INFORMATION, COMMUNICATIONS & ENTERTAINMENT

The Digital Bubble

Balancing Operational Challenges with Growth

ADVISORY

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Introduction

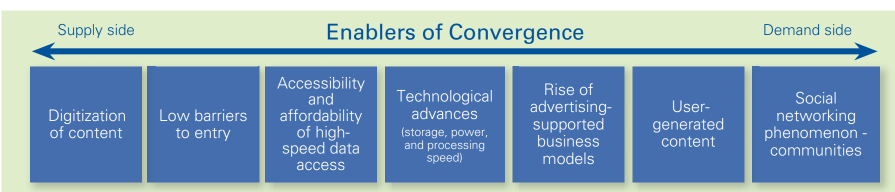
The recent rapid expansion and growth in the communications and media industries are documented daily in the headlines. Traditional media companies have acquired startups with limited financial track records, communications companies have entered into new business areas, and technology companies have moved into the content business. Convergence, and the unprecedented opportunities it will unleash for all, has arrived.

Along with those opportunities come key business questions, especially in the areas of strategy, security, licensing and rights management, finance, sales and marketing, and operations. Many of today's companies are just now addressing the operational risk and challenges inherent in their new digital strategies—and are attempting to protect their intellectual property while maximizing new revenue streams.

Enablers of Convergence

Every major historical transformation needs an enabler. Today, advances in technology, billions of additional Web pages, the rise of social networking, and digital content transformation are rebalancing the supply and demand cycles of content on a daily basis—enabling rapid convergence on a scale never seen before (see Figure 1).

Figure 1: Enablers of Convergence



Source: KPMG LLP (U.S.), 2007

Convergence is also encompassing a widening array of players. Seen originally as an industry phenomenon affecting the IT, telecommunications, and media sectors, convergence is now evolving as a broad, multidimensional transformation that is bringing together products and services as well as consumers, content creators, owners, aggregators, and distributors (see Figure 2).

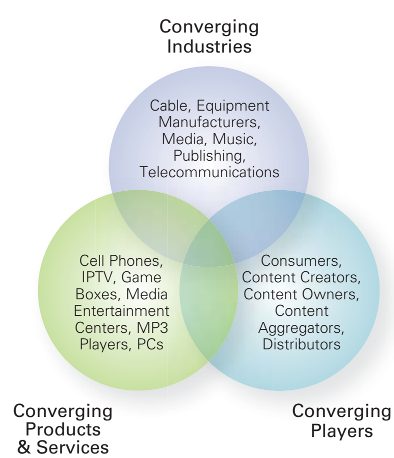
This white paper addresses some of the critical market conditions media and communications companies face in a digitized world, including the conditions that point to the possibility of a digital bubble. The paper considers the opportunities companies have in this environment, and it describes an enterprise-wide approach to identifying and managing digital risks to help management determine that robust processes are in place to support execution of business strategy.

Digital Transformation Changes Everything

These developments are driven primarily by the impact of digitized content. A revolutionary change, digitization provides a common means of recording, storing, and disseminating all kinds of data—from documents to photographs and illustrations to music and video. The factors enabling convergence (see Figure 1) are helping to create a marketplace for digital content characterized by high demand as well as a wide variety of suppliers, products, and services.

Digital transformation is quickly changing existing business models and introducing unprecedented opportunities. It is also creating new risks—the greatest of these risks is that the pursuit of a digital strategy is happening so quickly that a digital "bubble" (not unlike the dot.com bubble) could be developing. The bottom line: For leaders who must make increasingly quick decisions in this rapidly changing arena, identification and management of risks, in addition to a full understanding of the business processes behind digital transformation, is critical to successful strategy execution.

Figure 2: The Scope of Convergence



Source: KPMG LLP (U.S.), 2007

Interview with Terry Denson, Verizon

"The telephony business is changing, period!"

As Vice President of Programming and Marketing for Verizon FiOS TV, Terry Denson oversees the creation and implementation of video product packaging, pricing, and marketing strategies as well as video content acquisitions. He also has responsibilities for customer acquisition, retention, and education.

"The communications landscape continues to change dramatically, and the advent of digital service offerings represents a significant opportunity for Verizon. As Denson explains: "Verizon's telephony heritage was about operating in a heavily regulated environment, building networks, and providing communication services for a variety of customer groups. The competitive environment has changed dramatically, with deregulation and emergence of multiple providers.

"Today's consumer marketplace is about the household—specifically the provision of content through multiple services including the phone, broadband sources, and television or wireless devices. Telephony as a stand alone offering is significantly less important and the telephony business is changing, period! A key component of Verizon's strategy in this emerging environment is its deployment of fiber to the home, which will allow it to provide multiple services.

