The concept of video on demand has progressed from cable MSOs supplying 'big ticket' movies to encompass a range of short and long-form content across a range of devices. Colin Mann looks at the implications for players in the value chain.

According to Alon Weinberg, marketing manager, on demand solutions, NDS, when considering whether it is possible to monetise non-live content, and whether 'long-tail' demand just creates storage and bandwidth issues, it is necessary to identify two different markets for digital on-demand content: the market for online video and the broadcast TV/video-on-demand market. "According to our market intelligence, cable, IPTV and satellite operators generate on average about five per cent of their revenues directly from VOD. In addition, many operators offer VOD for free bundled as part of a pay-TV package, so value placed on the VOD service is measured as improved customer satisfaction and churn reduction. NDS offers both true VOD and Progressive Download (PDL) Internet technology in this market."

The Internet market, on the other hand, is very different and with additional network complexities, with many new and established players and business models. "Money in the Internet market is mainly being made from advertising-funded content. Some broadcast operators are using an online portal as a complementary service and a promotional tool but none of them are currently generating significant revenues on the Internet," says Weinberg.

Kripa Kripanandan, director of marketing, ConceptWave, notes that providers such as Netflix and iTunes, catering to the long-tail demand, have shown the ability to build a successful business model to monetise non-live content. "One of the key challenges for service providers becoming the preferred distribution channel for on-demand content is to build a cost-effective and intelligent content supply chain infrastructure," he says. "A metadata-based workflow driven catalogue that enables a flexible and dynamic content lifecycle management solution is critical to monetising long-tail demand."

LONG TAIL. Jacques LeMancq, product marketing manager, video servers and service platforms, Thomson, considers targeted ad insertion is a good way to monetise both long-tail and catch-up content. "It needs to be seen as part of a complete solution: the service needs to develop an understanding of the interests of the subscriber, both so that it can offer VOD content that is likely to be taken up and so it can tailor the advertising accurately," he advises. "Ultimately, operators should be looking at the sort of recommendation engine that is used by, for example, Amazon, to push suggestions to subscribers. That will boost VOD receipts as well as increasing the opportunities for targeted advertising."

"Many operators are using hybrid models to evaluate the ROI associated with launching new applications."

- James Brickmeier, Concurrent

James Brickmeier, VP and GM, video solutions at Concurrent feels that it is definitely possible to monetise non-live content. "In fact, time-shifted content is a prime candidate for targeted ad replacement given that much of the advertising in the original broadcast version of the broadcast programme is time-sensitive. Ads for other broadcast programmes or promotional events are no longer useful after the event has passed. This allows service providers to insert alternate advertising in place of the original advertisements."

He identifies other types of advertising that can be used effectively in non-live content as: Bumper Ads - Ads placed at the front and back of on-demand content; Telescoping Ads – Click-through advertising that leads to long format video advertising; Pause Ads – Ads that are presented when a subscriber pauses the playback of their video, and RFI/Polling – Ads that allow the subscriber to provide feedback on a programme or advertisement (such as yes/no/maybe, ratings One to10, *etcetera*)

LOST CAUSES? Steve Canepa, GM, global media and entertainment industry at IBM, notes that many premium content

demand

sites have found that their CPMs online are at parity or higher than in broadcast. “This means that an eyeball online is worth as much as that in the living room on the ‘traditional’ TV. For example, it’s been reported that ABC.com is asking $45 to $65 CPMs for ads in *Desperate Housewives* and *Lost*. This is great news for those with premium content and generated demand.”

He warns, however, that there is still an unpredictability and fragmentation to the digital consumer. “In our recent digital consumer study, conducted in late 2008 in six countries, 76 per cent of consumers surveyed have already watched video on their PC, up 27 per cent from last year. Consumers are also moving beyond the trial stage. Of those who have watched videos on their PC, 45 per cent are doing so regularly - at least a few times per month. The downside - especially for younger audiences - this has a ‘cannibalisation’ affect on TV viewing; nearly fifty per cent of 18 to 21-year olds watch less as a result.”

