The Future of Video Platforms: Key Questions Shaping the TV & Video Industry

Gregory Gimpel

Georgia State University

Department of Computer Information Systems

P.O. Box 3965

Atlanta, GA 30302

ggimpel@gsu.edu

Abstract

The telecommunications, media, and entertainment (TME) industries face significant changes as technological innovations, shifting consumer behavior, and new business models reshape the industry. The video entertainment sector, which spans these industries, exemplifies how the traditional linear value chain transforms as platform-based business models play more pronounced mediation roles. Drawing upon insights from platform theory, this paper synthesizes interviews with twenty-two executives at key positions throughout the video value chain to identify and confront three key questions that will define the future of the TME sectors: 1) Who will come out on top as the video market transforms? 2) Will people own content or only subscribe to video services? 3) Will advertising agencies maintain control of media buying? This paper ascertains the critical factors and requisite conditions that will determine the answers to these questions and the future shape of the TME industries.

INTRODUCTION

Media companies face significant changes as innovations in information and communication technology bring new business models and reshape the industry (Weezel, 2010). Consumers have embraced smartphones, laptops, tablets, and different forms of wireless Internet. In turn, they are adopting an anywhere, anytime, any device (AWATAD) lifestyle and increasingly demand this access from all their service providers. Advances in one type of consumer technology create the expectation that other offerings will provide comparable experiences, translating into demand for all firms to offer easy-to-use, mobile solutions (Zeadally et al., 2011).

The video entertainment industry is a complex ecosystem spanning the telecommunications, media, and entertainment (TME) industries. The video sector illustrates a dynamic shift as new players and changing customer demands force firms to adapt their business models. Platforms such as Amazon, iTunes, and Android repeatedly redefine the ecosystem. Production studios are experiencing a sharp decline in their two biggest revenue generators: DVD video and TV licensing that is not being offset by streaming video rights (Turk, 2013; Vogel, 2011). Producers increasingly rely on retransmission fees from pay television services, creating a lucrative but uncertain future as producers and infrastructure owners fight for subscriber money (Evens & Donders, 2013; Napoli, 2012). Telecommunications firms invest billions to deliver television to homes and provide high-speed connections to cellular customers, based on the expectation that demand for both will remain high, even as "cord cutting" becomes a viable alternative to pay TV subscriptions (Banerjee et al., 2014). In this era of ferment, industry leaders find themselves uncertain which direction to move their company. This motivates our research question: *what are the critical success factors and requisite conditions for various types of TME industry firms to achieve a leadership position in the video entertainment sector*? To find an answer and help set

the thought agenda for researchers and industry leaders, this paper reports findings from an exploratory study of senior industry executives throughout the video ecosystem. Prior studies show that researchers can generate stronger insights from looking at larger sectors of the media industry holistically rather than focusing on an isolated medium (Vizcarrondo, 2013). This paper synthesizes interviews with twenty-two executives to identify three key questions that will define the future of the TME sectors: 1) Who will come out on top as the video market transforms? 2) Will people own content or only subscribe to video services? 3) Will advertising agencies maintain control of media buying? This paper applies platform theory as an analytical lens to ascertain which critical success factors will answer these questions and shape the future video market.

LITERATURE REVIEW

The telecommunications, media, and entertainment companies comprising the home video market are undergoing material, technology-driven changes. During times of significant technological change, incumbent businesses face threats from new entrants using different technologies in new ways (Nee, 2013; Tushman & Anderson, 1986). During such periods of "technological discontinuity," industries experience a period of flux during which they experiment with different designs and business models until a "dominant design" emerges and becomes a standard protocol for businesses to follow (Anderson & Tushman, 1990; Suarez & Utterback, 1995; Tushman & Murmann, 1998). The video entertainment sector has seen new business models emerge from outside the TME sectors (e.g. YouTube's exploitation of user-generated content and Apple iTune's sale video downloads). With the potential for viewers to circumvent traditional pay service and go "over the top," pay TV services are introducing TV Everywhere, allowing television subscribers to stream premium video (Waterman et al., 2013). Experimentation is wide-spread throughout the sector, but a dominant design paradigm has yet to emerge.

In the past, powerful players tightly controlled the industry value chain, but today, media companies increasingly form alliances so they can concentrate on their core value-delivering competencies while external partners contribute value-enhancing capabilities (Oliver, 2013). This allows value networks to maximize the value offering and increase agility while minimizing costs (Gimpel & Westerman, 2012). These value networks are taking shape as complex ecosystems built upon interrelated digital platforms (Iansiti & Levien, 2004).

Platform theory, a subset of network economics, provides an analytical lens for researching value networks and strategic roles within intermediated markets such as the TV and video business. According to the theory, platforms are foundational technologies or services that are used beyond a single firm and are subject to network effects (Cusumano, 2011; Eisenmann et al., 2011b), which means that their value is related to the type and number of users (Katz & Shapiro, 1994; Rohlfs, 1974; Shapiro & Varian, 1999). Unlike modular platforms used in manufacturing, these platforms provide connectivity, expand variety, match different users with each other, and set prices (Cusumano, 2010; Eisenmann & Hagiu, 2007). Platforms are the mechanism by which different players in the market transact business. For example, iTunes provides a search engine and file transfer system that enable consumers and movie studios to transact business with one another. Platforms provide variety, such as the way Sky TV aggregates different types of content for its television viewers. Ad-supported television networks match viewers with content from television studios while matching those consumers with advertisers. Platforms also provide the rules that mediate transactions among the different users (Boudreau & Hagiu, 2009; Eisenmann et al., 2011a).