"As far as possible, Verizon is looking to 'future-proof' its services—the nature, quality, and capacity of its fiber rollout will allow it to take advantage of customer aspirations across bundled services and place it in the best position to succeed in the digital household.

"It will be important, however, to avoid the danger of becoming the 'dumb pipe.' The next battle will be to achieve some point of distinction while maintaining the relevance of our network-based distribution. In particular, broadband is where the competition and battleground is—not only from the cable operators but also from virtual networks, such as Google and Yahoo!, and device-centric competition, such as Microsoft Xbox, Apple TV, and Sony PlayStation. Verizon will continue to develop content and applications and expand its services—such as video on demand—to maintain the relevance of its network-based distribution."

Although the industry is facing new challenges, Denson cautions against overreacting: "Announcements in the media business happen fast, but I don't think the industry moves as fast as a lot of people believe. There is a difference between consumer aspirations and deployed innovation. For example, high definition is seen as 'so two years ago' but it has not had as rapid an impact as people predicted. Similarly, DVRs – TiVO, we all talk about it but the reality is that not everyone has one. These represent real opportunities but deployment is slower than the hype. It is not always necessary to have 'first mover' advantage or be on the cutting edge; indeed, being a fast follower or having a measured and well-thought-out approach can be more successful. Customers will take their time to shop and make a choice based on quality, service, and user experience."

Denson also challenges views that the digital evolution is having a dehumanizing effect: "The human element will always be important. Virtual communities are ultimately about a sense of social belonging. Having portable devices allows people to stay connected or interact in new and different ways—people talk about transportable devices but I look at this as transportable behaviors. The iPod® for example is just an extension or 'next generation' of past behavior. The opportunity for us is to understand how people used to do things in the past and how they want to do them in the future."

The Current Environment

An extraordinary shift is now under way in which companies are transforming themselves and making "digital" the cornerstone of their business strategies. Evidence is increasing that the digital marketplace has transitioned from a conceptual model to one generating real value and it is forecast to continue its strong growth. For example:

- Global online music sales for 2006 doubled to about USD2 billion[1] and are expected to grow to USD11 billion by 2010.[2]
- Global online advertising revenue is forecast to increase from approximately USD25 billion in 2005 to more than USD55 billion by 2010.[3]
- Global interactive entertainment sales are expected to grow from approximately USD8 billion in 2005 to USD16 billion in 2010.[4]

Emerging evidence also shows that businesses in the digital marketplace are beginning to generate real value. For example:

- Warner Music Group reported total digital revenue for 2006 of USD355 million, representing a year-on-year growth of 126 percent.[5]
- *The New York Times* generated 8 percent of its revenue in 2006 from its digital properties.[6]
- Viacom announced a goal of USD500 million in digital revenue for 2007.[7]

The importance of digital transformation is also reflected in the way analysts are beginning to give credit to companies with digital strategies that seem more viable than others. Industry analysts are highly optimistic about the growth of digital media, which they attribute both to consumer demand and to content owners' efforts to find new revenue growth sources and innovative enabling technologies.

Analysts, including UBS's Aryeh Bourkoff, point to the coalescence of content and online distribution as the new medium where business models will truly flourish.[8] And Andy Baker, an analyst with Cathay Financial, notes that it is critical for media companies to develop diversified revenue streams by embracing online business avenues, a view echoed by Edward Jones analyst Robin Diedrich, who sees robust growth for companies that take advantage of online advertising opportunities.[9] As an example, both Lauren Rich Fine and Debra Schwartz, analysts with Merrill Lynch and Credit Suisse, respectively, gave credit to a news and financial information publisher for its online strategy, with Schwartz commending the company for placing more emphasis on digital copy than on print operations.[10]

Increasing Importance of Digital Transformation

"Smart companies realize that the digital revolution is only accelerating… companies such as ours [NewsCorp] must embrace the opportunities…and find ways to monetize content."

NewsCorp CEO Rupert Murdoch, "News Corporation 2005 Annual Report"

"…the digital era is now upon us. And the great news for us is, more and more of that digital life is happening on our networks."

Verizon Chairman and CEO Ivan Seidenberg, USTA TelecomNext Conference, March 20, 2006

"It's been clear to me that digital distribution will play a massive and expanding role in our industry…digital revenues provide the potential for improved profitability."