Edwin Ko, On Demand solutions manager, Harmonic, agrees that it’s definitely possible to monetise long tail content, but suggests that the real challenge lies with the navigation and searching of the archive, particularly for VOD platforms. Lukas Kernell, GM, thematic channels, Chellomedia Benelux, notes that clients of the company’s Digital Media Centre are using various business models in cooperation with their distribution partners. “These range from straightforward pay-tv type deals (linear channel co-existing with an on demand offering or a catch-up service), subscription packages and transaction (pay per view) models.”

HABIT FORMING. NDS’s Weinberg, observes that statistics tend to show that iPlayer and Hulu downloads and streams are by a big majority linked to programmes showing, recently shown or upcoming on related linear channels, and wonders whether this means that the long tail – non-contemporary, un-trailed material is an irrelevance. He points out that when it comes to professional content, it seems that about 80% of the content streamed is popular TV content. “The reasons, I believe, are partly a result of history or habit and partly down to consumer preference. YouTube is, however, an interesting case and we will have to wait and see whether more long tail services will become successful in the future and if money can be made from the long-tail or UGC content.”

ConceptWave’s Kripanandan, suggests that such statistics could be as a result of currently prevalent content licensing rights. “The shows available are limited to a small set of content providers and a handful of programming produced by them. Content owners are concerned about security and copyrights because of the lack of sophisticated and automated digital rights management capabilities.”

To improve the customer experience, he suggests that service providers need an automated system that effectively manages digital rights and protection so that people will rely more frequently on the same channel. Back-office applications should have the ability to configure and store digital rights, and distribute and enforce these in highly secure ways. Furthermore, back-office systems can intelligently drive decisions to determine content that should be acquired, retired or updated through rights information from the product catalogue and analysis of subscriber consumption patterns and demographics.

80/20 RULE. Concurrent’s Brickmeier doesn’t believe long tail is irrelevant, even though viewers are watching newly released content. “Most on-demand platforms are built around the 80/20 usage rule – that is that 80 per cent of subscribers watch 20 per cent of the content (the high demand content) and 20 per cent of the subscribers watch the remaining 80 per cent (the long tail content). While subscribers rarely watch long tail content, they value having the choice to watch the content they want, when they want it.”

IBM’s Canepa suggests that monetising video content online – both premium content and ‘the long tail’ - requires companies to create, deliver and distribute content more flexibly and cost effectively – especially in the current economic environment where companies will not succeed unless they can do ‘more for less’ and do it smarter. New technologies are crucial in enabling these step-changes in efficiency and effectiveness.

“The long tail can certainly be relevant but, as a business model, will be subject to its own economies of scale. In other words, there will still have to be a large enough audience to compensate for production and distribution costs. If an audience is not deemed large enough to the producer or distributor, than it may not find its home, even in the digital world,” he advises. He sees Hulu’s success as a combination of premium content, plus its focus on listening to the consumer about their online ad preferences, customising the experience and moving away from the linear TV – ‘one-size-fits-all’ model.

CATCH-UP. Brickmeier says that non-premium, ‘catch-up’ programming can be regarded as VOD, even though it is freely available via devices such as the BBC’s iPlayer. “Any sort of programming available when and how a customer wants to access it can be regarded as VOD, regardless of whether it is free or not. While free video is

"The long tail will be subject to its own economies of scale."

- Steve Canepa, IBM

common on the Internet and mobile delivery networks, Concurrent believes that service providers have the opportunity to generate significant revenue from video provided that it is open (i.e. can be accessed on any screen), of commercial grade quality, and also includes intelligent advertising driven by accurate consumption data."

LeMancq suggests that audiences are not interested in 'devices'; they are interested in the content. "The model should be a customised, tailored home page on the television screen that gives the subscriber access to live channels, catch-up services and video on demand in exactly the same way. That way the audience will get used to the functionality of VOD, attracted by the idea of any content at any time, and be prepared to pay for the content they want," he argues.

