



Information Systems 410 Honors Project



Drama in the TV Industry: A Study of New
Entrants, New Services, and New
Consolidations

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INTRODUCTION

Watching television is one of Americans' favorite pastimes. Whether it is watching football on Sunday nights with friends, catching the latest episode of a favorite show with family, or enjoying dinner in front of the TV, television is an integral part of our entertainment lives. However, the concept of a television is changing. We no longer receive our entertainment via traditional means such as an antenna or a cable TV service. With the emergence of new gadgets and online video streaming, the business landscape is becoming fiercely competitive and customers have more options than ever. Cable companies are no longer competing with just each other; they are also competing with telephone companies and streaming service providers. In this paper, I explore the rapidly evolving industry by explaining the services and interactions among the three major types of TV providers: cable operators, telephone carriers, and streaming service providers. Although there are more competitors than the ones aforementioned, these three types are the most prominent. First, I examine the dominant players, along with their strategies and offerings within and outside the TV industry. Because companies are bundling cable service with Internet and telephone services, analysis of the TV industry will inevitably spillover into discussions of Internet and voice. I will analyze how these companies are meeting customer demands of content, cost, and convenience. Additionally, I will explain the technical side of data transmission. Next, I point out that despite the intense rivalry, TV providers are also collaborating with each other to provide comprehensive service packages and enhance user experience. Lastly, the paper concludes with forward-looking comments on how the industry will shape up in the future and predictions on who will dominate the market.

CABLE COMPANIES

Cable companies have historically ruled the TV business. In the U.S., Comcast is the largest player with 54 million residential and business customers: 22 million video, 21 million high-speed Internet, and 11 million voice customers (Comcast 10-K). Its biggest competitor is Time Warner Cable (TWC), the second largest cable provider with 15 million customers, of which 14.4 million are residential and 624,000 are business (TWC 10-K). In addition to video services, cable companies have expanded into high-speed data and voice to create triple-play bundles that allow customers to subscribe to multiple services from the same provider. These bundles are popular because they are convenient for customers to use and allow providers to lock customers in.

Cable companies provide their services through coaxial cables (Beal). These companies already have cable infrastructures in place, an important advantage in an industry that requires high upfront capital investment. A typical cable segment is shared among 300 to 1,000 customers (FitzGerald 321). The large range of available capacity exists because not everyone who has cable TV will install it. The coaxial cable on the customer's side runs to a fiber node, which has an optical-electrical converter to convert between the coaxial cable and the fiber-optical cable on the TV company's side (figure 1).

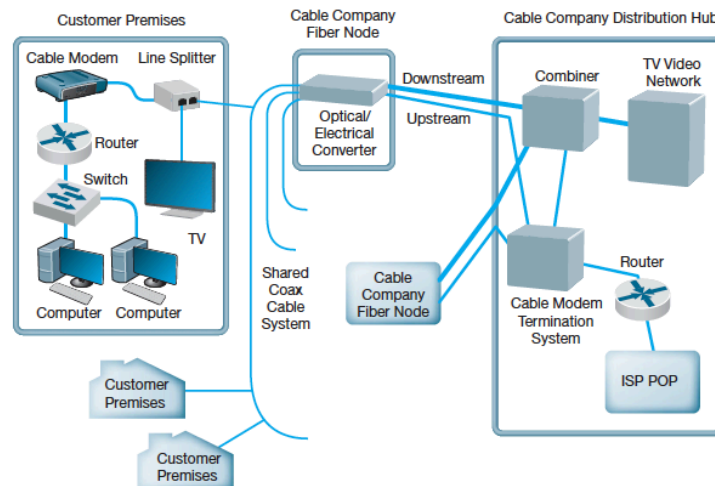


Figure 1. Cable modem architecture (*Business Data Communications & Networking*)

The fiber nodes are connected to the cable company distribution hub through upstream and downstream circuits. The upstream circuit transports data from the customer and is connected to the Cable Modem Termination System (CMTS). The CMTS has cable modems and multiplexers that convert data from cable modem protocols into protocols needed for Internet traffic, and route the signals to an ISP (Internet Service Provider) for Internet connection. In the downstream circuit, the customer receives video transmissions from the cable TV network and data from the Internet. Downstream traffic enters the distribution hub from the ISP POP¹, goes through the CMTS that produces cable modem signals, and then through the combiner. The combiner integrates Internet data traffic with ordinary TV video traffic and sends data back to the fiber node for distribution.

