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*Media workflow
and content
management
in a digital era*

&

**Unlock the
value from
your investments**



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Executive summary



The media industry is evolving. As consumers increasingly turn to digital channels for their entertainment and information needs, new opportunities are emerging, in which companies with a strong Internet presence, such as Amazon, Apple, Hulu, and Netflix can offer on-demand capabilities. But these new, widely untapped market opportunities also pose a threat to traditional media companies' operating models. The technologies and capabilities needed to compete today are significantly different from those that these companies have developed over time.

To learn more about the impact this transition is having on the industry, Strategy& conducted a study of leading media organizations. The study revealed that these companies are struggling to adapt their workflow, technology, and content management capabilities. They face a wide array of hardware and software choices, which include immature software options that aren't integrated together, a lack of standards adopted by technology vendors, complex workflow processes that do not fit well with traditional operations, and old organizational and business models that lag behind the technology. Decision makers in the media industry are investing heavily to prepare for the transition they face, but they lack a road map that would show them how to enable their organizations to reap the full potential of these investments.

To bridge this gap, media companies should adopt a series of best practices. These practices often involve differentiation of some activities: for example, keeping technology platforms separated by content type to reduce complexity. At the same time, they often involve integration of other activities: installing a common software backbone, streamlining workflow, and creating new governance and oversight processes to manage decisions about that workflow. These practices, and others, will enable business leaders to achieve their near-term objectives while creating a flexible infrastructure that can adapt to market demands.

The new media industry

At a rapidly increasing rate, consumers today are looking to digital channels for content. As the prevalence of on-demand distribution services grows, consumers use an ever-expanding set of devices, including phones, computers, tablets, and game consoles, to access those channels. Much of this growth involves video and animations; and video usage is expanding rapidly. According to a 2012 media industry study by Strategy&, the average U.S. consumer spends more than 158 hours each month watching television at home. Meanwhile, content consumption via other devices is also on the rise. The number of e-book consumers is projected to grow at a rate of 36 percent between 2009 and 2015, reaching 60 million by 2015. This development has created a strong demand for new and backlist titles in digital formats. Finally, users are no longer satisfied with passively watching video or reading printed news and books. They want to be active and engaged, participating in communities, interacting with media, building relationships with one another, and using traditional media as their own entry points to the public sphere, showing off their ideas and creations.

Evolving consumer demand and the increased accessibility of content have changed the playing field for traditional media companies; to compete, they need to build or expand their capabilities. This often means transforming their content management and workflow platforms, processes, and distinct organizational structures that support legacy and emerging channels. But implementing these changes is no small task.

The Strategy& industry study found that some major transformations from traditional media to emerging digital tools are creating technology and operational challenges for media companies. The change from traditional to digital tools is affecting the production of video content specifically (*see Exhibit 1, page 7*).

First, the number and type of content sources have mushroomed — for example, from a relatively small group of film and video production companies to a seemingly infinite number of them. These new

producers use a variety of devices to capture image and sound, including mobile phone cameras, consumer video recorders, Webcams, and smartphones. The capacity and efficiency of digital storage mediums far outstrips what was previously available. In addition, cloud computing and generic hardware-software combinations are replacing older information processing methods, even those within the walls of an enterprise. Dedicated, purpose-built hardware infrastructures are now shifting into the software layer.

Next, automated workflow technologies are replacing more labor-intensive manual processes for editing and cataloguing content, thus streamlining production. In addition, the number of distribution channels has increased exponentially with Web-based services such as Hulu, iTunes, Netflix, and YouTube. Finally, consumer platforms for viewing content such as television and film have gone from few to many with the emergence of mobile devices such as tablets and smartphones.

This shift from traditional media to emerging models is presenting challenges for media companies — and an opportunity to cut costs while growing stronger and more competitive.

