

# Chapter 8

## Is TV Dead? Consumer Behavior in the Digital TV Environment and Beyond

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**Abstract** On April 8, 1966, *Time Magazine* startled readers with a provocative cover that asked in large type, “Is God Dead?” After reading many newspaper, trade and journal articles, we might ask a similar, if less profound, question – Is TV Dead? The headlines have been screaming about the demise of television: “Let’s Just Declare TV Dead and Move On...The End of TV as We Know It...The Internet Is About To Kill TV.”

The atmosphere of doom and gloom, fueled by fundamentalist Netizens (those who believe in the Web with near-religious fervor), is reminiscent of the story of Chicken Little who, after being hit on the head with an acorn, declared to the world that “The sky is falling.” Looking at the changes in the TV viewing environment through the prism of a researcher’s eye, we will argue that not only is the sky not falling, but we are actually at a very low risk of bidding goodbye to television business. Further, rather than looking at the rise of new digital platforms and technologies as a threat, we believe the TV industry is on the verge of a Golden Age of Media – a time when vast new opportunities are opening up for content creators and distributors, and, most importantly, for the consumer.

### A Point of Change in TV Viewing

We are at an important point of change in television viewing. There are many new ways of accessing and watching television. We have to re-examine many of our assumptions about television, for example: all TV viewing follows a schedule; with a few exceptions like sports or movies, programs are 30 or 60 min in length; we watch TV programs only on a TV set; most people use print guides to find out about TV shows; and TV gets to us in one of three ways – over-the-air broadcast, cable or satellite. Significant changes in television viewing environment have occurred before. The first major change, which industry veterans will remember, was when TV viewing moved into the home. In the late 1940s, when TV sets were very expensive, most TV viewing was in bars or department stores. Media historian and

scholar Leo Bogart called this the era of “Tavern Television” (Bogart, 1972). In the early 1950s, as the price of TV sets dropped, millions of people purchased TVs and began to enjoy television in their homes. Other substantial changes in TV viewing patterns occurred with the adoption of remote controls (more channel changing and a greater sense of control over TV viewing), the purchase of a second or third TV set for a bedroom or kitchen (more personalized viewing), the construction of large cable systems in cities (more niche channels) and the introduction of the VCR (time shift viewing of recorded programs). Each time, some industry analysts saw these changes as a threat to existing television business, when, in fact, they created opportunities for those who did not have their heads in the sand.

The new Millennium brought with it an accelerated pace of change – more changes in the first decade of the new century than in the previous five decades. The internet, digital cable and satellite, broadband, laptops, videogame consoles, wireless networks, portable TV devices, HDTVs and DVRs have created a world in which content is available to consumers whenever and wherever they want it. TV programs are available simultaneously on display devices that are larger and smaller than in the past and there are more ways to transmit programs to consumers. Further, the presence of laptops, with broadband and wireless networks in homes has created a powerful new video portal that can make Web television available anywhere in a household, often in combination with regular TV viewing. While none of these technologies is in as many homes as TV sets, many of them are becoming mainstream – adopted by very large numbers of consumers. Technologies such as HDTV enabled sets, broadband and video games have been transformed from niche media to mainstream media. Other technologies such as DVRs and video capable cell phones are also growing and with them alternative options for TV viewing.

In this chapter, we review several patterns associated with digital television: where it has been and where it is heading, especially as they relate to consumer behavior. These patterns include technology convergence, the impact of digital technology on traditional TV, large screen high resolution TV, small screen TV, interactive television and the narrowing of the digital divide.

## **Convergence Reconsidered**

Convergence is the merging of media, for example, merging of newspapers, radio and television on the Web or merging of electronic program guides, video-on-demand, Web content and interactive services on television. The term has been around for a long time, moving in and out of favor. Though perhaps overused in the past, convergence captures a process that is clearly underway in digital media environment. There are many dimensions to convergence, including technology integration, functional melding of content services, audience fragmentation and geographic convergence. It is a response to rapid changes in technology and shifting behaviors of consumers. What concerns us most here is technology convergence, changes in media behavior and the impact on content production and distribution.