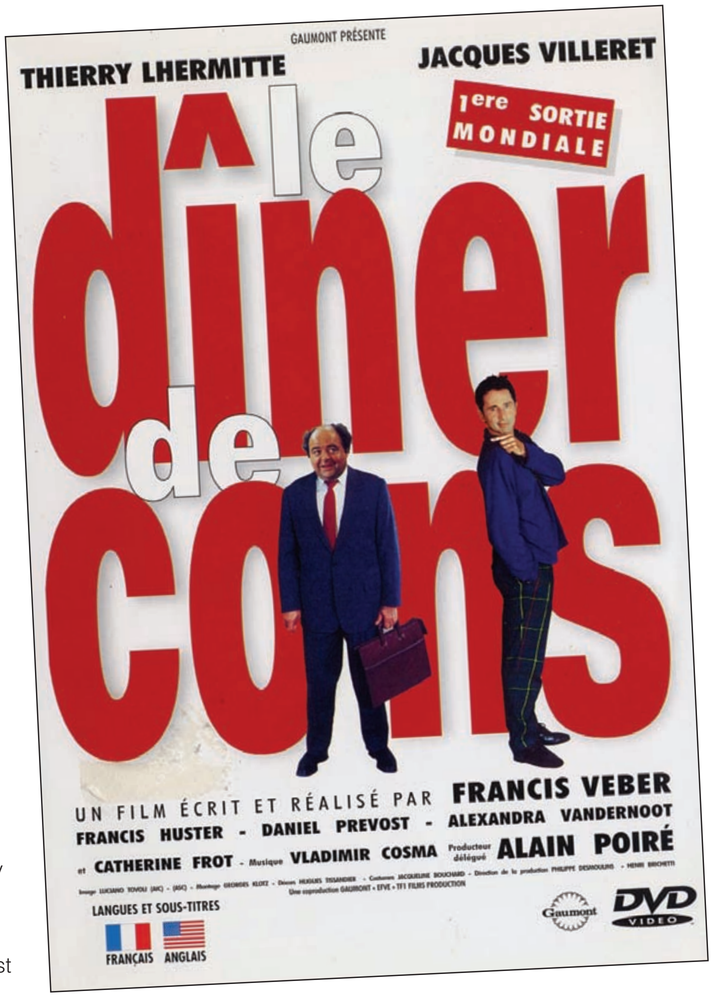
Weinberg sees catch-up TV as a form of VOD. "People want to watch content and if they decide they want it on-demand it is almost irrelevant whether it is billed as catch-up or VOD, but a catch-up service on a STB provides a different user experience to a catch-up service on a PC. Advertisements can be used as a way of monetising a catch-up service on the STB/TV," he says.

ANYTIME, ANYWHERE. Canepa says that IBM thinks of VOD as encompassing characteristics of anytime, anywhere media. "While 'catch-up' programming may have a content owner and distributor creating business rules or parameters around its release schedule, it *is* creating flexibility and time- and space-shifting options for the consumer. As such, we believe it is taking us closer to the anytime, anywhere nirvana."

Kripanandan points out that there are a large number of TV viewers without DVRs who can be potential subscribers to network-based recording services. "There is an opportunity for operators to monetise this through either a subscription model or a per-purchase model. The other possibility is to offer these services as 'value-added' features to lure subscribers in an increasingly competitive environment, and negotiate better revenue sharing deals with content providers."

He suggests that it is quite conceivable that in the near future consumers will prefer to watch more TV when it is convenient for the viewer, resulting in a significant shift from a live broadcasting paradigm to an on-demand model that content producers and distributors have to reconcile with.

