

D2C

All the resources exist for media giants, and the not-so-giant, to create excellent entertainment delivery experiences that will help them take over the relationship with consumers.

See page 15

INSIDE:

New Workflows *Localization Services Critical to D2C Strategies P. 40*

Cloud Storage *How Next-Gen Workstations are Expanding the Entertainment Supply Chain P. 52*

Smart Content *Using Automation to Meet Consumer Content Demands P. 74*

Security Solutions *Profits and Privacy: The Trust Paradox P. 76*

Operationalize Your Smart Content

*Data is the new oil
and a key ingredient
to the new digital economy*

Abstract: Data is more important than ever for media companies. But to actually use the data, it needs to be integrated and connected. Media companies using NoSQL and semantics are breaking through the barriers to accessing their data resources and delivering the vision of smart content.



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Data is more important than ever for media companies. It's behind creating great experiences for customers and driving the digital transformation of the industry. In fact, it's commonly said that data is the new oil and a key ingredient to the new digital economy. So, what's keeping media companies from simply tapping their data resources and delivering smart content?

Unfortunately, it's just not that simple. Getting to data and being able to use it is much harder than it might seem. Data silos that are a part of most organizations make the data difficult to access. Then the data needs to be integrated and connected, while preserving where the data

came from and how you can use it.

Traditional data approaches narrow the usage of data to single purposes and can, in fact, create worse problems by adding additional data systems to the already growing data pile. Some media companies are finding success by taking a different approach, however. Using a NoSQL- and semantics-powered Operational Data Hub, they are breaking through the barriers to accessing their data and putting their data resources into action.

Data fuels the industry

To create great experiences and become truly digital organizations, media companies are increasingly focusing on making the most of their data.

In the new world, it's not enough to just invest in data. It turns out **creating data isn't the real issue**. Instead, **integrating that data and enabling your organization to use it** is the real challenge.

The concept of “Smart Content” — the idea of investing in the data all around the content — now has impacts across every part of entertainment:

- Asset metadata can drive efficiency throughout every part of the digital supply chain.
- Descriptive metadata is crucial to give content the context it needs to reach audiences.
- Rights, options and availability data is crucial to leverage business opportunities.
- And, increasingly, audience and usage data can drive a real understanding of the value of the content.

The collective impact of this data could be the most important factor in a media company's success. In fact, it is seen as critical to the success of nearly any organization. Industry expert Shelly Palmer summarized this as: “Data rich or data poor, companies with the greatest ability to turn data into action are going to win.”

Palmer highlights the increasing importance of data to organizations, and the organizations — like Facebook, Google, Apple and, to a much larger and complete extent, Amazon — that have adopted this as a business strategy. It isn't the number of customers, customer engagement or even revenue that will really matter in the new digital economy. Instead, the organizations' data and their ability to use that data are all that matters. Perhaps data is, truly, the fuel for the new economy.

This sentiment has grown to the extent that a Google search for “Data is the new oil infographic” will return over 13 million images depicting this core concept.

Given this current thinking, why aren't organizations simply tapping their data resources?

Making the most of data

Companies are showing a lot of interest in realizing the value of data. Yet, it still remains a challenge for organizations to really and truly take advantage of data.

The core reason for this is the growth in complexity of enterprise systems and the inability of data management systems to keep up. Starting with the first enterprise systems, data has been integrated into the business systems. As these systems moved from enterprise-wide mainframes to departmental systems, and then into many specialized applications, the data moved with them.

The technology stack that has developed along this journey from centralized to distributed is, as Alan Morrison described in a talk at the Semantics Conference in August 2018, a “Tower of Babel where logic and data are trapped in separate cells.” The result is that valuable enterprise data is spread across multiple systems in every part of nearly every organization.

Organizations aware of the growing need to leverage their data have tried several approaches including:

- **Big data:** focusing on the importance of data and highlighting the difficulties traditional database systems and data warehouses have collecting complex, fast changing data, this raised awareness of the problem, but didn't deliver real solutions.

- **Data lakes:** attempts to refine the ideas of big data into a solution pattern, but outside of the operational systems, had little

or no data governance or security and largely erased the data's provenance, making it good for some analytical use cases, but not a reliable source of actionable data.

- **Data virtualization:** creating mappings and indexing the data can help with discovery, but the real data use cases require access to data and all its detail.

Instead, these systems, and the data warehouses before them, have in many cases actually contributed to the growth of isolated, separate data systems.

Break through with Data Hub

The answer lies in a new data pattern that could, finally, overcome the many barriers to enabling organizations to actually collect, integrate and use their data.

The Operational Data Hub approaches the problem with several new principles:

- **Data from across the organization is loaded into the data hub ‘as-is.’** This accurate representation of the data is key to nearly every data use case and allows for flexibility as use cases change and develop.

- **The data is then integrated and harmonized using semantics instead of hard-wired links or relationships.** This allows data to be linked to the real business entities of the organization and even mastered across the data while retaining all the variations of the source systems. This smart mastering en-



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ables the data hub to deliver authoritative data answers while maintaining all the original data behind that answer.

■ **The data's provenance and lineage are managed along with the data.** The inclusion of this vital 'data about the data' in the same system as the data enables true security and access control in the database. With this data, organizations can act based on the integrated data from across their organization.

■ **All this data is made accessible and available to enable search and discovery over the data, analysis of the data, and delivery of the data to any format needed by downstream systems.**

Future of smart content

This pattern is enabling entertainment organizations to actually leverage their data and chart a future where data is indeed the most valuable asset. For example:

■ **Sony Pictures Television's data hub bridges the gap** between the opportunities for digital distribution and the complex rights and permissions to quickly determine content packages for new business opportunities.

■ **NBC Digital Entertainment's *Saturday Night Live* application integrates data from the history of the show with common themes,** characters and era, and delivers an immersive and engaging experience that tailors itself to the user, all delivered with a single data hub.

Conclusion

In the new world, it's not enough to just invest in data. It turns out creating data isn't the real issue. Instead, integrating that data and enabling your organization to use it is the real challenge.

The Operational Data Hub pattern takes a new approach to allowing organizations to tackle these core issues. It does so by integrating data as-is, harmonizing the data using semantics and smart mastering and making that data available with the full security enabled with data provenance and lineage.

The organizations that invest in these critical capabilities, and are able to actually use their data, will be the ones that deliver great experiences to their customers lead the digital transformation of the industry. ■