

## The Battle for On-Demand TV

By Leo B. Willner, Ph.D. and R. Gregory Kalsow

Why is the TV business in such an apparent state of disarray? And what is causing all the disruption? Certainly, interactive television (ITV) is struggling for a commercial role as Liberty Media swallows Open TV while Liberate and Canal Plus Technologies look on nervously. Cable TV companies are up in arms as their stock values keep tumbling, while a stalwart player such as Adelphia under goes investigation for fraud and nears bankruptcy. Video-on-demand (VOD) player Diva is in trouble while iNDemand captures more content. Other big media players such as Gemstar, Universal Vivendi, Viacom and Microsoft seem unsettled and keep reorganizing, and so it goes. The answer may be less about the companies and more about the bubbling cauldron of change that stirs the pot of business models, revenue sources and market shares. In part the culprit may be 'on-demand TV'.

On-demand TV represents a great step forward for viewers, content owners and providers alike. Some folks on the commercial side of TV are fearful and doubtful whenever new technology portends to change their business model; yet they are loath to unsaddle any such

'new trick pony' for fear of losing out. In a society that is increasingly producer-dominated, the new technology referred to as 'on-demand TV', may have turned the table on the commercial TV industry. On-demand TV, such as VOD, and personal video recorder (PVR) based viewing, is well on the way to commercial success and this worries TV networks, content owners, cable and satellite TV companies and their advertisers. How can they, and how should they, protect their businesses as technology enables consumers to watch what they want without a fixed schedule, or wedged-in

advertising messages and other controls imposed by the industry? Herein, we consider the impact on-demand TV is having on the ever-changing broadcasting landscape. We consider the point of view of the TV industry as well as its consumers and gauge the role that the on-demand lifestyle is likely to play.

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**I**t's a Power Play — In his seminal book *The Anatomy of Power*, the brilliant John Kenneth Galbraith, professor emeritus at Harvard and former high government official, reminds us that power is the ability to make others do what we want them to do in lieu of what they

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would otherwise prefer to do at a given moment in time. So it is with the Faustian bargain struck by TV viewers with the commercial TV interests that farm and mine their time. In the TV model now under attack, the networks, advertisers, cable and satellite companies, as well as others, cause the viewer to submit to their power to control 'time and the hour' with their rigidly scheduled sliced and diced content completely interlaced with commercial messages and other discontinuities.

Remember suffering through two and three part TV miniseries appearing in prime time when you had better things to do with your Thursday nights? As all power corrupts, the commercial intrusions into family TV viewing now seems to have progressed to an excess of advertising interruptions, high volume sound bursts plus more than a little gratuitous sex and violence often interlaced with an excess of shock and profanity. Is it reasonable for the TV industry to think that the public will long suffer such a force-feeding when on-demand TV can free them from such abuse? Yet, with a public dumbed-down by such faire as reality-based shows, advertisers still have an easy mark.

At the center of this TV controversy, as a business and as an amusement, is the quid pro quo between the power, the rights and the values of TV providers versus those of their viewers? Is 18 to 20 minutes of advertising per hour appropriate? Is a \$70 per month cable bill a fair bargain for what the home viewer gets in return? With some 100 million US households watching TV, the equivalent price to viewers of the current 25-30 billion or so dollars of annual US TV advertising amounts to some \$250 per household/year. As some

80-percent of households are now paying an average of \$500 per year for cable or satellite TV access, might they be willing to cover all or a part of this \$250 per year to rid themselves of TV advertising and nuisance interruptions?

**A**ttack of the Clones — In the midst of the successful present day TV economic models which generate vast revenues, we now have the potentially destabilizing capabilities of broadband, advanced media head-end driven VOD and client-end powered PVR and DVD based viewing. Completing this media world-in-flux picture are 'home networking' and the 'home server' devices now beginning to make their mark. No wonder the news and entertainment media industries and their minions are up in arms and scared to death. All the while would-be philosophers on the other end of the ideology spectrum suggest giving content away by allowing it to be 'Napstered'.