These cables transmit a vast amount of content daily. Having a rich content library is crucial for a company's success because customers prioritize content. Moreover, cable companies are increasing the ease of access by developing mobile apps. For example, TWC's mobile app offers 300 live channels and 5,000 on-demand movies. Comcast's Xfinity mobile app offers 35 live streaming channels and a TV store with a large selection of movies and TV series (Baumgartner). Because of the unprecedented number of entertainment options, customers can afford to be selective in choosing the provider with the best shows and movies.

Companies that were prudent enough to recognize the importance of content are not at the mercy of content providers, whereas others are suffering content disputes. Comcast was shrewd and acquired NBC Universal, the film and television giant in 2010 (Peters). On the other hand, Time Warner did the opposite and spun off its content provider, Time Warner Inc. in 2009 (Lennihan). The separation was due to disagreements over the vision for the company; Time Warner Inc. wanted to create content while Time Warner Cable wanted to build infrastructure. Last year, TWC's dispute with CBS, a major provider of popular shows, proved the importance of content. The dispute erupted when CBS wanted to charge TWC higher subscriber fees for its local stations, and TWC wanted to limit how and where CBS sold its programming in an effort to impede competitors. During the dispute and the ensuing blackout of CBS-owned stations, TWC

¹ POP stands for Point of Presence, is an access point from one place to the rest of the Internet.

customers ended their subscriptions and switched over to providers that offered CBS content. TWC CEO Rob Marcus said the dispute had negative impacts; it “drove a roughly 10 percent increase in [double-play and triple-play subscribers] stopping video...the impact of the disputes bled over into [high-speed Internet] and voice” (Hall). This dispute also created a \$15 million loss and a 6.7% increase in marketing expense (Time Warner Inc. Press Release). TWC’s loss demonstrates that customers value content over loyalty to a company.

Although cable companies still maintain the most number of cable TV subscribers, commanding 54% of the market, this number is dwindling because of increased competition (Zacks). At Comcast, growth in the residential video services segment slowed to a mere 3% last year (Comcast 10-K). TWC experienced a 7% revenue decline in the same segment (TWC 10-K). For the first time in history, the industry experienced net subscriber loss in 2013, dipping 0.1% to 94.6 million subscribers, according to Leichtman Research Group (Nakashima).

The revenue declines at cable companies are adding to the bottom lines of telephone and streaming TV services. While cable companies are losing subscribers, telephone companies and Netflix, a popular streaming video service, are adding subscribers (figure 2). Customers are attracted to the faster speeds provided by telephone companies and cheaper prices at streaming video services. Telephone companies are building fiber-optic networks that transmit videos at much faster speeds than coaxial cables. Even more threatening to the cable companies are video streaming providers that offer attractive prices. When customers connect to the Internet through cable or telephone companies, and stream videos, it is the streaming service provider that supplies the content, reducing the cable and telephone companies to mere Internet providers. As a result, customers will no longer subscribe to triple-play packages that include video, instead will only subscribe to Internet and stream videos elsewhere. This decreases the profits that companies would typically get from the higher margin bundles.

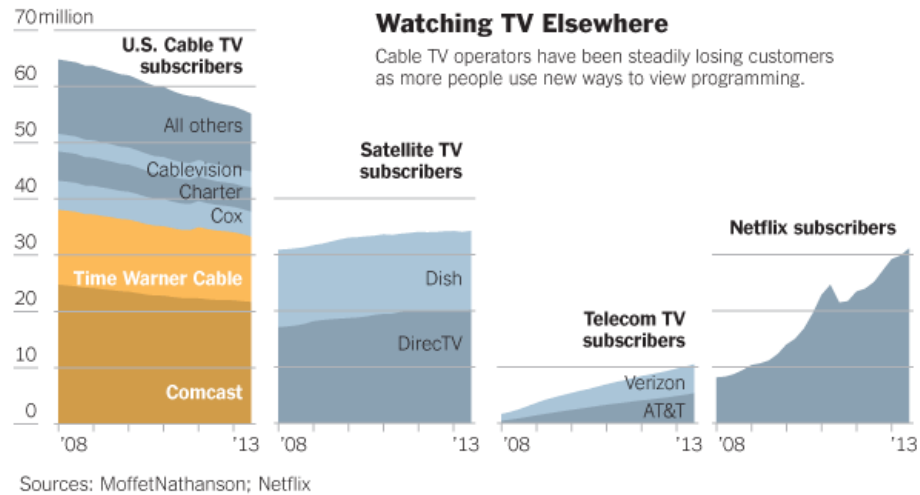


Figure 2. Subscriber trends

The intense competition has brought about Comcast’s proposed merger with TWC. Together, the two companies hope to create superior products on a better network, invest in innovative technology, strengthen negotiating position with content providers, and realize economies of scale (Comcast Press Release). In fact, consolidation is a general trend in this competitive industry because it is a great way to gain market share quickly. However, the merger is subject to regulatory approval because of anti-competitive concerns. Charter Communications, the third largest cable company, has filed with the Securities and Exchange Commission complaining that the merger of will pose a high degree of antitrust risk. Indeed, the combined company will operate in 43 of the nation’s largest metropolitan markets, serve 30 million households and businesses, and have nearly 40% share of high-speed broadband Internet market (O’Toole, figure 3). In case the merger is not approved, cable companies must devise alternative strategies to stem the worrisome subscriber loss.