EMI Chairman Eric Nicoli, Opening Keynote Speech at MidemNet, Cannes, January 21, 2006, and UBS Global Media Conference, December 2005

[1] IFPI - January 2007, *IFPI:07 Digital Music Report*
[2] Oppenheimer & Co. Inc., January 2007, *The Digital Consumer: Examining Trends in Digital Media*
[3] Ibid
[4] Oppenheimer & Co. Inc., January 2007, *The Digital Consumer: Examining Trends in Digital Media,* IDC, Yankee Group, Parks Associates
[5] Warner Music Group, December 1, 2006 News Release
[6] *The New York Times*, March 6, 2007, Presentation at Bear Stearns 20th Annual Media Conference
[7] Viacom, Inc, March 1, 2006 - 2007, Earnings Call
[8] *BusinessWeek*, September 25, 2006
[9] CNNMoney.Com, December 5, 2006
[10] *Online Media Daily*, January 26, 2007

The Risk of a Digital Bubble

In a rapidly evolving marketplace, a number of factors are notable for their similarity to those that have been present when other economic bubbles have developed. These include excess capital, demand in excess of investment opportunities, and overheated prices diverging from fundamentals (see sidebar below).

Common Characteristics of an Economic Bubble

1. Excess capital or liquidity in the marketplace
2. Current or projected demand in excess of available assets and investment opportunities
3. Land-grab mentality due to fear of missing out
4. Anticipating extraordinary return on investment
5. Overheated valuation or inflated prices—diverging from fundamentals
6. Investment decisions based on speculation rather than underlying economics
7. Unproven business models
8. Investing in areas that are non-core or outside areas of expertise
9. Focus on metrics other than cash or the bottom line
10. "Irrational exuberance"

Organizations' enthusiasm for digital opportunities is among the significant warning signs that suggest the possibility of a developing digital bubble. Indeed, the frenetic activity now under way is reminiscent of the dot.com experience and the economic bubble it produced. It also suggests the possibility of what former Federal Reserve Board Chairman Alan Greenspan deemed "irrational exuberance" during the stock market boom in the 1990s. Consequently, some concern about the possibility of a digital bubble does seem justified.

Learning from History to Avoid Its Repetition

Given the focus of many emerging business models and the potential for a digital bubble, companies face considerable risks. Although some evidence shows that some new businesses are beginning to generate real value, many companies are now at a crossroads.

To take advantage of opportunities made possible by the digital transformation, companies need to continue to move quickly—executing alliances, creating and launching new products, and developing new customers as well as new talent. At the same time, they need to ensure they have the ability to implement these strategies successfully. To do so, management needs a balanced view of the organization's digital opportunities to ensure the organization is focused on operational execution efforts as well as strategic growth.

Achieving this balance is critical: History shows that when economic bubbles have developed in other industries, management typically focused on top-line growth and increasing market share (either organically or through acquisitions) without ensuring that the operational strengths required to support this growth are properly in place and that emerging risks are properly managed. Without such a focus now, the digital bubble would be more likely to grow and then burst—slowing and ultimately depleting the revenue, employment, capital, and technology gains that can develop so rapidly.

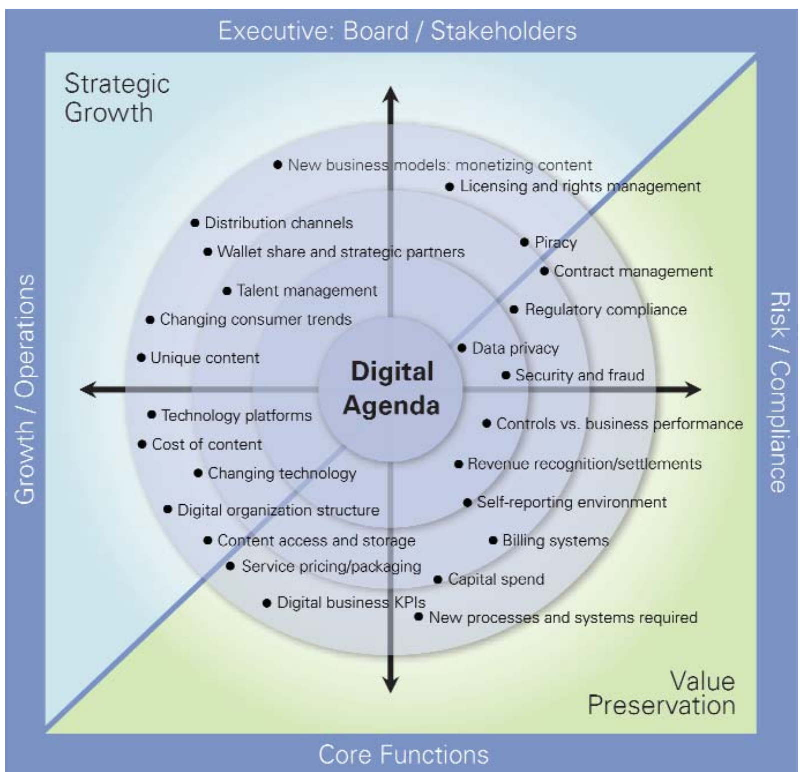
Challenges and Risks: From Linear Landscape to Digital Ecosystem

In their efforts to thrive in a digitized world, organizations face an enormous array of operational challenges and risks (see Figure 3), encompassing all parts of the organization. As one media CFO noted, "Trying to identify and manage all the digital issues is like trying to boil the ocean."