Technological integration of media, for example a cell phone that provides text messaging, music, access to the Web and videos as well as voice communication, is a cornerstone of convergence. Technological integration is made possible by the digitization of media transmission and storage into zeroes and ones of computer code. In a digital world, text, audio and video are all the same – a string of numbers. This makes it easier for one device to provide many different forms of content. At one time, it was thought that certain technologies, the computer for example, would eliminate the need for other devices such as a television set but this did not happen. The reality is that most of the media we use have taken on additional features: computers can play videos as well as display text and graphics; digital TV sets have many computer-like features such as interactivity and are capable of displaying Web content.

There is a seeming contradiction between the convergence process (the coming together of media) and proliferation of media devices. If one device can perform the functions of other devices, why do we need all of them? The reality is that both are happening. We have more media devices than in the past, but technologies we use also have more features and services. One consequence of the proliferation of media devices is fragmentation of audiences. Most people in a town do not read the same morning newspaper and choose among three broadcast networks in the evening, as millions did decades ago. Our consumption is spread across a broad range of media services. Convergence, in the sense of distributing content on multiple platforms, is one way of dealing with audience fragmentation.

Convergence involves the functional merger of services, for example, text, photos and video in news (Kolodzy, 2006). This is most notable on the Web, where a news site may have stories in multiple formats, along with reader forums, blogs, polling, interactive maps and direct links to sites with more information. Similar patterns of merged services are apparent on television and MP-3 players.

Convergence is also notable in news production. Many news organizations have, under different names, a News Center where stories for multiple platforms originate. Frequently, reporters in these News Centers are not distinguished by the medium for which they create a story but by their beat. So, a crime reporter in such a News Center may create stories for the organization's newspaper, Web site and TV news programs (Quin, 2006). A good example of convergence in the newsroom is NBC's Ann Curry's reporting on brutal rapes of women and girls in the Congo. Ms. Curry and her producers created stories for the *Today* show, NBC *Nightly News*, and MSNBC cable. Working in close collaboration with the Msnbc.com Web teams, they also created extra content for the *Today* show and *Nightly News* Web sites, which included additional interview materials and a Web only Q & A link through which viewers could ask Ann questions directly. Selected questions were answered in video on location in the Congo and posted by producers on the *Nightly News* Web site. Further, segments were promoted across media, posting the video on the Web and teased on the broadcast.

The news producer in such a center must think through how to cover a story, for what media, by whom and the context in which a viewer will experience the story. The consumer of news is also more active in the converged media environment.

They comment about stories and sometimes provide news in the form of photos they submit or news tips they provide.

Are there limits to convergence? Consumers have widely adopted cell phones but do they want to shop, watch a football game and prepare a spreadsheet on a cell phone? There may be generational differences, where younger people will readily accept the cell phone as a multi-application device and older people will just want to use a cell phone to make telephone calls and receive a limited set of additional features. Further, we may learn from other countries such as Japan and Korea, which have more advanced cell phone networks, what advantaged features consumers want.

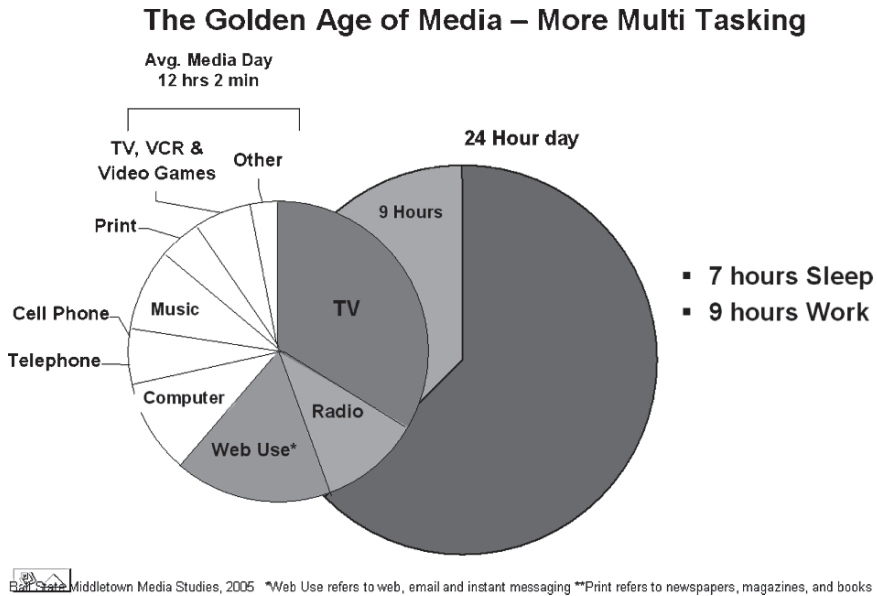
Noteworthy for our premise of expanded opportunities, convergence has created a voracious appetite for content. This provides an opportunity for content producers and distributors. There is demand for new content, advanced platforms that support new and creative forms of content, and ways to distribute content that did not exist before.