EYE CONTACT. As to whether TV-based on demand has been superseded by PC-based consumption, and, if so, what are the implications for advertising, and whether it is it possible to quantify 'per-eyeball' costs compared with 30-second spot advertising, Brickmeier believes that all three screens (TVs, PCs, and mobile devices) are relevant and that each has unique characteristics that differentiate them. "The television is the primary device for accessing



commercial grade video today, but it offers limited interactivity and watching a TV is generally more of a social activity. The PC offers more of an individual experience and allows for a high degree of interactivity. The mobile device is unique in that it allows access anywhere and offers some of the same interactivity as a PC. Therefore, we see that subscribers value a three screen video solution in order to satisfy their requirements for content where, when and how they want it."

He suggests that from an advertising perspective, there are opportunities on every screen however those opportunities are different for each screen. "TV based ads will be targeted to the household given that the TV is a social way of viewing content. PC or mobile device ads, on the other hand, will be targeted to the individual given that they are personal devices. Regardless of the method of advertising, the key to monetisation is the accurate and intelligent collection of data, the correlation of that data, and the application of that data to ensure subscribers receive the advertisements that are valuable to them. Data collection systems need to be open and to integrate with applications on all three screens in order to provide the level of information needed to provide the 'per eyeball' costs associated with the various advertising methods.

LeMancq stresses the importance of audiences not being bound by the platform. "They should be free to choose the content they want, when they want it, where they want it. All content on the main television in the living room, for example, has to come out of the same single set-top box, using the same simple user interface.

To make that happen, service providers have to be more imaginative about their sources of revenue. On-demand content needs an interactive return path so the provider knows which subscriber is calling for it. Usage patterns will develop a detailed profile of the subscriber, which is powerful information for targeted advertising. Yes, it is a move away from counting viewers in millions to a new model where providers sell advertising time on the basis that it is going to precisely the advertiser's target market." He says the multi-platform, TV anytime world is a new environment, and service providers have to be innovative in their approach to earning revenues.

ONE SIZE. Canepa accepts that different consumers prefer different models. "Reaching large audiences with 'one size fits all' approaches is becoming increasingly difficult as consumer viewing behaviour changes, preferences shift and audiences fragment," he suggests. "For example, the consumers we define as 'Massive Passives' may just be now adopting the DVR and opt for that version of on-demand television and self-programming. On the other hand, the more on-the-go young professional 'Gadgetier' may be more married to programming available on the PC or video iPod. While the latter gets the most publicity – due to their fast adoption of new media outlets and self-sufficiency in their media experience – the Massive Passives are still the majority. We refer to this as market bimodality. Bottom line, I don't think one device or path supersedes the other – both co-exist today and will do so for some into the future."

Kripanandan says that from ConceptWave's perspective, consumption growth on the PC appears to be driven by non-premium, free content, and not by premium, fee-based content. Also, the usage of non-premium, free content is likely driven by specific demographic groups (i.e., school-going and college-going population) that cannot afford to buy premium content. "The current shift in advertising will continue towards the online medium. Technology trends such as pre-roll and other ad insertion techniques will likely help in providing ad viewership stats, through which per-eyeball costs can be derived."

Weinberg feels that there are many figures for CPI (cost per impression) of video ads, depending on the placement, the site, the ad network provider, etc but the CPI for a 30 second ad spot on TV is still higher in most cases. Harmonic's Ko suggests that it makes "total sense" to charge on a 'per usage' basis for VOD advertising. "The technology to address targeted adverts for TV-based VOD has been available for a couple of years, but it's been only in the trial phases and has not yet fully launched commercially. Legacy back-end VOD servers are generally not capable of splicing in ads but replacing those deployed in the field with new capable servers is extremely expensive and will take time to generate return on investment."