Successful platforms are driven by increasing returns to scale. As more users join the platform ecosystem, the demand to join also increases (Katz & Shapiro, 1985). Because of network effects,

many markets can be served by just a few players (Cusumano, 2011), although it is uncommon for a market to tip to a monopoly player (Weitzel et al., 2006). Network effects can lock users in to certain platforms when long-term commitments are involved (Katz & Shapiro, 1985), but may be less influential in defining the shape of markets in which users can easily switch platforms (Clements, 2004; Porter, 2001).

Leading platforms rely not just on size; they also leverage economies of scope. They are organized to drive innovation throughout the ecosystem, managing their collaboration with external complementors while strategically competing against some complementors. Platform leaders adopt policies about ecosystem access and information sharing that encourage others to join but keeps the leader in a position of power (Cusumano, 2010; Cusumano & Gawer, 2002).

In the video sector, firms have been leveraging established strategies such as bundling (Bakos & Brynjolfsson, 1999), differentiation through unique offerings (Eisenmann et al., 2011b), such as exclusive access to marquee content, and targeting niches (Lee & O'connor, 2003; Moore, 2002) by targeting specific viewer types with networks like Spike TV and Lifetime Television. As video value networks become increasingly complex, however, strategists face new types of challenges and opportunities.

Keystone platforms play a crucial role in an ecosystem by creating value that they share with other participants. Without such primary platforms, the ecosystem could not exist (Iansiti & Levien, 2004). These platforms, along with other leaders, become bottlenecks through which other industry players must pass (Boudreau & Hagiu, 2009; Rochet & Tirole, 2003). They can use their position in one part of the platform ecosystem to choke off competition in another part of the value network (Eisenmann et al., 2011b). For example, Amazon moved from the video retail layer into

the operating system layer with its Kindle Fire so that it could close off its customers from shopping Google Play and other competing online retail platforms. We are beginning to see pay TV providers challenge over-the-top (OTT) platforms by offering TV everywhere to their subscribers (Waterman et al., 2013).

Companies controlling the network infrastructure are what Iansiti and Levien (2004) call physical dominators because they control the asset layer that all network actors require to interact with each other and reach end customers. Consolidation in the industry of these physical infrastructure firms raises questions about whether vertically integrated TME firms will favour their own content platforms while restricting that of competitors, or if they will withhold their own content from other platforms to build demand for their own service bundles (Waterman & Choi, 2011). Around the world, uncertainty about net neutrality and other regulatory issues increase the uncertainty about how the video sector will evolve.

In this setting of rapid technological change and high uncertainty, business leaders and policy makers face the daunting task of making critical decisions. This paper's goal is to bring together the ideas and insights of high-level decision makers to identify and confront the most pressing questions shared by those navigating their companies through the transformation of the telecommunications, media, and entertainment landscape.

RESEARCH APPROACH

This study investigates an industry undergoing substantial change, where there may be more questions than answers. Many TME firms compete against each other or benefit from information asymmetries when collaborating, so there is limited information sharing. Certain divisions of companies will work closely with competitors (e.g. to develop technical standards) while other

parts of the companies aggressively compete for the same customers or to reach exclusive deals with suppliers. This causes important information to be siloed within organizations. Other companies, such as movie studios, face anti-competitive sanctions if they collaborate too closely. Therefore, while executives collectively hold substantial knowledge and insight into the evolution of the video sector, many have limited data when making decisions. Because the industry is undergoing an era of ferment in which old industry practices may no longer be appropriate, and since our research question is exploratory in nature, this paper takes a qualitative approach to data collection and analysis. A qualitative approach allows us to uncover new insights based on the *in situ* practice of industry leaders (Corbin & Strauss, 2008; Silverman, 1998). It allows researchers to gain a holistic overview of the research context that gets beyond information silos and helps synthesize meaningful conclusions that can help make sense of industry changes (Miles & Huberman, 1994).

Because of the close ties among the different sectors in the industry, we include major organizational stakeholders throughout the video value network. (See Figure 1).

[INSERT FIGURE 1 HERE]

The major stakeholders can be described as follows. Production companies produce video content for their own TV networks (internal) or supply content to external platforms. Broadcast networks and OTT platforms aggregate content that is delivered through a communication company's infrastructure as pay television service or internet service provision. Some broadcast networks also transmit their content over the airwaves. Many broadcast networks and OTT video platforms are multisided networks that match advertisers' messages with their viewing audience. Communications firms (MSOs) bundle broadcast networks which they sell to consumers for a

monthly fee. Communications companies also provide broadband internet service. Often the same company provides pay TV and broadband internet service.

Interview questions were based on insights gained from studying scholarly literature, industry-specific reports, related news articles, and discussions with four senior TME executives and ten industry experts at a leading global consulting firm. Interviews were conducted in 2012 - 2013 using theoretically-informed, semi-structured telephone interviews with 22 executives at different positions in the video value chain. Each interview lasted approximately one hour. Table 1 summarizes the study participants.