Exhibit 1

Shift in video content from traditional media models to emerging models

	Traditional media models		Emerging models
Content sources	Limited number of sources: commercial and institutional production studios, including professional producers, journalists, and authors	➤	Unlimited number of sources: amateurs producing film and audio using digital equipment; wide range of authors, citizen journalists, and crowdsourcing voices, enabled by digital media
Storage	Analog: photographic film, printed matter, vinyl recordings. Digital: recordings and CDs. Stored in libraries, museums, and private collections	➤	Digital media available from any computer
Processing	Dedicated, purpose-built hardware, such as recording studios, film production equipment, and printing presses	➤	Cloud computing and general-purpose hardware, with value moved into the software layer
Production workflow	Manual editing and design processes: typesetting and layout, photographic development and film editing, etc.	➤	Technology-enabled processes: myriad forms of digital editing using tools like Avid
Distribution	Limited number of distribution channels, with publishers, distributors, TV cable companies, and other intermediaries acting as gatekeepers	➤	Infinite number of global distribution channels through Internet and satellite links, with “always on” connection and media brands that are new (iTunes, Netflix, Hulu) or evolving (BBC, Daily Beast/Newsweek)
Consumer platforms	Few platforms: film in theaters, analog audio and video devices, printed material	➤	Many platforms: an evolving array of increasingly interconnected displays, tablets, computers, mobile devices, and more

Source: Strategy&

Workflow and content management challenges

The Strategy& media study was designed to illuminate how leading companies are adapting to the changes in the industry and leveraging new technologies. The study focused on the workflow processes, technologies, organizational structures, management practices, and standards that traditional media companies are implementing to manage the transition. The findings show that companies are facing multiple challenges in four major areas:

- 1. Complex processing:** A media organization's operational processing needs can vary significantly, depending on the types of content produced. For example, video processing is considerably different from book publishing, but they are nonetheless beginning to merge. New digital formats such as enhanced e-books, which integrate video with text, require increasingly complex production systems. The lack of automation in legacy production processes has resulted in higher costs, uneven quality, and inconsistent time lines. What's more, digital channels and formats continue to proliferate; for example, there are more than a dozen formats for video files, and specialized processing is required for each.
- 2. Lack of technology integration:** Even though the types of content should be kept separate, much of the software that supports them should be interoperable and integrated. Integration is especially important for the offerings from dominant industry providers that support the digital content management and workflow needs of large media companies. The technology landscape consists of new entrants, traditional providers adding new capabilities, and dominant software vendors. Currently, there is no multipurpose workflow or content management software solution that work optimally for all content types in editing, distribution, and other functions. This requires media companies to integrate dissimilar software packages themselves and sometimes to invest in developing custom solutions. All of this creates workflow redundancies and is time-consuming and costly.

3. **Unclear organization models:** In many media companies, the convergence of news, print, video, and digital content has prompted organizational change before an effective model for the business's structure has been identified. As a result, it is unclear which functions should be managed by the businesses and which should be managed centrally to gain scale efficiencies. The decision rights may also be undefined.
4. **Evolving industry standards:** In many cases, either there is a lack of standards for digital content or the ones in place are evolving. Metadata standards for content are not comprehensive, so companies must define their own. Efforts are under way to define e-reader user interface standards, but these are incomplete — and may remain so until the e-readers themselves go through another generation of R&D. Standards for digital video players are evolving as well, and HTML5 is not yet supported in all devices by all vendors. Within a single media enterprise, teams may thus find themselves working with multiple, discordant standards, which causes complexity, duplication of effort, and inflated operating costs, and makes it harder to collaborate. Vendors do not fully support all standards, and some create their own alternatives. Apple's enhanced e-publishing format for books adds to the complexity and may disrupt the open standard for digital books, according to some industry insiders.

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A road map for success

The challenges are daunting, but surmountable. The study's findings, and our experience working with clients in the industry, reveal seven best practices to guide media company executives as they improve their workflow and content management capabilities and plan their technology investments.

1. Content-based platforms

Benefits: Reduces complexity; improves customer service and quality

Create separate technology and process platforms for each type of content; for example, avoid merging video and text workflows. Platforms should be tailored to meet the needs of each medium, and these content-specific workflows should remain independent of one another. By avoiding merged processes and technologies across video, audio, and text content, you can reduce the complexity in workflow processing and improve customer service and quality.

To be sure, there is a need to integrate different types of content, but that is typically not at the production process level. These channels can be brought together through a common technology architecture and infrastructure (*see best practice #3, next page*).