Many companies cannot be sure they are capturing all revenue from content and services provided, realizing an acceptable return on investment, executing digital activities in a coordinated manner, and supporting the business with appropriate talent. What's more, without a comprehensive understanding of the risks and interdependencies that emerge as a result of the digital transformation, they could easily jeopardize their evolving business models and overall business performance. A structured approach to managing operations and the identification and prioritization of associated risks can help organizations find an appropriate balance between growth and execution.

Figure 3: Illustrative Digital Challenges

These and other challenges need to be addressed and managed while executing a digital agenda to help ensure both strategic growth and value preservation.



Source: KPMG LLP (U.S.), 2007

Interview with Eric Garland, BigChampagne, LLC

"Content companies must get into the business of building payment mechanisms rather than putting better locks on content."

Eric Garland is chief executive of BigChampagne, LLC, an online media measurement company and the leading provider of information about popular entertainment online.

"We must not forget that the intersection of media and tech was really more of a collision—quite disruptive—from the start. When the music business was 'Napsterized' in the late 1990s, recording companies and then, ultimately, all entertainment media companies were forced to confront the Internet audience for the first time. There was no marketplace at that time per se, as Napster and similar technologies allowed consumers to freely exchange music and movies without permission, but not to pay for them!

"In the years that followed, the music business battled piracy online and in the courts and vowed to capitalize on this new demand by building businesses selling songs online (iTunes) and on mobile phones. It all looked so promising on paper. We were supposed to see a meteoric growth in ringtone sales for years to come, but it looks like 2006 will have been the peak year for ringtones, which was a cornerstone for a lot of traditional recording companies. Stories continue about the flattening of the a la carte download sales—the $.99 iTunes sales and their ilk—so most things that were pointed to as categories with great potential to more than make up for the gap as CDs decline are being disproven.

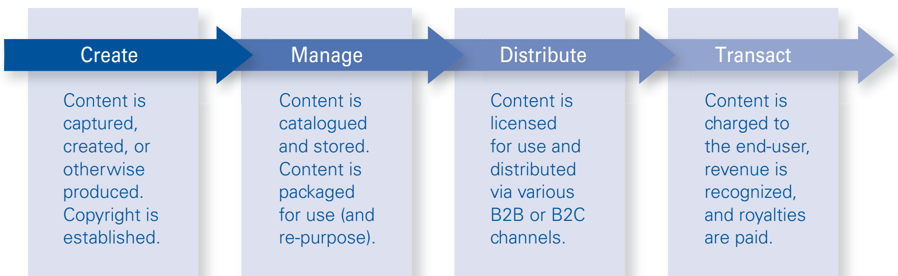
"Will media companies thrive and grow in the long term? Well, there will of course be filters; you always need to hold back the tide of unwanted or substandard material and to direct you to, in this case, music that you might enjoy. The problem is that the traditional content companies have lost control of the filters and the deck is no longer stacked in their favor. By the recording industry's own projections, the volume of pirated music online is as much as 30 times what the legitimate market manages to sell, and that's just unauthorized downloading.

"Therefore, the volume of music that's being consumed for free dwarfs that which is being paid for in any form—online or off. I think the music industry has fumbled badly; had it been willing to put mechanisms in place for monetizing or building businesses around the file-sharing phenomenon starting seven or eight years ago, there would have been billions of dollars generated that have been left on the table—because it has insisted instead on maintaining control and locking up the music. Entertainment and content companies must get into the business of metering and building payment mechanisms rather than putting better locks on content.

"Media companies are not yet ready to embrace current consumer behavior. When you look at how people now consume media online, whether they're downloading or streaming, whether their interest is collection building or merely time shifting, they are communing around media with a viral element—so they are passing it down the chain and have low tolerance for rules and restrictions and the caveats that digital rights management technologies create."

Today, companies must manage a virtual inventory as printed materials, CDs, and DVDs migrate to digital formats. Like other products and services, this digitized content has a natural life cycle consisting of four distinct stages—content creation, content management, content distribution, and content transaction (see Figure 4).