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More to the point, we can look at this major paradigm shift as a problem or as an opportunity. It is really up to us to choose how to manage the technical changes that portend chaos for some commercial interests while offering wondrous new capabilities and freeing up the time of the public. One thing is for sure, we can never put the genie back in the bottle. In counterpoint to adapting to inevitable change, consider the recent announcement by AOL Time Warner that it will begin installing new TV cable set-top boxes from Scientific Atlanta, containing a PVR that cannot skip advertising and other undesired material, into subscriber homes. Their approach seems to be a misguided effort to block the manifestation of a TV world where home viewers watch a lot of time-shifted on-demand TV, VOD and PVR based content.

With the DBS satellite providers such as Echostar and Direct TV offering real time-shifting via DishPlayer, TiVo and Ultimate TV and gaining millions of subscribers per year, what are the planners at Time Warner Cable thinking? Two years ago at the CTAM show, some cable gurus were heralding the (self-serving) forecast that satellite TV subscribers, then at 12–13 million in the US, would plateau at less than 17 million subscribers in five years time. That target was quickly passed in two years and the penetration by DBS keeps rising.

What were the cable MSOs thinking when they made these hopeful but highly inaccurate predictions? Even with the massive capital investment (of some \$600 per VOD stream) being made by cable today, present day content-starved VOD is unlikely to halt the tide of DBS. The superior two-way cable pipe enabling ITV was suppose to be the answer for cable, now VOD is the new messiah, but will anything stop the unified and well managed satellite providers from making further inroads into the cable subscribers world? Consumers want time shifting, VOD and PVR, they want on-demand TV and they prefer the way satellite provides these capabilities.

**R**oad to On-demand — Let's face it, on-demand TV is the destination and technology is providing the means to democratize this media. The key for everyone is to quickly identify the factors that will drive success in an on-demand world. Standing in the way of compelling new technology is usually a sure path to failure. Some may remember the word processing company Wang proclaiming to its customers, employees and shareholders that its unique

product line would remain popular for many more years. That now seems ludicrous in the face of the then rising PC business with its multifunctional capabilities driven by a little something called DOS and Windows. Or how about the reasonableness of Apple Computer, then the world PC market leader, sticking with its closed-architecture proprietary operating system as it faced IBM and Microsoft? The same loss of market authority could come to those in the TV industry who choose to disregard the rising tide of on-demand viewing. Their vision too could be swept aside.

Looking at matters in a practical and simple way, the most compelling consumer choice usually gets first dibs on discretionary viewer time and so on down the line. As in most human activities, it is the cost benefit equation that drives behavior and the market. As each day only holds a limited amount of time for leisure,

the current four hours per day of TV viewing, on average per person in the US, is already under siege. What with PCs, game consoles, the Internet, broadband, DVD, CD and MP3 music and many other diversions as well as growing demands from real-world

activities at school, at work, in the community and within one's social circle, TV viewing time is certainly being challenged. Thus, TV viewing within the fixed schedules of the TV networks is becoming increasingly impractical for most people. The VCR is a partial answer but, as its history has shown, it is too complicated for many to use. The PVR is a more powerful and versatile approach to freeing up ones time at home, while forms of content-on-demand such as VOD also offer a big plus to many time compressed families.

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**T**elevision Advertising — TV advertising as we have known it is visibly under threat, for these and other good reasons. Few in the industry, both within the networks and the service providers, such as cable and satellite TV, have a good way to offset the devastating loss of revenue a decrease in advertising represents. Yet a significant loss of advertising revenue hangs ominously over the TV media landscape. Higher subscription and transaction fees may provide a partial answer. Yet it is hard to gauge the consequences to the advertising and TV industries of the on-demand paradigm shift except that it is a world within which the TV watching public is the clear winner. It should come as no surprise that the on-demand business model is hardly palatable to some TV advertising executives and their media moguls.

Some who may be pessimistic or cynical about how all of this is going to work through the system have suggested that the content owners rights will be devalued by on-demand television. However, that is not likely to occur with content of demonstrable value. What is likely is that the more valuable properties will gain in revenue while the less desirable ones fare poorly. The real losers in the on-demand TV world are likely to be advertisers, promoters, publicists and others who prey on the good will of the American public to give up a fraction of its private leisure time at home. In commercial terms, with TV advertising representing some 25–30 billion dollars per year in a US economy of more than 10,000 billion dollars, the public may not continue to suffer advertisers who would interrupt their four hours per day of TV for an hour or more of insufferable disruption during evening leisure time.