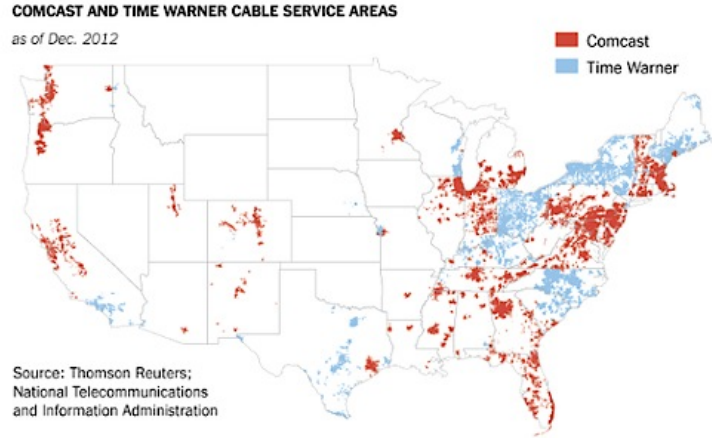


Figure 3. Comcast and Time Warner Cable service areas

TELEPHONE COMPANIES

While telephone companies are not traditional players in the television business, the popularity of Verizon FiOS and AT&T U-verse have made them formidable threats to cable companies. In fact, U-verse and FiOS both outrank cable companies according to consumer reports (figure 4).

| Order | Provider | Type | Reader score ⁽¹⁾ | Survey results | | | | | | |
|--|-----------------------------|--------|-----------------------------|----------------------|-------|---------|---------|------------|-----------------------|---|
| | | | | Service satisfaction | Value | Billing | Support | Added fees | Price after promotion | |
| | | | | 0 | 100 | | | | | |
| A TRIPLE PLAY (INTERNET, TV, AND HOME PHONE SERVICES) | | | | | | | | | | |
| 1 | WOW | cable | 79 | ● | ○ | ● | ● | ● | ● | - |
| 2 | Verizon FiOS | fiber | 75 | ● | ○ | ● | ○ | ○ | ○ | ○ |
| 3 | Suddenlink | cable | 73 | ○ | ○ | ● | ● | ○ | - | - |
| 4 | Bright House Networks | cable | 71 | ○ | ○ | ● | ● | ● | ○ | ○ |
| 5 | AT&T U-verse ⁽²⁾ | | 66 | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 6 | Cox | cable | 66 | ○ | ○ | ● | ● | ○ | ○ | ○ |
| 7 | Cablevision/Optimum | cable | 65 | ○ | ● | ● | ● | ● | ○ | ○ |
| 8 | Comcast | cable | 61 | ○ | ● | ○ | ○ | ○ | ○ | ● |
| 9 | CenturyLink ⁽³⁾ | hybrid | 61 | ○ | ● | ○ | ○ | ○ | ○ | ○ |
| 10 | Time Warner | cable | 61 | ○ | ● | ● | ○ | ○ | ○ | ○ |
| 11 | Charter | cable | 60 | ○ | ● | ○ | ○ | ○ | ○ | ○ |
| 12 | Frontier ⁽³⁾ | hybrid | 59 | ○ | ○ | ● | ● | ○ | - | - |
| 13 | Windstream ⁽³⁾ | hybrid | 58 | ○ | ○ | ○ | ○ | ○ | - | - |
| 14 | Verizon ⁽³⁾ | hybrid | 58 | ○ | ● | ○ | ● | ○ | - | - |
| 15 | AT&T ⁽³⁾ | hybrid | 57 | ○ | ● | ○ | ● | ○ | ○ | ○ |
| 16 | Mediacom | cable | 52 | ● | ● | ○ | ○ | ○ | ○ | - |
| B QUAD PLAY (ADDING CELL-PHONE SERVICE) | | | | | | | | | | |
| 1 | Verizon FiOS | fiber | 79 | - | ○ | ● | ○ | ○ | ○ | - |
| 2 | AT&T U-verse ⁽²⁾ | | 68 | - | ○ | ● | ● | ○ | ○ | - |

⁽¹⁾ Differences in reader scores of fewer than 7 points are not meaningful. ⁽²⁾ Phone-company service that combines fiber-optic and copper cabling. ⁽³⁾ Hybrid plan combining its own landline and DSL Internet service with satellite TV from a different provider.