## **New Video Media Are Not Replacing Established Media**

One might think that mainstreaming of some technologies is achieved at the expense of others, with new video media replacing established technologies, but this is not the case. It is true that online streaming experienced phenomenal growth in the middle of the decade and went from rare to occasional to mainstream in a very short period of time. According to Comscore, within a period of 18 months, from early 2006 to mid 2007, the number of unique streamers doubled from approximately 65 million to 130 million. The number of total streams grew from approximately 3.5 billion to 9 billion. By the third quarter of the decade nearly three in four internet users streamed video content in any given month. Interestingly, television viewing has not been affected by this growth. According to Nielsen Media Research, persons using television (PUT) ratings among people 18–49 grew from 16.9 to 18.8 over the same period. PUT growth is also strong among teens. Further, online video viewing helps extend the reach of TV shows. The most popular television shows tend to be the most viewed online as well (Stelter, 2008).

How is this possible? The buzz word of the media industry is multitasking. According to the Ball State University Middletown media studies (Papper et al., 2005), we manage to consume more than 12h of media in 9h on an average day, through multitasking (for example, a person who listens to an iPod for 10min while simultaneously watching TV would be classified as consuming 20min of media). By comparison, we experience seven hours of sleep and nine hours of work on an average weekday. As a result, we are experiencing more media use than ever before. This is one reason for our argument that we are entering a Golden Age of Media (Fig. 8.1) in which there are many more opportunities to reach new and existing audiences over a plethora of platforms. We are experiencing a move from viewing habits to new choices, framed by availability of new technologies.

Television viewing is breaking out of the conventional box that marked our expectations of how people utilize TV. New viewing platforms and behaviors



**Fig. 8.1** Golden age of media

such as time shifting with the help of a DVR, streaming online via broadband and watching TV over bigger and smaller screens are all legitimate forms of viewing television content. Does choice have a negative effect on television viewing? A number of studies have shown that DVR owners watch more television, especially prime time shows, since they have control over when to watch them. Further, they like TV more since they are watching shows that they can choose from the entire 24-h lineup. In addition, specific prime time shows garner viewers who may have been lost if not for the option of time shifted viewing. Nielsen has begun to capture this viewing in new ratings data that include live plus the next seven days of time shifted viewing. By way of example, *The Office* during the week of October 1–7, 2007, showed an exponential growth of more than 40% once time shifted viewers were included. Online streaming adds even more viewers and the distributor can control whether or not people can fast forward through commercials while watching online.

### DVRs and the ‘Death of TV’

Concern that the DVR will be the death of television advertising are reminiscent of Mark Twain’s comment, upon reading an obituary of himself in the newspaper – “reports of my death are greatly exaggerated.” There are no indicators that television advertising will go away. Questions about television advertising

in the DVR environment have led to interesting developments in an attempt to shed light on how fast forwarded ads are actually viewed by consumers. For Example, NBC, with research partner Innerscope, conducted a groundbreaking biometric DVR study that tracked measures such as eye movements and heart rate to test ad retention and recall (Kang, 2008). The study found that, consistent with Nielsen data, some DVR viewers actually stop to watch commercials. It also found that those who do fast-forward through commercials are in a state of “hyper-alert” which enables them to process ads at a pre-conscious level. These viewers actively scan the content, follow the action and see brand logos and text. As a result they recall ads they fast forward through, even at six times the normal speed. The analysis showed that most recalled commercials were those that concentrated action and the brand’s logo in the middle of the screen. Successful commercials (those most likely to be remembered) also had minimum scene changes, did not rely on audio to tell the story, (since it becomes irrelevant in a fast forward viewing mode) and often used familiar characters. Viewers were more likely to remember an ad in fast-forward mode if they had seen it once before in live viewing mode.

