protected from hostile action, system failures and natural disasters; and accessible indefinitely.”* (as defined by Jonathan Morgan)



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