Figure 4. Triple-play rankings (*Consumer Reports*)

U-verse and FiOS are high-speed Internet, video, and voice service bundles that compete with Comcast and TWC’s triple-play offerings. Once cable companies began offering Internet, video, and voice service bundles, telephone companies saw the need to offer similar deals, but over faster fiber optic networks (figure 5). Fiber optic cables transmit data using light pulses from lasers or LEDs that carry information in thin strands of glass called optical fibers. Because fibers can transmit large amounts of information quickly, they are ideal for transmission of voice, data, and image (FitzGerald 89)

| | Upload Speeds | Download Speeds |
|--------------------------|---------------|-----------------|
| Verizon FiOS | 17 Mbps | 29 Mbps |
| Time Warner Cable | 6 Mbps | 18 Mbps |
| Comcast | 5 Mbps | 20 Mbps |
| Cablevision | 4 Mbps | 21 Mbps |

Figure 5. Speed comparison among companies (*Verizon Wireless*)

Verizon launched FiOS in 2005. Compared to other national operators, FiOS has the highest overall satisfaction ratings and received highest scores for reliability across Internet, video and voice services (figure 4). Verizon has 6 million FiOS Internet and 5 million FiOS video subscribers, an increase of 12% in 2013. In fact, FiOS accounts for 72% of consumer revenue, and is driving most of the consumer segment growth.

Verizon is speeding up their Internet service with FiOS Quantum. The company recognizes that as customers use more devices to connect to the Internet and stream more videos, they will increase their demand for speed. Currently, about 45% of FiOS Internet users subscribe to Quantum, and this number has potential to rise with increasing demand for speed (Verizon 10-K). With the creation of this lightening fast Internet, Verizon was able to launch FiOS Quantum TV in April 2014. This service allows users to record up to 12 shows simultaneously and up to 200 hours of HD programming (Sciullo). Bob Mudge, Verizon executive, said FiOS Quantum TV is “doing for TV what we did for Internet...we’re delivering the best, most satisfying TV experience to customers with features and functionality they

want such as more choice, storage and control” (PR Newswire). Verizon is unleashing the power of Internet and the potential is limitless.

Moreover, Verizon makes it convenient for users to access entertainment on their phones. After all, it is a telephone company. Launched in 2013, the FiOS mobile app provides access to TV channels on tablets and phones. Customers can buy or rent more than 45,000 on-demand movies and TV shows from Verizon Flex View. This service is strikingly similar to TWC’s mobile TV app and Comcast’s Xfinity store. Competition will get more heated as companies gravitate toward the lucrative mobile market.

A year after Verizon’s introduction of FiOS, AT&T followed with the launch of a similar service called U-verse. The bundle includes Internet, video, and voice. AT&T has 11 million U-verse subscribers, of which 10.4 million subscribe to the Internet service and 5.5 million to video (subscribers to both are counted once). Growth is rapid, U-verse added a record 2.7 million Internet subscribers in 2013. Although Verizon FiOS has a higher market penetration at 40%, twice than that of AT&T U-verse, FiOS’ revenue growth in 2013 was 16% compared to U-verse’s 28%. AT&T also has a mobile app where users can enjoy 108 live TV channels and TV shows on-demand. AT&T’s chief marketing officer, Mel Coker, said, “U-verse has always been about delivering a TV experience built around our customers, and this enhancement gives them even more flexibility and control” (Moscaritolo). The company plans to spend \$22 billion for wireless and wireline initiatives over the next three years and expand U-verse services to 33 million customer locations by 2016 (AT&T Press Release).

The rapid expansion of AT&T’s services is facilitated by the expansion of its fiber optic network, on which video and voice transmission depends on. AT&T has been testing out 100% fiber optic network in Austin, Texas, and plans to bring fiber networks to other markets such North Carolina (M2 Presswire). News of the Comcast and TWC merger has encouraged AT&T to be “a little more aggressive and assertive in deploying that technology around the country” (Gryta). A first-mover advantage is important in gaining market share because building the infrastructure first makes it difficult for competitors to encroach on that area later on.

