

SOLUTIONS FOR MEDIA

METADATA MATTERS

HOW METADATA CAN HELP MEDIA
COMPANIES SUCCEED

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METADATA TODAY

For media companies operating in today's digital world, the workflows associated with producing content are more intricate than ever. Producing, managing and distributing content is no simple feat, and metadata impacts all of those tasks.

It's no longer enough to distribute content on a single platform, such as print or television; increasingly, media companies are grappling with producing and distributing content for print, television, mobile applications and the web. To respond, workflows and technologies have become more convoluted, with the complicated world of metadata lying under the surface of every workflow, technology and piece of content. And, though metadata was once purely the domain of the tech team, today it affects everyone in a media organization—from editorial team members to business leaders. It can even impact a business's bottom line. To help media professionals understand the key tenets of working with metadata—and to equip them to ask the right questions when making strategic and operational decisions—this whitepaper explores what metadata is, why it matters and how it can help media companies monetize their content.

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WHAT METADATA IS

Even technology professionals often explain metadata as “data about data.” And, at one point, metadata was that simple. In some cases, it was a list on paper of each episode of a television show and the running time of that show. Or it was a physical catalogue maintained by a newspaper of each story written by a single reporter.

But, as media companies have expanded their assets in new mediums, such as digital video, the metadata universe has become increasingly complicated. A list of television show running times is no longer enough information to power the complex systems and workflows that every media company has.

“The media ecosystem 10 years ago wasn’t ready for a sophisticated metadata system that could persist across the supply chain,” observed Mark Lemmons, chief technology officer of T3Media, an industry leader in content management, delivery and monetization solutions for the world’s entertainment and sports catalogs. “But now companies are realizing that it’s both practical and economically smart to tie assets together throughout the supply chain with metadata.”

WHAT METADATA IS

Today, experts divide metadata into five main types:

- **Structural metadata** – This class of metadata includes information on how a digital resource interacts with other resources. For example, structural metadata may indicate that a specific photo is directly related to a specific news article.
- **Technical metadata** – This type of metadata describes how a digital resource was created; it may include information about the lens used to shoot a photo or the format of a video.
- **Descriptive metadata** – This metadata class indicates what is actually covered by the asset. Descriptive metadata can be specific (for example, an article about a lost cat in Indianapolis or a photo of a plane crash outside of Versailles) or can be more abstract—describing the tone or feeling evoked by an asset.
- **Administrative metadata** – This type of metadata indicates how each piece of content is stored and managed; for example, if it's a video, what digital asset management hardware does it flow to?
- **Rights metadata** – This metadata indicates who is allowed to distribute or re-post certain pieces of content. For example, metadata can indicate if someone has the rights to re-post a particular photo that has been licensed.

Although each type of metadata differs dramatically, all of the above play a significant role in helping media companies manage, distribute and monetize assets. The failure to adequately account for each type of metadata can affect a media company's ability to efficiently create, store, find, access and publish content of all types.

WHY METADATA MATTERS

Ultimately, for any media company that's producing, curating and distributing large volumes of content, metadata is the foundation that they're putting in place. Nearly every part of any workflow relies on some component of metadata, so it's crucial to establish consistent, thorough systems of organization. Today, metadata drives content organization, workflow optimization and automation—all of which are necessary for today's content producers and distributors to compete.

Given the amount of content taken in, created and published every day by media companies, it is vital that content be well-organized. Metadata provides a way of finding, identifying and classifying content—through the use of specific taxonomies that dictate the tagging to be used, content curators can organize their work. According to the head of technology for a global business news website, taxonomies are effective for tagging elements properly and making them highly searchable and shareable. Everyone from writers and editors to end consumers has an easier time finding what they need.

"The biggest single reason metadata matters is the growth of content and the proliferation of content all throughout the enterprise," said the head of technology at a global business news website. Often, each asset type exists in its own silo; metadata can aid in communication across silos. "Rather than spending a lifetime trying to bring all this content into a single system, it's a whole lot easier to make sure to tag things in an appropriate manner with a common taxonomy so that you can search across systems and reuse your assets in the best way possible."

A strong metadata system can power centralized searches, helping find assets across silos. Additionally, if an asset can be easily found, it can be reused and repurposed more easily.

WHY METADATA MATTERS

The Asset Life Cycle Involves Metadata

Any piece of content has multiple stages in its life cycle: creation, storage, curation and distribution. Metadata will matter at each point in the process.

According to a product manager in charge of editorial workflow systems for a global business news website, metadata can influence workflow and processes in the following high-level ways:

- When content is first created, multiple types of metadata will help identify its subject, asset type and other key pieces of descriptive and physical information.
- Content is taken into internal systems for editing, storage and distribution. Thorough, accurate and consistent metadata across systems is vital to promoting the use of the content.
- When editors or automated systems select the content for display to audiences, administrative, rights and editorial metadata allow the content to flow to the right systems and platforms for display, distribution and syndication.

The product manager explained that as media companies diversify and explore new channels for publishing content, it becomes more important that they rely upon metadata for distinguishing between different types of content intended for different methods of publication.

