Hype Cycle for Media Industry Entertainment, 2007


A mix of consumer technologies and internally focused IT systems that ready the entertainment industry for the pending digital explosion form the basis for this year’s media entertainment industry Hype Cycle.
TABLE OF CONTENTS

Analysis .............................................................................................................................................4
What You Need to Know ..................................................................................................................4
The Hype Cycle ..................................................................................................................................4
The Priority Matrix ..........................................................................................................................6
On the Rise ........................................................................................................................................7
  Videoblogging ..................................................................................................................................7
  Rich-Media Search Technologies ....................................................................................................8
  Media Distribution via Game Consoles ............................................................................................9
  Web 2.0 Distribution ......................................................................................................................9
  Content Delivery Networks ...........................................................................................................10
At the Peak .......................................................................................................................................10
  Network DVR ..................................................................................................................................10
  Consumer-Generated Media ..........................................................................................................12
  Consumer Content Creation Tools ...............................................................................................12
  Intellectual Property Rights and Royalties ....................................................................................13
  Legal File Sharing/Legitimate P2P ...............................................................................................14
  Mobile Search .............................................................................................................................15
  Podcasting ......................................................................................................................................16
  Mobile TV Broadcasting ................................................................................................................16
  HD Optical Disc Players ................................................................................................................17
Sliding Into the Trough ....................................................................................................................18
  IPTV ...............................................................................................................................................18
  Broadband Video on Demand .......................................................................................................19
  Blogs .............................................................................................................................................20
  Consumer Digital Rights Management .........................................................................................21
Climbing the Slope ............................................................................................................................22
  Broadband Music ..........................................................................................................................22
  Interactive TV ...............................................................................................................................23
  Mobile Video on Demand ...............................................................................................................24
Entering the Plateau ............................................................................................................................24
  Digital Terrestrial TV ....................................................................................................................24
  Video on Demand ........................................................................................................................25
Appendices .......................................................................................................................................27
  Hype Cycle Phases, Benefit Ratings and Maturity Levels ............................................................29
Recommended Reading ..................................................................................................................30

LIST OF TABLES

Table 1. Hype Cycle Phases ...............................................................................................................29
Table 2. Benefit Ratings ...................................................................................................................29
Table 3. Maturity Levels ..................................................................................................................30
LIST OF FIGURES

Figure 1. Hype Cycle for Media Industry Entertainment, 2007 ................................................................. 5
Figure 2. Priority Matrix for Media Industry Entertainment, 2007 ............................................................... 7
Figure 3. Hype Cycle for Media Industry Entertainment, 2006 ................................................................. 27
ANALYSIS

What You Need to Know

Although its full impact will play out during the next 10 years, real-time digital distribution is already transforming the landscape for every sector of the media industry, in particular the entertainment sector. The key to success is in knowing why, when and how to respond to changes in the market for digital media and which technologies will prove to be the most transformational. This requires iterative decision making to set strategies, adopt key standards, and select partners and vendors.

The Hype Cycle

The entertainment sector is facing a period of dramatic change, as consumers adopt new technologies that increase their control over the way in which they discover, consume or create content. Emerging media distribution models are creating opportunities for content creators, rights holders and distributors to enhance their offerings or completely overhaul the way in which they approach the media value chain. New, powerful search tools are enabling consumers to discover rich media that is relevant to them, while letting entertainment companies test more-efficient ways of marketing content to their customers. Social networks and consumer-taste-sharing applications are providing a high level of personalization and control over their content streams. The changing devices and equipment found in the digital home are challenging entertainment companies that seek to embrace cross-platform distribution via the PC, portable TV or other mobile devices. Tension is further exacerbated by attempting to satisfy the competing demands of copyright holders, technology companies and consumers in how copyrights are managed and ultimately enforced through digital rights management technologies and models.

Supporting these dramatic changes is the need for internal systems that underpin the shift from analog to digital content distribution. The chief technology officers and CIOs at media and entertainment companies are burdened with streamlining the processes and re-engineering the technologies that manage the content value chain by adopting open and lightweight standards. This Hype Cycle aims to help media and entertainment executives navigate the plethora of technologies that play a key role in this digital media transformation.
Figure 1. Hype Cycle for Media Industry Entertainment, 2007

As of June 2007

Visibility

Technology Trigger

Peak of Inflated Expectations

Trough of Disillusionment

Slope of Enlightenment

Plateau of Productivity

Years to mainstream adoption:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- more than 10 years
- obsolete before plateau

Source: Gartner (June 2007)
The Priority Matrix

In the short term, portable media players will be the must-have item for the digital consumer, so companies must prepare immediately to deliver their digital content over these devices and stay on top of rapid changes in technology and business models. Apple's iTunes sets the benchmark for clear digital rights management and tight integration with the device, but other online players are catching up. Media entertainment companies must ensure that they support the widest variety of file formats possible to gain the broadest market traction.

Video on demand is becoming a major offering for pay-TV providers, as consumers look for ways to gain more control over TV viewing, and the service catches up to those demands. During the next two years, we will see an expansion in the catalog of content on offer and user interfaces, which will ease the search and discovery of entertainment content. Key to this expansion will be the use of open standards enabling content to be delivered over multiple TV platforms. Another important factor in the speed of adoption is the development of different technologies and accompanying business models that let the dynamic insertion of ads and the collection of metrics make ad-supported models a reality. Stakeholders must begin testing these models.

Several other transformational developments are on the horizon, and media entertainment companies must be willing to lead in the deployment of these technologies and services. Companies that wait for large-scale consumer trends will be far behind the curve.
Figure 2. Priority Matrix for Media Industry Entertainment, 2007

<table>
<thead>
<tr>
<th>Benefit Level</th>
<th>Years to Mainstream Adoption</th>
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<tr>
<td></td>
<td>Less than 2 years</td>
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<tr>
<td>Transformational</td>
<td>Video on Demand</td>
</tr>
<tr>
<td>High</td>
<td>Digital Terrestrial TV</td>
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<tr>
<td>Moderate</td>
<td>Blogs</td>
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<tr>
<td>Low</td>
<td>Mobile Video on Demand</td>
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*As of June 2007*

Source: Gartner (June 2007)

**On the Rise**

**Videoblogging**

**Analysis By:** Michael McGuire; Allen Weiner

**Definition:** Videoblogging involves newspapers and magazines mixing video content created “in house,” as well as from consumer and third-party content creators, to create branded channels for their content mix.

**Position and Adoption Speed Justification:** Newspapers and magazines have moved beyond the early stages of understanding how videoblogging fits into the content stream. They are now moving to add videoblogging capabilities for staff and starting to examine how they can leverage them on a full-time basis.

**User Advice:** Publishers must embrace videoblogging for their core employees — reporters and editors — and their readers. Providing another vehicle for long-form video news is not the driver here. Rather, it is to create a compelling adjunct or sidebar role, which video can play in making the core product more interesting, relevant and competitive in terms of time-share. Beyond
creating compelling content, publishers can take advantage of the higher ad revenue offered by embedded video compared to standard display and text ads.