[INSERT TABLE 1 HERE]

Interviews were transcribed and coded with Atlas.ti (Scientific Software, Berlin) using theory-based and emergent codes. We used simultaneous data collection and analysis, in which our analysis would shape future data collection and focus our interpretation of the data (Charmaz, 2005). We started our investigation with broad questions that became more specific as the study progressed. Using theoretical sampling (Corbin & Strauss, 2008), the concepts derived from our data analysis were turned into questions and posed during subsequent interviews.

Given that different study participants working in different parts of the video ecosystem have different understandings of the industry, and no one has a complete picture of the complex ecosystem, we employ a hermeneutic approach to analysing the data (Chalmers, 2004; Myers, 1995). This allows us to reach a consistent and coherent understanding of the research context and problem under investigation. The initial data analysis revealed key questions about the future. A second analysis provided insights into the critical factors and requisite conditions that will determine the answers to these questions.

FINDINGS & ANALYSIS

Detailed analysis of the data finds three key questions recurring in the participant interviews: 1) Who will come out on top as the video market transforms? 2) Will people own content or only subscribe to video services? 3) Will advertising agencies maintain control of media buying?

The remainder of this section elaborates on these findings and draws upon information provided by the participants to draw conclusions or elucidate the critical factors needed to answer the questions.

Question 1: Who will come out on top as the video market transforms?

The dynamism in the video sector drives executives to contemplate the future of their firms within the industry ecosystem. While not all aspects of the video market's evolution are clear, the aggregate data overwhelmingly support three conclusions about who will come out on top.

Content is and will be king

While issues of licensing revenue, pay TV retransmission fees, and questions about the sell-thru market create uncertainty for production companies, subscription platforms – whether pay TV or OTT – will need producers to provide content that will attract subscribers. As a result, production companies can rely on the fact that despite the changes they face, content will remain king.

> *"The key is to de-commoditize the product that we sell. So how do we do that? Our product in TV has been premium content, lots of variety... And really the crown of that entire package are sports rights…" – Chief Digital Officer, Media Conglomerate*

> *"I think in our business so much of the competitive advantage has to do with the content itself…" – SVP, Home Entertainment, Major Studio*

"We're of the philosophy that people are always going to want content, and although we have distribution platforms and [our network] for decades was making money as a broadcast distributor, we understand that it's ultimately our content – our TV studio and film studio – that's the crown jewel of our company. – VP, Strategic Initiatives, TV Network

While content will remain king, producers need certain characteristics in order to hold strong positions. First, consumers will patronize the platforms that offer their favourite TV shows and films, giving producers of popular programming strong negotiating power within the ecosystem. Producers without superstar content will become commodity players without much power. Second, producers must offer a large catalogue of marquee content. Variety and scale are key principles of competing in platform-mediated markets. The independent producer with one hit film or single television series cannot threaten to withhold enough content from platforms to cause viewers to balk or switch to rival platforms. Therefore, producers without scale will have little negotiating power. Third, shifting consumption patterns – the outcome of which is uncertain – will affect the different revenue streams associated with the various types of content. For example, changes in retransmission fees from MSOs will impact TV producers most, while a rise or fall in the sell-thru market will disproportionally affect feature film studios. Therefore, large media companies that provide an umbrella for diversified types of content creation will remain strong regardless of overall industry dynamics, whereas less diverse firms will face significant business model risk.

Firms offering both pay TV and broadband will thrive

Economies of scope are key for the keystone platforms that control the physical network. Firms controlling the last-mile delivery infrastructure for both pay TV and broadband service are well poised to profit from the video industry regardless of whether TV revenues grow or consumers begin cord cutting en masse. These firms will capture new profits from the growing demand (and willingness-to-pay) for broadband, and they are in the position to offset any decline in pay TV profits with increases in broadband charges.

> *"[They] are reinforcing the need for our network if they are going over-the-top. So we've got that going for us. It's really just the offset of us losing the video subscription business." – VP, Application Development, MSO*

> *"If you start looking at some of the usage of customer behavior, let's say they're doing Hulu or they're doing Netflix. They're streaming the latest concert of the band that they're listening to. All of those are opportunities for companies like us to be able to provide them that capability across their high speed data channel..." – SVP, MSO*

These delivery firms also find themselves in the position to preserve their TV business while growing their data revenues. Although broadband providers increasingly offer unbundled internet service, the stand-alone price frequently approximates the cost of a TV-internet bundle. The executives in this study strategically bundle the two services so that it makes little financial sense to cut the TV cord or subscribe to TV but not to broadband, and that it makes even less sense to purchase television service from one firm and broadband from another. One participant explains:

> *"There's very little financial incentive not to take the full bundle of products in terms of access [and] TV production. We explicitly put it that way to give real customer value. If you start to dissect the product, it doesn't make financial sense not to take the high speed broadband, for example." – Director, Consumer Platforms, MSO*

Only some delivery firms are poised for success. Single play firms, like satellite-based TV services, are less prepared to confront the future, as they lack the last-mile data lines necessary to hedge uncertainty in the pay TV space. They will suffer from cord-cutting, unless they can lock up exclusive rights to marquee content that is compelling enough that their customers will pay extra to "multi-home" rather than benefit from bundle pricing from one provider. To hedge the loss of TV subscribers, satellite companies are adding broadband capabilities. For example, BskyB recently purchased Telefonica's UK broadband infrastructure and Direct TV attempted to buy US-based Sprint to acquire its wireless broadband network. Firms that can offer triple-play bundles of television, fixed line broadband, and wireless internet presently have an advantage because of their bundling capabilities, although many double-play firms have been rapidly expanding their WiFi hotspot networks to reduce this competitive edge.

