Chapter 2
TV for the Twenty-First Century: The Video Ad Model in Transition

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From the cave paintings of Lascaux until very recently, advertising, like real estate, has been about one thing . . . location, location, location. Marketers identified a target audience and looked for ways to communicate with that audience by inserting messages into places they were likely to be, or in media they were likely to consume. It has worked well for over 30,000 years. It is all about to change. Location, or more properly in media parlance "context" or "environment," the media in which an ad is inserted, will soon be receding in importance for advertisers, replaced instead with the direct targeting of messages to the individuals likely to purchase an advertiser's goods or services. This message will be delivered without regard to the media which carries it. It will be one of the truly revolutionary changes wrought by the digitization of the media ecosystem.

Another truly revolutionary change is in the nature of the messaging itself. Prior to the dawn of the Internet, much advertising was "passive" in nature. Active advertising or advertising which encouraged some sort of viewer action was labeled "direct response" and was assumed to be limited to low-quality merchandise and typically handled by specialists, outside the "mainstream" of media. While there is some irony in this notion, since the budgets for direct response marketing are considerable and have grown dramatically over the past 10 years (since 2000), if you ask a friend who works in media or advertising (especially television) about direct mail, or response-based television or online advertising ("call or click now for this special offer"), the likely reply will be (with just a trace of condescension) "oh, that is DR, I don't do that." The core of advertising was so-called "brand" advertising with highly impactful "creative" (the ads themselves) designed to establish an identity for a product or service. Response-based advertising and brand advertising existed in separate worlds. Today, those worlds are colliding.

This chapter first discusses some of the concepts which have governed how business in advertising and media has been done and identify how the digitization of the media/advertising ecosystem is changing these established models. We then discuss

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some of the challenges and opportunities created by these changes for the various stakeholders: advertisers, agencies, media companies, and consumers.

Some Concepts

What Is Context and Why Is It Important?

Context is one of the basic elements of planning and buying media. Context can be high level such as a sneaker brand buying a page in a sports magazine to reach sports enthusiasts, or a diaper brand buying a spot in a soap opera to reach stay at moms at home. It can also be more finely targeted such as a studio buying the ad next to the movie reviews in a newspaper, a food company sponsoring a cooking segment on a morning television news show or a fast-food restaurant buying an outdoor board on a highway just before the exit where its restaurant is located. Regardless of the level of specificity the concept is the same. The attributes of the media in which the marketing message is delivered, its editorial focus, the audience it is likely to attract, the time of the day it is likely to be consumed, etc. make it a target rich environment for a particular advertiser. In short the context becomes a proxy for what the advertiser really covets – people who are their customers or who can be reasonably convinced to become their customers.

The important thing to note is that context is one step away from what the advertiser really covets – people. It is people who ultimately buy, and marketers work very hard to understand which people are more likely to buy their products or services. Through various forms of consumer research, surveys, focus groups, research panels (a group of people who have agreed to reveal their purchase behavior), fine-toothed analysis of sales data, etc. marketers develop a deep understanding of who is or can become their customer – far deeper and more specific in many cases than the audience analysis available for a particular media opportunity. The process of media planning is to then simplify all of that deep customer understanding into a basic target audience and try to map an advertiser's media budget to media which are rich in that target audience.

The rub of course is just how customer rich any one particular media opportunity is. This "richness" is often referred to as "composition." The concept of composition (and the peril of using context to guide how one advertises) was most colorfully illustrated by department store magnate John Wanamaker, who is reported to have said, "Half the money I spend on advertising is wasted; the trouble is I don't know which half." Less colorful, but more useful is an example. For those of you who are media historians, please forgive that it is slightly anachronistic.

Suppose Mr. Wanamaker (1838–1932) had $1,000 to spend on advertising. A local radio station in Philadelphia, the site of his flagship store, will sell him 100 opportunities to play his ads ("spots") over a period of time ("flight dates") for his $1,000. The average listening audience for each spot is 10,000 people. So, for his $1,000 Mr. Wanamaker will have purchased 1,000,000 impressions (an impression

is when a person is exposed to his advertisement), at a cost per thousand impressions (known in the trade as CPM) of $1 (100 spots × 10,000 impressions per spot = 1,000,000 total impressions /1,000 impressions)/($1,000 total spend = $1 CPM). But Mr. Wanamaker knows that the vast majority of the people who actually purchase things in his store are women. Indeed, he has purchased his radio spots in serialized domestic radio dramas (also known as soap operas) which attract a female skewing audience. Observe that we said "skewing." It is almost impossible to deliver an audience composition of 100% in the real world, unless, of course, your target audience is everyone. In actuality, the audience composition of Mr. Wanamaker's radio dramas is 80% female and 20% male. Note what this does to the CPM of Mr. Wanamaker's purchase if it is evaluated based on delivering only women. Because 20% of the audience he purchased for a CPM of $1 is outside his target, his effective CPM (eCPM) is really $1.25 (800,000 impressions are female, for the same cost of $1,000 – essentially, an eCPM "factors out" the audience an advertiser does not care about from his/her cost analysis). This 20% waste can be seen as inefficient, but at least it is waste that Mr. Wanamaker can quantify. What he cannot quantify is how many of the women he reaches with his radio commercials are, for whatever reason, not likely to shop at Wanamaker's. They may live too far away, or prefer a different store, or be of insufficient means to afford Mr. Wanamaker's wares, but they are all listening to his radio spots, and he is paying for them.[1] And what about the men? Of the men (20% in our example) listening to Mr. Wanamaker's spots, a few of them are, or can be persuaded to be, Wanamaker's customers as gift givers. But who are these men? Mr. Wanamaker does not know, and targeting male skewing programming would be too inefficient a way to find them.

This example highlights the challenge of using context to deliver audience. If only Mr. Wanamaker could build a media plan that delivered the highest composition of audience, male and female, that was likely to shop in his store – unconstrained by the audience delivered by a particular "program." In the new digital age of media, in effect he can, and we discuss it later in the chapter, but a few more foundational concepts first.

Audience Engagement

Context has other, more subtle values, apart from being a proxy for a target audience. People choose which media they consume. When you are watching your favorite show on TV you are likely to be in a mental state sometimes described as "engaged" with the show. There are as many different definitions for being engaged, or engagement, as there are people working in media and advertising. From a television programming perspective, we like to think of engagement as paying attention. And historically, that is how advertisers have thought of it as well. As an engaged viewer you are more likely to be influenced by the marketing messages – commercials which are embedded in the show. Thus where two shows may have the same audience size and composition, a marketer will prefer the show with the more

engaged audience because there is a better chance that their message will influence the viewer. Different metrics – even combinations of metrics – are used to define "paying attention" – duration time of viewing (audience watched on average 25 min of a 30-min episode), frequency of viewership (audience watched on average 3 out of 4 episodes). More recently, companies like IAG (now owned by Nielsen) have developed robust ways to survey hundreds of thousands of TV viewers of particular programs, and ask them questions about both plot lines of shows and advertising messages, to establish "engagement scores" for programming.

Digital distribution has framed an intense debate about whether this is an adequate definition of engagement. While many advertisers continue to rely on the "attention" definition, some advertisers, especially those with brands whose advertising acts like content (think movie studio trailers) have begun to move to a much more specific definition of engagement – one that is customized to their specific situation. In place of "attention," they are using "action" as a core component of "engagement." Did a viewer actively engage with an ad (request more content, "click through" to a deeper brand experience, register for a coupon, or buy a ticket, etc.)?

This is a fundamental change in a media consumer's viewing experience and one we discuss in more depth in a later section. The key is that digital provides a two-way connection to the consumer where information can flow back and forth from the consumer and not just to him or her. Digital's two-way path is the differentiator that enables this new, highly engaging "dialogue" between consumer and advertiser to happen. In the video world, this creates a dramatic change to the passive, programmed, linear experience of old. Now, consumers are in control, and they can "pause" their primary content experience to engage – for whatever amount of time they choose – with a secondary experience (advertising-based, God forbid!) before returning to the content they had originally chosen to consume. While an accepted industry term has not yet been blessed, a variety of terms have been coined to describe this new model; "non-linear" or "telescoping" are often the catch phrases used to describe it. And, it is this advancement that will drive a dramatically altered next generation of video-based advertising – one based on delivering a message to the right people, with an ad that has the best potential to engage, and ultimately drive an advertiser's sales (more on this later).

Some people find this counter intuitive. They view commercials (television especially) as unfortunate interruptions of what they really want to watch, and think of them only as distractions from their viewing experience, which have no impact on their purchase behavior. While it is hard to argue with personal anecdotal research, there is scientific research which suggests otherwise.[2] Researchers at New York University's Stern School of Business randomly assigned viewers to groups to watch the same programming. One group watched the programming with commercials; the other group without commercials. Upon completion of the program, participants were asked to rate how much they enjoyed what they watched. The surprising result – viewers of the programming with commercials, actually said they enjoyed the show more than those who saw it without commercials. The commercial breaks improved the overall viewing experience! This leads to another subtle way in which context is important.