**Business Impact:** Publishing companies must consider every form of content to extend their brands and any channel that can reach the digital natives in the market while also pulling along the digital immigrants.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** iUpload; Veoh

**Rich-Media Search Technologies**

**Analysis By:** Michael McGuire; Allen Weiner

**Definition:** Rich-media search involves the crawling and indexing of audio and video content from the Internet, external databases, and in some instances, select images that enterprises may have and want to make available to Web-based video searches. It can be done by examining individual Web pages, the video files available on those pages and the associated tags/metadata, or it can be done by reviewing and analyzing digitized content. The information is listed on indexes for searching by consumers.

**Position and Adoption Speed Justification:** The ability to find rich media is key to the success of audio and video on the Web. The technology is still nascent, but advances in converting speech to text, crawling closed-captioning and examining Web pages have drawn a lot of investment, as has phonemic analysis of audio and query text. Advances from portal search engines have been limited, but a number of companies that developed image recognition technologies for defense and intelligence agencies are looking to move into the copyright detection and filtering systems needed for large portal-based distribution of copyrighted content. This new crop of companies, as well as how incumbent portal companies react, will dictate the speed at which this market evolves.

**User Advice:** Keep an eye on the vendors in this industry and how rich-media search becomes the springboard for the consumer use of video and audio applications.

Enterprises will be best served by partnering with ASPs, rather than attempting to build solutions in-house, at least through 2009. Advertisers should recognize that results will be spotty and therefore invest only tactically.

**Business Impact:** As an ingredient of any large media or search portal, rich-media search will be a driving force behind consumer access to TV, movies and audio content. Sites that specialize in search will not thrive as stand-alone entities unless and until they are able to develop some of the core applications that have been developed by Google and Yahoo. Technologies created and developed for the media industry will trickle into the enterprise markets over time.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** AOL; blinkx; Divvio; Google
Media Distribution via Game Consoles

Analysis By: Van Baker; Andrew Frank

Definition: Game consoles are being positioned as media hubs that are used to deliver content to consumers that is not designated as game content. The early types of content include movies, TV shows and short-form videos.

Position and Adoption Speed Justification: Online game consoles are just beginning to achieve a critical mass in the gaming market, with online consoles approaching 10 million units between the different manufacturers. Although the growth is good, it is still well short of the total number of game consoles being used in the market. As a result, the online console does not yet represent a large opportunity for the distribution of traditional nongaming media content. The game console installed base will continue to convert to online gaming, and this platform will evolve to an attractive platform for downloaded media, whether gaming or nongaming content.

User Advice: Media companies should look to game console vendors as potential partners for the delivery of nongaming media content.

Business Impact: Incremental distribution platforms for media companies will target 18- to 34-year-old males.

Benefit Rating: Moderate

Market Penetration: Less than 1% of target audience

Maturity: Emerging

Sample Vendors: Microsoft; Nintendo; Sony

Web 2.0 Distribution

Analysis By: Michael McGuire

Definition: Web 2.0 distribution is the use of such tools as embedded players and permalinks, as well as social search/social bookmarking, to create viral distribution networks.

Position and Adoption Speed Justification: These viral tools have quickly morphed from darlings of the "digerati" to regular parts of many online articles. They are starting to drive an interest in and about content on social networks. Capitalizing on this interest to drive revenue is the next big step.

User Advice: Under the consumer-as-network theory, in which consumers rely on friends, peers and those whose advice they value to assist in content selection and consumption, this distribution option must be leveraged by content owners to create the basis of new types of embedded syndication models capable of increasing the reach of social networks. Portal and technology vendors must develop toolkits that enable these emerging distribution models to be monetized via advertising, micropayments and superdistribution models.

Business Impact: If properly leveraged, Web 2.0 viral tools can be the path that makes or breaks content success.

Benefit Rating: High

Market Penetration: 1% to 5% of target audience

Maturity: Emerging
Sample Vendors: Brightcove; Digg; Maven Networks; Yahoo; YouTube

Content Delivery Networks

Analysis By: Michael McGuire; Mark Gilbert

Definition: Content delivery networks (CDNs) are purpose-built IP-based networks that operate on top of existing Internet backbones. These systems are used to distribute media as downloads or streams.

Position and Adoption Speed Justification: Two irresistible forces are driving increased demand for bandwidth: media companies seeking competitive advantages by moving more content to online distribution points and consumer-generated digital media in the form of podcasts or videoblogs published on social-networking sites. The resulting demand for bandwidth to support the efficient uploading and downloading of digital media files (and related business opportunities for creating sites and services to accommodate these forces) has created the need for CDNs.

The CDN market will mature rapidly, as media companies scramble to develop multiple distribution options to deal with the fragmentation of their core audiences and reassert control points lost in the move from physical to digital media. In mid-2007, BitTorrent landed deals with a number of movie studios, game developers and music labels to stock their own media and entertainment services. However, less well-known is the company’s effort to create “white box” solutions for entities that want their own distribution networks, be they media companies or enterprises. However, regulatory forces such as the Net neutrality debate may hinder the market's rapid acceleration, as existing Internet service providers (ISPs) resist allowing CDNs unfettered access to their networks.

User Advice: Media companies, content providers and emerging media titans must carefully assess the opportunities for partnering with CDNs. As more consumers look to online service options for searching for and acquiring content, an efficient and seamless experience will mean the difference between success and failure.

Business Impact: Content providers and media companies have the most to gain, in terms of creating strong partnerships with CDNs. CDNs can exploit efficient peer-to-peer or BitTorrent-like architectures to grow quickly and take complete advantage of the resulting benefits. Existing ISPs will be potentially disruptive forces, because they view CDNs and the newer delivery architectures as potential drains on their network bandwidth. Thus, the Net neutrality debate will cast a large shadow over the evolution of these services.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Akamai; AT&T; BitTorrent; CacheLogic; Limelight Networks

At the Peak

Network DVR

Analysis By: Elroy Jopling; Patti Reali

Definition: Network digital video recorders (DVRs), alternately known as network personal video recorder (PVRs), are similar in their consumer functions to their stand-alone DVR (PVR)
counterparts, enabling the consumer to record, store and play back content with DVD-like functions. The primary difference between DVRs and network DVRs is that the DVR has storage on a hard drive within the set-top box, while the network DVR storage is on the network. For larger operators, the required storage will grow to be in the thousands of terabytes.

**Position and Adoption Speed Justification:** Adoption of network DVRs will vary by geography. North American cable and IP television (IPTV) operators are interested in the technology, and it is not difficult to deploy. Also, from a business rationale, the return on investment is attractive because a lower-priced set-top box can be used and truck rolls can be reduced. However, U.S. courts have ruled that network DVRs supposedly contravene copyright laws, even though the network DVR works similarly to a stand-alone DVR in storage functions and playback features. The issues are primarily business ones, related to payment for copyrighted content, and ultimately, it will come down to the crafting of agreements between service providers and content owners, as well as what service providers are willing to pay for extending the rights for this content to network DVR platforms. The court ruling is under appeal. Cablevision is the plaintiff in the case and has discontinued plans to introduce the network DVR. Time Warner Cable, however, has worked with the content owners and networks, introducing its network DVR functionality. The timing and outcome of the legal maneuvering are questionable. Network DVR will evolve more quickly outside of North America where copyright laws are not as aggressively pursued. Also, although North American cable operators have been successful in deploying DVRs, the same is not true in other geographic locations. From a business case perspective, many service providers in other regions will skip the set-top box DVR and move directly to the network DVR because of the higher capital expenditure requirements for set-top based DVRs. Examples of this strategy already exist in some European countries and will provide significant potential in high-growth markets such as India and China. For most non-North American countries, network DVR adoption will be based on their IPTV rollouts.