The big battle will be over who best matches viewers with content

Whereas producers and delivery firms will experience a degree of stability, the most contentious and dynamic battles will be among the search platforms that match people with the content they want, when and where they want to watch it. Three critical success factors will determine the winners: availability of compelling content, ease-of-use in content discovery, and effectiveness in recommending content that suits the viewers' tastes. Because of scale economies, the market is likely to tip to a few dominant platforms.

> *"It'll ultimately go down to that because of the economics of scale. At some point, if you can promise someone distribution to 20 million people, your rights are going to be cheaper just from a cost perspective. So that gives you more money to market, more money to deliver." – AVP, OTT Platform*

This need to secure marquee content in order to be a successful matchmaker is driving industry consolidation. Comcast's acquisition of NBC Universal helps secure Comcast's access to content. The scale advantages in negotiating licensing fees, as well as exclusive licensing agreements, has been driving industry consolidation such as BskyB's acquisition of Sky Deutschland and Sky Italia, Liberty Global's purchase of Virgin Media, and Comcast's efforts to buy Time Warner Cable.

A key differentiator will be exclusive marquee content. Viewers will patronize the platform that offers their favourite programmes. The right content collection can lock in customers, at least for the short to medium term.

> *"But it really is at the end of the day about the content, and people will pay for content that they want to see. If it turns out the only way to get* Boardwalk Empire *or whatever show they want to see is on HBO GO, they're going to subscribe to HBO." – SVP, Home Entertainment, Major Studio*

Although search capabilities will determine which platforms thrive in the digital future, control of the market is still wide open. Few, if any firms, have established themselves as leaders in discovery technology. Despite the extensive data collected by leading OTT firms, their recommendation engines still fall short of their potential. As a senior executive explains:

> *"It still is bringing the eighties video store shelf, which just happens to be online instead of at your local video store. It's all the box art. It's organized by category, you know what I mean? Occasionally with some curation, whether it's Dave the Video Guy's picks or recommendations based on metadata." – AVP, OTT Platform*

MSOs are developing analytics capabilities that can mitigate the data lead of the leading OTT platforms. As owners of the last mile connection, MSOs are uniquely positioned to capture and analyse all user data – their linear viewing habits, pay-per-view history, and streaming video choices. This will provide a much more robust portrait of viewers' preferences. This technology has yet to launch, and if pure-play OTT firms win the race to provide satisfactory recommendations, consumers may cut the cord and pure-play over-the-top video platforms may win the content-matching war.

Question 2: Will people own content or only subscribe to video services?

Major companies are launching new subscription platforms like Xfinity Streampix and BBC iPlayer, adding more venues for content-hungry consumers. As subscription-based platforms proliferate, the home video sell-thru market wanes. A key question that shapes video executives' strategic planning is whether consumers will continue to purchase content en masse, or whether the market will default to a fee-based subscription market. Experts have different predictions for the future.

> *"Digital ownership is really attractive once you feel like you can access your content from any device, as long as it's you." – Former SVP, Major Studio*

> *"Everything's going to low cost or bundles. Redbox seems to be starting to thrive. 99₡ movie rentals for an hour or for a night seem to resonate. It seems to be gravitating towards a combination of bundles or cheap a la carte, one-time viewing." –AVP, OTT Platform*

> *"I think you'll see a mix of both ownership offers that come with a variety of different benefits, as well as different subscription and transactional offers." – CTO, Major Studio*

Almost two-thirds of North American media and entertainment content is delivered via subscription (Mcquivey et al., 2011). Over 90% of American households subscribe to pay TV (Nielsen, 2012) and ever-growing numbers of people pay for video-on-demand subscriptions.

There is a culture built around the subscription model, which leaves little doubt that consumers will continue subscribing to video services.

> *"We've trained people for all you can eat packages when it comes to digital media. You pay $100 a month and you get 200 channels. You watch them as much as you want. You pay $10 a month for Netflix service and you stream all the content you want. You pay $50 a month for a certain bandwidth speed to use it as much as you want." –AVP, OTT Platform*

The question is whether people will make substantial content purchases. Although consumer preferences are still being shaped and require speculation, we can identify two necessary precursors to a robust sell-thru market: future proof content and anywhere, anytime, any device (AWATAD) delivery.

Consumers want future-proof content

Consumers still feel the sting from the industry switch from DVD to Blu-ray. Entertainment fans spent hundreds of dollars repurchasing their VHS titles in the DVD format. Those investments – in content they could enjoy forever – did not pay off, as they must repurchase the titles in new formats so they can watch them on their tablets and ultrabooks. Their DVDs appear lackluster on HDTV sets and they must spend $20+ for new discs or pay $5 per title to upgrade them to high-definition UltraViolet files.

> *"A lot of consumers who purchased VHS had to convert to DVD, and they have a big library of DVD. Now that they've come up with the Droid, they have to go back and repurchase. I think it's been quite an expensive process." –Director, Digital Video Platform, Major Consumer Device Maker*

Consumers will hesitate to purchase new content unless they know in advance the upgrade path once 4K television becomes mainstream. In addition, the price must seem reasonable in the era of $1.29 rentals. Many consumers will balk at paying $5 to upgrade a movie they originally bought on impulse for $10. Future proofing requires more than a clear upgrade path. Consumers must have faith that a given platform will continue to provide access to their purchased content forever.