SPEED MERCHANTS. As to whether 'premium' VOD can ever earn money for operators when rights holders seek the bulk of the revenue and minimum guarantees, Kripanandan suggests that as the availability and consumption of VOD through on-line (i.e. TV and Web) channels increase, operators will have more power to negotiate a higher share of the on-demand revenue. "As IP-based video delivery becomes increasingly available, operators can offer content providers a distribution network with no capacity limits and entice them to increase the volume of on-demand offerings. With speed to market and operational efficiency paramount for content service provider success, the central management of products, including VOD, is as important as ever. A metadata driven, flexible workflow management platform that can automate the content supply chain and its lifecycle is critical to enabling the service velocity today's operators need to effectively compete."

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According to Weinberg such a scenario is possible in the pay-TV market, where the operator has a strong market position and has a strong relationship with the end users, based on subscription, "but it is more challenging in the Internet sector, where the content owner can have a direct channel to the end users but not necessarily any strong link with the intended end customers; this is one of the many reasons why big Internet players and content owners dominate the online video market." According to LeMancq, wholesale and hosted business models can certainly help operators deal with this. "But premium VOD is a win-win and the market will settle into a position where everyone gets a fair return," he predicts.

Brickmeier contends that premium VOD has been earning money for cable TV operators for many years. "We believe that the cable TV industry has provided a framework that all service providers can leverage to generate revenue using VOD and other video applications. The key is offering an open three-screen experience, providing commercial grade quality video, and supplementing direct revenues with intelligent advertising revenue – revenue that is fuelled by accurate consumption data. Concurrent has successfully helped cable operators achieve their revenue objectives by providing solutions that address all three criteria – Open, Commercial, and Intelligent."

SUCCESS STORIES. Canepa suggests that as with other distribution platforms, there will be revenue-sharing and equilibrium in the economics. "Operators are interested in reduced churn as well as new digital fees and, therefore, might find 'success' of on-demand services beyond the revenue-sharing proceeds. Furthermore, both sides are seeking new types of relationships with the consumer and it doesn't automatically favour the content owner over the operator. For example, operators have rolled out DVRs (which have high user satisfaction and reduced churn for subscribers) at the expense of content owners since ad-skipping has advertising implications, as we all know."

LeMancq advises that there are a number of business models for emerging services tied to VOD and ad insertion and warns that service providers have to be agile and flexible to identify what works best for each offering. "In catch-up TV, for example, a smart operator could allow existing commercial breaks to be refreshed, perhaps with tailored content, perhaps with updated spots. In VOD, as we know, a short advertising sequence at the start is a good way of masking the buffering of the movie itself."

Weinberg suggests that models are still being developed. "In the Internet sector, there are various business models. There are many different players and each has a different story. It is possible to categorise the different services (UGC sites, social network sites, content aggregators, TV operators' online service, content owners, etc.). The value chain consists of advertisers, ad agencies, ad networks, ad-serving networks, application service providers (or software as a service provider), content delivery networks and Internet publishers. In general, in the Internet space the per-usage model is the most popular and the revenue-charging methodology the least popular."

HYBRID MODELS. Brickmeier notes that there are a variety of business models surrounding emerging video services, including subscription, pay per play, and ad-supported strategies. "Many operators are using hybrid models to evaluate the ROI associated with launching new applications. For example, one emerging service that has generated a lot of interest is network-based digital video recording (NDVR).

NDVR is designed to replace in-home DVR systems and support the recording, playback and control of live broadcast programming. Unlike in-home DVRs, NDVR solutions provide subscribers with a way to host their content in the network instead of in the home. By storing content in the network, customers can get access to their own archive of content from any network connected device (TV, PC, mobile device)."

He suggests that subscribers could use this network based personal storage space to host other types of files such as home videos, photos, and music files – making it a one-stop shop for all the content a subscriber wants to watch, and that NDVR is one of those emerging services that will be based on a hybrid model – using combined revenue generated from subscriptions and advertisements.

According to Ko, ad-sponsored services can definitely help to promote VOD uptake, reducing the cost for the viewer and generating new revenues for the operator. "Emerging services such as Live-to-VOD, nPVR, UGC and multi-screen offerings all require different business models to work successfully but will become key service differentiators," he predicts.