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After all, in dollar terms the cost of replacing advertising with direct fees paid by consumers represents but a fraction of one-percent of GNP, while the disruptive nature of TV advertising impinges on some 30-percent of all leisure time. Yet well-conceived advertising that can be electively viewed is of great value to the consumer, and will always find a place in the market. Targeted advertising that is of specific value to a consumer, temporarily becomes valuable content to that individual.

**S**ubscriptions or More Transaction Fees? — On-demand TV has the power to shift the business paradigm toward a more balanced mix between transaction and subscription models. That is to say that subscription VOD (SVOD) and other new forms of subscription revenue will grow along with VOD. Those who create and provide new forms of content within on-demand TV will enjoy the high profit and return on investment their contribution deserves. Thus—as is true today—when a new piece of content is hot, it may earn a high transaction fee per viewer on the silver screen, on the TV or on the PC. As it ages,

it will tend to migrate from media form to media form on an ever-decreasing line of return commensurate with its value over time. VOD and pay-per-view (PPV) along with video stores sales and rentals, or their equivalent, will follow in line, then SVOD, then premium cable channels, then network premiers and so on down the line. The release windows will flex and evolve according to free market forces as the successful content gains an audience across the full spectrum of society.

Thus the present controversy and debate contrasting transaction fees versus

subscription models is much ado about nothing. Each has its role to play in the flux of the market. Both are needed to fulfill the needs of the public, while in the long term all content must eventually enter the public domain and become a near free commodity. It is as always, about balancing the needs and the rights of the public vis-à-vis the producers and investors who risk and innovate. Thus there is no inherent or apparent superiority of one model over the other in any general or universal sense. Instead, each situation may at a given point in time and in a given market condition, favor subscriptions over transaction fees or the other way around.

In the market driven economic system likely to emerge in the new on-demand TV world, content must compete for market share within a complex and ever-changing bazaar of media services. Any media companies that try to bar the gate to on-demand TV may soon find themselves bypassed, while those who innovate and develop the new programming options are more likely to prosper. In the end, the consumer will gain more of the information and entertainment he or she seeks, and it will be transacted at unencumbered market conditions and prices.

**T**V Programming Changes — Another major aspect of a flexible-schedule on-demand TV world is that the half-hour, hour and feature film length content framework of the past may well be expanded to include a great deal of shorter content. It is conceivable that two, five, 10, 15 and 20-minute content may find currency on both the TV and the Internet. At these lengths of time, such content can serve to fill time gaps in an individual's schedule.

The current trend toward 'live' programming seems to represent a forward signal from the market that such change is already in train. All the while, reactionary media forces seeking to protect their media turf may well choose to minimize time-shifted content by appealing to the public with compelling real-time fare. Certainly news, sports, weather and financial information are best appreciated when they are fresh. On the other hand, another viewing of the movie *The Longest Day*, *Apocalypse Now* or *Stars Wars* is hardly improved by time-of-day or day-of-the-week considerations. These have until now been shown on a restricted fixed schedule that best serves advertisers and other special interests who are looking for a certain demographic mix or temporal impact.

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The time-shifted on-demand TV content of tomorrow may well differ from the broadcast TV programming forms popular today. It may turn out that this new environment will evolve new styles and new content forms that fit its

variable length, format and consumption venue. Ultimately, viewing via heads up displays in visors, sunglasses, on cell phones, PDAs and similar devices. In these formats, new arrangements will be invented that preserve content value while improving viewing, learning, communication and convenience.

**H**eadend or Client Based On-demand? — The physical location of proprietary content at so called 'headends' or in set-top boxes or PVRs at 'client sites' of paramount importance to TV networks operating under contract to content owners and to cable and satellite providers working within similar constraints. Good asset management is



also a determining factor for investors who seek to participate in the creation of valuable content and the means of its distribution; for the physical location of content and its protection greatly impacts the cost and the convenience of the product as it moves toward ultimate distribution. For personal content such as home movie and family photos and private information such as viewing habits, the consumer is most likely to demand that it be secured in an electronic 'box' within the home.