The "Halo Effect"

Context can be crucial in establishing the value proposition of a brand[3] in the minds of consumers. You are watching your favorite show. You see a commercial for a particular brand. That brand's placement, adjacent to your favorite show, becomes part of that brand's identity for you. This can be incredibly powerful, especially over time. And while it is hard to imagine that seeing an ad for a brand in your favorite show makes you more likely to pick it off the supermarket shelf, or drive it off the lot, over 75 years of television history says it really does work that way.[4] If it did not advertisers would not be spending nearly $70 billion a year in TV advertising in the United States alone.[5]

This power of a good media experience to help establish positive brand attributes for an advertiser is sometimes referred to as the "halo effect." This effect can work both ways, an unpleasant media experience can have negative effects on an advertiser's brand. This is why brand managers have historically been very careful about where they advertise. They are concerned about the content in which their brands are found, and whether that content is a "safe" environment for their brand. A brand manager's nightmare is to have spent money for advertising that ends up actually tarnishing the consumer's perception of their brand and ultimately reducing sales. It is one of the truths of the business that a brand built up with years and years of savvy marketing and high customer satisfaction can be vaporized with one disastrous turn of events. Think how the brand manager of a wholesome consumer product brand might react when the young starlet hired to be a spokesperson ends up on the covers of the supermarket tabloids. Or what about the brand manager of an airline whose commercial runs next to a news story about a plane crash?

Until recently, it was fairly easy for an advertiser to control where their brand message was delivered. Today, brands have far less control and that change has been driven by the digitization of media, primarily on the Internet, especially in the form of video. Advertisers tend to follow eyeballs, but the eyeballs today are sometimes on content or contexts (also known as environments) that could be perilous for the advertiser. Consumer-generated media now captures a significant amount of viewing. Much of the content on YouTube, a site which topped over 100 million United States viewers in early 2009,[6] is consumer generated. Most of this content from an advertiser's perspective is benign, (though perhaps not strong enough to generate a halo effect), but some of it is not, and filtering out the unacceptable content is a laborious task. And even if an advertiser associates their brand with content it has approved, that content could be syndicated – distributed – to Web sites with other content the advertiser does not want near its brand. Bottom line, controlling context in the new world of digital distribution and consumer control is much harder to achieve.[7]

The Change in How People Watch

Just watching TV remains by far the most popular form of video consumption. At the beginning of television history, consumers were capable of doing very little other

than just watching the programming and the advertisements. This is sometimes referred to as a "passive" experience. But this passivity is more than just "leaning back" in your lounge chair watching your favorite show. In a sense, it extends to the choice of programming you are watching. Each channel/network is carefully scheduled by its programming department. The schedule, like time, moves forward in only one direction, and so this is sometimes referred to as "linear television." A viewer either makes an appointment to watch a particular show when it is scheduled to "air" or chooses to watch whatever is most appealing to them from those shows airing at a particular point in time.[8] Either way, the programming is scheduled by someone else and the consumer's role is a relatively passive one.

A little bit with the advent of the wireless remote control (1955), much more with the growth of cable networks (1980–1995), and even more with the dawn of the Internet and digital TV (1995 to present), consumers have acquired a more active role in the video programming they watch. More and more content is available on an "on-demand" basis. The consumer no longer is bound by the decisions of the programming department of a network, but can instead decide what they want to watch whenever they want to watch it. In short they can take a more active role in choosing what programming (and advertising within that programming) to which they are exposed. Already today there are myriad devices enabling viewers to make these choices. In its simplest form – think about what a digital video disk ("DVD") is – really nothing more than a way for consumers to access content on their own terms. A digital video recorder ("DVR") like TiVo makes it possible for them to more easily record linear television shows for playback at another time. Video on demand ("VOD") marketed by cable providers offers a library of quality on-demand content available at any time. Similar VOD offerings are now being presented by mobile phone carriers. And of course the Internet makes available a truly vast library of content, nearly all of it on-demand (think Hulu.com,[9] or any Web site that features programming accessible on an ad-supported basis, or iTunes, which makes similar programming available for paid download, known as electronic sell through, or "EST" without advertising). The funny thing is that as an industry, we have isolated all of these different "technology-driven" solutions as different products, when in fact, from a consumer perspective, they are all the same thing: consumer controlled video content experiences. Ultimately, the video business will be segmented not by technology platform, but rather by how it is monetized, and it will come down to two very straightforward models: ad supported or paid for by consumer. Regardless of "how" you choose to consume your content (TV, DVD, DVR, VOD, Internet, or other) it will either have ads or not.[10]

Active Viewing = New Marketing Opportunities

This more active role for the video consumer, where they are "leaning forward" and making choices, rather than leaning back and allowing others to make choices for them is one of the signature features of the new digital age, and a tremendous opportunity for marketers. Yes, we said opportunity (many in the industry today suggest

the era of advertising as we know it is dead – we disagree). The key for the advertising industry is to take advantage of consumer behavior changes, not be scared off by them. You may recall our earlier discussion of engagement, suggesting a passive viewer can still be paying close attention to a program and/or an advertisement. But while they were paying attention, until the arrival of the Internet there really was not much they could do to interact with the advertisement. Usually.

The exception has always been those pesky direct response marketers we talked about earlier – which the brand-focused world usually tried to ignore. For decades in TV, they have refined a process (through use of distinct "800" numbers, and more recently Web URLs) to understand exactly the type of engagement, specific "units" on their schedule have delivered. For a direct marketer, engagement means how many calls did our 3:10 a.m. spot on Food TV generate, and what was the resulting cost per order? It is a straightforward approach to accountability – measuring the actual ad, its ability to engage visitors (# of calls), and success at driving sales (# of orders) efficiently (factoring in ad unit cost).

Through the early stages of the Web's development, a similar "performance" approach has been taken, based on clicks, orders, and cost-per. Indeed the single largest marketing tool on the Internet, paid search (which Google dominates), is really nothing more than a highly refined direct marketing business. Advertisers bid on key words through an auction-based system. If the key word they have purchased is searched, their short text advertisement is presented along with other non-paid search, (also known as "organic") results. If the user clicks on their advertisement the advertiser is charged. Advertisers adjust the "copy" (text) of their ad and the size of their bids to maximize performance – which in this case is clicks and how those clicks convert to purchases. Simple, and worth billions of dollars.

This is not to say that all Web advertising is direct marketing; clearly there are branding campaigns running on the Web. Rather the point is that all Web advertising, by the very nature of the medium, can be interactive, allowing the viewer to engage actively with the ad, right down to even making a purchase. This is truly revolutionary. Why? Because the growth of digital media means that an advertiser can combine a direct marketing message with a full sight, sound, and motion video message. They can create an itch for the consumer with the video commercial, and give them a means to scratch it with interactivity. This can be, if executed properly, a very powerful tool for a marketer. But this proper execution will require brand managers to re-think their messaging strategies, combining branding and direct response seamlessly, and developing new ways of measuring performance – something that has not been done until recently.

Video-Based Advertising and the "Marketing Funnel"

This has precisely been the gap that has existed during the initial phase of video-based advertising in consumer controlled experiences to date (circa 2000–2009). Whether we review early models of VOD-, DVR-, or Web-based video, it had one

common theme. It generally was a simple replication of traditional TV advertising: take the 15 or 30 second spot and package it into the new experience. We all know what the result of that approach was: bad consumer experiences and limited monetization for content owners. The fact is, in the new world of video, there is not a standardized "program length" or viewing experience that easily accommodates a unified ad model. You cannot (or rather should not) put a 30 second ad in front of a two minute content experience. And, there is a big difference between a consumer-generated video experience on YouTube and the quality long-form production offered at the broadcast networks' web sites or on Hulu. Viewers now are using different platforms, with different mindsets, with different entertainment objectives, and are consuming content on their own schedule, not one that is programmed. Advertising must be able to adjust dynamically to this reality and provide viewers with new forms of value tied to interactivity and control. For new video-based ad models to drive increased investment from the advertising community they will have to deliver against these requirements.

In the classic direct response world, it is all about a purchase – buying that Ginsu knife or George Foreman Grill. In the classic branding world, advertising units are not just defined placements, but also linear in nature (a TV ad is 15, 30, or 60 seconds; no more, no less). An advertiser had to make a choice about what they wanted to do – tell a story (branding), or pitch a sale (DR) – because they had limited time and were unable to allow the viewer to direct their own experience. Advertisers typically made this choice by focusing on which part of the "marketing funnel" they were targeting with their message. The marketing funnel is a well-worn concept in advertising. The basic idea is that at the broad end of the funnel is messaging designed to establish a brand identity and generate awareness of a product. It is broad because the messaging is generally delivered to the largest number of people. At the bottom, the narrow end of the funnel, are messages which are adjacent to the actual sale, a much smaller set of people than the total who are exposed to the brand overall. The "story" was the top of funnel, and TV always owned that playing field. The sales pitch was at the bottom, and regularly was led by newspaper ads, radio, direct response, yellow pages, etc.