Moreover, AT&T is joining the ranks of cable companies racing to consolidate, and is buying DirecTV, the largest U.S. satellite-TV provider (Sherman). This is the second mega deal this year, valued at \$48.5 billion, even more expensive than the \$45.2 billion deal between Comcast and TWC (Nakashima). Richard Greenfield, a media analyst with the brokerage firm BTIG, said “the media chessboard is moving more this year than it has in the past decade. You’re seeing major shifts. Everyone is jockeying for position” (Merced and Gelles). The combination will allow AT&T to increase its subscriber base in Latin America and obtain DirecTV’s exclusive content such as the National Football League Sunday Ticket package. The merger is still subject to regulatory approval, but if regulators allow Comcast to buy TWC, then AT&T’s purchase of DirecTV will likely be approved as well (Sherman). AT&T-DirecTV would become the second largest pay-TV operator behind Comcast-Time Warner Cable, if both mergers were approved.

STREAMING VIDEO SERVICES

Streaming video providers are even more disruptive than telephone companies in this industry. Consumers are cutting their cable cords and signing up with companies like Netflix and Amazon that offer high quality content at cheaper prices (Ramachandran). Price reductions of high-speed cable connections and video recording and distribution equipment are allowing streaming sites to thrive. Cable companies and telephone companies lost 418,000 subscribers in the second quarter of 2013, many of who switched over to Netflix and Amazon for their entertainment needs (figure 6). Revenue from consumer video segment is stagnant or declining at cable companies. Although telephone companies are adding new subscribers, growth has slowed (Investor’s Business Daily).

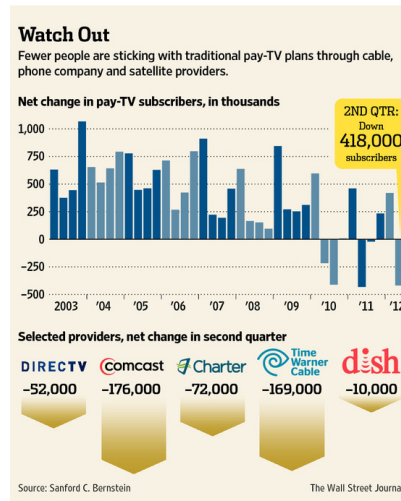


Figure 6. Subscriber Turnover (*The Wall Street Journal*)

What makes streaming services so successful that they are disrupting companies with established business models and successful operating history? The answer lies in that streaming services provide similar content as pay-TV providers² but cost less and are more convenient to use. For example, Netflix, the top player in the field, offers original programs and unlimited viewing of movies and TV shows for only \$7.99 per month, less than half the price at TWC. Although Netflix plans to increase monthly costs for new subscribers by \$1 - \$2 to pay for improvements in content, streaming speeds, and user interface, prices are still much lower than pay-TV providers' (Merced). Moreover, pay-TV providers' fees will likely rise faster as they upgrade networks, add new services, and cover rising cost of carrying local broadcast TV stations (Buffalo News). In addition, customers have the convenience of streaming content at anytime on their device of choice. Ironically, as cable and telephone companies build faster Internet connections, they are putting themselves at risk of losing in the video segment. Instead of buying a bundled package as pay-TV providers hope consumers would, they are only subscribing to the Internet service and streaming their videos online.

Netflix is the dominant player in the TV streaming business. The company began as a DVD-by-mail service, disrupted the DVD rental industry, brought about Blockbuster's demise, and now is upsetting the cable TV industry. Netflix has 33

² Cable companies and telephone companies are collectively called pay-TV providers

million domestic members and 11 million international users. In 2013, there was a 26% increase in the average number of paid memberships, far surpassing pay-TV's growth rates (Netflix 10-K). Internationally, the company experienced a 79% growth last year. Investors have rewarded Netflix handsomely; Netflix's stock price quadrupled in 2013, and was the best performer in the Standard & Poor's 500 and Nasdaq 100 (Russolillo).

Part of Netflix's success can be attributed to its focus on what customers care most about: content. When Netflix began as a DVD rental business, it entered into contracts with media companies for quality content. It has since amassed a large content library and partnered with various content providers. Netflix has teamed up with Marvel Television to bring stories of four of Marvel's most popular characters exclusively to Netflix in 2015 (Netflix Press Release). Moreover, starting in 2016, Netflix will be the sole U.S. subscription TV service for first-run, live-action, and animated movies from Walt Disney Studios (Netflix Press Release). Netflix also has a knack for transforming previously unsuccessful TV series into profitable endeavors. Netflix reasons that when a show gets cancelled, there is still a fan base, therefore an audience. This strategy has worked with shows such as *Arrested Development* and *The Killing* (Barr).