**User Advice:** For telecommunications companies and cable operators, network DVR provides a potent weapon against satellite operators while addressing the growing demand for personalization and customization of the consumer video-viewing experience that time-shifting technology enables. Regional implementations will vary because of copyright laws, and their interpretations and carriers must be prepared to address these discrepancies with different strategies. No matter what the regional differences are, the operators must have a working relationship with the studios and networks. Part of this relationship is educating the studios and networks about the accruable benefit of the network DVR. The consumer will continue to time-shift. A network DVR can offer significant benefits over a set-top box DVR. A network DVR can handle how advertisements are treated, from not allowing ad skipping to enabling the advertiser to update and replace old advertisements for more targeted advertising.

**Business Impact:** Network DVR will affect most, if not all, the players in the consumer pay-television value chain. For consumers, its positioning facilitates greater time-shifting and moving to a "what you want and when" world. Although cable and telecommunications companies benefit from lower capital and operating expenditures, satellite operators will be the losers if they don't enable a robust and viable return path with greater enhanced video capabilities other than push video on demand.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** C-Cor; Cisco Systems/Scientific-Atlanta; Ericsson/Tandberg Television; Kasenna; Sun
Recommended Reading: "Dataquest Insight: The Future of the IPTV Experience"

Consumer-Generated Media

Analysis By: Michael McGuire

Definition: Consumer-generated media (CGM) refers to any written, audio or video content created by end users, using basic or semiprofessional tools.

Position and Adoption Speed Justification: CGM is filling content pipelines with material that competes with established media for consumer time-share. By extension, CGM does undermine traditional mass-media business models.

User Advice: CGM must be embraced by traditional media companies and used to their advantage, but with the caveat that vigilance is required. The proper mix of premium content and CGM that supports many premium titles provides a 360-degree offering to consumers and provides cross-marketing and multichannel advertising opportunities. That said, media companies must be diligent in tracking CGM publishing sites for potential copyright violations, while acknowledging and enabling the potential business benefits of CGM. The best and latest example of striking this balance between protection and business opportunities is George Lucas’s announcement in May 2007, making clips available from the "Star Wars" films for consumers to use in their own creative works.

Business Impact: Because of a lower barrier to entry for consumer creators, it could be difficult to gain the audience’s time. Additionally, the potential benefits of working with CGM must be balanced against a media company’s or rights holder’s need to monitor sites such as YouTube and MySpace for copyright violations. While these sites and others have implemented some types of copyright detection/filtering systems to prevent the publishing of unlicensed copyrighted material, rights holders are still responsible for tracking and reporting violations. This process can impose significant costs (in time and money), and many media companies believe some CGM sites are not doing enough to discourage copyright abuse.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Adolescent

Sample Vendors: vSocial; VideoEgg; Yahoo; YouTube

Consumer Content Creation Tools

Analysis By: Michael McGuire

Definition: These tools are used to capture, organize, convert, edit, embellish and publish consumer-created content on the Web.

Position and Adoption Speed Justification: Media coverage of podcasting, remixing, blogs and videoblogs is reaching saturation. Consumer adoption of these tools, especially among digital natives, is significant. Content creation tools are rapidly evolving from a “shrink-wrap software” model to online platforms that can take advantage of native code for capture and local storage of content and network services for publishing and, increasingly, editing and embellishing content with third-party elements. This hybrid model opens up new business opportunities beyond software sales, such as premium subscriptions, various advertising forms and promotional services for content creators. Mainstream media companies are adopting technologies such as podcasting (for example, BBC Radio, The New York Times, San Francisco Chronicle and Infinity...
Broadcasting already have multiple programs available in podcast form) to reach new audiences and enable consumer creators to become part of the conversation.

**User Advice:** Software platform providers targeting the consumer market need to extend programs from pure management of photos, video and the like and provide simple (as few button clicks as possible) file conversion and publishing options for content. Consumer content creation tools represent an important channel for media companies to promote new properties. Content companies must continue to work with technology companies to enable these channels and ecosystems where consumer content creators can reuse copyrighted material for their own noncommercial uses. In addition, consumer content creators want to be able to add effects and publish via social-networking sites, blogs and so on.

**Business Impact:** Increasingly easy-to-use digital editing tools for consumers, combined with multiple publishing options, will have an impact on everything from service-related businesses to software development. Media entertainment businesses will see major shifts in how and what they monetize. Libraries of older content could become very valuable as source material.

**Benefit Rating:** Transformational

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Adobe; Apple; Avid; Microsoft; Motionbox; VideoEgg; Yahoo

**Recommended Reading:**
"Content Creation, Publishing at Heart of Apple's iLife '06"
"Online Video Communities Embrace Web 2.0 to Capture Eyeballs"
"Future Digital Media Titans Will Exploit Content's Shifting Value"

**Intellectual Property Rights and Royalties**

**Analysis By:** Van Baker; Michael McGuire

**Definition:** Intellectual property rights and royalties (IPRR) software lets companies with digital media assets monetize those assets by issuing contracts that license the use of their IP for distribution, incorporation with advertising, use in consumer products, or display through traditional and digital means in vehicles other than those owned by the copyright holder. The software typically integrates with a digital asset management solution to determine the authorized use of the IP, create and manage contracts that license the use of the IP, and report on the financial returns received as a result of licensing activities. Solutions should incorporate analytics to determine the relative performance of properties and integrate with a digital rights management solution to monitor compliance with the licenses that have been granted and identify the unauthorized use of IP.

**Position and Adoption Speed Justification:** The shift from analog to digital assets has changed the nature of IP in the media industry. IP that used to consist of a single episode can be treated as literally hundreds of digital assets. As such, IP management systems have struggled to adapt to the changes in the nature of asset licensing. As a result, we are in the early stages of digital IP management in the media industry as many companies begin to convert from manual to automated processes. Many of the IPRR solutions have grown out of custom consulting/integration engagements that used traditional tools and attempted to adapt them to the unique needs of IP management. As such, issues remain with the integration of legacy applications, such as financials, sales force automation and CRM. Additionally significant growth
issues will only increase as companies move to monetize more of their assets in increasingly discrete ways.

**User Advice:** Media companies should evaluate IPRR solutions carefully, with particular attention paid to the integration level offered for core business applications and potential for growth. As an IP portfolio grows with the conversion to digital assets and business model alternatives proliferate, demand will increase for customized solutions for IPRR needs.