It is our view that this distinction between the top and bottom of the funnel, or branding versus direct response, or story versus sales pitch is losing its vitality. We are not implying that the need to build brands or the goal of driving a conversion is any less important. Rather, we are living through a fundamental change to this either/or model, and those who continue to believe that branding and direct response should be thought of separately will do so at their own peril.

The potential can be seen with an example. Imagine you are at a Web site watching high-quality online video of a full episode of your favorite show, something that can be done today at all of the broadcast networks' Web sites. At the commercial break, you receive an ad that integrates both full motion video with interactive elements. For example the ad presents a branding message for a face cream, but includes clickable tabs for deeper product information in both text and video formats, and a form to request that a free sample be sent to your real world address. The ad is designed in a way so that the viewer can choose to interact with it for

longer than the traditional 30 seconds, really as long as they would like. There are several key points to note about this advertisement. First, it offers an interactive video-based brand experience. The user is literally engaging with the ad, and as we noted earlier, an engaged viewer is more likely to be influenced by a brand message. Second, the ad allows the user to control their experience, deciding what to click on, and how long to stay with the brand. Third, the ad includes a free offer as an inducement to try the product, but also to reveal their name and address to the advertiser. This information, subject to proper procedures for protecting privacy, can be used by the advertiser to build a deeper, one-to-one, relationship with this consumer and the advertised brand. Finally, it is important to note that the ad did not lead to a direct sale, though it did encourage a "response" from the user. The advertiser will need to evaluate performance of the ad based on metrics other than direct sales but certainly more than just impressions and CPM. The result being – for a consumer who may have never been aware of the product before being exposed to the ad – a completely "compressed" funnel – story (branding) instigated interaction (consideration) and a sample request (conversion). All in one experience, controlled by the user.

Interaction – It Is Not Just for the Internet Any More

Though Internet video is leading the way, the kind of interactive brand experience described in our example above is ultimately possible with any digital media platform. Permit us one more example to drive the point home. Suppose you have chosen to watch a show made available to you through your cable video-on-demand service. At the break, you receive an ad for an automobile. While generally the ad looks like a traditional TV spot, the ad is longer than 30 seconds and ends with a voice over and graphic call to action, saying "press select on your remote control for a virtual test drive, complete with a high-speed run around the Indianapolis Motor Speedway." Wow, how cool is that? You press "select" on your remote control, and the show you were watching is automatically paused, and you are "telescoped" into a branded environment offering a number of different videos showing off the vehicle in question, including a breathless first-person POV at Indy. When you have finished with this branded content, you are asked if you would like someone to contact you to schedule a real test drive, and if you do, a local dealer will follow up. You return to your show, just where you left off.

Of course, the example above creates an interesting dilemma for the industry – one which we are just beginning to understand. Take it one step further – from a cable VOD experience to the traditional linear broadcast or cable channel level – where shows are "programmed" by time slot, and multiple ads exist within an ad pod. If and when invitational ads that allow telescoping are incorporated into traditional TV programming, a whole new set of industry challenges are born. For example – for programming that is live and which requires audience involvement (say, voting), invitational ads result in the audience not viewing together in real time – because ad engagement will result in every single viewer being on their own "viewing timeline," potentially breaking the model of audience participation. And

what if the first ad position in a commercial break engages a viewer and drives them to explore deeply in branded content? Once they are done, even if their set-top box automatically paused and recorded what they were watching, will not their most likely behavior be to skip through the rest of the commercials in the break to "get back to their program?" Does this dramatically alter the traditional flat pricing model of TV advertising (in terms of position in pod)?

Viewers can of course just watch TV. But as technology evolves, they will be able to "just watch" virtually anything they want, wherever they are. But they will also be in control – and this control allows them to lean in and engage. And this engagement will be amplified by delivering it to those who find it most relevant.

Engaging with the Right Audience

In a world of digital distribution and invitational marketing – however it is defined – the concept of targeting takes on a new dimension. Gone are the days of having to deliver the same message to "everyone" watching a "show." This manifests itself two ways: advertisers now (or soon will) have the ability to "buy audiences" instead of programs, and they will be able to customize creative and messaging to particular groups of people (possibly even at the household level) based on generalized anonymous profiles (messaging customization). In short, they will be able to deliver the right message to the right "person," and dynamically adjust that message based on real-time performance measurement. Further, that audience is not just the people gathered around the living room TV. When we say "buy audiences" we mean wherever people choose to engage with a particular video experience (on a TV, PC/Mac, or mobile device, via live broadcast, VOD, DVR, download, or streaming delivery).

Let us dive deeper into the two examples used earlier – the face cream and auto advertisers – and illustrate how digital distribution impacts both audience delivery and message customization.

Traditionally, the target audiences for the two examples above might be thought of as having different gender skews – toward female for the face cream and male for the auto. Of course, this is a generalization – but it has been the construct of how advertisers have thought for decades because they have had to focus efforts against the largest, most easily reached audience – a heterogeneous television audience. There are, in virtually every situation, lots of prospects or customers who "don't fit the norm." Regardless of gender if you are someone not interested in face cream or automobiles, you are less likely to engage with, interact with, pay attention to, or be influenced by their ads.

Let us say two people – a man and a woman – are both watching the same show. In today's "placement as proxy" model, only one advertiser (either the face cream or the car) can be delivered because it has to be delivered to the entire viewing audience. But what if different ads could be delivered to different groups of people in the same program, or viewing experience? We have not discussed how the transition to digital alters how we think about this concept yet (it is coming later in the

chapter), but putting the right ad in front of the right person is crucial. As we discussed above, context has been the primary means for identifying target audience. But context is of course a proxy for what advertisers really want – a precise targeting of their ads to only those people who buy their products or services, or can reasonably be convinced to buy them. This targeted advertising, sometimes called "addressable advertising," is the last piece of the merger of brand advertising and direct response, and again it has been the Internet which has led the way forcing advertisers to redefine how they think about audiences.

Here is why this change is so important. Let us use an analogy from the manufacturing industry – the concept of "just in time" (JIT) delivery that revolutionized how products were efficiently delivered to market. Before JIT, manufacturers mass produced products based on estimates of consumption, well in advance of demand. They shipped products to retail – where it was warehoused at considerable expense. And if/when demand did not align with projections – retailers and consumers suffered (retailers if demand was low, consumers if demand was high). This is how our media business has worked for decades. Marketers use historical viewership trends, at a directional level, to estimate what they should purchase in the future. They are forced to plan and buy media against lowest common denominator audience definitions, because real-time audience data are not available to drive the investment, allocation, and delivery of advertising. The result is a marketplace, where supply and demand are not efficiently matched. Addressability and ad customization are the equivalent to JIT, which transformed modern manufacturing.

While the traditional television industry is just beginning to experiment with forms of addressability, it is something that has been evolving for over a decade on the Internet. Initially, Internet publishers offered a variety of data-driven models to enhance the ability of their advertising partners to target advertising to the specific audiences on the Web. These included registration data (when users are adequately notified it can be used for targeting purposes), geographic data (at the region, city, or zip code level), and domain or connection speed/ISP data (to indicate home/work or type of connection). Targeting based on each of these data sources has some value, but the value was limited by either a lack of scale (not enough was known about enough people to segment them finely) or from inconsistent data collection practices. Issues included the following:

- Most people on the Web do not register on the sites they visit.
- Even if they do register it is hard to compare one site's data to another's because they were collected in myriad ways, many of which to this day result in differing quality. This may come as a surprise to some readers, but occasionally people do not provide accurate information about themselves.
- Data collected through mapping of a user's IP address, or domain/ISP info have limited levels of confidence. Frequently, users behind corporate firewalls or ISP services do not appear to have a Web address that matches their physical location.

Issues like those above encouraged investment in new forms of "addressable" targeting solutions. The first incarnation of these solutions were so-called "ad networks." Internet ad networks are essentially an aggregation of inventory across

many different sites. Publishers of Web sites would in effect sell a chunk of their inventory to an ad network at a relatively low price. Often the inventory they provided to a network would have otherwise gone unsold, so the publisher would accept the network's low-price offer, reasoning it was better to get something versus nothing. The ad networks would then resell this inventory to advertisers, taking advantage of the higher reach and scale they could accumulate by aggregating together inventory (and users) across thousands of publishers. The addressability that was offered through these networks often times was based on "contextual" or "performance" optimization, addressing advertising to groups of people who consumed similar types of content (sports) or to groups of people whose behaviors indicated a higher propensity to click or convert.

These ad networks were the first step toward a very different kind of media business. Advertisers who purchased media on an ad network were not buying "a property" any more. Their schedule of advertising purchased on the network would literally run across hundreds or even thousands of Web sites. For some advertisers, the risk to their brands (not knowing what type of content they would be associated with) was too much to buy this kind of media, but for many, the price was tempting. Even more tempting was the ability of the networks to group together similar contexts across participating publishers for larger-scale purchases, for example creating an "auto" network, or a "male" or "female" network out of similar content on various sites. But ultimately, context or performance was still being used as the proxy for audiences.