Figure 4: The Digital Content Life Cycle

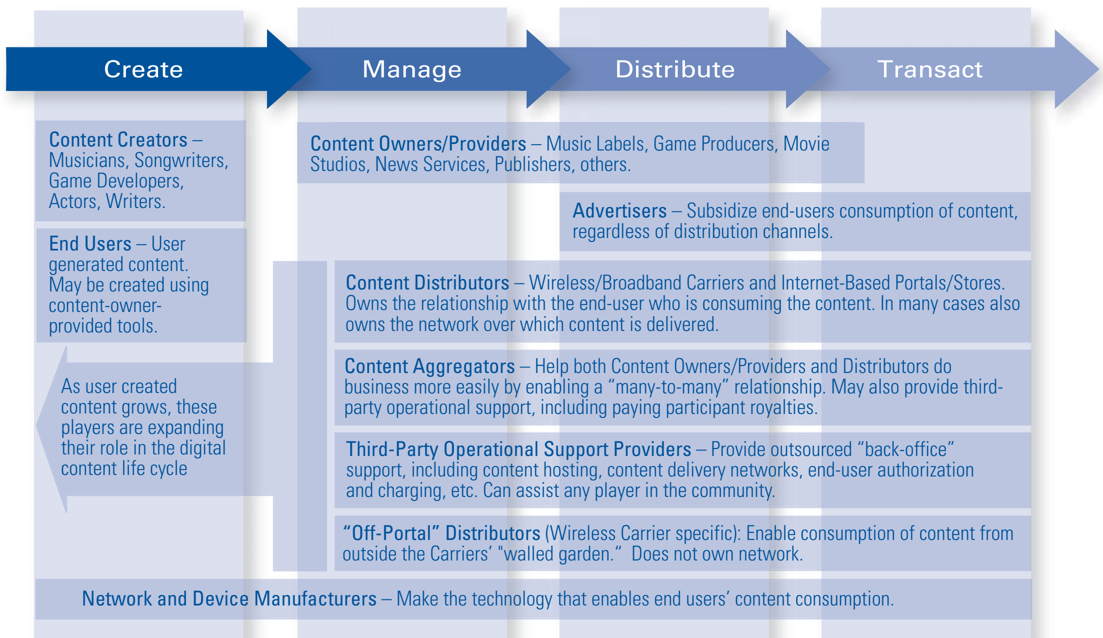


Source: KPMG LLP (U.S.), 2007

Each stage encompasses different objectives, challenges, potential players, and each presents different risks. In addition, each stage presents different risks. Organizations need to understand the distinct risks and business challenges they face within and across each stage of the life cycle.

Organizations also need to understand their role in the overall digital content value chain—which is perhaps better characterized as an ecosystem because the relationships between and among participants are no longer linear. This current ecosystem is characterized by a variety of new players, all wanting to play increasing roles across the digital content life cycle—even consumers are assuming a larger role in content creation (see Figure 5 on page 8).

Figure 5: The Current Digital Ecosystem



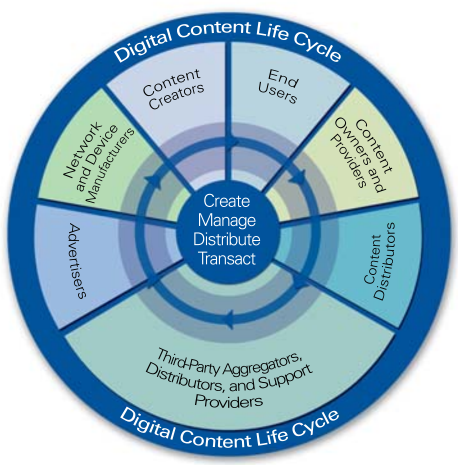
Source: KPMG LLP (U.S.), 2007

The Emerging Digital Ecosystem

A crucial first step is to understand the emerging digital ecosystem of players, including consumers, content creators, content distributors, and equipment manufacturers in the digital marketplace. The digital transformation of content is driving a rapid evolution. Just a few years ago when distribution of content was largely physical, the business of media and communications could be depicted in a linear fashion.

Developments suggest that the future life cycle will evolve out of yet another transformation—from a linear and rigid ecosystem to one that is considerably more fluid with low barriers that invite players to migrate to all stages of the life cycle (see Figure 6).

Figure 6: The Future Content Ecosystem



Source: KPMG LLP (U.S.), 2007

The Opportunity

Leaders in the media and communications industries face growing pressure to understand their position in an increasingly digital marketplace. To respond rapidly to digital opportunities, they need to identify, assess, and manage the operational challenges associated with digitized content. They also need to respond strategically to the key risks with a comprehensive strategy—one that provides structure but also enables agility and efficiency. The right structure and processes can help enable improved business performance—just as a racing driver steering a speeding car uses the brakes at strategic points to enable greater speed and control.

Interview with Gaspare Benso, Universal Pictures

"Globalization, piracy, changes in technology and demographics are challenging current business models. Media and entertainment companies need to explore new business models in order to take advantage of new opportunities."