**Business Impact:** IPRR affects IP management, contract management and CRM. In contrast with businesses that are trying to protect their IP, media companies are trying to protect their assets while making them available for use in several business models. As such, the needs of the industry are unique.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Counterpoint Systems; Jaguar; PLX Systems; Rightsline; RSG Media Systems/RightsLogic; SAP; Sophoi

**Legal File Sharing/Legitimate P2P**

**Analysis By:** Michael McGuire

**Definition:** Direct data transfers among end-user PCs (popularly known as peer-to-peer [P2P] file sharing) is being used for legitimate video and music distribution. For example, BitTorrent launched an online media network, which has movies, video, music and game content licensed directly from rights holders. The models can be consumer paid or advertising paid, and they use playlist sharing, friends' recommendations or other viral effects to support legal distribution of entertainment content.

**Position and Adoption Speed Justification:** Beyond BitTorrent, entities such as Joost (developed by the team that created Skype) will use a P2P architecture to distribute licensed content. In addition to the pure P2P networks, some content delivery networks (CDNs), such as CacheLogic, leverage P2P infrastructure to lower delivery costs.

**User Advice:** Backbone providers, telecommunications companies and media companies that want to get into the exploding market for online video delivery must examine and review P2P or BitTorrent-based architectures as important alternatives to traditional network architectures for delivering large video files.

**Business Impact:** This technology leverages low-cost distribution models and reduces the use of pirate P2P sites by offering legal alternatives. It has the potential for significant impact on IPTV providers’ tiered-pricing models. Carriers will likely compete on distinctive services, such as HD content, or get P2P service providers to pay for caching-type services.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** BitTorrent; CacheLogic; iMesh; Peer Impact (owned by Wurld Media)
Mobile Search

**Analysis By:** Sandy Shen

**Definition:** Mobile search technologies enable users to find information and content online through a mobile phone. There are two main types: Wireless Application Protocol (WAP)-based and client-based. With the former, users access either their mobile operator's WAP portal or a WAP portal run by a search provider such as Google or Yahoo. There they enter search terms in a search box, rather as they would when using a PC. With the client-based approach, they use a search application either pre-installed on the phone or downloaded at their own request. The client-based approach is generally easier to use, and it supports more features. Other, less common, approaches include Short Message Service (SMS), picture, voice and location-based searching.

**Position and Adoption Speed Justification:** In 2006, the mobile search market saw a slew of high-profile announcements of partnerships between mobile operators and Internet search providers, but these have led to few developments. Ironically, seven European and American carriers — several of which had deals with Google and Yahoo — teamed up in early 2007 to develop their own search engines to rival those of online providers. This move was symptomatic of wider confusion in the industry about which technology works best, which channel to use for search, which companies to collaborate with, and how to make money from search services. This uncertainty will not be dispelled anytime soon.

There are several requirements for a successful mobile search service. The technology must be made more precise than its online equivalent, so that it recognizes the user's intention immediately. It must also support more efficient text-input methods, such as voice recognition. Additionally, the comparative lack of mobile content must be addressed. Furthermore, carriers must increase their marketing in order to raise customers' awareness and make the search function easy to find for handset users. U.S. operator Alltel Wireless has teamed up with JumpTap, a mobile search specialist, to put a dedicated search key in a mobile phone.

Finding the right revenue model is also important. At present, carriers and content providers use mobile search facilities to encourage content purchases, but in the long term mobile search will be fueled by advertising. This will demand collaboration between carriers, content providers, advertising networks and search providers — which will take a long time to shape.

**User Advice:** Mobile carriers should work with multiple search providers (whether "white label" or branded), as no one provider can do everything well. It is also important to experiment with different technologies and channels to see which work best. Mobile carriers should also make user data available to advertisers and content providers in order to help them recommend content, while giving users opt-in and opt-out choices.

**Business Impact:** Mobile search capabilities will help to increase sales of content in the short term, and may generate advertising revenue for mobile carriers in the long term. They may also help to keep mobile subscribers loyal.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Google; InfoSpace; JumpTap; Medio Systems; MotionBridge; Yahoo

**Recommended Reading:** "An Introduction to the Mobile Search Market"
Podcasting

**Analysis By:** Michael McGuire

**Definition:** Podcasting involves prerecorded, radio-like-format delivery of audio/spoken-word content captured on PC-based hardware and software. Content is as different as the interests of the people creating it. Creators range from individuals making podcasts in their home offices or on the road with their notebooks, to professional news organizations, including the Washington Post, ABC News and other established media outlets. Listeners subscribe (creating a regular delivery channel) via Really Simple Syndication (RSS) or Atom's Syndication Format. Podcasters create feeds, typically hosted on their blogs. Listeners subscribe to feeds either directly or through services such as Apple’s iTunes. Additionally, iTunes, the online music store, also provides free indexing of podcasts. Podcasters submit their pieces, and they are indexed on iTunes, enabling podcasters to reach a broader audience.

**Position and Adoption Speed Justification:** Podcast subscriptions will become increasingly important as the market for content continues to fragment. Maintaining persistent links with consumers/listeners via the RSS link is crucial.

**User Advice:** Podcasting is a viable alternative for delivering audio/spoken-word content to employees or partners and should be considered for distributing content that can be converted into audio format and is not time-sensitive. Media companies such as radio stations and news companies must adopt podcasting as a way to extend their broadcast and online footprints. Marketers and advertisers must also invest in podcasting, because it offers a way to target niche audiences through sponsorships of leading category podcasters.

**Business Impact:** Podcasting's popularity is giving way to video podcasts — video content captured by individuals but delivered via a similar RSS-based syndication model — in the consumer market. For enterprises, the costs of developing portable video content are dropping rapidly, and the delivery infrastructure developed for podcasts can be used for delivering short, timely videocasts to employees and partners. An audio podcast is an extremely efficient method for delivering audio and spoken-word content to niche audiences, and it can still be an important corporate communications tool. However, video podcasts or videoblogs may offer equally compelling tools to enterprises.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Recommended Reading:** "Newspapers Can Find Salvation as TV Channels"
"Super Enablers Begin to Reshape the Media Ecosystem"

Mobile TV Broadcasting

**Analysis By:** Carolina Milanesi

**Definition:** This involves the broadcasting of digital TV programs to cellular handsets using technologies such as Digital Video Broadcasting — Handheld (DVB-H) and Terrestrial Digital Multimedia Broadcasting (T-DMB).

**Position and Adoption Speed Justification:** Many trial projects were run in 2005 and continued in 2006, in countries such as Australia, Finland, France, Germany, Italy, Spain, the U.K. and the U.S. Commercial services were launched in a few markets — Italy, Germany and the U.K. among
them — in the second half of 2006, to add to those already operating in South Korea and Japan. In the U.S., MediaFlo has recently launched a commercial service with Verizon Wireless.

The key hurdle for widespread launches of commercial DVB-H services remains the lack of free spectrum. DMB technology remains confined to Asia for the time being. Although we expect mobile TV to become a key service going forward, we believe broadcasting television will be only one part of the TV/video offering that carriers will have. Furthermore, this will be very much a pushed service, rather than a service that consumers demand.