Behavioral Targeting

These networks have evolved – doing more than just delivering packaged content across lots of different Web sites. Many have evolved into networks that offer "behavioral targeting." Behavioral targeting networks relied on hundreds, sometimes thousands of niche Web sites (like a site about reviewing new cars), collecting anonymous information about "browsers" or "computers" that accessed content on their sites (via cookies – small files downloaded to a user's computer). The behavioral networks would aggregate data from lots of different category-based publisher sites, and create a group of users who they saw on an above-average basis across those sites. Based on the behavior (hence behavioral targeting), these user groups would be categorized with "intent." If a behavioral network saw a browser across a large number of auto sites, chances were, that user was "in market" for a car. Thus they were tagged as an "auto-intender" and sold as such.

Behavioral targeting (BT) has become a mainstay of addressable advertising for many high-consideration product categories like autos, finance, travel, and others where there is high use of the Internet for information gathering/exploration before purchase. But it has drawbacks. It does not offer scaled solutions for all product categories, and it is limited by the publisher partners in the network – only they can offer audiences that align to the "intent groups" an advertiser wants to buy. But

like search advertising, which delivers and optimizes "paid search terms" in real time to a browser based on the keyword that a user types into Google, Yahoo, or Bing, BT was one of the first truly addressable advertising solutions that enabled real-time ad decision to groups of people using purchase or intent data. No longer was a brand marketer forced to buy a content property as proxy. Now they could buy an audience of intenders. And for marketers this was important – because even though advertising on a car buying site is desirable for an auto manufacturer, reaching prospects further up the funnel, earlier in the buying cycle, is critical. And that is what BT enables to a degree – reaching prospects in non-endemic environments so that a more brand-focused message can be delivered. Of course this raises privacy concerns, which will have to be considered and resolved.

An evolving area of addressability is based on predictive data modeling that has the potential to be applied across digital platforms, based on criteria an advertiser sets. These solutions are being developed by companies that have found ways to collect enormous volumes of anonymous information. This information can be collected in various ways, such as tracking cookies, toolbars, or other software installed on user's machines, or at the ISP or content delivery network level,[11] or even perhaps through the logging of content viewing habits. The companies involved in this effort provide platforms across which large-scale computer learning models can be run, leveraging massive sets of data (not just terabytes, but petabytes – one petabyte equals 1,000 terabytes). The results are anonymous models based on everything from keystrokes on remote controls, to TV and Web viewership and Web activity, to survey-based information about demographics and interests. The goal of these companies is to provide a scalable way for marketers to define the audiences they are interested in reaching, and then model who the most likely people are, in real time, who fit those definitions, so that appropriate advertising can be delivered. This really is the holy grail of addressability – and aligns with the promise the manufacturing industry realized from JIT delivery. With the ability to have a generalized real-time understanding of viewers (supply of audience), appropriate advertising can be allocated and valued (demand for audience).

As the two-way path evolves and allows data to be applied to content and advertising delivery in real time based on insights from interactivity, this predictive capability has the potential to radically change how marketers define their target audiences. Less and less will they need to rely on general demographic descriptors, and more and more they will be able to leverage their own data. For example, an automotive site that has an online "car configurator" will be able to model the 50,000, or 100,000 people (or whatever number actually engaged) who interacted with the application to build a profile of the most likely consumers to be interested in the make and model of car, using hundreds of anonymous attributes like gender, age, geography, content affinities, etc.

We end this discussion on audience segmentation with a small note of caution. Recall earlier we suggested an advertiser's target audience is people who consume their products or services, or could be reasonably persuaded to do so. The "reasonably persuaded" part is very important. People change as they move through different life-stages and it is important to take this into account when building the

definition of a segment. A CEO of a major advertising agency once said to one of us "if the first time you see a BMW ad is when you are 35 and making good money then I have failed."

So What Does It Mean?

While we have discussed a number of broad industry concepts above, our goal in this chapter is to reconcile the specific impact these transformative changes will have to the video business (defined broadly, to include all forms of video content consumption).

To recap broad themes, we see three core advancements driving the video business over the next decade:

1. A shift from programmed linear, to consumer controlled non-linear experiences for both programming and advertising (i.e., interactive experiences).
2. A move to real-time audience targeting and ad customization (i.e. addressability).
3. Application of mathematical modeling to large data sets to drive increased audience value and more closely align advertiser's sales data segmentation with their media purchases.

The impacts of these three trends vary significantly for different parts of the media/advertising industry. Now comes the crystal ball part of this chapter. We address the different constituencies, and discuss the challenges and opportunities for each presented by these three large themes.

Publishers

For TV publishers (networks) especially, the shift to on-demand programming presents real challenges to their core business. Of course they are facing these challenges already and early predictions of doom have proven to be unfounded. As of July 2009, Nielsen says that DVR penetration is over 30% in the United States.[12] Millions of viewers access content – short-form and long form – on the Web. Many pay for access to traditionally ad-supported shows on DVD, or via iTunes. Already a large amount of TV viewing is under consumer control. And yet the traditional linear television business (ad supported) has not collapsed. Indeed, so far, though the shift to on-demand viewing created by consumer control creates opportunities for viewers to avoid commercials, they do not always do so. And the ability to record programming for later viewing or "time-shift" has, according to Nielsen, increased the amount of television viewing overall.[13]

Nevertheless, the shift to on-demand poses significant issues. In linear television, schedulers work very hard to flow their audience from one show to the next. On-air promotion is carefully crafted and scheduled to build audience for one show, off the existing audience of another show or shows. In an on-demand world, this audience

acquisition and flow is much harder to generate. First, just as viewers may fast forward through commercials, they may also fast forward through network promotions. Networks are looking to protect this valuable real estate for themselves and advertisers. While no DVRs currently on the market prevent fast forward through the commercials and promos, many online TV video-on-demand services do not allow commercial or promo skipping, and some cable VOD services have similar rules as well. Second, networks can no longer take advantage of viewer passivity. With many of today's implementations, when you finish an on-demand viewing experience, if you do nothing, it does not just roll over to the next show, as would happen in linear television. It simply ends. New programming does not begin unless you actively choose it.

Viewer control, as we discussed above, can extend to engaging or interacting with the programming or commercials. In an on-demand environment this can be a relatively straightforward experience, where the user chooses to engage with an ad for as long as they want, and can then move back to more traditional viewing experiences. But if the user chooses to interact while watching a linear program, a whole host of issues are created. The first issue is the problem of time. Either the interactive experience is limited to the length of a standard commercial, making for very limited interactions and potentially frustrating viewers who cannot complete their desired interactions within the time provided, or the user is permitted to pause the linear viewing experience while they interact with the ad. Once a user pauses their linear viewing experience a number of things occur. First, they are no longer measured by Nielsen as a live viewer.[14] Second, they can, when they return to the show, fast forward at the next commercial break to "catch up," thereby avoiding some commercials. This of course puts a possible premium on what order a commercial runs in for a particular break. (A commercial break in TV parlance is referred to as a pod, and the order is referred to as the "pod position.") For example, if someone interacts for 3 min with the first ad in a pod, when they are finished, they can fast forward over the remaining ads of that pod (typically a pod is 2–3 min in length).

Note that the issues described above, generally speaking, do not apply with Internet video. Indeed today, many online video services offer ads which allow, infact encourage, users to interact with them for long periods of time, in an environment which prevents fast forwarding past the ads. This underscores the challenge for TV – it has to keep up with the Internet.

Industry veterans would question our characterization above – TV keeping up with the Internet. From a consumer experience perspective, they would argue that programmers on the Internet actually – by limiting consumer control to skip ads – are behind TV, where consumers have more control. But dig a little deeper. Programmers on the Internet have implemented commercial models that respect consumer experience and advertiser's needs. They typically only show one ad in a "commercial break" – not six or more like on TV. And increasingly, they are layering in targeting technology that allows the ads they do deliver to be more relevant. Less clutter and more relevance for the audience, but a tradeoff of having to watch the ad. And generally speaking, people seem to like the model as evidenced by the rapid growth in usership by sites like Hulu.

The TV Network Opportunity

But why should TV bother embracing this new world? The answer of course is money. Interactivity allows for direct marketing, and direct marketing is an ever increasing share of total advertising spending. According to the Direct Marketing Association, in 2007 direct marketing accounted for 50% of all advertising spending in the United States, and in 2008 they say it had grown to 53%. Video publishers see very little of this money spent with them today because they cannot provide the tools that a direct marketer needs – the ability to target and the ability to respond.

Moreover, as advertisers learn to combine the branding potential of video advertising with the engagement of direct marketing, more and more of their advertising budgets will shift to media which can deliver this kind of composite experience. So not only does interactivity provide video publishers with an opportunity to reach into new marketing budgets, previously reserved for direct marketing, but it will also be a key feature as they defend the budgets that have traditionally been available to them.