These fascinating results may have interesting implications for advertisers by potentially influencing decisions on media placements, i.e. choosing to advertise on live shows, learning how to copy test (both live and FF modes) as well as incorporating findings in the creative process. For example, in a commercial that was not part of the study Visa used a visual tag, “Life Takes Visa,” in blue lettering on a white screen and kept it on a few extra seconds, making it more prominent and visible for a person fast forwarding through the commercial on a DVR. The study also mirrors a substantial change which is taking place in the media industry: the collaboration between networks and advertisers/agencies, to better understand consumer behavior. Formerly on opposing sides of the table, agencies now reach out to networks for assistance in obtaining insights on consumer behavior and they work together to plan strategies that will benefit both.

## Online Video Viewing Patterns

Looking more closely at online video, new viewing patterns are beginning to emerge. In addition to “video snacking” on short clips – the main form of online video available in the middle of the decade – there has been an incredible growth in full episode viewing. Although they are a small share of TV viewing overall, TV episodes have been a significant driver of streaming video growth – according to Harris Interactive – rising from a very small percentage of all online video streaming in the spring of 2006 to nearly 20% in the spring of 2007.

*“I just wanted to catch up on shows I missed”*

*– Respondent in an NBC Research Study, 2007*

NBC's study of its Rewind video player, showcasing prime time shows on nbc.com, uncovered another interesting pattern of viewing. While there has been some video "snacking" of (mainly) short form video content during the day, majority of NBC Rewind viewing has taken place at home and at night, a behavior similar to TV viewing. This is not to say that online viewing is replacing traditional television viewing. The study showed that online viewing is creating an incremental audience, with majority of people falling into a "catch up viewer" category, stating that they have used Rewind to watch an episode that they missed on TV. In addition, a majority of respondents in the study were new viewers, who were exposed to a show for the first time online. Many of these viewers remained loyal to the show and kept viewing both online and TV. A second pattern of online video use is to re-watch favorite shows a person has seen before, sometimes in their entirety and sometimes favorite scenes. A third use of online video is to watch shows that friends recommend after the show has aired. In this way, online video has an advantage over DVRs. With DVRs, one has to anticipate what one wants to watch and set the DVR to record it; with online TV programs one can go back and watch a program that was on TV the day before even though one did not record it. It is worth noting that content providers are now developing online video download models that will imitate online DVR recording capabilities, mainly pre recording a full season of programming, thus providing consumers even more opportunities for consuming content online. This suggests that, at this point, the online video experience is not cannibalizing viewers but building loyalty to favorite shows and exposing people to new shows they have missed. At a basic level, the number of ways people can receive and watch television programs has expanded from over-the-air broadcast, cable, satellite and purchased or rented DVDs to all of those plus DVRs, telephone company video systems, online video and portable video devices such as iPods. It is an expansion of choice, with consumers having more control over the viewing experience.

## **Big Screen, High Resolution TV**

Beginning in 2008, nearly all TV sets sold in the US were digital; most were high definition and many were large screen TVs (30 in. or more). Larger screen size and higher resolution of these digital sets have led to a number of effects on viewing behavior. We have been studying households that acquire large screen, high definition digital TVs for a number of years and can offer some observations about their viewing behavior and attitudes.

Why do people get HDTV? Upto the mid 2000s, most of those buying HDTVs were classic early adopters who were willing to pay a high price in order to be the first in their neighborhood to have the new technology. As price came down and more people learned about HDTV, the mix of adopters was more varied. Some specifically wanted to get HDTV, but many got it because an existing set went on

the fritz and HDTVs dominated the showrooms at electronics' stores – it seemed the natural thing to buy. It was more of a mainstream purchase rather than a 'high tech' purchase.