Gaspare Benso is Chief Financial Officer—International Studios, Digital Platforms & Film Music at Universal Pictures, based in Los Angeles.

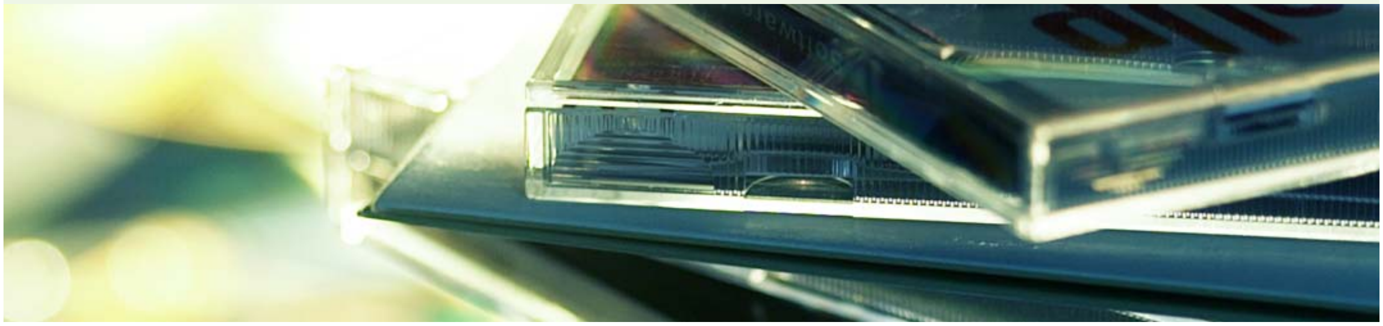
"I believe there is going to be further consolidation in the global media and entertainment industry, including the Wireless and Interactive sectors.

"Digital is obviously strategically important for our company, because it affects our entire value chain. Our digital revenues have grown significantly in the last couple of years and we expect significant growth in the future. NBC Universal estimates digital revenues to exceed the $1 billion mark by 2009.

"Learning about how media and entertainment markets around the world are developing may help us predict how the U.S. market will evolve. Media and entertainment markets, including DTH, DTT, Cable, HD, VOD, EST, Wireless, Interactive, IPTV and so on, are developing very differently in various markets around the world, depending on infrastructure, regulations, players and so on. Platforms and technologies that are successful in certain markets are struggling in others. Accordingly companies should challenge existing business models and explore new ones, maybe in smaller territories and markets, in order to take advantage of new opportunities.

"Piracy is obviously one of the biggest challenges for our industry. It affects the entire value chain and puts additional pressure on 'release windows,' or time frames surrounding the release of theatrical, home entertainment or TV products. 'Camcording,' or recording movies in theatres using video cameras, is still *not* illegal in some major countries, including Canada, Mexico, the U.K., France, and Spain. Media and entertainment companies face the challenge of finding the right balance among windows, on a territory-by-territory basis, in order to maximize revenues and margins.

"Another challenge, more specific to the Wireless sector, is the lack of consistency among platforms around the world, and sometimes even within the same market. Differences in architecture, technical standards, and specifications make the distribution and delivery of our content, e.g., wireless games, a lot more difficult, since content must be developed according to multiple specifications."



Enabling Success in a Digital World: An Approach

Figure 7: An Approach to Managing Digital Challenges and Interdependencies

Digital Content Life Cycle

Areas of Focus	Create	Manage	Distribute	Transact
STRATEGY	Unique Content	Leveraging / Monetizing Digital Assets	Channel Management	Business Models
SECURITY	Content Protection	Logical Security	Secure Distribution	Persistent Protection
LICENSING & RIGHTS MANAGEMENT	Content Rights	Royalty & Revenue Models	Distribution Channel	Compliance
THIRD-PARTY MANAGEMENT	Supply Chain Management	Content Access & Storage	Distribution to Partners	Billing & Rights Object Support
FINANCE & ACCOUNTING	Production Cost Management	Asset Recording & Valuation	Sales Reporting Requirements	Revenue Recognition
SALES & MARKETING	Market Trends & Analysis	Product Development	Revenue Generation & Marketing Strategy	Customer Experience
OPERATIONS	Infrastructure	Digital Asset Management	Distribution Management	Customer Care

Source: KPMG LLP (U.S.), 2007

The overall process of managing digital content calls for use of a framework aligned with the life cycle to identify the key digital challenges and interdependencies. Figure 7 sets out such a framework to manage the operational execution of a digital strategy.