“There’s web, mobile, print and broadcast,” he said.

“We can apply the same metadata rules to a single media object and have all of these other internal and external businesses process them in the same way. It makes everything we do a lot more efficient, and we’re able to avoid behavior that’s unexpected.”

In today’s newsrooms, the same content is often used multiple times in different places. It’s common, for example, for a news outlet’s mobile site to publish the same text article that also ran in its print edition. In this situation, the benefit of metadata comes from facilitating system-to-system communication.

“We have a number of teams that use the same sorts of media objects,” the product manager continued. “We try to normalize the metadata that’s being used by as many of them as possible so as not to require duplication and to optimize the workflow so that we can keep our workforce lean and robust. It’s really about coming at it from an operational efficiency standpoint.”

Metadata Impacts Measurement

For any media company trying to “win” on the web or mobile, metadata plays a key role in helping editors and business leaders know what content performs well. Analytics platforms such as Adobe Site Catalyst and comScore Digital Analytix all rely on metadata to help executives understand what content is getting what traffic. For example, an analytics program will show the coverage types that perform better, ultimately helping to inform editorial and business decisions.

HOW METADATA CAN HELP

Ultimately, metadata matters because it's a component of every part of the workflow. But beyond metadata's basic functionality, it provides ancillary benefits that result in improved workflow, efficiency and scalability. Such improvements will lead to increased profit down the line.

Regardless of an organization's size, metadata takes focus, investment and dedication; lacking any of these elements, metadata can easily become a weakness rather than a tool in a media company's arsenal.

Todd Carter, founder of the semantic tagging platform Tagasauris, has helped multiple media companies grapple with the challenges posed by metadata. He noted that investment in metadata is important. Having a strong metadata system in place will enable a media company to be more flexible and agile in how it uses its content, Carter said, and ultimately will help media companies face the various challenges coming down the road.

After a company invests in building a taxonomy and metadata system, it can benefit in numerous ways.

HOW METADATA CAN HELP

Automation

Even in today's advanced media ecosystem, many media companies still rely on a bevy of editors and producers to maintain digital properties. But metadata can begin to power automated solutions. For example, an editorial team could decide to aggregate all content tagged as relating to science coverage into an online science section—and with appropriate metadata tagging, that could happen automatically.

Carter explained that it is increasingly important for publishers and broadcasters to distribute content quickly in today's hyper-competitive media environment. Ultimately, he said, good metadata enables automation and agility, which allow a media company to create and distribute content quickly.

Search Engine Optimization (SEO)

Most digital properties rely on traffic from search engines such as Google to build audience. In some cases, search can comprise more than 30% of a news site's traffic. And, though it's not always obvious, the world's search engines rely on metadata to suggest content to users—so, ultimately, the better structured and more accurate the metadata, the more likely content is to appear in search and be relevant.

Carter points out that metadata for SEO is especially important for non-text content. Pictures, for example, are difficult to search for unless they come with the right bits of metadata attached.

"Images are the new currency online," he said. "There are two billion people actively posting images and a billion people actively curating images, and media companies don't have their finger on the pulse anymore. They're still publishing pages, and they're not digitizing their archives." Carter noted that if more media companies thought more strategically and consistently about metadata, they'd be able to take advantage of traffic from search to better expose and potentially monetize their archives.

Carter pointed out that, in many cases, media companies are producing hundreds of assets a day. The challenge for those companies, he said, is to ensure that the content they're producing becomes SEO-friendly—and, ultimately, that relies heavily on metadata.

HOW METADATA CAN HELP

Internal and External Usage Tracking and Search

One application of metadata is helping internal users and content producers track their content as it is used—both inside and outside of their business. For example, a holistic metadata solution might allow a photo editor to see where his team's photos are being used, or it might be able to facilitate tracking of copyright or rights infringement outside a media company's walls. Ultimately, that information could be used to justify additional investment in content creators or licensing fees from individuals not respecting copyright.

Additionally, appropriately implemented and maintained metadata can help improve search results inside of an organization. For many organizations, a significant challenge is to unite metadata across multiple asset management systems and provide a universal search solution for editors looking for specific content. For example, photos are often housed separately from videos and with different metadata schema, which can make searching both asset types at the same time impossible. T3Media's Lemmons notes that companies can analyze the metadata of assets to determine how best to unite schema and make all assets available within a single web platform. Doing so gives editorial users the ability to search across all asset types at once.

METADATA IN ACTION

The Bloomberg Content Service has partnered with T3Media to develop Media Source, a world-class website that allows subscribers to easily search for both Bloomberg photos and videos and then preview and download those assets.

HOW TO DO IT RIGHT

Metadata brings with it a host of logistical challenges, but, when used well, it has far-reaching technical and workflow implications. Additionally, as technology and content evolve, so do metadata and taxonomies, thus requiring media companies to always be adapting to new trends and incorporating new developments. Ultimately, every media company's metadata needs are unique and depend greatly on the company, content and audience. There are some key steps that any media company can take to make sure that they are not approaching metadata in a detrimental way.