Besides building upon others' content, Netflix does original programming to create superior content and brand loyalty. Netflix is proving to be a multitalented company, skilled in the DVD-by-mail business, online streaming, and show production. CEO Reed Hastings said,

“Without that [original programming], you're merely licensing old shows from everyone else and it's very substitutable. When you finally get big enough to afford to do shows, like *Orange Is the New Black*, which everyone wants to see, you've got something that people talk about and identify with Netflix.” (Netflix Q3 2013 Earnings Transcript)

Orange is the New Black is a popular series released in July 2013. One TV guide critic praised, “Netflix finally achieved its eureka moment with a terrifically entertaining piece of original programming that's truly and bracingly original” (Roush). *House of*

Cards, Netflix's popular political thriller, has won three Emmys and a Golden Globe, the first time an original online-only web-TV won these coveted awards (Scottek). Netflix plans to develop original documentaries and stand-up comedies as well (Wallenstein). The company's recent success in original programming is striking fear among theater owners, movie studios, and other content providers.

Another player in the streaming video business is Amazon. Known as an online retailer, Amazon is making a name for itself in video streaming with Amazon Prime Instant Video. Instead of bundling TV with Internet and voice, Amazon is bundling its video service with its retail business. To watch Amazon Prime Instant Videos, one must be an Amazon Prime member. The membership includes free shipping, Prime Instant Video, and books to borrow and read for free on Kindles. The bundling strategy has positive spillover effects for other business segments. The video service could encourage customers to buy or rent the movies and shows that Amazon offers on an a la carte basis. Prime members can increase sales in the retail segment because members tend to buy from Amazon more frequently (Worden). Because there are more than 20 million Prime users, Amazon Prime Instant Video already has a large subscriber base (Amazon 10-K).

Taking note of Netflix's content strategy, Amazon is also working to get exclusive content licensing deals and creating original programs. In February 2014, Amazon announced a licensing agreement with MGM that will make Prime Instant Video the exclusive online-only subscription home for popular MTV shows and MGM films (Close-Up Media). Amazon has partnered with CBS to expand CBS and Showtime series. In addition, Amazon Prime is the sole subscription home for PBS' popular series *Downton Abbey* (Chaudhuri). These deals are critical for creating a rich content library, but licensing content from others comes with a hefty price tag of one billion a year.

The high cost of content and the desire to create brand loyalty have inspired Amazon to develop original content. The company utilizes crowdsourcing strategy to decide which shows to produce, thereby guaranteeing viewership. Since 2010, Amazon Studios has let aspiring screenwriters to upload scripts to its website. Amazon Studios selects which ones to make public to the Amazon community, and customers send in their feedback. Next, writers adjust the scripts based on feedback

(Shanghai Daily). Amazon Studios then develops TV show pilots for viewing and rating. Again, viewers are invited to provide feedback on the shows that they want to see turn into full series. The frequent audience input increases the chances for a hit. This was how *Alpha House* was created. The show is well-received by Amazon Prime members and is back for season two (Amazon Press Release).

Verizon has noticed the rising popularity of online video streaming and is attempting to enter this market with Redbox Instant, a relatively new service that began in March 2013 (Reed). Physical Redbox kiosks have been around for a while, and you may recall seeing one in your local grocery store. This is a DVD and video games rental service via automated retail kiosks. Verizon is migrating this DVD rental service online (Yu). Redbox Instant allows users to rent or buy DVDs on-demand and stream subscriber-only library hits on various devices. In addition, customers get monthly credits to any of its 35,000 Redbox kiosks. The key benefit of Redbox Instant is that it consolidates all video-viewing options – physical rentals, streaming, downloadable movies for purchase, and video-on-demand rentals without subscription – in one place. However, its library is smaller than competitors’ and missing popular content will turn customers away. Redbox has far to go before it gains the necessary traction to be a formidable rival to Netflix and Amazon.

FRIEND OR FOE?

Cable companies, telephone companies, and streaming providers are competitors. But sometimes, they collaborate to achieve their respective goals and create comprehensive service packages that enhance the user experience. The cross-boundary collaboration breaks down barriers that previously distinguished the competitors.

CABLE TV AND STREAMING TV

Cable companies view streaming services like Netflix as a way to attract and retain customers, promote their own on-demand offerings, and entice customers to opt for faster Internet packages. David Cohen, Comcast’s executive vice president, asserts, “the existence of those edge providers [Netflix] is exactly what enables us to

sell more broadband and make more money” (Sokolove). Furthermore, if a programming dispute arises, cable operators can direct users to Netflix’s vast content library. The partnership is beneficial for Netflix because its subscribers can continue to watch shows on a large screen TV instead of a laptop. Currently, customers who want to stream Netflix on their TVs need to buy a Internet TV, a game console with TV-input, or a web-TV box such as Google Chromecast, Apple TV or Roku³. Moreover, newer TVs blend Internet-based programming with traditional pay-TV, making collaboration between cable companies and streaming services the logical next step.