One of the early implications of consumer control and interactivity in the video advertising space has been the rethinking of how the linear, intrusive ad model works. In the traditional TV world, content and ads were run on a mutually exclusive basis – programming ran, and then cut to a commercial break. It was a binary experience for the viewer – you either were watching programming, or advertising. As viewers gain the ability to avoid commercials, the advertising industry has moved to explore video ad models that tie advertising messaging into the programming experience. These include everything from “brand integrations” (all those products that were featured in The Apprentice, NBC’s reality show featuring Donald Trump), to interactivity extensions (think telecom companies that enable text/phone voting during reality or sports programs), to those overlay “visuals” that more and more are popping up on screen during a show (mainly used by TV networks today to promote their programming, but more and more, they will be used to feature product messaging, and eventually interactive non-linear experiences).

The key for a publisher is to ensure that the revenue per viewer per hour of viewing in the new digital world is the same or more than what it is in the old. This is a function of a number of factors. First of course is just plain inventory. An average hour of linear broadcast network television has well over 20 commercials, plus network promos. As of 2009 the number of commercials, or ad load, for on-demand viewing of the same programming is much lower. Publishers will undoubtedly explore consumer ad load tolerance, increasing the on-demand ad load as a way to generate more revenue. Indeed, in an all digital media/advertising ecosystem, it is possible for publishers to dynamically add or subtract commercial interruptions delivered in on-demand programming to expand or contract inventory to match advertiser demand. Second, will be increasing the value of that commercial opportunity for an advertiser. As we noted above, the opportunity for an advertiser to engage with a consumer, mixing direct marketing and branding, should ultimately prove more valuable than a largely passive traditional 30 second spot. Finally, this interactive advertising allows for publishers to explore new business models, wherein they

are compensated both for the branding value and the direct marketing value of the audience they deliver to an advertiser.

But of course, interactivity and consumer control are only one piece of the puzzle; the other is targeting. The potential upside to targeting for a video publisher is best seen with an example. Let us go back to our imaginary media purchase made by John Wanamaker. The radio station sold him 1 million impressions at a $1 CPM, and earned $1,000. We know that the audience was 80% female, 20% male, and in order to keep our example simple, let us assume that the impressions break out the same way. We computed an effective CPM for Mr. Wanamaker of $1.25, taking into account the 200,000 impressions that were "waste" for him. But what if the radio station could deliver only the women to Mr. Wanamaker? What price would he pay? Well given that he in effect has already paid $1.25 for them, we have a pretty good idea. Indeed if the radio station offered him 800,000 impressions against women only at $1.20, he would think it a good deal, having saved $40 on his $1,000 budget, and still reached the same number of people in his target. But what about the radio station? If they can sell the remaining 200,000 impressions against men to someone else, for anything higher than a $.20 CPM, they come out ahead, having received more than the $1,000 they took in from Mr. Wanamaker in our first example. For a publisher like a TV network, this is the power of targeting.

It Is Not That Easy – The Forecast Challenge

Unfortunately, the real world may not be as simple as our example. It had only two targets, or segments, which were mutually exclusive and it assumed that all of the available impressions ("inventory") were sold. But in the real world, advertisers will want to bring the custom definitions of target consumers that they have built through careful analysis of their own proprietary data, to their media purchases. And, many of these segments will overlap – for example, how likely is it that someone interested in R-rated action movies is also interested in beer? This overlap creates a number of challenges for publishers. Publishers must understand what inventory they have to sell and how to maximize revenue based on the available segments defined by buyers looking to purchase that inventory. Predicting what inventory a publisher has to sell is called "forecasting." In a world where advertisers are each looking to only purchase an idiosyncratically defined target segment, forecasting how much of that target segment you have to sell given your overall audience composition, as well as how much of that target has already been sold to other advertisers with overlapping definitions, becomes very complicated – and very important. Put more simply, the same audience member may fit in several different advertiser defined segments, and be worth different amounts of money to each of those advertisers, depending on the products or services involved. While it is relatively easy with two segments and two prices as in our example, what about when you have hundreds of segments and hundreds of prices which you have to optimize against an unknown quantity of inventory that can shift based on the ephemeral popularity of your content? This is

an extremely challenging math problem and one that publishers will have to solve to realize the full revenue potential for delivering targeted advertising.

Recall in our example, the radio station needed to sell its male audience for a higher than $.20 CPM in order to come out ahead. What if it cannot? This is really the great unknown for a publisher. It is relatively easy to see how targeting, because of its greater efficiency for the advertiser, can yield higher CPMs for audience members which qualify for an advertiser's segment. What is harder to know for sure, is how well a publisher will be able to monetize what is left, sometimes referred to as "remainder" or "remnant" inventory. Clearly this remainder inventory will be sold for less than if the publisher had just offered one price against all of its available audience, as with our first Wanamaker example. But how much less? For a publisher the key question regarding segmentation is whether the lift in CPMs received for selling targeted inventory will exceed the drag on CPMs for what is left over. Again, this is a complicated math modeling problem, and one that publishers will be better at solving once they have critical mass of real marketplace data.[15] Of course this means that publishers will have made the investment to deliver targeted advertising, and established some precedents with advertisers. If it turns out that the overall lift in CPMs is not sufficient it could be very hard to put the targeting genie back in the bottle.

This issue is particularly crucial for publishers of Internet video where commercial inventory supply is arguably infinite. In linear television, there are 24 hours in a day, a fixed number of commercials per hour of programming, and a finite number of linear networks available. While this multiplies out to a very large number of possible commercial units (inventory) that can be sold, it is a finite number. In an on-demand world, like the Internet, time is no longer a constraint. New inventory can essentially materialize from nowhere, and can continually expand. For example, the Web site YouTube (now owned by Google) began in 2005 and by 2009, already represented a massive amount of potential inventory.

Basic economics tells us that when there is a fixed amount of demand (buyers of commercial inventory) and an infinite supply, prices will drop, and indeed the general trend in Internet advertising pricing for established units has been toward lower CPMs. How can a publisher maintain higher CPMs? One answer has been by leveraging its most desirable contexts or content, which offer the strongest halo effect, and most valuable audience for a brand manager. For example, while there may be a huge number of available impressions in online video generally, there are a limited number of impressions available online in high-quality TV shows like "Grey's Anatomy" or "The Simpsons." The scarcity of impressions available in this high-quality context helps a publisher maintain pricing.

But when buyers start to purchase audience segments, rather than context, this scarcity evaporates. There may be limited numbers of impressions against "Grey's Anatomy" on the Internet, but there are essentially unlimited impressions available against women who are between 18 and 49 years old. An advertiser looking to target that demographic need not pay the scarcity-driven pricing of Grey's Anatomy, and could instead find that audience anywhere at a much lower cost. This is the ultimate challenge of segmentation for a publisher. Will the ability to increase prices for

desirable segments outweigh the decreases associated with less emphasis on context, and the creation of remainder inventory?

It is important to note that we argue buyers will have a decreased emphasis on context, but they will not ignore it all together. Remember our discussion earlier about the perils of being a brand manager, putting a brand at risk with every media purchase. No matter how focused at buying a specific target audience brand managers become, they can never ignore context completely, because to do so would inevitably put their brands next to potentially objectionable content. A balance of trusted environment with audience segmentation will inevitably win the day – at least for image conscious advertisers – and for a quality publisher, this is welcome news.

It Is Not That Easy – The Scale Challenge

One of the key questions for publishers will be whether they have sufficient scale, sheer audience size, to slice it up and deliver the segments that advertisers are looking for. In the new digital ecosystem this scale can be accumulated in a number of ways. A publisher can have the scale outright if they are a highly trafficked property. Generally speaking this means that the publisher has sufficiently strong content, brand, and promotional apparatus to attract a large audience. In effect, the audience finds them. Examples of this kind of publisher might be ESPN or the New York Times. Alternatively, a publisher can syndicate its content; distribute it widely on properties it does not control. This is in effect sending the content out to find its intended audience, rather than having the audience find the content. The advantage of this strategy is that it can greatly expand the reach available to a publisher, but it also introduces the potential of their content, and the ads associated with it, being placed in unflattering, or potentially objectionable contexts. The last strategy is to participate in some form of advertising network. These networks group together many publishers allowing an advertiser to buy across the different properties. For a publisher this allows for extending both the frequency (an advertiser can follow a target user from one piece of content to another) or the reach (an advertiser can purchase a target audience across property) of their offerings to advertisers.

Of course this diminishes publishers' control over the inventory, and requires sharing back and forth with other publishers, something that historically has been hard to accomplish. It may well be that the easier way for publishers to handle this brave new world is through cross-platform selling. A publisher may not have scale on the Internet or in mobile, but by combining those platforms with their scale in television, and selling targeted audience segments across all three, they can accumulate sufficient mass. One of the interesting questions will be whether or not something similar to the online ad networks develops to create segments across all of these platforms, including TV. More on that later in the Service Providers section. And if all else fails, established publishers can always acquire critical mass through business combination – mergers and acquisitions. Independent digital media companies like Yahoo are unique in that they already have substantial scale for delivering audience segments to advertisers.