> *"When you're buying a digital product, you're putting a lot of trust in the company that's providing that particular digital content. You're trusting that the company's going to be around to stream your content. You trust that company is going to be around to make sure that if you buy a new device that it will be supported." – Director, Digital Video Platform, Major Consumer Device Maker*

Consumers want AWATAD access to their content

Viewing behavior is changing. While the living room remains the television beachhead, consumers increasingly watch video on laptops, tablets, and smartphones. AWATAD delivery is becoming a necessary ante in the video space, whether it is for access to subscription content or a collection of purchased content.

> *"Consumers have a lot more control than they did previously, so they'll consume stuff when they want to, where they want to, and using whatever device they want to." – VP, Global Development Director, Global Ad Agency*

Cloud-based delivery of purchased content – stand alone or as a complement to disc ownership – offers consumers an attractive product. Bundling UltraViolet licenses with disc sales is an effective strategy for introducing consumers to cloud-based ownership models. At the same time, however, the promise of AWATAD delivery faces two material obstacles: platform fragmentation and bandwidth limitations.

Much of the digital sell-thru market occurs via semi-closed platforms, fragmenting the market. Many digital ecosystems use content to lock-in customers to their devices or operating systems. This chills the sell-thru market by placing consumers in limbo like they were during the HD-DVD / Blu-ray standards war.

> *"Why did you have to buy a movie on DVD and then you also had to buy it on iTunes, and then you also had to buy it on Android?" – SVP, Business Development, OTT Platform*

Realizing the value proposition of cloud-based AWATAD content delivery requires ubiquitous access to sufficient broadband to stream content. A benefit of digital ownership is the ability to access content spontaneously. The AWATAD value proposition is weakened by bandwidth constraints that force pre-planned consumption decisions, such as downloading specific content onto a specific device in advance of viewing it. Participants explain the present bandwidth bottleneck that is constraining AWATAD delivery.

> *"The big challenge I think for this – the answer to this question – is whether or not OTT can be distributed in real time, linearly, in a massive scale. And the answer today is no." – Chief Digital Officer, Media Conglomerate*

> *"Eighty meg, although it sounds fantastic, is not great for a multi-screen, multi-iPad, multi- whole home experience." – Director, Consumer Platforms, MSO*

> *"Regardless of how the net neutrality issue will play out, the only thing that we can bank on this company is that the demand on our network is going up exponentially." – VP, Application Development, MSO*

In addition to reducing fragmentation through more open digital rights management (DRM) standards, a sell-thru renaissance requires upgrading physical last-mile infrastructure, improving compression algorithms, and lifting restrictive bandwidth caps. At the same time, as pointed out

by a broadband provider executive (see above), net neutrality regulations are still uncertain in many markets. In a market without regulations that require all data be delivered without discrimination, Internet service providers will be in strong gatekeeping positions. As the physical dominators controlling the last-mile bottleneck between consumers and companies selling content, MSOs can throttle streaming data from external content providers, undermining other firms' promises of AWATAD and future proof content. Broadband providers could charge extra fees to external content providers, making sales of streaming content risky, as the seller would have to pay recurring access charges to deliver content that was purchased with a one-time payment. Furthermore, MSOs that sell content can favour content purchased from their platform while discriminating against other vendors, creating lock-in effects similar to the semi-closed platforms that presently are chilling the sell-thru market. Given the reliance MSOs have on content creators, it is unlikely that they would throttle content delivered by major studios; however, services provided by retailers, such as Walmart's Vudu service, would be at risk. Even with shared DRM and technology advances, unless net neutrality guarantees are in place, the AWATAD delivery required for a resurgent sell-thru market will face significant challenges.

Question 3: Will advertising agencies maintain control of media buying?

Businesses emerge and industry structures develop over time to reduce transaction costs throughout the value chain (Coase, 1937; Williamson, 1995). After long periods of stability, these structures may become rigid (Leonard-Barton, 1992), optimized to manage yesterday's transaction costs rather than to increase efficiencies in tomorrow's market.

The nature of ad placement is changing

Whereas advertising agencies built trading desks upon relationships with ad venues and two centuries of expertise, data-driven ad insertion platforms are redefining the advertising market. Advertising is increasingly micro-segmented and firms with the best access to "big data" will have a key strategic advantage in managing the search costs associated with matching advertisers and consumers.

Ad insertion platforms collect data from participating partners (websites, TV networks, newspapers, etc.). The larger and more diverse the platform partners, the richer the platform's data. Therefore, the size of an ad platform's user base will determine its ability to offer superior advertising service. Because of network effects, it is likely that a few platforms will dominate the advertising landscape.

> *"You will necessarily have a small group of very large players on a global basis." – CEO, Global Ad Agency*

While advertising agencies are building capabilities for a real-time, data-driven market, technology companies like Google and Facebook have substantial data advantages over other platforms and have armies of data scientists building superior analytics capabilities. It is likely that a handful of these firms will handle the lion's share of global advertising placement.

> *"We may end up in a world where we just need key partnerships with some critical players. I mean, it's the obvious four or five, right? In the world dominance, if you will, that is Google, Facebook, Amazon, Apple, and possibly Twitter." – VP, Global Development Director, Global Ad Agency*

The tech firms controlling the large digital platforms collaborate and co-existing with agency media desks, but in actuality are gaining control of the advertising market. In 2011, for instance, Google earned more revenue than the three largest global ad agencies combined (Google, 2012; Publicis, 2012; WPP, 2012; Omnicom, 2012). Many leading digital platforms are placing themselves in positions of leverage. Whether or not they use their clout to reshape the market, the large ad insertion platforms are becoming a potentially disruptive force in the market.