COMCAST AND NETFLIX

Since the beginning of this year, Netflix has begun paying Comcast to feed its videos directly to viewers at faster speeds. Depending on who the broadband providers are, customers have different streaming speeds. Before Netflix paid Comcast, Netflix streaming speeds on the Comcast network ranked only 13th on the list of major broadband providers. This is an issue because Comcast is the largest Internet service provider, yet watching Netflix on its network is relatively slow. Comcast was unwilling to let Netflix increase its speed without additional fees. Netflix CEO Reed Hastings accused Comcast of violating net-neutrality⁴. Despite Hastings’ reluctance, he acquiesced to paying Comcast and as a result, speed in February was up 11%, after months of decline (figure 7). This deal has set precedent for streaming services’ dealings with other Internet providers. Verizon and AT&T are working on similar pay-for-access agreements with Netflix because many of their users are also Netflix users (Goldman). Internet providers can exploit streaming services’ need for speed and charge higher fees.

³ Google Chromecast, Apple TV and Roku are digital media receivers that can play movies from sources like Netflix, television shows, YouTube, etc. on a TV from a computer over a network.

⁴ Net-neutrality states that Internet service providers should not favor one type of content over another.

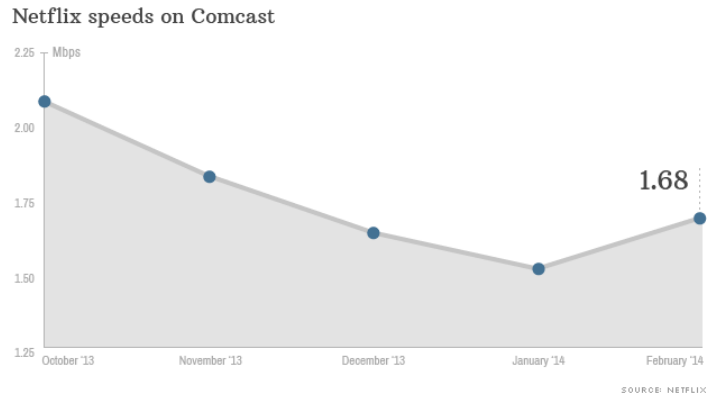


Figure 7. Comcast customers experienced faster Netflix streaming speeds after companies struck their deal (CNN Money)

TIME WARNER CABLE AND VERIZON WIRELESS

These two companies are working together to offer customers live TV and on-demand movies and shows on Verizon's 4G LTE phones with the TWC TV app. To watch TV on Verizon smartphones, TWC customers must upgrade their service. As a result, they will have their home phone, mobile phone, cable, and Internet services from the same provider. This creates a quadruple-play bundle, even more comprehensive than triple-play. TWC becomes a one-stop shop and increases customers' switching costs. Verizon benefits as well because it is able to sell more smartphones and expensive Internet plans.

AMAZON AND NETFLIX

Despite being competitors, Netflix uses Amazon's cloud for storage and content delivery. Since 2009, Netflix has relied on Amazon Web Services, and transitioned its entire infrastructure to the cloud in November 2012. Amazon, one of the biggest suppliers of cloud computing, hosts notable companies such as Instagram, Central Intelligence Agency, and Unilever (Huber). However, Amazon's cloud service is not always reliable. Netflix experienced outages in June and Christmas Day of 2012. Despite these failures, Netflix CEO Reed Hastings expressed he wanted Netflix to host 100% of its services on Amazon's cloud.

FORWARD LOOKING GUIDANCE

Because players in the field are currently providing similar services in a saturated market, they will need to find their niches. Certain players will come out ahead in the cable TV business, while others will find their specialties elsewhere. Based on my research, I believe that streaming TV services will become the dominant TV provider. Netflix and Amazon are popular because of their low cost and great content. Pay-TV providers are unlikely to beat them on price because as they are upgrading their infrastructure and they need to pass the cost onto customers. Instead, cable companies should focus on creating premium content and increasing Internet speeds. Cable companies have the financial means to create blockbuster movies and award-winning shows. Comcast's acquisition of NBC is reflective of this vision. Although streaming TV providers are creating original content, they have smaller budgets. According to a critic, Amazon's *Alpha House* looks like it is "TV with a TV budget" because using the lower cost equipment creates scenes that are not as realistic (Poniewozik). Additionally, cable companies should focus on developing faster Internet speeds, a promising area for growth. Comcast and TWC's merger "is, at its core, about broadband, the most profitable and fastest-growing segment of the cable industry" (O'Toole).