In a similar pattern, a few years ago nearly all the households we studied who had HDTV said it was a "wow" technology. It made television much more enjoyable, they watched more TV, and they invited neighbors over to show off their dazzling new technology. More recently, most households have told us that HDTV was a big plus in their lives but not a wow. If the wow factor has diminished somewhat, it has been replaced by a commitment to HDTV (no one would give it up) and the expectation that all programming and all TVs will eventually be in HD.

When asked if they planned to replace other sets with HDTV, some people told us they were planning to get a second HDTV in the next year; nearly all said they would eventually replace other TVs with HD. This was couched in terms of an expectation that HDTVs would continue to drop in price over time. Further, since most of the other TVs in their households were smaller "secondary" TVs, they expected that by the time they replaced them, the price would not be much more than a similar size analog TV.

People we studied said that there was moderately more group viewing of HDTV. Teens who normally locked themselves in their rooms with their personal TVs would sometimes venture out to watch favorite shows on HDTV, even if they had to tolerate their parents. A number of people described 'lingering in the HDTV room' when in the past they would leave. For example, in the past if a show they didn't like came on, they would leave and watch another program in a different room. Now, if a show came on, there was a more complex decision: if a favorite program can be watched in another room, leave; if one really dislikes the show that a spouse wants to watch, leave; but if the show is tolerable, probably stay because it is in HD.

We also investigated the issue of multi-tasking, which many have reported as a common accompaniment to TV viewing. A going-in hypothesis was that the strong engagement of the HD image might reduce multi-tasking. People reported (and we observed) a lot of multi-tasking – about the same amount as before- most said. There appeared to be two countervailing forces which in the end, led to the same amount of multi-tasking. First, the picture was very engaging and many seemed riveted to what they were watching (so, less multi-tasking). However, in most households, the HDTV was very large, allowing people to watch it from a distance – where they were engaged in other activities. For example, one woman showed us how she watched the living room TV from the kitchen, where she prepared meals, paid bills, etc. In addition, we observed many laptops in the same room as the HDTV and the use of laptops while watching HDTV. Much of this activity was related to what they were watching (e.g., checking TV listings on an online TV guide, looking up sports statistics, going to a blog about an actor in a TV show, going to a Web site for a program and voting, etc.) but more of it was general Web activity such as checking email, shopping, paying bills, etc. A few years earlier, when the PC was in a different room from the main household TV, there was less synergy between TV programs and Web usage since people would have to remember the linkage after they finished watching TV and went to the room with the PC.



The location of the HDTV and its impact on 'social definition' of the space it occupies is very important. Most of the HDTVs we have observed have been located in a living room or other main room of the home such as a den or family room. Since the HDTVs are generally large, they often dominate these rooms – they define the space as a 'TV environment.' Males are generally ok with this but some females are not. They do not want to give up the esthetics of the living room to technology. Flat screen sets that hang on a wall and smaller HDTV sets are less of a concern than large HDTVs that occupy considerable space within the room. The growth in sales of flat screen HDTV is both a reflection of and a solution to this concern. Flat screen TVs can be integrated into the room design without taking it over.

Small HDTVs are often chosen for environments like a kitchen or bedroom. Here too, the issue is that the TV should not dominate the room or, in the case of kitchens, get in the way of other functional tasks. Technology is evolving to fit comfortably in a range of social spaces

Large screen HDTVs have led to some changes in viewing behavior. When asked where they go when they first turn on the HDTV, many of the people we interviewed said they go first to the HD tier of channels. In some cases, they go to a favorite HD channel or a specific program in HD. Others simply go to the HD tier of channels and see if they can find something enjoyable to watch. Only if they cannot find anything to watch on the HD tier do they go to other sections of their TV service.

A related issue is the sheer size of TV services with HD – they have many (often hundreds) channels. Regardless of the HD channels, it is more difficult to surf very large channel services. Many HD owners say they do less channel surfing than in the past. Further, some sections of the channel lineup can become isolated neighborhoods that few visit. It is also more difficult to know what is on so many channels. Printed TV guides are fading away; electronic program guides (EPGs) are replacing them.