Once organizations understand the digital life cycle and the players in their own ecosystems, such a framework provides a methodical way to identify, assess, manage, and monitor the operational challenges, interdependencies, and risks associated with executing a digital strategy. The framework can help guide leaders' thinking about the risks they face and managing them enterprise-wide (increasingly a requirement of regulators and many boards and rating agencies).

The digital framework in Figure 7 identifies seven key areas of focus together with an array of challenges associated with each area across the digital life cycle. With the help of such a framework, organizations can begin to identify the key objectives and challenges in each stage of the life cycle. Use of the framework enables organizations to manage the operational execution of their digital strategy by:

- Prompting the adoption of a top-down, comprehensive approach that considers a variety of important challenges and risks (rather than just one, such as digital strategy)
- Encouraging recognition of the widely varied objectives and challenges in each stage of the life cycle
- Helping to identify independencies among areas (an area in which companies often fall short)
- Enabling development of a "big picture" that can then be used to drill down into greater detail, by either focus area or life cycle stage.

Examples of how such a framework may be applied include the following:

- The IT department of a music label organization may be focused on security for its digital content. The security considerations differ in each stage of the life cycle: for example, unauthorized user access to stored content would be considered in the "Manage" stage and digital piracy would be considered in the "Transact" stage. In developing anti-piracy digital rights management (DRM) software in the "Transact" stage, those responsible would want to connect with those responsible for "Strategy" and "Sales & Marketing" to ensure that any DRM software did not conflict with planned revenue models or desired customer experience.
- In negotiating a digital distribution contract for a wireless carrier, the legal department needs not only to focus on licensing and rights management issues but also to liaise with the finance group to determine if the accounting systems can generate the sales information to support the terms of the contract.

Key questions for leaders, which point to other challenges, are listed in the appendix.

Conclusion

Digital transformation is generating exciting and challenging opportunities throughout the media and communications industries. This enthusiasm, should it continue at the pace recently seen, suggests the potential for development of a digital bubble. Whether such an economic phenomenon develops will depend on a variety of factors, including continued investment and expansion trends and whether companies throughout the industries are able to execute the operational aspects of their digital strategies.

In this environment, successful companies will be those that achieve the right balance between speed in the pursuit of the digital strategy and the need for focus on operational execution.

Companies can take the steps necessary to attain this balance through use of a framework that enables a structured and rigorous approach to managing the multitude of digital challenges and interdependencies balanced against the goal of profitable revenue growth.

Interview with Nic Fulton, Reuters

"Are we in a digital bubble or just at the end of the analog bubble?"

Nic Fulton is Chief Scientist for Reuters where he leads technology strategy for Reuters Media with responsibility for designing and architecting multimedia products and investigating how the company can take advantage of new and emerging technologies in its product line. He is also a key partner to the Reuters' innovation program, which examines product opportunities across the company.

With digital media capturing attention today, Nic Fulton reminds us that, throughout its history, Reuters has always stayed at the front edge of technology to serve its customers. He notes, "Examples of cutting-edge customer service go back to our using carrier pigeons to bridge the information gap, or having employees in rowing boats go out to ships as they passed the south coast of Ireland to pick up news and then transmit it by wire to London. The key always was to find an information gap and determine how to fill it. In filling those gaps today, we typically do so digitally."

On the question of whether recent developments such as blogspheres, citizen journalism, and user-generated content represent disruptive threats to media and information service companies such as Reuters, Fulton has a balanced view: "These developments may disrupt the so-called attention economy of media, in that people are increasingly spending more time on things other than viewing traditional linear broadcast TV. But Reuters doesn't have the burden or the privilege of owning a linear broadcast franchise like a TV channel or a radio station. So, in some ways, what looks disruptive to established players, to us looks like opportunities. We've always engaged with citizens for their eyewitness reports. If someone photographs or videotapes something, we've always tried to go after those materials. The Internet just gives us the opportunity to do it in a much more efficient and effective way. However, journalism and news reporting is not just about the raw material, it's also about storytelling in a structured and balanced way to inform a reader. Sometimes we refer to it as if we're effectively becoming tailors—we're stitching together cloth to make elegant garments out of contributed materials. Clearly, there is also an element of trust and knowing that the source is accurate and hasn't been tampered with, which plays to the strengths of organizations like Reuters."

On the difficulties of trying to stay on top of technological developments, Fulton believes there is no magic formula. "I think one needs to be open-minded and to think outside the box. Innovation is often about applying technology to fulfill a need. The technology does not have to be new; it can just be used in a new way. For example, Reuters has opened a bureau in Second Life—we don't know how that's going to grow or develop, so we think, 'Let's put a journalist into that world, into that economy and start reporting on business, finance, politics, culture, and try and see what happens.'"