Another area cable companies should consider development in is the business segment. Services include website hosting, document sharing, and cloud network services. While the majority of cable companies' revenue is derived from the residential segment, growth is stagnant and the market is saturated. The need for global communication and greater connectivity will sustain growth in the business segment. Businesses have deeper-pockets and have greater need to spend money on telecommunications than consumers who use it for entertainment and personal use. Comcast experienced 26% growth in business services, while TWC experienced similar growth rate at 22% (Time Warner Cable 10-K). These rates far surpass the stagnant rates in video segments and should signal to cable companies to redouble their efforts in business services.

Telephone companies are also recognizing the potential of the business segment. AT&T is offering one year free U-verse Internet to small businesses in

numerous states in the Midwest and South (PR Newswire). AT&T CEO Randall Stephenson reveals,

"We are going to hit one million new business locations with fiber this year [2014]. IP broadband, our Ethernet deployments are going great. In fact, we have a category, Strategic Services and Business, we call it, and it's basically VPN, Ethernet, fiber-based solutions IP broadband" (Maisto).

AT&T's business segment revenue has been growing by over 17% yearly, and Stephenson hopes that business services will contribute to more than 30% of total revenues. This is an ambitious goal seeing how cable companies are also turning their attention towards the lucrative segment. Rivalry may soon switch from consumer video segment to business services.

Telephone companies should continue building fiber optic networks. Faster speeds make them likely candidates for partnerships because streaming TV providers want to utilize the fiber networks to enhance streaming speeds. AT&T's recent success in Austin indicates the potential for the entire country to be connected on fiber. This has important ramifications for the consumers and businesses because this could transform the way we receive our entertainment, do business online, interact on social media, and communicate.

CONCLUSION

The once-stable cable TV industry is facing competition from telephone and streaming TV providers. Consumers benefit from the competition because competition drives down prices and consumers have more choices. The video quality will be better due to fiber optics that companies are deploying. The two largest cable companies are Comcast and Time Warner Cable. Both are entering into telephone and Internet services to create the triple-play bundles. However, cable companies' traditional dominance is unseated by AT&T U-verse, Verizon FiOS, and streaming TV providers. In response to the heightened competition, Comcast and TWC are merging to create superior products on a better network. Not surprisingly, competitors and regulators have antitrust concerns and the deal

may not be approved until 2015 (Washington Post). Similar to the cable companies' triple-play packages, U-verse and FiOS offer the same services, but over faster fiber optic networks. Consumers are drawn to the fast Internet speed because it makes streaming videos and working over the Internet faster. Lastly, streaming providers such as Netflix or Amazon Instant Videos are the most threatening to cable companies. Consumers care about content and price, and Netflix, the leading streaming provider, excels in both aspects. Netflix offers a large collection of shows and movies at cheaper prices than pay-TV providers. Content is the lifeblood of Netflix's business, and contributes to its success. The company is reviving previously cancelled TV shows, getting exclusive content deals, and developing award-winning shows. Another streaming service provider is Amazon Instant Videos. Amazon bundles its video service with free shipping from the world's biggest online retailer. Like Netflix, Amazon is also developing original content to create brand recognition. Verizon, noting the rise of online streaming, has entered the field with Redbox Instant. The rise of online streaming has given Internet providers the upper hand in negotiating Internet deals. Telephone and cable companies are charging streaming sites higher fees for access to its Internet.

Despite intense rivalry, players are working together to realize their strategic goals and enhance the user experience. Cable companies and streaming TV providers are collaborating so that cable companies can entice customers to upgrade to faster Internet services in order to stream videos faster. For streaming TV providers, the partnership eliminates the customers' need to switch from one device to another, and instead customers can continue to enjoy videos their large-screen TVs. Companies are no longer satisfied capturing our attention in the living room, but everywhere we go through our smartphones. TWC and Verizon Wireless are partnering up to allow Verizon phone users to watch TWC content their phones. Amazon, whose TV streaming service competes with Netflix's, hosts Netflix's content on its cloud.

Based on my research, I predict that streaming TV providers will win in the cable TV industry because of its low prices. Cable companies should create quality content and focus on business services. Although Netflix and Amazon are expanding original content, their budgets pale in comparison to cable companies'.

Business services is growing faster than residential services, and cable companies should capture this growth and deliver the best products and services to these customers with higher purchasing power. Telephone companies should continue to build fiber optic networks to increase Internet speeds so they can be attractive partners for streaming video providers.

The drama unfolding in this business landscape is just as riveting as the best TV shows. The competition, collaboration, and consolidation make the industry dynamics interesting to observe. Consumers should stay tuned for more industry changes because new developments will not only transform the way consumers receive entertainment, but also have important ramifications for businesses, communication methods, and social media interactions.

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