HDTV is not without flaws and obstacles to further growth. Many people are confused by the multiple menus and settings on HDTVs and associated set-top boxes that feed the HD signal to the TV. One problem is simply to figure out which remote to pick up to change a setting (the TV remote or the one for the set-top box). Aspect ratios (i.e., the ration of width to height of the TV screen: 4 to 3 for earlier analog programs; 16 to 9 for HDTV; and customized settings such as 'panoramic') confuse many. Some do not understand them at all; others do not like it when the picture does not fill the entire screen. There is also confusion over multiple inputs and modes. If one is watching a DVD, how does one get back to TV? Nearly all can do it but many said it is confusing. When asked about settings on older TV sets, many told us that they never changed a setting on their old TVs other than to choose a channel and adjust the volume.

Our research suggests that the future for large screen HDTVs is bright. HDTV is moving from the realm of high tech early adopters to average TV households. If some of the superlatives and luster of HDTV have diminished, it is also becoming mainstream – the expected norm, as with color television several years after it was introduced. The households we have studied would not give up their HDTV

and they plan to eventually replace all household TVs with HDTVs. They want and expect all channels and all content to eventually be provided in HD. It is also clear that channels on the HD tier have a distinct advantage over those not on the HD tier since many people go to the HD tier first. If there is a change needed for HDTV to become ubiquitous, it is for greater simplicity in the design of HDTVs and more attention to ease of use in menus. The consumer electronics industry has been reacting to these trends by producing cheaper, thinner and higher resolution HDTV's, including OLED screens with a million to one resolution ratio. Other devices such as wireless HD and HD storage capabilities on flash drives will all push forward the HDTV consumer experience.

## Small Screen TV

What is the effect of smaller, portable screens on media consumption? Although there is a proliferation of small screens such as video iPods and cell phones, the majority of Americans still prefer to watch television content on a bigger television screen. According to a Harris Study, two thirds of people would always prefer to watch video on their TV versus a computer or portable video device (Harris Interactive, May 2007) However, laptops and portable video devices are useful secondary TVs when a big set is not available or to watch a second program along with the TV show on a large set. The same study revealed that only 6% have ever connected a computer to a TV to watch internet video. So, while TV programs are being viewed on the Web, growth has been modest for Web videos that are viewed on TV sets. This could change. Scenarios that might lead to more Web video viewing on TVs include placing those videos on the servers of cable operators and making them available through video-on-demand, introduction of a new generation of devices that make it easier and cheaper to move Web videos from a computer to a TV set, such as the Sling Box and building the ability to access the Web into cable, satellite and telephone company video boxes.

Most Americans do not use their cell phones and video MP-3 players for video at all. However, those who do use an MP-3 player for watching TV programs, report that it is a positive experience (early experiences with cell phone video were not as positive). How could watching a TV program on a small MP-3 player screen be positive? It is important to remember that people sit much closer to an MP-3 player screen when they are watching TV programs compared to regular TV sets. Viewing a TV program on an MP-3 player that is 18 in. away is like watching a 30 in. TV set from six feet away. People also have developed many ways of positioning an MP-3 player so that it is not tiring, for example they set it against a pillow, rest the hand holding the MP-3 on a lap or use one of the stands that are made for the devices. It may come as a surprise to some that most viewing of TV programs on MP-3 players and other portable video devices is in the home. Some people watch TV programs on a portable device while in bed, before they go to sleep. They report that ear buds are very useful since they do not disturb a spouse but if

they laugh too loudly at a comedy show, it may lead to a poke in the side. Others use portable video devices to stay in a room even when they do not like the show playing on the main TV. People have told us that when they are watching TV with a spouse and a favorite show of one person comes on (which the other doesn't like) it was common in the past for one to leave the room and watch a different show on a TV set in another room. One person called this the "TV divorce." Now, they stay together and while one watches the main TV, the other watches a recorded show on the portable player, using ear buds to not disturb their spouse.