SURVEY SAYS. Canepa notes that in IBM's digital survey, the company found that consumers prefer ad-supported models for new digital platforms. "Although the majority felt this way, thirty per cent were willing to pay for content. This means there can be multiple business models for new content platforms. When the survey respondents were asked how they prefer to view advertising associated with online videos, the majority said they prefer to see it before or after a video. Respondents from all six countries polled disliked traditional television models such as interruption advertisements during the video or the use of product placements within programmes. Consumers have grown accustomed to accessing new forms of content through alternative sources, such as online video and video-on-demand, at no cost to them - no fee, with very limited advertising shown." Canepa warns that the industry can and must find appealing ways to monetise new content sources or risk a similar fate as that of the music industry where value shifted away from core players.

"On-demand content needs an interactive return path so the provider knows which subscriber is calling for it."

– Jacques LeMancq, Thomson

Kripanandan believes that operators will balance PPV and ad-supported VOD along with subscription VOD by being flexible. "Some subscribers will tolerate advertising, some will be prepared to pay more for their movies not to be interrupted. Typically, I think we will see PPV popular with first run movies and on Saturday nights; advertising-sponsored VOD more popular between peak hours. That means that service providers must have flexible content architectures which allow the content to be versioned on the fly - you do not want to store two copies of a movie, one with and one without breaks. They also need service management platforms and STB user interfaces that make it easy for the subscriber to set preferences and to change their preferred options at the time of purchase."

Weinberg accepts that in the TV market, the ad-supported model is still in its infancy, in contrast to the situation in the Internet market. "The main reason is that VOD to STB is still a relatively new mass-market product. As the market continues to grow and new targeting technologies are introduced, this situation is changing. TV operators will continue to charge PPV and subscriptions for VOD services for as long as they can, where the willingness to pay exists, and will also include advertisements as they do with linear content. There is also a potential business model that combines the two by asking the end user whether he wants to watch for free with ads or whether he wants to pay and avoid ads."

FAMILIAR FRIENDS. Ultimately, Brickmeier expects that service providers will migrate towards on-demand models that enable any content to be made available at any time. "The key will be for service providers to offer new applications that transform the way people access their content. On demand applications need to be intuitive, branded, and common between devices in order to satisfy the needs of the content providers and subscribers. Providing a familiar interface between screens will also ease the transition for subscribers as content migrates from the broadcast medium to on demand access methods."

For Canepa, the bottom line is that you can make more money by enabling the consumer, rather than trying to fight their behaviour. "Let's take the music industry as an example. We expect to see the revenue of traditional music companies (labels, as well as physical and digital distributors) decline by 35 per cent over a 10 year period (2002 to 2012). What this masks is that the value has not disappeared, but has shifted to players closer to the consumer – enabling them. For example, device manufacturers like Apple, wireless providers offering downloaded ringtones, *etcetera*. So when we talk about new models, it is good to look at both how companies can make money, and where to position in value chain."

Ko notes that while PC-based consumption is being adopted rapidly by consumers, the trend for pay-TV operators will be to push towards ad–supported VOD. "Operators will need to start offering low entrance fee VOD subscriptions along with ad-support, so they can start monetising content across large audiences," he advises.

MUST CARRY. While premium brand channels do not want to be chopped up into exclusively VOD archives, operators want to reduce content overheads by removing all but the most 'must carry' to VOD. Is this being caught between a rock and a hard place? Kripanandan contends that catch-up TV does not eat audience, but builds strong brand loyalty around premium channels and has the audience stick close to them. It makes everybody happy – provided there is an advertising revenue stream to bring value to it. "It is an inescapable fact that the bigger the VOD archive, the more successful it will be: there are more reasons to keep viewers coming back. Each operator will make their own business judgements on how large an archive they can support. What specialist suppliers can do is build for them distributed architectures to ensure that the content audiences want is always available: from a single server for rarely-requested content to multiple distributed points of presence for very popular content."