In terms of the importance of understanding the new digital economy and the opportunities and challenges it presents, Fulton is unequivocal "I think it's really important that senior management does get it. If we use the analogy of a digital bubble, it can be seen as a bubble that grows till it pops or as a natural cycle of expansion and contraction. Not all players maintain their relative strengths during this cycle, and new players come from nowhere to achieve huge growth. The key is to make the right bets and ensure you not only grow with the expansion but also hold your ground during the contraction—by, for example, being innovative to win and retain audience and build customer loyalty. The answer is not to stay away because you believe there is a risk of a bubble; in that case you run the risk of missing the boat. It may be that, when the bubble contracts, you are going to be relatively unscathed, but it might also mean that you are smaller and the person who has done something more aggressive or innovative has leapfrogged you. The people who own and create content and those who distribute it will ultimately innovate and gravitate toward digital. So I would ask, 'Are we in a digital bubble or are we just at the end of the analog bubble?'"

Appendix: Managing Digital Challenges—Key Questions for Leaders

A Selection of Key Digital Challenges

Strategy

- Where do we stand in assessing and managing the risks and challenges in operationally executing our digital strategy?
- Where do our competitors stand in such understanding and management?
- What business models should we adopt to attract and retain customers?
- How do we obtain or generate unique content?
- How do we organize ourselves to profitably deliver our digital strategy?
- How can we use digital risk management to enhance our competitive position and raise the barriers to competitive entry?
- How do we drive digital transformation through the organization?
- How are we maximizing the margins on our digital sales?
- How do we monetize our digital content?

Security

- Do we have the right controls, systems, and processes in place to protect our digital content from unauthorized external access/use?
- Do we have comparable protections in place within our company?
- Are we ensuring that the content we own, license, or transmit is properly tracked and secured?
- Do we have the right controls over the value chain?
- Do we have the appropriate prevention controls over virus, spam, and malware intrusions?
- Are our digital content production facilities and equipment physically secure?
- Is our digital content securely transported to our distributors?
- How well have we educated our consumers about content piracy?

Licensing and Rights Management

- Have we negotiated all the digital rights we need?
- Are we protecting our intellectual property across international borders?
- How are we determining transaction costs for digital licensing and rights management?
- Are we under-recovering or over-paying on our digital content rights and obligations?
- Are we ensuring that contract terms are anticipating future products and services and revenue models?
- Have we clearly defined separate and specific content rights for product types and distribution channels?
- Do we have the right royalty structure for new business models such as subscription and streaming?
- Do we strike the right balance between content security and customer experience?

Third-Party Management

- Are we assessing and managing digital security at third parties?
- How are we dealing with interoperability issues?
- What is the appropriate revenue-sharing model?
- Who should we have as alliance, joint venture, and/or strategic investor partners?
- Are we building in rights to audit third parties—self-reporting systems and controls?
- How do we ensure the quality of our digital content is maintained?
- How consistent are our indexing, archiving, and metadata practices across our distribution partners?
- How stable is our distribution channel?
- Do our distributors consistently enforce DRM defining consumption of our content?

Financial

- How do we monetize our current and prospective digital assets?
- Do we have the right management information to manage and monitor digital performance?
- Do we have adequate internal financial controls and systems over new digital processes to meet internal and external requirements?
- Are we conversant with all relevant digital tax issues?
- How do we manage digital production and operational costs?
- Do we identify the appropriate data elements in the metadata?
- How are we obtaining funding from investors?
- Do we fully understand our content creation and acquisition costs?
- Are we receiving timely, accurate, and complete reporting from our distribution partners?

Sales and Marketing

- How do we attract and retain customers?
- Do we understand who "owns" the customer since intermediaries are interrupting traditional customer relationships?
- How are we identifying market trends and opportunities in a fast-moving digital environment on a timely basis?
- How do we identify and connect the right products through the right distribution channels and customers?
- What are the right revenue and pricing models?
- How do we market an "infinite" inventory?
- How do we ensure that our content has the best "deck space" in the digital storefront?
- How can we gauge customer satisfaction with respect to product exchanges and returns?
- How do we ensure a satisfactory customer experience?

Operations

- Do we have the right digital talent and resources?
- How ready are our back-office support systems and processes to support digital transactions?
- Do we have the inventory systems in place to track digital content?
- Do we understand how all digital aspects of international markets—from business models to marketing to financial planning—must be evaluated within the local environment?
- In the event of a merger, acquisition, or strategic alliance, do we understand how to bring together different operating models, pricing and profit structures, customer bases, and corporate cultures?
- What is our process for keeping our metadata current?
- How many data exchange formats are we dealing with to communicate with our distributors?
- How well do our distributors' customer care representatives understand digital content?
- How are we accounting for billing disciplines and revenue settlements?

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