Similarities and Differences in Over-The-Top Video Services Across Countries

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Abstract

The purpose of this paper is to compare and contrast over-the-top (OTT) services in North America, Europe, and Asia. OTT service generally refers to any video service delivered by a third-party streaming company that is not affiliated with a multichannel video programming distributor (MVPD) over broadband internet. Specifically, economic issues, such as the growth and content of these video services, will be evaluated. In addition, the effects of OTT services on the mainstream television industry will be discussed. The description of these services reveals major differences in subscription video on demand (SVOD) services and OTT mobile applications across countries, but usage across the board is increasing.

Keywords: over-the-top, cable, Internet, North America, Europe, Asia, economics, OTT

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Introduction

What is OTT? OTT is an acronym for 'Over The Top' service. In the United States, The Federal Communications Commission (FCC, 2014) defined OTT as linear video services that travel over the public internet and that cable operators do not treat as managed video services on any cable system (FCC, p32). OTT is on its way to become a major alternative to the mainstream multichannel video programming distributor (MVPD) services in the United States and abroad, specifically in North America, Europe, and Asia.

Most internet activities consist of sending messages, watching videos, and chatting using smart phones, tablets, or desktop computers. The internet turned the world into a global village that allows people to connect with each other simultaneously. OTT is one of the internet services that provides these enjoyable moments for billions of people every day. "Cord-cutting is accelerating this OTT trend faster than ever expected" (Lieberman, 2017). From Charts 1 and 2, we can observe that American cord-cutters totaled 22.2 million in 2017, a 33.2% increase from 16.7 million in 2016. Meanwhile, American cord-nevers (people who have never subscribed to a pay TV service) amounted to an estimated 34.4 million in 2017 and are expected to reach 41 million in 2021. However, given that the number of Netflix subscribers worldwide at the end of the third quarter in 2017 reached 109.25 million, we have to admit that decade has ushered the era of OTT (Netflix Media Center, 2016).

This research paper focuses on the overall performance of rising OTT services in the worldwide market, including in North American, European, and Asian countries. Also it will analyze and discuss differences and similarities among countries. Some countries have one or two popular OTT applications that have dominated the market while other countries are still waiting for development of OTT services. Specifically, this paper will examine how OTT has changed the way consumers watch TV, send messages, and communicate with other people from other countries. Information about the history and the content of these OTT services will also be covered.

This paper will consist of two main sections. First, it will describe the performance of OTT services in three regions across six countries: Canada and the United States in North America, the UK and France in Europe, and China, Japan in Asia. This section will cover the penetration of OTT services, as well as the introduction of various OTT applications that are predominant in each country. Lastly, this section also will include a brief description of the contents these services use to enlarge their target markets.

The second section of this report will discuss and summarize the differences and similarities across the selected countries. Are there similarities between what OTT services provided and how they compete with traditional services? How have OTT providers reacted to the competition from traditional state-run and private television systems? This section will end with some predictions about the future of OTT service.

Description

Simply put, OTT provides online videos from companies other than MVPDs. It is a service that requires individuals to choose what they want to watch instead of passively allowing the broadcast networks and cable to decide for them. It represents a way of how people are going to communicate in the future. Due largely to its cost, traditional cable and satellite television can no longer fulfill people’s requirements for leisure. In the same way, the traditional phone calls and texts are no longer the reasons people purchase an expensive phone for.

As Chart 3 shows, the penetration rate of OTT households in the United States has grown from 2.3% in 2010 to 9.3% until 2017. In 2017, the number of OTT households totaled 11.5 million, that is almost four times more than that in 2010 with 2.7 million. Kagan also predicted that the percentage of household OTT service would go above 10% in 2019 (see Chart 3). The shift from digital TV to smart TV can drive potential OTT services. Smart TV shipments are also expanding a growing pace. According to Chart 4, the shipments of smart TV worldwide reached 131.3 million in 2016. Kagan predicted that the number would grow up to 203.7 million in 2021 (Potter, 2017). By region, the Asia Pacific areas took the biggest share of the smart TV market in 2016. Among the 131.3 million worldwide smart TV shipments, the Asia Pacific areas received 50.4 million units and North America 33 million unites. North America had the highest percentage of digital TVs that were Smart TVs — 82% in 2016 (Chart 5). Watching SVOD, such as Netflix, HBO NOW, Hulu, Amazon Prime, has become a normal activity. These services have become part of people's ordinary lives. For instance, the number of Netflix subscribers worldwide has increased dramatically. According to Chart 6, from the third quarter in 2011 to the third quarter in 2017, Netflix gained 86.32 million subscribers. They now have 109.25 million subscribers worldwide, with 52.77 million from the United States. That is around 16% of Americans subscribe to Netflix in 2017.