It does not follow that content is best or most economically served-up from any one central location. Neither is it proper to conclude that all content is best kept closest to its final point of distribution. Neither is necessarily optimal, as the most suitable location for any content may also depend on the distribution network, its costs and its traffic flow. For this reason, some content is best distributed as part or within the original hardware purchased for the home; some should be broadcast down on mass in protected or unprotected form (depending on its vintage and value). Some content should be streamed on-demand. Some content should be transmitted via cable or satellite downloads overnight, while other should be unicast for real time viewing. It all depends on many technical and preference factors that cannot be determined a priori for the public at large. Thus, the future distribution network, as it develops, must be capable of addressing a variety of needs the consuming public and commercial interests will impose on the market. Nothing less will be tolerated.

In the approaching on-demand TV world the trend is likely to be toward more solitary viewing of movies, programs and presentations. Individuals may do so while

sitting in the same room or in different parts of the house, they may use similar or varying hardware (TVs, PCs, game consoles, PDAs etc.) but they are likely to watch less and less time-shifted programming together. In a profound way, that we have only begun to fathom, this new behavior may represent a fundamental change in the social dynamics of the home and alter it in ways we have yet to understand.

**P**redictions for On-Demand TV — Some in the media world appear to deny the apparent fact that new technologies, such as on-demand TV, have shifted the balance of power from the providers to the consumers. It appears that the large integrated media companies with their powerful PACs, will no longer be able to impinge to a high degree on the viewing habits of the masses or determine the timetable on which viewing occurs. If they are to prosper, media organizations may have to focus on customer satisfaction in lieu of finding new ways to press their own preferences onto the consumer and the FCC. Gratuitous profanity, sex and violence, as means of gaining and holding the attention of the public, as well as excessive nuisance

advertising, may well give way to a more genteel and benign mass communications systems. This could be a very hard bone for some would-be media giants to swallow, yet they may have little choice but to follow the trend toward on-demand television. Our predictions:

■ Copyright and other property rights protection will be strengthened while we undergo the changes required to free-up content sufficiently to allow its slicing, dicing, concatenation and mingling prior to viewing in the home. Content owners, such as Movie Studios, are rightfully

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worried that their assets could vaporize and become a ubiquitous free commodity if they are not very carefully guarded. Yet digital they must go—to keep costs low and effectively distribute their content in various formats and standards throughout the media world.

■ When the viewer can select what to watch at will from a large library of content on-demand, his or her selection will differ greatly as it moves away from the limited fare available within today's fixed TV programming schedules. This suggests that the more appealing and desirable content will gain a greater audience and earn higher revenues while less desirable content will capture an ever-smaller audience. In counterpoint to this trend to focus on superior material, content providers will surely react and find way to adjust their strategy so as to maximize their revenue and profit.

■ The idea that TV viewers are somehow cheating when they time-shift TV or skip commercials is a bit absurd. Such a view is somewhat analogous to a highwayman complaining that some passengers he threatens to rob are hiding their jewelry. At a time when 80-percent of US TV viewers are already paying heavy cable and DBS subscription fees, they will certainly watch TV by all modes available to them. While paying some 50 billion dollars per year for their TV rights in the US, it is only fair that they take advantage of any opportunity to maximize their convenience and minimize any interruptions.

■ The privacy and the sanctity of the home, as protected by statute in the Bill of Rights, has been under threat from electronic media such as wire tapping,

political TV messages, the Internet, electronic snooping and the like for many years. Yet, with TV as with other media, once any piece of content enters the home, how and when it is viewed and by whom will remain a private matter.

■ When viewers watch television on an on-demand basis, they can pause it as needed to answer the doorbell or the telephone, while attending to meals, to provide children with lessons and the like. This new 'time is elastic' format will lead to more not less TV viewing. As an example, consider the fact that in the inflexible PPV format, many will not pony up and pay the transaction fee for a movie during the busy time of the day because they expect interruptions to occur. With VOD and PVR the busy viewer will jump in at any time of day to enjoy their viewing experience.

It's a bright new on-demand world out there and industry should embrace it. We as individuals can expect to benefit greatly from on-demand TV. As investors, we can also anticipate greater revenue and profit for the commercial interests that successfully create and serve up improved TV content in this exciting flexible new mode. Managed correctly, it can truly be a win-win situation for everyone.

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