User Advice: Mobile carriers should:

- Guarantee quality, variety and exclusivity of content
- Drive uptake so that the market looks interesting to advertisers and they can then experiment with advertising-funded content
- Make mobile TV a unique "TV experience"

Business Impact: Mobile TV broadcasting will affect all areas of video production, rights management, syndication and advertising.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: DiBcom; LG; Nokia; Philips; Qualcomm; Sagem; Samsung; Texas Instruments

Recommended Reading: "Dataquest Insight: Revenue Model for Mobile TV Needs Tuning"

HD Optical Disc Players

Analysis By: Van Baker; Michael McGuire

Definition: Next-generation optical disc players include Blu-ray and high-definition (HD)-DVD optical disc players. These competing formats offer consumers the ability to play back movies in HD, including 720-line progressive scan (720p) and 1,080-line interlaced scan (1080i) resolutions. The capacity of these discs is three to five times that of dual-layer DVDs.

Position and Adoption Speed Justification: The rise of two competing incompatible formats in the market shows that the consumer electronics industry has a short memory. The last time the market had two competing formats (VHS and Beta), delays resulted, and adoption failed to accelerate until a clear winner emerged with 20% penetration and at least a 20 percentage point lead in market share. Consumers will likely wait until a clear winner emerges before purchasing a next-generation DVD player. The wild card in the mix is the Sony PlayStation 3 game console, which has a Blu-ray player built in. The console has been slow to penetrate the market. This has given the HD-DVD format a foothold that was larger than expected in the early going and prolonged a format war that could have been over by now were it not for the PlayStation 3 problems. This has delayed the emergence of an eventual winner in the market. We have begun to see the emergence of dual-format players, but they are expensive and will likely not solve the problem. In addition, Time Warner has proposed a dual-format media option, with Blu-ray on one side and HD-DVD on the other, but this has gained little momentum in the market.

User Advice: Media companies should publish content in the format that they prefer to prevail initially but should be prepared to switch to either the winning format if one emerges or both if it looks as if a war of attrition is taking place.
PC vendors should wait until a winner emerges but, in the interim, offer both formats in build-to-order configurations.

**Business Impact:** This technology will ultimately become mainstream, but it will take a while because of the competing formats. In the interim, it will increase costs for media companies, which must distribute content in each format to satisfy a small market or try to pick a winner and surrender the potential associated with the competing format. The technology will affect consumer electronics companies and media companies, as well as TV service providers. TV manufacturers will be the least impacted, because the interface for most HDTVs has already been established (whether Digital Visual Interface [DVI] or High-Definition Multimedia Interface, which is backward compatible with DVI).

**Benefit Rating:** Moderate

**Market Penetration:** Less than 1% of target audience

**Maturity:** Emerging

**Sample Vendors:** Sony; Toshiba

### Sliding Into the Trough

**IPTV**

**Analysis By:** Adam Daum; Patti Reali

**Definition:** Internet Protocol television (IPTV) refers to video services delivered to TV sets over managed IP telecommunications networks. The networks may be copper, fiber or fixed wireless; the video streams may be standard or high-definition; and the services typically employ advanced compression (AVC) technologies such as MPEG-4, H.264 or VC-1. IPTV services are normally provided by telephone companies in competition with cable or satellite TV providers; however, cable TV companies may use IPTV to deliver their services to households that are not passed by cable.

**Position and Adoption Speed Justification:** IPTV has the potential to be transformational. For telcos, it provides a way to respond to triple-play offerings from cable TV operators, to enter the digital media ecosystem and to establish a platform in the home to support a wide variety of future services. For consumers, it could transform the TV-viewing experience, improving navigation and options for on-demand consumption and integrating the TV with both the PC and mobile devices.

However, many factors will slow adoption. These include consumer inertia, lack of product differentiation, market saturation, highly competitive multichannel TV markets, immature technology, telcos' lack of experience in content aggregation and marketing, unproven business models, and increasing competition from video delivered via the public Internet.

**User Advice:** Expect market development to vary by region, with U.S. markets lagging because of delays in infrastructure build-out, high investment requirements and lack of clarity in the regulatory area. Europe will remain the leading region in the short term, spearheaded by France, but we expect the Asia/Pacific region to become the leader in subscriber numbers from 2009. Key beneficiaries in the midterm will be the equipment technology suppliers and system integrators. Service provider opportunities are contingent on the ability to differentiate services, especially in regions with significant satellite and cable deployment.

Service providers should therefore look beyond premium content in their search for differentiation, considering price, unbundled content, consumer-generated content, interactive services,
integrated communication services, convenience/flexibility, navigation/search and an improved overall customer experience.

**Business Impact:** IPTV will help drive convergence of the communications and media industries. In addition, it offers a new distribution channel for media, new revenue streams and bundling options for telcos, and an opportunity for cross-platform integration of services and applications.

**Benefit Rating:** Transformational

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** AT&T; Belgacom; BT; Deutsche Telekom; Fastweb; France Telecom; PCCW Limited; Swisscom

**Recommended Reading:** "IPTV World Forum 2007 Offers a Reality Check"

"IPTV in France: Free Tests Low-End-Disruptor Model"

"Customer Experience Is King"

"Key Issues for Carrier Network Infrastructure, Applications and Wireline, 2007"

"Hybrid TV Services Explore New Approach to European Markets"

"Leading IPTV Carriers and Their Technology Vendors"

"Findings From the Gartner 2006 Global Research Meeting: IPTV Is a Platform, Not a Product"

"Forecast: IPTV Subscribers and Service Revenue, Worldwide, 2004-2010"

**Broadband Video on Demand**

**Analysis By:** Andrew Frank; Michael McGuire

**Definition:** Broadband video on demand is the reception of video content on a PC at the click of a mouse. There are both streaming and downloadable versions of this, but generally, the defining characteristic is instant access, along with "trick mode" controls (such as pause, fast-forward and so on). Digital rights management (DRM) may be used to protect this content. It should be noted that, for the purposes of this definition, we are concentrating on long-form professional content rather than on short-form user-generated clips. This definition supersedes the "broadband video" profile of previous Hype Cycles.

**Position and Adoption Speed Justification:** Although consumer-generated video has taken off on sites like YouTube, more-substantial challenges face long-form broadband video in gaining acceptance. Foremost is the problem that most consumers prefer to watch long-form video on TV rather than on a PC, especially given the adoption of high-definition televisions. The technology to transfer broadband video from PC to TV screens has faced its own set of technology and usability challenges. In addition, DRM requirements for broadband distribution have posed a usability problem, as usage restrictions associated with rental models and device binding have produced negative user experiences. Apple's iTunes, however, has reigned interest in long-form content on demand by offering superior choice, including next-day TV series, and by eliminating many of the DRM issues. A new wave of offerings, including Amazon's Unbox, Joost and BitTorrent, has created new competition and anticipates stronger consumer demand.
**User Advice:** Content owners: Keep close tabs on the evolving business and digital rights management environment. Enter this market as soon as you find solutions offering "good enough" protection, because it will never be perfect.

Video distributors: Look up and down the chain for partnerships. Niche content has the potential to flourish in this environment, if presented by an effective aggregator.

Technology providers: Overcome the home networking and interoperability bottlenecks. The greatest barrier to widespread consumer adoption of broadband video is still getting the content from the PC to the place where people really want it, whether it is TV or some other device.