> *"The way to really control the user experience, and the way to guarantee margins, is to own that value chain. And I think the big players are looking to leverage their number one position in that market, whatever market they're in, to get the rest." – Chief Digital Officer, Media Conglomerate*

> *"Our approach is the way that we control the data and access to the data and really uphold our privacy promise with the data is that we don't let anybody else touch it. So when we go to Madison Avenue we say: 'Hey listen if you'd like to get access to this really cool data we have, that's great. We don't sell data. What we sell is targeted impressions. And so we will deliver your ad to those people, but we won't just give you that data.'" – VP, Advertising Insertion Platform*

Fragmentation can save the ad agencies

Despite questions about whether ad agencies will continue to control media spending, a change in control of the advertising market is not a foregone conclusion. Ad agencies manage media buying because of the fragmented ad market – companies paying to promote their products do not want the burden of managing relationships with a plethora of ad venues. As long as the ad market contains sufficient rival insertion platforms, agency trading desks can still charge for deciding how to divvy up clients' ad budgets. Although network effects and scale economies will foster market

consolidation into a few global platforms, a handful of localized platforms in each market may offer exclusive data and/or provide solutions that are more effective for ads designed for specific cultures and locales.

> *"You have the same kind of things at the country level, so you will have 100 countries and you will have 10 per country. This would be 1,000 [and] you would have maybe 20 on a global basis. I'm just making a quick calculation. In reality, it would be a little bit more complicated." – CEO, Global Ad Agency*

Although economic forces press for concentration, the market is still in its formative stage. In fact, the market currently is witnessing an explosion of placement platforms, not a consolidation.

> *"So for ever and ever people have said: 'oh it's going to consolidate, it's going to consolidate, it's going to consolidate.' In reality it never does. It keeps getting more complicated. We keep putting on layers and layers and layers of services that deal with it." – VP, Advertising Insertion Platform*

While the question of whether advertising agencies will continue to control media buying lacks a clear answer, it is clear that the nature of media placement is undergoing radical changes and will have a significant impact on the television and video sector.

DISCUSSION AND CONCLUSION

This paper draws upon interviews from senior executives at firms throughout the video entertainment ecosystem to make sense of the changes happening within an increasingly complex, platform-mediated market. Data analysis identifies three common questions about the future of the video business. These questions represent key uncertainties among executives, insight into

which can help inform strategic decisions and focus their future investments. Answers are informed by applying platform theory to the analysis of interview and secondary data.

This study provides three answers to the first question: *Who will come out on top as the video market transforms?* Data suggest that content producers will remain in positions of power. Industry changes will affect television, home video, and feature film producers differently. Therefore, large media companies that provide an umbrella for diversified types of content creation will hedge their risks and remain strong. Non-diversified content producers will face substantial business model risk. MSOs that offer both pay TV and broadband internet service will thrive as higher broadband fees can offset declines in television subscriptions. Firms not offering both pay TV and broadband (i.e. satellite TV companies) will be unable to offset losses from cord cutting. An epic power struggle will occur among the firms that manage search – matching people with the content they want. Economies of scale will likely tip the market to a few dominant platforms, based on who best provides compelling content, ease-of-use, and accurate recommendations.

This study offers key takeaways for practitioners as they position their companies to compete in the rapidly-changing video entertainment market. Those determined to come out on top as the video industry transforms should consider the following:

- Video service platforms should produce proprietary content and enter exclusive licensing agreements for aggregating marquee programming.
- Production companies should seek deals to produce content for diverse media like TV, OTT, and feature films to keep diversity in their revenue portfolios.

- OTT firms and MSOs both must invest in superior search and discovery tools. Effectiveness and ease-of-use will determine which platforms consumers prefer.

- Single-play satellite providers should team with telcos to offer multi-play bundles in areas where the telcos do not offer IPTV, such as the arrangements Direct TV and Dish Network have in the USA.

The second key question shaping the TV and video industry is: *Will people own content or only subscribe to video services?* Consumers are exploring the new sell-thru platforms, but have not made a clear signal to the market. There are two necessary precursors for a robust video sell-thru market: future-proof content and anywhere, anytime, any device (AWATAD) viewing capabilities. Consumers are unwilling to keep repurchasing the same videos with each new generation of technology. Therefore, sellers must offer a clear path to upgrade through which consumer can upgrade their media for free or at a small incremental rate. The AWATAD value proposition currently is blunted by a lack of universally available broadband capable of delivering high definition video. It is also constrained by the different DRM standards that inhibit watching video purchased from one platform on devices affiliated with a competing platform.

Industry leaders whose success depends on a robust sell-thru market should consider the following guidelines:

- Producers should future-proof their sell-thru products by offering a clear upgrade path. At a minimum, this upgrade path should include the next generation of video technology (i.e. 4K).

- Producers and major digital retailers (e.g., iTunes and Amazon) should work together to incorporate their CODECS into the UltraViolet ecosystem.

- Broadband providers should continue rolling out WiFi networks and expanding their data capabilities. A robust sell-thru market will drive demand for more internet service, increasing data revenues.