There is an important distinction to be made between television content and its distribution screen. Good television content is still and will always be in demand. There is a strong preference for professionally produced content online, now that video quality has improved. A few years ago, in a dial-up narrowband internet world, streaming video was the size of a postage stamp and frequently out of sync with the audio. In that environment, professional and amateur content all looked bad. In the new broadband environment, high quality video looks very good, if not quite as good as regular television, and viewers can see a difference between amateur and professional content. Though many like short, off-beat amateur content, professional content dominates long form viewing.

## Interactive TV

Interactive television trials in the US have spanned more than five decades, initiated by the first video phone call between Washington and NYC made in 1927 by then Secretary of Commerce, Herbert Hoover (Einav, 2004). In following decades, various interactive platforms have been experimented with, ranging from phone, cable and the Internet. Most initial trials had failed due to lack of consumer adoption, poor user experience and pitfalls deriving from nascent technology. However, this has changed.

Three recent changes in consumer media use have helped revive interactive television trials.

1. The advent of broadband, which by the middle of the decade was available to 50% of US households, created a substantial increase of online use. Internet use has become main-stream across gender and generations. As a result, consumers have become more accustomed to and comfortable with the concept and use of interactive applications. The increased use of EPGs (electronic program guides) which according to Forrester research is used an average of 4.7 times per day by more than a third of users, has been a substantial catalyst of interactivity (McQuivey, 2007)
2. The number of computers located in the same room as television sets has reached approximately 50% of the US population (HTM, 2007). Although consumers are not necessarily surfing the Web for television related content, proximity of the devices helps create a ripe environment for interactivity. A third change is

the growth in cell phone ownership, which has reached more than 80% of US households. This has made the cell phone and SMS a mass medium platform for interactivity.

3. As of the second half of the decade, there has been an increase in real time participation with television shows, mostly reality and game shows. Some of this followed the lead set by European broadcasters during the early 2000s. US television networks have been offering a growing number of real time, program related participation opportunities. For example, NBC's game show "Deal or no Deal", offers a "Live TV Challenge" that allows viewers to play along live with the game show. The multiplayer game allows for live predictions, mini games tied to which cases get opened, and opinion polls, in which viewers can compete for points and prizes with other fans of the show. Voting and participation was also available via SMS and one screen interactivity through the television remote control. Millions of votes have been attributed to each show.

## **The Digital Divide Narrows As Mainstreaming Takes Over**

In the mid 1990s, a widely read government report, *Falling Through The Net* (NTIA, 1996), proclaimed that there was a wide digital divide between those who had access to new information technologies and those who did not, based on age, ethnicity and geographic location. Communications research scholar Horst Stipp has analyzed a range of data on technology adoption and demonstrated that the digital divide has narrowed considerably. Focusing on age, young people are more likely to use a device like a video MP-3 player, but there is considerable adoption across age groups for DVRs, HDTVs, broadband and laptops. Another study, by Katz and Rice (2009) found that the gender gap identified in the 1990s has all but disappeared and predictions that media, like the Web would foster social isolation have not materialized. These and other studies support the concept of mainstreaming which we introduced earlier. While not all of these technologies are available in a majority of US households, they have moved past the early adopter stage and have found wide acceptance across a broad range of households.

## **The Future**

It is difficult to predict what the television landscape will look like ten years from now. What we do know is that old habits are slow to change. Traditional media habits still apply, with television viewing growing and big screen preferences still the norm. On the other hand, consumers are exploring new choices such as time shifted viewing, online viewing and video over portable media and their growing expectation of control over content consumption is not likely to recede any

time soon. What has not changed are the core functions of television – to relax, to escape, to be entertained (Mendelsohn, 1966) but people might choose to do so over less traditional platforms than the television set depending when and where they are at the time.

If prediction is risky, it is possible to point out some implications or changes that may follow from the digital media environment. The first set of implications relates to content and production. Who will create content? Most content that people actually watch will be created by professionals but amateurs will have a role and they will post a great deal of content, most of which will be viewed by only a few people. Beyond amateurs with cell phone cameras who record pratfalls or the offbeat, and professionals who work for large media organizations, there is a third group: serious programmers who aspire to create professional content. A number of such groups have emerged and some of these have developed a commercial relationship with or been absorbed into mainstream media organizations. This should lead to a lot of experimentation which will be good for consumers and mainstream media industries in the long run. There will also be more mash-ups or content that is made available on the Web and then, legally or illegally, edited or supplemented by Web users.