**Business Impact:** This affects streaming and downloading technologies, compression, digital rights management, digital asset management, advertising, consumer devices, and related technologies.

**Benefit Rating:** Transformational

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Emerging

**Sample Vendors:** Amazon.com; Apple; BitTorrent; CinemaNow; Joost; Movielink

**Blogs**

**Analysis By:** Michael McGuire; Allen Weiner; Andrew Frank

**Definition:** A blog, which derives from the term "weblog," is a Web site designed to make it easy for users to create entries in chronological order. The entries are then displayed in reverse chronological order (most recent first) and are generally archived on a periodic basis. Blogs are mostly used to express opinions on topical events such as sports, music, fashion or politics. They may be maintained by an individual, group or organization.

**Position and Adoption Speed Justification:** Blogs are pervasive. Google, Yahoo, Six Apart and MSN, among others, have blogging platforms, and publishers have begun to monetize blogs. While some press reports have characterized the blogging trend as having peaked, this perspective ignores the fact that new users are coming on the Web every day. It also ignores a trend toward extending the blogging phenomenon to mobile devices.

**User Advice:** Blogs have grown from a novelty to a mainstream platform for content distribution. Therefore, it is time to align IT and business forces to develop a blogging strategy for corporate and public-facing opportunities. Enterprises must define clear strategic objectives for blogging and support them with policies both to encourage executives and employees to maintain regular entries and to identify and discourage harmful blogging practices. It's generally a best practice to involve a PR group in the review of an enterprise's blog and, if a public company, to involve investor relations.

Companies should fully disclose the provenance of its blogs and eschew temptations to create false or deceptive "fan" blogs, often called "flogs," which almost invariably backfire into public relations disasters.

**Business Impact:** Print content companies — from magazines to newspapers — are affected. Increasingly, any public-facing media company or enterprise must have a blogging strategy. A need for better blogging tools will continue to drive developer and hosting business opportunities.

Liberal citation and quotation of other sources — not always clearly or appropriately referenced — is the current norm for blogs, which makes monitoring them important, to protect syndication
policies in the case of media companies, and brand integrity in the case of marketers. Several tools support the monitoring of brand mentions in blogs, and at least one tool — Attribute — can identify specific instances of copyrighted text in blogs.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Blogger; Bloglines; Movable Type

### Consumer Digital Rights Management

**Analysis By:** Michael McGuire; Ray Wagner

**Definition:** Consumer digital rights management (DRM) technologies control how consumers can use copyrighted material (for example, music, books and magazines).

**Position and Adoption Speed Justification:** The online music market continued to serve as an instructive leading indicator for other media sectors in 2007, with the market-changing announcement in April 2007 that Apple and music label EMI agreed to start distributing EMI's catalog of music to iTunes consumers without Apple's FairPlay DRM. The unprotected files are encoded in the AAC format at 256 Kbps and sold at $1.29 per track. These files are offered alongside the existing catalog of content, which is encoded in the AAC format at 128 Kbps, protected by the FairPlay DRM and sold at $0.99 per track. This setup gives the music labels a tiered pricing model, which they have been asking for, with the consumer benefit of the higher encode rate (delivering a higher level of audio fidelity) and the absence of DRM. This won't be the first commercial online service to sell content without DRM — eMusic (founded in 1998 as GoodNoise) has been selling DRM-less MP3 files since 1999. However, while it has over 2 million tracks in its catalog, it does not have any of the major-label content. Industry consortia aimed at developing interoperable DRM capabilities — Coral Consortium and the Open Mobile Alliance (OMA) in the mobile communications space — have made moves to ameliorate concerns regarding complex licensing terms and the like, but are still some way off from delivering broad and deep consumer-facing service offerings. Efforts at hardware-assisted security mechanisms (such as the Trusted Computing Platform Alliance) are still not making significant gains at this time.

**User Advice:** Rights holders must partner with DRM providers — such as Microsoft and Macrovision — which can protect content but also enable consumers to virally share it. This viral sharing is the new face of marketing and promotion of music and, eventually, all media. The best evidence of the power of viral sharing is the explosive growth of online video, led by YouTube, Break.com, iFilm and others. A crucial part of the success of those sites has been that each enables viral sharing by letting visitors mail links to specific videos.

**Business Impact:** The technology protects copyrighted intellectual property and prevents redistribution. A risk exists for vendors that emphasize the "lockdown" aspect of DRM and are not able to refocus their technologies to enable rights holders to use DRM as primarily a tracking and accounting tool. By shifting the emphasis from locks to accounting tracking, media and technology companies can look to leverage the ability to deliver highly targeted advertising, for example, that can deliver a potentially lucrative revenue stream.

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience
**Maturity:** Adolescent

**Sample Vendors:** Apple; Macrovision; Microsoft; Open Mobile Alliance; RealNetworks; Sony

### Climbing the Slope

#### Broadband Music

**Analysis By:** Michael McGuire

**Definition:** Broadband music is the delivery of licensed music files from online stores (for a la carte downloading) or subscription services (in which subscribers can stream songs or download them to appropriately authenticated devices). Songs are played on a PC or can be moved to a portable music player, such as an MP3 player.

**Position and Adoption Speed Justification:** The broadband music market showed extremely strong growth in 2006, with hundreds of legitimate online stores available around the world, and Apple iTunes selling as many as 5 million songs a day worldwide. However, while digital sales saw strong growth, they still accounted for less than 10% of the overall retail music market, and physical CD sales continued to slide. Meanwhile, millions of consumers around the world continue to use P2P technologies to find and obtain music files for free. In the first half of 2007, a major shift occurred in the music industry driven by two things: 1) Apple and EMI moving to distribute EMI content without the DRM wrappers that labels had previously required; and 2) major labels experimenting with making their content available in music-based social-networking sites such as Last.fm (purchased by CBS in May 2007) and YouTube. The midpoint of 2007 will be noted as an important shift in the music industry worldwide, because the labels began to embrace third-party providers developing better search, discovery and "legal" sharing technologies, while revising their view of DRM as primarily a locking/control mechanism, instead viewing it as more of an accounting and tracking tool.

**User Advice:** Music labels, publishers and rights holders must continue to invest in the broadband music sector by developing targeted marketing and promotional tools that are better suited to online consumers. In particular, labels, publishers, rights holders and artists should expand their work with the developers offering better search, discovery and "legal" (and viral) sharing tools. Labels must also continue work with DRM vendors such as Microsoft, Apple, the Coral Consortium, the Open Mobile Alliance and others to refocus on creating interoperability solutions to enable viral sharing and, potentially, advertising. This will require a shift away from DRM as a locking mechanism and a move toward it being a tracking/accounting tool.

**Business Impact:** Broadband/online music distribution is the future of the recorded music industry. The CD-R and MP3 file format begat the illicit P2P networks but freed consumers in the process, letting them become their own favorite music programmers. For the industry, the lowered costs of digital distribution (almost $0.40 of every physical CD’s price goes to distribution costs) is one of the key benefits of online distribution. Enabling technologies can still help the music industry, and online consumers will make the transition to broadband music. In particular, the music industry is beginning to work toward a crucial objective: engaging with vendors that are developing standardized methods for tracking royalty payments for songs distributed online.