Smartphones are everywhere. In July 2016, smartphone adoption surpassed 80% of all mobile phone owners in the world (Chart 7). In another words, 4 in 5 persons in the world possessed a smartphone. Mobile applications are one of the typical OTT service platforms. Originally, people use mobile phone to make phone calls and text messages. Nowadays, they use it for watching videos and sharing information. Some popular applications include Facebook, Instagram, Twitter, WeChat, YouTube, and so on. They all have millions of users. YouTube generated 1.5 billion monthly users, and the number of the active users on Instagram reached 800 million in 2017. (Matney, 2017)

North America

Canada. Canada, like the United States, has lots of similar television systems and services. The Canadian Radio-Television and Telecommunications Commission (CRTTC) stated that “The Commission considers that Internet access to programming independent of a facility or network dedicated to its delivery (via, for example, cable or satellite) is the defining feature of what have been termed “over-the-top” services”(CRTTC, 2011). “About 40% of Canadian households were using subscription OTT services, Netflix acscounting for the majority of users” (Powell, 2015). This is a statement made in 2015. However, in the first quarter of 2017, 69 % of Canadian households subscribed to OTT service. This growth is enormous. Canada is one of the most saturated pay TV markets in the world, with a pay TV penetration rate of 94% in 2010 (Zhao&Hizon, 2011).

In the fall of 2010, Netflix made its official launch of unlimited video-streaming service in Canada with a $7.99 fee per month. Reed Hastings, the CEO and co-founder of Netflix, set “the lowest, most aggressive price we’ve ever had anywhere in the world.” It marked the first time that Netflix launched the service outside the United States and the beginning of OTT service in Canada. Four years later, two Canadian-based online Subscription Video On Demand (SVOD) services — CraveTV and Shomi — were launched in 2014. CraveTV is owned by Bell Media, a media company that deals with broadcast networks in Canada. At first, CraveTV was only available to those consumers who already had a TV subscription with Bell, Bell Aliant Inc., Telus Corp., Eastlink, or Northwestel with a $4 a month subscription fee. Comparing to Netflix’s $7.99 a month, CraveTV’s offering was unconditionally more economic. However, those subscribers who already had a TV subscription with Bell needed to pay more than a $70 monthly bill to maintain the traditional TV channels. Thus, CraveTV did not attract a lot of attention when it came out. In January 2016, CraveTV was eventually made available to all internet-connected Canadians for a $7.99 subscription fee. Like CraveTV, Shomi was initially only available to the customers of Rogers Communications and Shaw Communications, and it was jointly owned by those two companies. In August 2015, Shomi was no longer exclusive provided by Rogers and Shaw and became available as a standalone OTT service to all Canadians. Despite the launch of domestic rival OTT services, Netflix still dominated the Canadian market with a 73% share. According to newest reports from Media Technology Monitor, Netflix's penetration rate in Canada was 53% by the middle of 2017. The number of Netflix subscribers in Canada totaled more than 5.2 million. In contrast, Shomi never officially released the number of subscribers, and instead stated that they had a customer base of around 900,000. As a matter of fact, Shomi became defunct in November 2016 after the launch in 2014. At the meantime when Shomi announced the shutdown, Bell stated that CraveTV surpassed one million subscribers in November 2016. Still, it is not surprising that, compared to Netflix's 5.2 million subscribers, CraveTV's demise was imminent. Amazon launched Prime Video at the end of 2016, as a part of the two-day shipping Prime service. Available for $99 a year now.