- Producers, search firms (retail aggregators), and internet delivery firms should collaborate to improve compression and allocation algorithms. All three roles in the video value chain will benefit from effective streaming and instant downloads of purchased content.

As automated algorithms place more advertisements, industry executives wonder: *Will advertising agencies maintain control of media buying?* Large digital ad placement platforms are increasingly in a position to supplant the advertising agencies. Although a few placement platforms are likely to dominate globally, many different platforms may exist at the regional and local levels. The presence of many platforms maintains fragmentation in the market, helping preserve the current agency-based media buying model.

Research into whether advertising agencies will maintain control of media buying yields two sets of practical guidelines. Ad agencies should consider the following recommendations:

- Agencies should carefully monitor the relationship between the largest platforms and clients. The largest platforms through which agencies place advertisements are increasingly in a position to supplant the agency as the manager of the media buying role.

- Advertising firms should encourage fragmentation in the market. The competition will keep ad rates low, which will benefit clients. Fragmentation will also reinforce the need for the agency to act as a coordinator who allocates clients' budgets among the many different platforms.

- Ad agencies should acquire regional or local insertion platforms. Large global players have established scale and capabilities advantage, but small power players at the local (national) level can keep the market fragmented.

On the other hand, advertising insertion platforms should consider the following recommendations:

- Large digital I/O platforms should nurture symbiotic relationships with ad agencies – at least in the short term. The bigger the portion of an ad budget allocated to a platform, the better positioned the platform will be to own the client relationship in the future.
- Digital advertising platforms should enlist as many ad venues into their ecosystem as possible. A network of separate companies acting as one ecosystem will increase network effects and give the platform more leverage.
- Advertising platforms with global or regional reach should increase their capabilities at the local level. This will allow the platforms to offer end-to-end solutions and the disintermediation of agency trading desks.

At the most basic level, this paper sheds light on common concerns held by different players at different companies playing different roles in an increasingly complex ecosystem. It provides media business leaders with an industry vantage point that they may not have due to information silos, anticompetitive concerns, etc. At the same time, this study has limitations. Given that the study design required high-level executives willing to commit an hour of their time and discuss sensitive company information, interviewees were necessarily a convenience sample based on contacts of the researchers and their extended professional networks. The sample is comprised of

high-ranking industry executives; however, regulators and policy makers did not participate. Future research can incorporate insights from government representatives who may offer alternative views to those from profit-seeking firms. While this paper interviews participants from around the world, North America is overrepresented in the sample. While the principles of platform theory remain generalizable, the geographic concentration of participants may bias the analysis toward strategic implications that favour a specific competitive and regulatory environment. Future research can include a more geographically representative sample. Further research can compare the findings of this study to specific countries or regions outside North America.

The three questions presented in this paper represent real and material concerns to those working within the video value network. As such, each is worthy of further scholarly research applying different techniques to reach deeper theoretical and practical understanding of these business challenges. While this study investigates broad issues affecting the future of the TV and video market, future studies can seek a deeper understanding of topics presented in this paper. For example, future research can investigate upgrade pricing schemes (future proofing) or conduct market research into selling Ultraviolet licenses that are not bundled with physical media.

ACKNOWLEDGEMENTS

This research is part of a collaboration between Cognizant and the MIT Center for Digital Business. Thanks to the participants and for feedback from George Westerman, Andrew P. McAfee, and the anonymous reviewers.

REFERENCES

Anderson, P., & Tushman, M. L. (1990). Technological discontinuities and dominant designs - A cyclical model of technological change. *Administrative Science Quarterly, 35*(4), 604-633.

Bakos, Y., & Brynjolfsson, E. (1999). Bundling information goods: Pricing, profits, and efficiency. *Management Science, 45*(12), 1613-1630.

Banerjee, A., Rappoport, P. N., & Alleman, J. (2014). Forecasting video cord-cutting: The bypass of traditional pay television *Demand for Communications Services–Insights and Perspectives* (59-82). New York, NY: Springer.

Boudreau, K. J., & Hagiu, A. (2009). Platform rules: Multi-sided platforms as regulators. In A. Gawer (Ed.), *Platforms, Markets, and Innovation*. Cheltenham, UK: Edward Elgar Publishing Limited.

Chalmers, M. (2004). Hermeneutics, information and representation. *European Journal of Information Systems, 13*(3), 210-220.

Charmaz, K. (2005). Grounded theory in the 21st century, in N. Denzin & Y Lincoln (Eds.), *Strategies of Qualitative Inquiry*, (203-241). Thousand Oaks, CA. Sage Publications, Inc.

Clements, M. T. (2004). Direct and indirect network effects: are they equivalent? *International Journal of Industrial Organization, 22*(5), 633-645.

Coase, R. H. (1937). The nature of the firm. *Economica, 4*(16), 386-405.

Corbin, J., & Strauss, A. (2008). *Basics of Qualitative Research*. Thousand Oaks, CA: Sage Publications, Inc.

Cusumano, M. A. (2010). *Staying Power: Six Enduring Principles for Managing Strategy and Innovation in an Uncertain World*. New York, NY: Oxford University Press.

Cusumano, M. A. (2011). Technology strategy and management platform wars come to social media. *Communications of the ACM, 54*(4), 31-33.

Cusumano, M. A., & Gawer, A. (2002). The elements of platform leadership. *MIT Sloan Management Review, 43*(3), 51-60.