2. Streamlined workflow across channels

Benefits: Improves efficiency; provides more rapid turnaround

Standardize operations for similar content across traditional, Internet, and mobile platforms. The workflow involved in each form of content should be streamlined and shared, with processes and practices automated wherever possible. Monitoring the performance and efficiency of these processes can weed out redundancy in specific workflow activities. News workflow differentiators should include leveraging the "single-copy" principle: a single news story should automatically feed into multiple channels. Use enrichment tools (such as the metadata-generation software produced by Teragram or Autonomy) for automatic metadata tagging as well as editorial updates.

3. Integrated technical architecture

Benefits: Minimizes support efforts by standardizing on common platforms; reduces IT operating costs

Develop one common technological backbone for all solution components (workflow, content management, infrastructure, distribution). Senior leaders need to define the overall technology architecture and road map, covering the complete value chain: production, editing, distribution, content management, analytics, data management, and corporate administration.

First, decide on the best business use of available technology choices. Because technology is continually evolving, this will mean mixing mature solutions that are already available — such as metadata-based work routing — with more advanced technologies that are in early development stages, such as parsing natural-language text for automated editing. Your level of investment in technology will depend on your company's current technological and operational maturity and the capabilities you need most. Follow sound architecture principles with a reliable, scalable, and shared infrastructure created for all operations including news, video, and Web. Best-of-breed technology solutions from multiple vendors should be integrated to provide automated functions, from creating content to distribution. Use a common workflow engine to efficiently manage and monitor the business process across the functions, including activities that are less automated. Leverage packaged solutions whenever possible, using customization only to create differentiation. Store finished content in a single repository, with easy access for retrieval of both live and archived content. A technology architecture based on these principles enables leaders to adapt to industry changes rapidly.

4. Best-of-breed software investments

Benefits: Improves technology ROI; differentiates your business from competitors through the use of technology

Select the best software packages based on your evaluation of production and business needs. Many software products are too diverse and fragmented to meet media industry needs. Evaluate the many types of solutions offered by software companies, including new vendors with unique capabilities, large software providers such as Adobe and Apple, and those that offer software for traditional media. No single vendor has an integrated offering that fully meets the needs of the overall value chain, even for a particular type of content, let alone different content types. To avoid wasting time and money, conduct a comprehensive assessment of the technical functionalities of potential software investments, paying particular

attention to how these features fit with your business needs and strategy — and then invest accordingly.

5. Aligned company and industry standards

Benefits: Reduces operating costs; improves IT reliability and security

Because industry standards are evolving, create your own internally developed, organization-specific standards to ensure consistency across different parts of the organization. Make sure these company-wide standards are as closely in line with industry standards as possible. Exhibit 2, next page, lists some of the typical standards that can be applied across the value chain. Adopting these standards can significantly reduce cost over time.