Producing content for large and small screens will be both a challenge and an opportunity. How do you cover a sporting event or produce a drama program that will be viewed by some on a 60-in. screen and by others on a 2-in. screen? Production units in a converged media organization may choose to optimize for one environment with the most viewers, edit a program differently for large and small screen, or develop new technology that will automatically re-size some content so that it is optimized for the medium on which it appears.

Will high definition digital television lead to new types of actors, announcers and politicians who come across better in this new medium? It happened in the transition from silent films to talkies, stadium orators to radio politicians, and radio stars to TV stars. Marshall McLuhan famously declared that John Kennedy was well suited to the cool medium of TV and Richard Nixon was not (McLuhan, 1964). Will digital JFKs emerge?

There are many implications for advertising. One implication which we touched on earlier may be a need to learn how to produce commercials for a DVR environment. Advertising, like sports coverage and drama, must also be adapted for large and small screens. Commercials can become more interactive, either by using two-screen TV (Web content that complements a TV commercial) or allowing viewers to interact with the commercial over two-way cable systems. As digital TV systems advance and we know more about individual viewers, it will be possible to dynamically insert commercials based on interests of each viewer. In other words, a movie fan may see a commercial for a recently released movie and a car enthusiast for a new sports car while both are watching the same TV program. Viral marketing will take on new meaning in an environment where advertisers can release video components of a commercial and invite viewers to create mash-ups using the video.

From time to time a side effect of a new technology has as much impact as the core reason why people acquired it. For example, most people got broadband for faster delivery of Web content but one side effect of broadband has been that people keep their broadband service on all the time or whenever they are at home. 'Always on' has, in turn, led to many new behaviors such as very short Web sessions (e.g., to check the weather) and going into the Web dozens of times a day. The dial-up Internet "session" has all but disappeared for broadband users. Side effects are sure to happen in the new digital TV environment. One candidate side effect is the reduction in importance of a TV schedule in an environment where we can easily DVR content and watch later or catch up on missed programs through video streaming. In the television industry, the term 'watercooler TV' has been used for decades to describe the phenomenon of people talking about TV shows at work after watching them the previous evening. All producers want their shows to be 'watercooler TV.' In an environment of DVRs and streaming media, it becomes more difficult to produce watercooler TV. The model of TV viewing is changing. While not a perfect analogy, TV viewing is becoming more like reading magazines – people consume TV, like magazine articles, at different times and in different places. Further, we are entering an age of replay TV where it is very easy to watch programming a second time or simply after the time when it was originally aired.

As the number of distribution points for digital television programming expands, we are likely to revisit the debate about whether content or distribution is king. The television industry has shifted back and forth on this issue over many decades. More recently, the shift is moving back to content. When there were relatively few distribution points, it was better to be a distributor and leave the expense of creating content to others. With an abundance of distribution points, the pendulum swings back to owning content and licensing it to multiple distributors.

It is important to remember that not everything is successful. In fact, most new technologies, new TV programs, and new consumer services fail. The burst of the Web bubble in the early 2000s taught all of us a painful lesson. Moving forward, it will be necessary to scrutinize new ventures for consumer appeal and business viability. It is also important to ask where we are in the technology development, behavioral change and content development cycle. That is, new television technologies often lead to new forms of viewing behavior which, in turn, lead to new content. Think of the remote control which led to more channel changing which in turn supported niche content. In the digital television age, we appear to be early in the process. Some new technologies have emerged, but many more are likely enter the marketplace over the next decade. This suggests that we should be actively monitoring changes in behavior and thinking about creative new content that will serve the digital viewer.

To return to our original question, is TV dead? The answer is clearly, no, but TV viewing environment is changing in ways as profound as the shift from Tavern TV to Home TV in the early 1950s. We need to be aware of change and continue to monitor it. Let's lean back, or forward, and enjoy one of the most exciting times television business has experienced since the introduction of the television set those many years ago.

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