Eisenmann, T., & Hagiu, A. (2007). Staging two-sided platforms. *Harvard Business School Teaching Note*.

Eisenmann, T., Parker, G., & Van Alstyne, M. (2011a). Opening platforms: how, when and why? In A. Gawer (Ed.), *Platforms, markets and innovation* (pp. 131-162). Cheltenham, UK: Edward Elgar Publishing, Inc.

Eisenmann, T., Parker, G., & Van Alstyne, M. (2011b). Platform envelopment. *Strategic Management Journal, 32*(12), 1270-1285.

Evens, T., & Donders, K. (2013). Broadcast market structures and retransmission payments: A European perspective. *Media, Culture & Society, 35*(4), 417-434.

Gimpel, G., & Westerman, G. (2012). Shaping the future: Seven enduring principles for fast changing Industries. *Working Paper - MIT Center for Digital Business*.

Google Inc. (2012). Annual Report 2011.

Iansiti, M., & Levien, R. (2004). Strategy as ecology. *Harvard Business Review, 82*(3), 68-78.

Katz, M. L., & Shapiro, C. (1985). Network externalities, competition, and compatibility. *American Economic Review, 75*(3), 424-440.

Katz, M. L., & Shapiro, C. (1994). Systems competition and network effects. *Journal of Economic Perspectives, 8*(2), 93-115.

Lee, Y., & O'Connor, G. C. (2003). New product launch strategy for network effects products. *Journal of the Academy of Marketing Science, 31*(3), 241-255.

Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product Development. *Strategic Management Journal, 13*, 111-125.

McQuivey, J. L., Gownder, J. P., & Corbett, A. E. (2011). People Pay for Content; They Just Don't Own It: Forrester Research, Inc.

Miles, M. B., & Huberman, M. A. (1994). *Qualitative Data Analysis* (Second ed.). Thousand Oaks: Sage Publications.

Moore, G. A. (2002). *Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers*. New York, NY: HarperCollins.

Myers, M. D. (1995). Dialectical hermeneutics: A theoretical framework for the implementation of information systems. *Information Systems Journal, 5*(1), 51-70.

Napoli, P. M. (2012). Retransmission consent and broadcaster commitment to localism. *CommLaw Conspectus, 20*, 345-471.

Nee, R. C. (2013). Creative destruction: An exploratory study of how digitally native news nonprofits are innovating online journalism practices. *International Journal on Media Management, 15*(1), 3-22.

Nielsen. (2012). State of the Media: The Cross Platform Report Quarter 3, 2011.

Oliver, J. J. (2013). Media management tools: UK broadcast media executives' Perspective. *International Journal on Media Management, 15*(4), 245-257.

Omnicom. (2012). Annual Report 2011.

Porter, M. E. (2001). Strategy and the Internet. *Harvard Business Review, 79*(3), 164-164.

Rochet, J.-C., & Tirole, J. (2003). Platform competition in two-sided markets. *Journal of the European Economic Association, 1*(4), 990-1029.

Publicis Groupe. (2012). Annual Report 2011.

Rohlfs, J. (1974). A theory of interdependent demand for a communications service. *Bell Journal of Economics & Management Science, 5*(1), 16.

Shapiro, C., & Varian, H. R. (1999). *Information Rules: A Strategic Guide to the Network Economy*. Boston: Harvard Business School Press.

Silverman, D. (1998). Qualitative research: meanings or practices? *Information Systems Journal, 8*(1), 3-20.

Suarez, F. F., & Utterback, J. M. (1995). Dominant designs and the survival of firms. *Strategic Management Journal, 16*(6), 415-430.

Turk, S. (2013). Movie & Video Production in the US. *IBISWorld Industry Report* (pp. 1-42).

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly, 31*(3), 439-465.

Tushman, M. L., & Murmann, J. P. (1998). Dominant designs, technology cycles, and organizational outcomes. *Research in Organizational Behavior, Vol 20, 1998, 20*, 231-266.

Vizcarrondo, T. (2013). Measuring Concentration of Media Ownership: 1976–2009. *International Journal on Media Management, 15*(3), 177-195.

Vogel, H. L. (2011). *Entertainment Industry Economics* (8 ed.). New York, NY: Cambridge University Press.

Waterman, D., & Choi, S. (2011). Non-discrimination rules for ISPs and vertical integration: Lessons from cable television. *Telecommunications Policy, 35*(11), 970-983.

Waterman, D., Sherman, R., & Ji, S. W. (2013). The economics of online television: Industry development, aggregation, and "TV everywhere". *Telecommunications Policy, 37*(9), 725-736.

Weezel, A. v. (2010). Creative destruction: why not researching entrepreneurial media? *The International Journal on Media Management, 12*(1), 47-49.

Weitzel, T., Beimborn, D., & Koenig, W. (2006). A unified economic model of standard diffusion: The impact of standardization cost, network effects, and network topology. *MIS Quarterly, 30*, 489-514.

Williamson, O. E. (1995). Transaction cost economics and organization theory. In O. E. Williamson (Ed.), *Organization Theory: From Chester Barnard to the Present and Beyond*. (207-255). New York: Oxford University Press.

WPP Group (2012). WPP Annual Report and Accounts 2011.

Zeadally, S., Moustafa, H., & Siddiqui, F. (2011). Internet Protocol Television (IPTV): Architecture, Trends, and Challenges. *Systems Journal, IEEE, 5*(4), 518-527.