Agencies and Advertisers

The Creative

Like with publishers, the changing video environment is having significant impact on how advertisers and their agencies approach developing and delivering effective video-based brand communications.

As we write this chapter, one of the most noticeable changes is occurring on the creative side of the business. For decades, top advertisers, agencies, and the industry in general had a love affair with the TV commercial. Big consumer brands and their agencies would spend months, sometimes longer, to develop deep consumer insights, evaluate them, boil them down to the "big idea" and then develop a few highly produced and expensive TV commercials. In the era of passive viewership, intrusiveness, and "mass media" – this worked, and was an efficient use of their ad budgets. It worked because at the end of the day, if you were talking to large groups of people who could not easily be segmented, and who could not self-select what information/experience they wanted from the advertiser, focusing on a lowest common denominator message was the right strategy.

In a world where consumer control takes over, addressability becomes a reality, and interactivity spreads – consumers quickly expect more relevant experiences (especially from the advertising that interrupts their primary viewing experience). Bottom line, the creative underpinnings of the TV (or video) business shift radically. Instead of a few highly produced video ads, advertisers soon will need to maintain a variety of video-based options that deliver appropriate messages to particular target segments. If you are a financial services firm, it makes much more sense to surface a college savings-related message to a household with kids than a message oriented to seniors living on a fixed income. And to the degree possible – if you can tailor those executions with relevant information to make the ad more appealing to the viewer (based on geographic data, time-of-year insights, or other criteria) you stand a greater chance of being relevant to the viewer.[16] But where the creative game really changes is when you remove yourself from the "linear" perspective – which is predicated on delivering a single message, or benefit, as part of the advertising communication. In a world of interactivity – creative needs to be thought of as an invitation, not a summons. Advertising needs to shift from a model of telling an audience what the advertiser wants them to hear, to a model where consumers make choices about what they are interested in. The impact this change has on the creative development process is radical, and is just being addressed by clients, agencies, and the creative community. At the very least, it requires agencies to think of multiple creative versions, with branching "information architecture" (how a user navigates through) and a cost-effective process for creating and managing those versions.

Media Planning and Buying

Just as the creative process is being reformed, so is what is known in the industry as the "media planning and buying" process. There are many ways that addressability and interactivity change the video-based media planning and buying process.

Let us first start by examining the impact of addressability. The shift from "program" or "placement" buying models where an advertiser buys a show, to one where they buy an audience in real time has tremendous implications for how large advertisers manage brand-level advertising budgets. Take a company that has a portfolio of products – each of which is geared to different end users. In the old world, each brand managed its own advertising budget, and had its own "TV plan" – or schedule of shows it was paying to advertise in. But if an advertiser is no longer required to buy fixed positions in shows, and instead can buy real-time audiences – the predictability of when and where their ads should run becomes much less certain. It is no longer dependant on the program. It is dependant on who is watching, what, and when. And this impacts how, and when, and to what degree their ads get delivered, and what costs get tallied by brand. In a world where video content generates dynamic audiences – say a major event occurs that generates large-scale video consumption that is unpredictable – budgets will flow.

Advertisers have always managed their TV budgets by week, month, quarter, and year at the brand level. If you are a company with multiple products, a more top-down portfolio approach may now be the better solution – deliver the particular brand advertising to only the households or people you think fit a target segment. If you are a telecom company, and you know a household recently signed up for a 2-year mobile phone contract – do not show them another acquisition message for that line of business. Show them something relevant – an IP phone or TV product message, or a new service to which you can up-sell them. This requires much more nimble media purchasing as well as creative variation. But it also creates complexity around bottom-up, brand-level budget/expense management. From a corporate perspective, advertisers will want budget/spend to be driven by audience value, not by pre-existing "ad spend" budgets by brand.

Addressability also changes one of the primary constructs of the media planning business – the notion of national and local planning/buying. In the analog world, advertisers had to think one of two ways – either reaching everyone in the country, or piecing together groups of Designated Market Areas (DMAs, of which there are 210 in the United States). DMAs are essentially local TV markets – the New York DMA covers northern New Jersey, Long Island, New York City, and portions of southern New York State and Connecticut. The fast food category represents a terrific example of how businesses managed advertising in this world. Franchise owners contributed to a corporate marketing budget that was spent nationally to support broad promotions, and they grouped themselves by DMA to advertise at a market level – as a co-op – to take advantage of the efficiency of local market TV. Fast-food restaurants have a relatively small trading area (geography where their customers are sourced from) – it would be inefficient for one restaurant owner to buy television commercials on a local TV station because the majority of the audience delivered would be outside its trading area. But if all the restaurants in the franchise group across that DMA buy together, supporting an agreed to message they all honor, it makes sense.

For the past 30 years or so, the cable industry has slowly been changing this model – allowing advertisers to purchase local TV on cable networks on a more

granular level than just DMAs. Because of how the cable industry evolved, in many DMAs, advertisers can buy hyper-targeted ad placements by zip code or other defined geographic area. This enables advertisers like the local pizzeria or dry cleaner to leverage TV – but with just a few exceptions, it is short of true household-level addressability. And true household addressability is the game changer. Once true household-level (or screen-level) addressability is widespread, the notion of national and local planning will deteriorate. In its place will be an audience-based model that is focused on delivering advertiser target groups, regardless of where they are.

This concept is already well established on the Internet. While advertisers continue to think in terms of "national" and "local" delivery – they do not have separate budgets for it. And they do not work through separate sales teams to purchase it (like they do today on TV – you buy national ads on NBC from the network sales group and local ads from each of the NBC affiliates). You can buy online video campaigns today from a multitude of national content properties, specifically targeted to local geographies (zip codes, counties, cities, states, etc.). And many national media properties are accelerating their development of content channels that serve particular geographies to bolster the contextual value of these new targeting capabilities. For example, ESPN recently announced a locally focused ESPNChicago.com to super serve this sports rich market, with plans to expand to other cities.

And we have not even addressed the impact of the social-based media economy that has evolved allowing consumers to create, program, and/or distribute media they have produced or self-selected. This has created a new form of "earned" media (not paid for) that offers advertisers unique (if not difficult to harness) video-based communications. Examples of this have included the Victoria Secret Fashion Show, BMW Films, "Coke-Mentos," Office Depot Elf Yourself, and many others, all harnessing user-generated creative ideas or viral sharing capabilities to promote the brand.

Given these changes it is hard to ignore that the role of "the agency" will be impacted dramatically by consumer control, interactivity, and data-driven addressability.

From a creative standpoint, transitioning from a culture of storytelling to one of dialogue will be the greatest challenge. We (your authors) are not heretics – "the idea" and a compelling narrative for communicating it will continue to separate great advertising from the mundane. But no longer is the art strictly about storytelling – rather, it is about connecting and driving some sort of immediate engagement. This, combined with how much more economical production becomes in a digitized world make the creative side of the video advertising business one that will endure tremendous change over the coming years, before it is reformed to effectively support the new and evolving video-based marketplace. This process has already begun, as creative agencies rapidly search for those versed in the art of digital communications, and reconstitute themselves as resources focused against opportunities of the new digital multimedia reality.

Media agencies – typically responsible for planning and buying on behalf of their clients (i.e., managing how their media budgets are invested), are already mid-stream through a tortuous re-invention. In a digital world, data become a

raw commodity that everyone has access to – deriving strategic insights from it that allow you to take advantage of the marketplace is the new differentiator. Best-in-class application of data-driven insights drives a smarter understanding of consumers, what they care about and engage with, and how they react.

That is actually not that much different from their role in the twentieth century media world. What is different is that in a digital media world, the amount of data and their ability to be actionable in real time is exponentially increased. In fact, to a certain degree, it is infinite. Technology and software is a media agency's "new best friend." It is what will allow massive amounts of data to be collected, processed, and turned into useful insights. And it is what will enable those insights to inform real-time decisions – where an ad is placed, what messages are included in the communication, what options a consumer is given to interact. And technology will close the loop with a return path of information from every ad exposure so that the next engagement with that consumer will be more useful and efficient.

Here is the problem. Media agencies – historically – have not possessed the types of internal technological capabilities that are required to power this re-invention. It is why the face of the media agency has gone through so much change since 2000 – with the addition of analytics functions, application developers, and data processing capabilities.

One of the immediate reasons this has occurred is that as media has migrated online, massive new "exchange-based" and "network-based" buying models have evolved, making it very easy for any agency buyer to source large amounts of "inventory" – without needing to transact with the publisher(s) or seller(s) who controls it. This has not greatly affected the video arena – but it will. Ultimately, the agency that is able to build the tools and analytics solutions that allow it to best leverage the "open exchange/network model" is in the best position to win in the marketplace. The media agency of the future will not be built on how cheaply they source video inventory for their clients, it will be based on how it leverages insights at scale to derive maximum value from video (and other) advertising opportunities.