**Benefit Rating:** Transformational

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Apple; Last.fm; Microsoft; RealNetworks; SanDisk
Interactive TV

Analysis By: Andrew Frank

Definition: Interactive TV is any platform that enables two-way television services, such as electronic program guides (EPGs), video on demand (VOD), interactive advertising, games, and information, transaction, and communication services. Interactive TV can consist of both local or network interactions, but must support some return path to a network-based station that can collect data, process transactions and so on.

Position and Adoption Speed Justification: Interactive TV has taken nearly 20 years to make its Hype Cycle journey, since it first emerged in trials in the early 1990s. During this long period, its architecture, design and business models have changed considerably and continue to do so. Thus, although it is climbing the slope toward productivity, we still see it as a slow-moving technology at least five years away from fully realizing its ultimate promise.

EPGs and VOD are now common with the success of digital cable and satellite TV. Other interactive TV applications lag behind, and regional adoption varies significantly (for example, North America lags parts of Europe and Asia). Interactive TV will gain more exposure with wider application of digital production and distribution and as broadband video delivery influences cable, satellite and broadcast delivery.

Satellite TV companies increasingly offer interactive features, particularly in the U.K. and the U.S., with cable companies in early deployments. The ongoing addition of new technology and standards to this field (and the ensuing interoperability issues) means that interactive TV still faces slow adoption, and TV delivery architectures will continue to evolve, adopting more IP elements and Internet standards, before stability is reached.

Interactivity will be driven largely by advertising applications. However, advertisers have not yet found sufficient value in interactive TV — especially in linear-programming contexts — to justify the high investment in developing reliable and effective ways to use real-time interactivity.

User Advice: The technical capability for interactivity will move into the TV set-top box by way of the broadband connection, as it has for digital video recorder (DVR) platforms.

- Television operators must continue to press for interoperable standards based on Internet protocols.
- Operators and TV networks must develop business models that can effectively leverage technical possibilities.
- Advertisers and agencies must consider how best to support emerging interactive TV capabilities within a multiplatform model through integrated ad server platforms.

This area is ripe for partnerships that combine cutting-edge technology with business vision and staying power.

Business Impact: Cable, satellite and IPTV operators have a substantial opportunity to increase their revenue share from advertisers and direct marketers by offering interactive features that can support transactions and consumer engagement. Consumer electronics, middleware and set-top boxes face potentially decisive competition to strike the right balance between features and cost. TV networks and advertisers, for whom DVR-based ad-skipping is a significant disruptive trend, rely on interactive features, along with more-dynamic targeting, to shore up the value of the TV medium to advertisers.

Benefit Rating: High
**Market Penetration:** 5% to 20% of target audience

**Maturity:** Adolescent

**Sample Vendors:** emuse technologies; Gemstar-TV Guide International; OpenTV; Tandberg Television

**Mobile Video on Demand**

**Analysis By:** Carolina Milanesi

**Definition:** The provision of video content for mobile phone users to download over mobile networks at a time of their choosing.

**Position and Adoption Speed Justification:** Video has been available to download to mobile phones for several years on General Packet Radio Service (GPRS) and cdma2000 networks. But it is only since the arrival of fast Enhanced Data Rates for Global Evolution (EDGE) and third-generation technologies such as wideband code division multiple access (WCDMA) and CDMA2000 1X EV-DO that the download process has become tolerable for many users.

Music videos, sports clips and adult content are by far the most popular types of material. And, with the storage capacity of mobile phones increasing all the time, we could well see interest in these and other topics grow, as people will be able to store more — and longer — videos on their handsets.

**User Advice:** Mobile carriers should:

- Encourage video downloads at times of day when their networks are underused.
- Offer material that complements their mobile TV services.

**Business Impact:** Video on demand has an impact on mobile data services, the production of content and digital rights management.

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Ericsson; Motorola; Nokia

**Entering the Plateau**

**Digital Terrestrial TV**

**Analysis By:** Adam Daum; Patti Reali

**Definition:** Digital terrestrial television (DTT) refers to the transmission of TV channels in the UHF spectrum using digital encoding and compression technologies such as DVB-T in Europe or the ATSC standard in the U.S. It is broadcast from terrestrial towers rather than via wireline cable networks or satellite, although these digital broadcast channels may also be collected at cable head ends and satellite network operations centers (NOCs) for further redistribution to subscribers. Consumers can normally receive DTT using the same rooftop aerial they used for traditional analog terrestrial TV. However, they require a digital receiver-decoder, either in a set-top box or in an integrated TV set.
Position and Adoption Speed Justification: Overall worldwide adoption of DTT is very low, but this is due to spectrum regulation and market competition issues, rather than technology maturity. DTT has achieved significant adoption in the U.S. and U.K., and regulators in many other countries will encourage analog-to-digital transitions from 2008 through 2012. The appeal and increased availability of high-definition (HD) programming will encourage consumer adoption in the U.S. However, most DTT in Europe is standard definition, and HD is fast becoming a political issue. If regulators allocate sufficient spectrum for HD channels, it will reduce the "digital dividend" — that is, the amount of spectrum that can be sold after the analog signal is switched off; but without HD, DTT will be at a competitive disadvantage against cable and satellite TV.

User Advice: The end of analog TV transmission in the U.S., now scheduled for February 2009, is a significant force in the economics of television worldwide. Most U.S. station owners have turned their attention from digital transmission equipment to production and distribution within the station, which will have ripples into consumer technologies. Look for "prosumer" opportunities in storage, video/audio editing and cameras. Advancements in encoding, compression, metadata and digital asset management will also affect consumer technologies, but less directly.

Business Impact: Digital TV affects consumer electronics, advertisers, and cable/satellite/broadcast and technology supplier/system integration. It will also affect cable TV service providers that will need to accommodate multiple digital broadcast channels, also known as digital multicast must-carry, on their already-bandwidth-constrained networks. This issue is now under regulatory review in the U.S. at the FCC.

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Recommended Reading: "Key Issues in the Media Industry, 1H07"
"Hybrid TV Services Explore New Approach to European Markets"
"The Future of Digital TV in Italy"

Video on Demand

Analysis By: Adam Daum; Patti Reali

Definition: Video-on-demand (VOD) services enable consumers to choose movies and TV shows from a library of titles; start watching at any time; and pause/fast-forward/rewind as if they were watching a DVD. To do that, VOD requires a two-way communications capability, which is available via digital cable and Internet Protocol television (IPTV) systems. It is not yet available via satellite, although satellite providers emulate VOD by "pushing" programming to set-top boxes (STBs) equipped with personal video recorder (PVR) technology and significant storage capacity, rotating out the content on a monthly basis. Satellite may add true two-way VOD capability by adding wireline, broadband over power line, or fixed wireless broadband connectivity to the satellite receiver/STB.