Starting from the Beginning

One thing that most experts agree on in metadata implementations is that metadata must be attached to an asset at the point of creation. That way, all key information begins—and hopefully ends—with the asset, and there's less possibility of assets being mismatched with the wrong metadata.

The technology leader at the global business news website stressed that companies should approach all content with this mindset, not just content created in-house. Thus, even licensed content should come endowed with appropriate metadata to ensure adequate storage, redistribution and attribution.

“What's important about tagging is the notion of having data around an asset so that you can understand its purpose and understand its key concepts to allow ancillary systems to make use of it in a manner that makes the most sense,” the global news website technology leader explained. “In this day and age, editors are expensive. So everything we can do upfront to ensure they understand the taxonomy of a particular piece of content, the better we can leverage it cost-effectively in multiple places and repackage it without having to have as much human intervention.”

HOW TO DO IT RIGHT

Putting Someone in Charge

The head of technology emphasized that the process of tagging content with metadata should begin as close to the initial creator of the content as possible. With text news, reporters should be involved in endowing metadata; editors on the copy desk can also contribute. With pictures and videos, editors would apply metadata at the time the content is received.

Assets can continue to be endowed with metadata as they move through a workflow. For example, a librarian or archivist might add tags that provide additional contextual metadata that assist with retrieval, such as indicating whether a photo is a piece of evergreen content.

One global news provider has learned over time and trial-and-error the importance of adopting a single, common approach to metadata among business units. It has established a single set of guidelines, properties and rules for tagging. This approach allows for greater flexibility and synchronization across platforms, as business needs on all platforms are constantly evolving while the taxonomy stays constant.

The technology head at the global business news company indicated that he works to create systems that attach metadata to every asset the moment a piece of content is created—those systems then carry the metadata with the asset for the rest of the asset’s life cycle.

“A very good piece of advice is to get everyone’s input but make certain individuals or certain groups responsible for maintaining the integrity of data,” he reflected. “Because, at the end of the day, there’s only so much metadata you can generate automatically. At some point, you do have to rely on individuals.”

HOW TO DO IT RIGHT

Speaking the Same Language

Unfortunately, metadata is only as valuable as the systems that carry it. Thus, media companies must ensure that all systems do two things: first, those systems must keep metadata attached to every asset; second, and equally important, systems must be able to keep metadata the same across the entire workflow.

For example, one system may transfer text news from an editor to a storage location. The asset may gain metadata throughout the process. But, from the point of creation through to the storage of the asset, the metadata must stay with the content and remain accurate.

For T3Media's Lemmons, the matchup between systems is usually not simple and requires work to ensure that metadata fields do match. "In digital media, digital media assets are often siloed. Systems today are designed to solve digital asset management problems [DAM]; however, DAM has failed in terms of metadata." Lemmons's team often ends up analyzing each metadata field for all asset types and determining how to match up fields from different asset types.

Ensuring a consistent metadata schema across asset types is complicated, noted a broadcast technology manager at a U.S. business television station, particularly since every company and tool usually has its own metadata setup, and there is no single or easy fix for uniting asset types.

Investing Thoughtfully

Over time, building complete metadata processes and systems can require significant investment. However, experts note that a large investment is not necessary to get started with metadata, and it's important to do something.

"We assume metadata is a living, breathing thing that changes over time," Lemmons said. "Don't be afraid of doing it wrong. Do what you can. Don't be afraid of investing a little bit."

One way to invest in metadata without a significant capital expenditure is to hire an archivist or librarian. For relatively low investment, this individual can begin to implement a taxonomy and use it to tag content as it flows in, thus ensuring better search results down the line.

The Bloomberg Content Service's text, photo, video and data products all have proper metadata; it is transferred to subscribers' systems along with the assets. This helps partners quickly integrate Bloomberg products into existing systems and begin to reap the automation and audience benefits.

HOW TO DO IT RIGHT

Proceeding Carefully

For an organization that hasn't thought strategically about metadata up until this point, the concept can seem overwhelming, and it is difficult to know where to begin. Some experts simply suggest beginning quickly—implement a taxonomy and metadata system as soon as possible for all newly created assets. The work of endowing an archive with metadata can happen later, after kinks in the existing workflow have been worked out and systems have been upgraded to handle metadata appropriately.

Ultimately, learning to use metadata strategically will be a lengthy process; improvement won't happen overnight. What matters in the short term is deciding on an approach and using it from that point onward; only then will a media company be able to work backwards and endow old assets with metadata.

“A little goes a long way,” said T3Media’s Lemmons, stressing the importance of metadata even in resource-limited environments. “Like everything in life, doing something right is often not that much more expensive than doing it half-baked.”

MOVING FORWARD

Metadata is evolving constantly and quickly, and there is a steep learning curve in determining best practices with metadata and how to leverage it. Even as media companies increasingly get up to speed on metadata and its implications, the landscape continues to shift. Increasingly complicated technology, new platforms and more complex content needs are all reliant on metadata; as a result, the needs become that much more complex. And, while every media company must increasingly focus on metadata, media companies must also be flexible and learn to adapt as things change—much like operating in the media ecosystem overall.

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