In many cases though, neither creative nor media agencies will be able to address the changes in the marketplace through internal or organic change. Ultimately, the marketplace is changing so fast, they will be forced to partner, and potentially even consolidate with others in order to bring about the new solutions and scale that are required to move the advertising business to the next stage of its development. We have already begun to see this occur, as large agency holding companies have begun to purchase digital creative and technology companies (WPP and Publicis have been most active in this area to date). But it extends to the types of new "partnership relationships" we have witnessed between Google and Publicis, WPP and Microsoft, etc. Time will tell how intertwined these relationships become.

Service Providers – Video and Technology

By service providers we mean the companies that can provide the technology or infrastructure for enabling all of the high-falutin' wizardry we have discussed above. While it is not the purpose of this chapter to survey the many companies and their

technology necessary to realize the full economic potential of the transformation of the media/advertising ecology, we want to touch briefly on the various pieces of the puzzle, many of which have yet to be resolved.

One of the most important groups of service providers are the cable operators such as Comcast or Time Warner Cable, who are at one of the epicenters of the digital transformation.[17] Cable operators provide both video services (linear and on-demand) as well as Internet access to consumers. This puts them in a unique position to both collect data about users, and to provide cross-platform technology for leveraging that data for targeted, interactive advertising. Because cable operators send you a bill each month they know who you are and where you live. Because they provide you with TV service they know what you watch, and because they provide you with Internet access, they can know what sites you visit. This is really a tremendous amount of data. And of course that is their challenge. The sheer quantity of information that cable operators can know about a specific household is pretty staggering, and thus makes them a target for those interested in safeguarding consumer privacy. Your authors will not wade into the thicket of what is or is not an appropriate balance between consumer privacy and commercial interests, but we feel confident that such a balance can and will be struck, and we proceed with this section of this chapter on the assumption that it will be.[18]

The commercial opportunity for the cable operators is substantial. As noted, they have the ability to collect the data necessary to drive a cross-platform advertising segmentation engine. Of course having the means and actually executing are two very different things, and the cable operators have significant executional challenges. They are geographically distinct. While this works for delivering local advertising, as we noted above, the distinction between local and national advertising is dissolving. In order for the cable operators to execute against their potential they must connect to each other and build a common platform covering as much of the country as possible in order to offer a national footprint (and nationally delivered audience segments) to advertisers. This platform must be able to leverage a segmentation engine to deliver addressable, cross-platform advertising, on a screen-by-screen basis, manage complex advertising campaigns, and generate real-time delivery reports, all from a single point of contact with a simple, consistent process accessible to publishers (networks) and advertisers. The cable infrastructure, even upgraded to digital, is not yet capable of this functionality, and pulling together all of those pieces of technology will require substantial investment and cooperation.[19]

Recognizing the broad marketplace opportunities and oncoming competitive challenges, in 2008, a group of nearly all of the largest cable operators announced Canoe Ventures, a company they funded to create "advanced advertising products and services to help network partners and their clients reach and engage millions of viewers across cable's national footprint." As of the writing of this chapter in 2009, Canoe Ventures had not yet launched its first product.

But of course, while the cable operators may move deliberately, trying to husband capital expenditures and carefully understand the effects of new technology on old business models, the Internet waits for no one. Indeed, led by the broadcasters[20] there has been an explosion of quality long-form video content made available on

the Internet. In addition to making TV shows available on their own sites, NBC, Fox, and later ABC combined to form the company Hulu, an online destination for aggregating high-quality video content. The cable operators have looked on the growth of online video with some trepidation. While they provide the broadband access that makes this online video viable, they are nevertheless concerned that at some point a tipping point will be reached, and consumers will cancel their traditional cable service, keeping only their Internet access. As a result, they have not been supportive of cable networks repurposing content originally produced for linear television (and arguably paid for in part by cable operator subscriber fees) on to the Internet. Recently the cable operators have announced an approach which would make much more (perhaps all) cable network content available on the Internet, provided that the person attempting to access this content could be "authenticated" as someone who already has a linear TV service which includes that content. This initiative (sometimes called TV Everywhere) is in its infancy, and it will be interesting to see if it gains traction.

Regardless, numerous companies now offer technology and services for forecasting inventory, managing complex video advertising campaigns, providing audience segmentation engines which can deliver addressable, on a screen-by-screen basis, interactive video ads, and generate real-time delivery reports, all from a single point of contact with a simple consistent process accessible to publishers (networks) and advertisers – on the Internet! While TV has the scale both in terms of advertising spend, and time spent, the Internet moves at lightning speed.[21]

Consumers

At first glance, consumers are the big winners in the digital world. The long list of benefits to the consumer is considerable. They have more control over their viewing experience, and are able to choose the time and even the place for viewing video content. They have greater access to content through new distribution channels. There is more content to watch as the means of video production (cameras, editing software) become widely available, and hours and hours and hours of homegrown video becomes available to them. They have a greater variety of pricing models to choose from when consuming video content, ad supported and not. If they choose an ad-supported model, the advertising they see will be more relevant to who they are, and will allow them to "drill down deeper" should they choose to interact with the ads. A relevant ad that allows you to engage is not an ad at all, it is a valuable source of information! The consumer is king, and it is good to be king.

But look deeper and there looms a very large issue. The growth in on-demand viewing and new distribution channels will inevitably lead to greater fragmentation of viewing audiences. With greater control may well come greater viewing, but it will almost certainly bring, like the DVR, the potential for greater commercial avoidance. And, at least today, new distribution channels such as broadband video on the Internet have a lighter ad load. This combination of audience fragmentation, commercial avoidance, and lower commercial loads could well pencil

out (notwithstanding the value creation of addressability and interactivity) to less revenue for content creators – and therein lies the problem for consumers.

The vast majority of professionally produced video content available today is supported by advertising. If there is less advertising revenue flowing to content creators, there necessarily must be a decrease in the costs in producing that content, and/or less content created. Are consumers still the big winners if the natural evolution of the digital media/advertising ecosystem, for professionally produced content, is toward lower quality, and less diversity?

In many ways that are not obvious, when it comes to video content, principally television, we are all in it together. Whether we are willing to admit it, as consumers, we have accepted the bargain that we would rather watch advertising, than pay directly for content. This agreement allows TV networks to pay TV studios for the content they create, and in turn the studio pays the creative talent, actors, writers, directors, editors, as well as technical people and others to produce the content. While certainly the cost of content can be reduced, actors can be paid less, more shooting can be done on set, rather than on location, fewer special effects, etc. eventually you get what you pay for, and if consumers change the bargain, they will be paying, and getting less.

And this bargain we are all in together extends beyond just the advertising. While 2009 Nielsen research says that the average US home receives nearly 120 channels, the same research indicates that households, on average, only tune-in to 16 different channels. But the 16 that one household tunes to can be very different than the 16 chosen by another. So if we are each only watching 16 channels, how is there a business to support nearly 120? The answer is bundling. Large groups of channels are bundled together in tiers, such as "basic cable." Though my 16 may be different than your 16, when we each pay for a bundle that includes both of our preferred 16 channels we are supporting programming diversity, and making it possible for both of our programming preferences to be serviced. In effect we cross-subsidize each other in service of having both of our preferences met.

This bundling, or tiered approach has been the basis for linear cable television nearly from its inception. But what happens when we move to a strictly on-demand world where individuals make programming choices show by show without reference to a linear network? It is by no means assured that the same kind of bundling that works in the tiering world to support program diversity will translate to the on-demand world. For the foreseeable future, the Internet is a strictly "à la carte" medium, where each piece of content stands alone.[22] While undeniably the Internet supports a vast array of content for nearly every taste, or lack thereof, what the Internet has thus far failed to prove is that it can support the production of high-quality professional content.

This history of online video is littered with failed companies and the business challenges that these companies could not surmount are considerable and still in play today. The inability to bundle content together makes it more difficult to develop an audience, and further to cross-promote from the audience of one show to another. Quality content itself, of course, is expensive to produce. Further, a company that has developed quality content and gets an audience can become the victim

of its own success. In linear television, whether one person or a million people watch a show, the distribution costs are essentially the same. Not so in on-demand viewing especially on the Internet. Each viewer consumes technical resources in bandwidth, server capacity, network routers, etc. The costs of distribution rise with each viewer.

Online video companies address these challenges in a number of ways. They can reduce the costs of content creation by either repurposing content that was created for television (Hulu) or transmit content acquired for free, with the costs of production borne by users (YouTube). They can leverage off-line promotional assets, such as what the broadcast networks do when they promote their Web sites on air. They can use clever technologies that reduce the bandwidth and other costs of distribution. But at the end of the day, it is not yet clear that these strategies will produce a highly profitable business supporting high-quality content online. For example in 2009, YouTube, according to analysts at Credit Suisse Equity Research, lost $470 million. A different analysis put forth by IT consulting firm Ramp Rate put the loss at $170 million a year – either way, a staggering sum.[23] Hulu, while showing strong user growth has not said that it is a cash flow positive business, or close to profitability. As of 2009, a number of original content video sites have struggled (or even failed) to maintain their business models (Joost, Veoh, ManiaTV, Stage6, Maven, Ripe TV . . . the list goes on).