Weinberg believes there is still value in long tail content from an advertising targeting point of view, but suggests that we won't really know until the VOD ad market matures. "From the operator point of view, having a large archive is good for marketing and the extra cost (i.e. extra storage) in most cases is negligible. Better VOD branding and user interfaces, including search and content recommendations, can make long tail content and archives more accessible and useful." Ko suggests that from a technology point of view, this isn't really a problem as storage costs continue to drop at a dramatic rate. "It's really a business agreement between content owners and the operators," he argues.

What Canepa sees playing out in the industry is a clash between different models - old media (professionally produced content distributed through proprietary networks) versus new media (user-produced content accessed through open platforms), and traditional players (such as the big studios, TV networks and cable providers) versus new capabilities (new entrants and new ventures, e.g. Google, Hulu, Canoe Ventures). "Industry incumbents are responding but perhaps not as quickly or as completely as they need to. Now is the time to determine changes in business models, innovate and re-evaluate partnerships. Whilst it is not yet clear which models will ultimately win, we see a number of critical elements based on the change in consumer behaviour, a shift in advertiser spend and new capabilities emerging. Revenue model decisions – e.g. ad-supported versus subscription versus buy on demand – are only part of the answer. The models themselves are changing in this new – digital – world."

CROSS-PLATFORM. He suggests looking at the advertising model. "Today, the distinctions between advertising and marketing have blurred, as new forms of communication combine the ROI-characteristics of response-driven marketing with the brand characteristics of traditional advertising. In response, content owners, media distributors and agencies must move beyond traditional advertising to combine granularity of targeting and measurement with cross-platform integration. This requires a whole new set of capabilities such as making content exciting and compelling across the different formats and better understanding and targeting consumers. The traditional industry ecosystem is blurring, allowing for (and requiring) new forms of partnerships and collaboration."

Chellomedia's Kernell accepts that it is still early days for advertising based VOD-models, but that there will be a clear opportunity to generate additional revenues in this domain. "On demand is not yet set to replace linear channels, though in more mature markets we are seeing a significant interest in VOD services. Research even indicates that VOD services are taking a lead in appreciation over linear services. However, at DMC we have seen that a VOD-offering provided in conjunction with a linear service actually re-enforces the appreciation and usage of the linear service."

He advises that operators need to take storage and bandwidth issues into consideration. "However, on the technology side, the absence of standardisation is a much larger concern, both for content providers and platform operators. This lack of standardisation, both with respect to encoding formats and metadata requirements, leads to increased cost, as each asset needs to be tailor made for multiple platforms." He concludes that the increased availability and consumption of video over the Internet has not had a negative impact on TV based video consumption. "The two forms of video delivery can co-exist, as they each service different needs."

MIPTV matters

The MIPTV programming market in Cannes was the ideal venue to speak to a range of industry players for their take on VOD. Hervé Payan, SVP, Content at France Telecom's Orange noted that the operator has been offering VOD since 2002, initially with Internet downloads, and on IPTV from 2003 and 2004 saw video on mobile services. "It's important that we offer VOD product with all our channels," he said. "We believe in VOD in different formats." According to Payan, Orange is reaping the benefit of starting early.

Gary Marenzi, co-president, MGM Worldwide Television, noted that the studio had relationships with just about every TV station. He suggested that MGM could benefit from the long tail. "We take care of the library and refresh the prints, investing time and effort." He confirmed that the studio work with the platforms to promote product, both in terms of price and marketing. "It's turning into what video was several years ago," he noted, adding that the good news was that TV clients are stepping up their VOD effort, both transactional and ad-supported.

Duccio Donati, SVP, Comcast International Media Group, explained the benefits of the programmer being part of the largest cable MSO. "VOD is driven by the mother ship's experience in the US. Out of 23 million subscribers, 95 per cent can receive VOD. It's more and more important for cable operators. It helps reduce churn increases ARPU, and is a competitive toll against alternative providers."