6. Established governance processes

Benefit: Improves operational efficiency

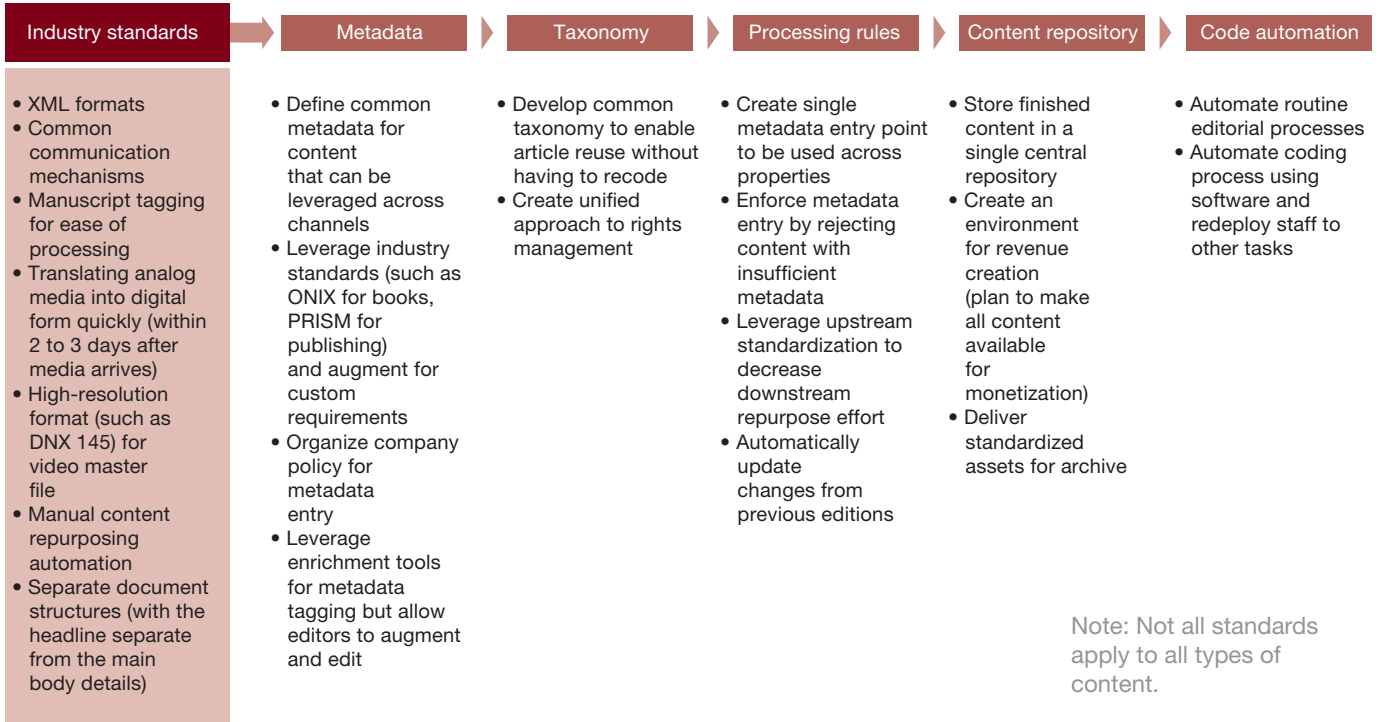
Develop robust governance and operations-management processes to oversee technology investments and workflow practices, and to bring them to greater maturity. This effort will support team collaboration, establish a single voice to represent you to external customers and partners, enable you to evaluate investments according to highest-priority opportunities, and help you avoid a proliferation of standards and technologies.

Governance and operations management draw on people and practices from many areas of the business. Create a governance team with guidelines to assign and manage the operating model roles and decision rights throughout the organization. Involve leaders from the demand-management side in the screening of idea generation to determine funding of new initiatives, programs, and projects. Track and monitor internal operations and workflow procedures according to operational service-level agreements, and actively monitor and optimize your IT portfolio of projects, programs, applications, and infrastructure. Follow a consistent vendor sourcing strategy, relating to both vendor selection and the management of project and program resources. These processes can help your company improve operational efficiency, customer service, quality, system reliability, and level of service.

7. Restructured organization models

Benefits: Maximizes operational efficiency and economies of scale; creates an organization that responds to change quickly

Exhibit 2
Standards guidelines across the value chain



Note: Not all standards apply to all types of content.

Source: Strategy&

Set up more effective organizational structures. Although no standard structure applies to all players in the media industry, certain common organizational themes create efficiency and speed — especially as media organizations migrate toward serving both digital and traditional needs.

For example, the most effective organizations often have distinct product development teams for emerging technologies; they also keep creative functions separate from finance and other support functions. Functional responsibilities such as product development are typically embedded into the lines of business.

To create economies of scale, consolidate operational and support functions and share best practices within those teams. Commodity functions such as tagging can be outsourced, and internal shared services or centralized IT groups can handle core infrastructure and enterprise applications.

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Conclusion

The media industry is in a period of dramatic change, and that change will continue at a rapid pace. Consumers' preferences for accessing content continue to evolve, and the number of platforms available to them continues to grow. Business leaders must adapt to this new media environment by making smarter investments in technology and maximizing workflow efficiencies. Reacting to the changes without a cohesive, holistic strategy and clinging to outdated business models can result in lost market opportunity. Adopting these seven best practices will help your company avoid such pitfalls, realize the full potential of your investments, and build a technology foundation that is flexible and reliable enough to meet today's ever-shifting market demands.

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