The good news, from a consumer perspective is that "video" is no longer one thing. Unlike TV – which is linear, program based, and standardized – online video can be anything. It can be short, raw, and consumer generated. It can be a 2–5-min "quality snack" – at the office, on your mobile device (think music video, news clip, or sports highlight). Or, it can be a long-form, quality production. The bad news is that the high costs of production and promotion, limited ability to bundle, and high costs of distribution, may create a strong incentive for content creators to develop lower quality, lowest common denominator content. To borrow an old joke, we may have 5 million channels and still nothing to watch. Unless quality content creators can find a business model that compensates them at rates similar to linear television today, this may well be the future.

Final Thoughts

Though we end our consumer discussion on a cautionary note, overall we do not feel that pessimistic. One of the great changes brought on by the growth of digital technology is how inexpensive professional quality production tools have become. The democratization of production should be good for everyone. With a broader base of people capable of creating quality programming, and a much easier path to making that programming publically available, talent that would previously have gone unnoticed now has a real chance.

And while the transition from an advertising world dominated by context, to one more focused on audience segments will be painful for some well-established players in the media/advertising business, we are very confident that this transition

can be successfully managed. We look forward to consuming on our own terms, quality media, supported by relevant, engaging, interactive advertising that adds value to our experience and lives.

Notes

1. Shrewd readers will of course note that there is likely to be a fair amount of audience duplication, day to day, for advertising running in the soap operas used in our example. The total number of unduplicated people who were exposed to Mr. Wanamaker's ads is known as the audience "reach" of the campaign. The average number of times that a person reached was exposed to Mr. Wanamaker's ads is the "frequency." Frequency is necessary for a message to penetrate – although effective levels differ by individual campaign. People don't usually remember the message of an advertisement after a single exposure. Reach, frequency, and total impressions have a simple mathematical relationship, where Reach $\times$ Frequency $=$ Impressions.
2. http://www.scribd.com/doc/13182115/Enhancing-the-TelevisionViewing-Experience-through-Commercial-Interruptions-by-Nelson-Meyvis-Galak.
3. The benefits a consumer perceives they will receive if they purchase a certain product or service.
4. A survey released July 1, 2009 by Harris Interactive confirms this. Harris reports that: "Over one-third of Americans (37%) say that television ads are most helpful in making their purchase decision while 17% say newspaper ads are most helpful and 14% say the same about Internet search engine ads. Radio ads (3%) and Internet banner ads (1%) are not considered helpful by many people. Over one-quarter of Americans (28%), however, say that none of these types of advertisements are helpful to them in the purchase decision making process." http://www.harrisinteractive.com/harris_poll/pubs/Harris_Poll_2009_07_01.pdf.
5. MAGNA December 2008 Advertising Report, http://www.magnainsights.com/docs/Coen%20Insider%27s%20Report%20December%202008.pdf.
6. http://www.comscore.com/Press_Events/Press_Releases/2009/3/YouTube_Surpasses_100_Million_US_Viewers.
7. A good example of how hard it is to control your brand in the new media/advertising ecosystem is the story of Dave Carroll and his band the Sons of Maxwell. Dave was dissatisfied with United Airline's response to his claim that United baggage handlers broke his expensive guitar. So, he wrote a song "United Breaks Guitars" and produced a simple, but professional looking music video, which was posted on YouTube and as of writing had received over 3 million plays, and coverage on CNN.
8. This is sometimes referred to as "least offensive alternative" viewing. The assumption is that the viewer is picking from a plethora of bad options. This concept speaks to a cynical perspective on the medium of television, which your authors here do not endorse. While there is no question that much of today's TV programming is akin to the old carnival sideshow, much of it is not. Indeed, a successful TV drama, with over 20 episodes a season for many seasons, allows for deeper character development than nearly any other narrative form except perhaps the novel.
9. Hulu is a company owned in part by Disney, News Corp, and NBC/Universal. Hulu's mission is the distribution of TV video content over the Internet.
10. There is a clear history of which of these two models will yield the largest amount of viewing. Again, notwithstanding, people's claimed aversion to commercials, the vast majority of television viewing is of ad-supported programming. For example, according to Nielsen (the leading television measurement company) the most popular premium (paid, no ads) television channel is HBO, which is purchased by only about 30 million of the approximately 110 million US

television households. In general, given a choice between paid content without commercials or free content with commercials, most people choose the commercial supported product.

11. A content delivery network, or CDN is a specialized network used to deliver high-value assets (files) to an end user more efficiently, and reliably, than over the public Internet.
12. It is worth noting that while 30% penetration is very substantial, it is lower than any expert prediction made when DVRs, lead perhaps by TiVo, first hit the marketplace in the late 1990s. It is important to remember that technology and people don't always move at the same speed.
13. http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/04/dvr_tvlandscape_043009.pdf.
14. Nielsen provides multiple separate "streams" of linear TV ratings, or viewership. One stream of data is related to the program itself and indicates how many people were watching a show live and also how many recorded the show and watched it later. The recorded viewing is broken out further to show recorded viewing done the same day the show aired, and within 7 days of when it aired. Nielsen recently began another stream of ratings for the commercials. These ratings represent the average number of viewers for all of the commercial minutes in a particular show. Nielsen does not currently, because of technical constraints, provide ratings for specific commercials. The commercial ratings are broken out into live viewing, and commercials viewed from recorded playback within 3 days of the original air date. For broadcast networks, most buying and selling of advertising is done using the commercial ratings plus 3 days of recorded playback, data.
15. In a linear environment, one possible way for publishers to avoid this problem is to insist that advertisers purchase all of the available audience watching, rather than just a particular segment. This is similar to what happens today. When an ad which has been purchased based on a demographic CPM, adults aged 18–49 for example, runs, it is seen by all viewers not just those 18–49. One could argue that the value of this "waste" is already factored into the demo-based CPM paid. Targeting could be executed to deliver different creative based on the profile of the viewer. However, while this might make a traditional media buy more effective, it will not make it more efficient.
16. Relevancy isn't as easy as it sounds. Recently the Nobel Prize winning Princeton economist and New York Times columnist Paul Krugman related how when logged on to the Internet from his office in Princeton, he received an ad that said: "Princeton mom lost 47 lbs following 1 rule." Later, from the same office, when he logged on to the Internet through the New York Times network he received the same ad, except this time it said: "New York mom lost 47 lbs following 1 rule." This underscores three points for advertisers. The first is that ads designed specifically for a particular user run the risk of being creepy if executed without any subtlety. The second is that just because an ad has been customized to make it *more* relevant to a user (in this case geography) doesn't necessarily mean the ad *is* relevant to that user. Whether he is virtually in New York or Princeton, Professor Krugman isn't a mom. Finally, please note, even blogger, columnist, economist, Nobel Prize winners notice ads. http://krugman.blogs.nytimes.com/2009/07/06/annals-of-the-modern-age/.
17. We focus on cable operators, and not satellite operators (like DirecTV) here because cable operators have a natural two-way connection to the home and also provide Internet access to consumers. Nevertheless, there is no question that satellite operators will continue to play an important role in the digital media/advertising ecosystem, and much of our discussion of cable is applicable to them as well. Also, to the extent telephone companies like Verizon are now providing video services they stand in a nearly identical position to cable companies.
18. This balance of course, will have to be determined in the context of various legal regimes, including the Cable TV Privacy Act of 1984, which governs how cable operators collect and use personally identifiable information.
19. Two major phone companies – AT&T and Verizon – have invested heavily to introduce an alternative to the legacy cable operator infrastructure noted above. They have built a next generation delivery system that allows them to deliver TV programming, and advanced

addressability and interactivity solutions to the home. Launched to great fanfare in 2006, Verizon's FiOS and AT&T U-Verse (2008 launch) services have attracted about 4 million subscribing homes by the end of 2009. It will be interesting to see how much share of the customer base these telephone companies can accumulate. While the services will roll out nationally, they will be contained to high-density areas as the build out of the service requires substantial new fiber infrastructure. Not to mention, both companies will have to market aggressively against entrenched cable and satellite providers.

20. Broadcasters such as ABC, NBC, CBS, or Fox have a different relationship with the cable operators than "cable networks" like ESPN or MTV. Cable networks are paid a "subscriber fee" by the cable operator based on the number of subscribers of a particular operator who receive a particular network. Broadcasters, while carried by the cable operators, are not paid a subscriber fee. This situation is largely the outgrowth of shifting federal regulations governing television going back to its inception, and as you might expect, broadcasters are trying to change it and negotiate subscriber fees too.
21. In fairness, while there are Internet companies out there trying to solve forecasting, yield management, and creative customization – we are still some distance from their being viable solutions to operate at scale, in a highly dynamic environment. The point remains though, that real activity is already happening on the Internet, and not on TV.
22. There have been attempts, so far not successful, to mandate through federal regulation, or statute, the unbundling of cable networks to an à la carte model. This effort is supported by arguments that it would save consumers money, and opposed by arguments that it would greatly diminish program diversity.
23. http://ramprate.wordpress.com/2009/06/17/youtube-google%E2%80%99s-phantom-loss-leader/