Position and Adoption Speed Justification: Deployment on digital cable in the U.S. and Canada is virtually complete, but not all digital cable networks were 100% VOD-enabled at the end of 2006. There were more than 65 VOD services in Europe at the end of 2006, and VOD is also becoming a standard part of many IPTV services. Interfaces, program guides and user experience are improving, and some allow the consumer to search for content across the VOD library, the TV schedule and content already stored on the PVR. The greatest accelerator of consumer adoption in 2006 was the increasing pace of content deals and the deeper catalog of
feature films and special events. Middleware providers are now working to improve the customer experience through enhanced navigation with video search and recommendation engines. The next major milestones for media companies will be workable business models to provide ratings and sell advertising around VOD using digital ad insertion technologies. This would transform VOD from an incremental value-add to an active revenue engine for pay-TV operators. Other major milestones for cable/IPTV operators will come with the movement of release windows for content to the same day/date as the release of content for DVDs and even theatrical release. Cable operators are in trials with several major studios in a few markets now for same-day/date release of DVDs to cable VOD services.

**User Advice:** Content producers: Use VOD to generate extra revenue from content that has already made its money from broadcast distribution; also, improved search and navigation will enable you to monetize your archives.

STB makers: Strike the right balance between low cost (to allow cable operators to shorten hardware replacement cycles) and adaptability (to allow for software and firmware upgrades that extend the life of the box as services mature and evolve).

Advertisers and agencies: Encourage and participate in trials of new audience measurement models and targeted ad delivery technologies.

Studios: Participate in more-widespread trials and experiment with pricing models for simultaneous release windows for content to VOD systems and to DVD.

Cable operators: Expand the VOD content libraries to gain/maintain competitive advantage against satellite/IPTV providers; promote and use local content as a wedge against competition.

**Business Impact:** VOD affects cable, satellite and IPTV operators; server, storage, middleware and STB makers; content owners/aggregators; and advertisers.

**Benefit Rating:** Transformational

**Market Penetration:** 20% to 50% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** C-Cor; Cisco; Cisco/Scientific Atlanta; Concurrent Computer; Entone Technologies; Ericsson/Tandberg Television; Kasenna; Motorola; SeaChange International

**Recommended Reading:** "Leading IPTV Carriers and Their Technology Vendors"
"Video-on-Demand Channel Anytime Offers IPTV Partner Options for Asia/Pacific Carriers"
"IPTV World Forum 2007 Offers a Reality Check"
Appendices

Figure 3. Hype Cycle for Media Industry Entertainment, 2006
As of July 2006

Years to mainstream adoption:
- ○ less than 2 years
- ○ 2 to 5 years
- ○ 5 to 10 years
- ▲ more than 10 years
- ✗ before plateau

Source: Gartner (July 2006)
# Hype Cycle Phases, Benefit Ratings and Maturity Levels

## Table 1. Hype Cycle Phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Trigger</td>
<td>A breakthrough, public demonstration, product launch or other event generates significant press and industry interest.</td>
</tr>
<tr>
<td>Peak of Inflated Expectations</td>
<td>During this phase of overenthusiasm and unrealistic projections, a flurry of well-publicized activity by technology leaders results in some successes, but more failures, as the technology is pushed to its limits. The only enterprises making money are conference organizers and magazine publishers.</td>
</tr>
<tr>
<td>Trough of Disillusionment</td>
<td>Because the technology does not live up to its overinflated expectations, it rapidly becomes unfashionable. Media interest wanes, except for a few cautionary tales.</td>
</tr>
<tr>
<td>Slope of Enlightenment</td>
<td>Focused experimentation and solid hard work by an increasingly diverse range of organizations lead to a true understanding of the technology's applicability, risks and benefits. Commercial, off-the-shelf methodologies and tools ease the development process.</td>
</tr>
<tr>
<td>Plateau of Productivity</td>
<td>The real-world benefits of the technology are demonstrated and accepted. Tools and methodologies are increasingly stable as they enter their second and third generations. Growing numbers of organizations feel comfortable with the reduced level of risk; the rapid growth phase of adoption begins. Approximately 20% of the technology's target audience has adopted or is adopting the technology as it enters the Plateau.</td>
</tr>
<tr>
<td>Years to Mainstream Adoption</td>
<td>The time required for the technology to reach the Plateau of Productivity.</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2007)

## Table 2. Benefit Ratings

<table>
<thead>
<tr>
<th>Benefit Rating</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational</td>
<td>Enables new ways of doing business across industries that will result in major shifts in industry dynamics</td>
</tr>
<tr>
<td>High</td>
<td>Enables new ways of performing horizontal or vertical processes that will result in significantly increased revenue or cost savings for an enterprise</td>
</tr>
<tr>
<td>Moderate</td>
<td>Provides incremental improvements to established processes that will result in increased revenue or cost savings for an enterprise</td>
</tr>
</tbody>
</table>
### Benefit Rating Definition

<table>
<thead>
<tr>
<th>Benefit Rating</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Slightly improves processes (for example, improved user experience) that will be difficult to translate into increased revenue or cost savings</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2007)

### Table 3. Maturity Levels

<table>
<thead>
<tr>
<th>Maturity Level</th>
<th>Status</th>
<th>Products/Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embryonic</td>
<td>In labs</td>
<td>None</td>
</tr>
<tr>
<td>Emerging</td>
<td>Commercialization by vendors, Pilots and deployments by industry leaders</td>
<td>First generation, High price, Much customization</td>
</tr>
<tr>
<td>Adolescent</td>
<td>Maturing technology capabilities and process understanding, Uptake beyond early adopters</td>
<td>Second generation, Less customization</td>
</tr>
<tr>
<td>Early mainstream</td>
<td>Proven technology, Vendors, technology and adoption rapidly evolving</td>
<td>Third generation, More out of box Methodologies</td>
</tr>
<tr>
<td>Mature mainstream</td>
<td>Robust technology, Not much evolution in vendors or technology</td>
<td>Several dominant vendors</td>
</tr>
<tr>
<td>Legacy</td>
<td>Not appropriate for new developments, Cost of migration constrains replacement</td>
<td>Maintenance revenue focus</td>
</tr>
<tr>
<td>Obsolete</td>
<td>Rarely used</td>
<td>Used/resale market only</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2007)

### RECOMMENDED READING

"Microsoft Shows It's Serious About Advertising"
"Finding: Microsoft Must Optimize Its Assets to Launch Silverlight"
"Changes in the Media Industry Will Drive a Shift in Power Among Key Stakeholders"
"Customer Experience Is King"
"Nine Things Media Executives Should Do Today"
"Mobile Advertising Is Calling"
"Advertisers and Advertising Agency Executives Lack Alignment on Interactive Media"
"The Media Company Online Privacy Play"
"Google Extends Advertising Dominance with DoubleClick Deal"
"Newspapers Can Find Salvation as TV Channels"
“Cool Vendors in Media”

"Expect to See AT&T and Yahoo Closer Than Ever in 2007"

"Findings: Free Unlimited E-Mail Storage From Yahoo, But What's the Catch?"

"Key Issues in the Media Industry, 1H07"

"New/Old Media Strains Show in Viacom’s Google/YouTube Lawsuit"

"Understanding Gartner’s Hype Cycles, 2007"

This research is part of a set of related research pieces. See “Gartner's Hype Cycle Special Report for 2007” for an overview.

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