Other than video services, OTT mobile apps are aslo gradually taking control over the market. According to a 2015 eMarketers' estimate, three in five mobile phone internet users in Canada used OTT mobile apps for messaging on their mobile phones. eMarketers predicted that by 2019 there would be more than 20 million people in Canada who would use message apps(see Chart 8). Canadian company Kik Interactive launched Kik Messenger App in 2010. This company was founded by a group of students in the University of Waterloo in Canada. Kik Messenger (Kik) is a free instant messenger application that was built for teenagers compatible with iOS, Android, and Windows Phone System. People can use Wi-Fi or data plans to send messages on the internet. In 2016, Kik announced that it had around 300 million registered users worldwide from 20 million in 2012 (VentureBeat, 2016). However, the most popular message app in Canada is Facebook Messenger. According to the latest report, Facebook's WhatsApp is leading the market with 1.2 billion monthly active users and 633.5 million daily active users worldwide. Facebook Messenger has the same amount monthly active users, but only 513 million daily active users (see Chart 9). There were no data about Kik.

United States. The definition of OTT service in the United States is challenging. As a matter of fact, the FCC tried to include online video providers within the definition of MVPD (Syrkin, 2015). On December 19, 2014, the FCC (2014) officially released a Notice of Proposed Rule Making (“NPRM") in an effort to “modernize [their] interpretation of the term ‘multichannel video programming distributor’.” The Communications Act defines an MVPD as: “[A] person such as, but not limited to, a cable operator, a multichannel multipoint distribution service, a direct broadcast satellite service, or a television receive-only satellite program distributor, who makes available for purchase, by subscribers or customers, multiple channels of video programming.” OTT providers are not qualified as MVPDs. The term "channel" as used in the definition of MVPD appeared to include (and the FCC confirmed on multiple occasions) a physical "transmission path" as a necessary element, and OTT providers, such as Netflix or Amazon Prime, do not provide or control a transmission path (Syrkin, 2015).

SNL Kagan estimated that by 2020, the number of total OTT households in the U.S. would reach 15 million. In Chart 10, the trends of OTT service subscription never showed a decline. The percentage of total occupied households is expected to go up to 11.9% by 2020, from 2.3% in 2010. Meanwhile, enduring the pain that the OTT service brings, traditional cable service providers are now experiencing a huge loss of customers. From 2015 to 2016, the total non-multichannel TV households (including cord-cutters and cord-nevers) grew from 26.1 to 29.2 million (see Chart 11). Chart 12 shows the major reasons why people are cutting the cord. Price is the primary factor, followed by cheap alternative choice, streaming, and so on. The lowest monthly plan to obtain a cable setup box from DIRECTV is $40.In contrast, the premium (highest) monthly plan Netflix offers is at $13.99 per month.

Netflix was co-founded by Reed Hastings and Marc Randolph in 1997 to offer online movie rentals. In 2007, Netflix introduced streaming that allowed customers to watch video content on their personal computers. (Netflix, 2017). Every year, the number of U.S. subscribers has continued to grow unabated. As Statista showed in its latest report, the number of Netflix U.S. subscribers in the third quarter of 2017 reached 53 million. Other than Netflix, Amazon Prime and Hulu are also major players in the U.S. OTT market. Amazon first introduced Prime in 2005 to offer two-day shipping. In 2011 Amazon rebranded video on demand, and all the Prime members had access to it. By September 2017, Amazon has 90 million subscribers for Amazon Prime, which includes two-day shipping on products and other premium services for a $99 fee per year. Hulu is owned by Hulu LLC, which is a joint venture with The Walt Disney Company, 21st Century Fox, Comcast, and Time Warner. It launched in 2008 for a $7.99 monthly fee with limited commercials. In 2015 Hulu added a new option to customers who prefer ad-free content ($11.99 per month). In the United States, Netflix does not dominate the market, but it still leads the market.

Facebook, the American-based social media company, had 2 billion active monthly users by June 2017. In the United States, Facebook had nearly 203 million users (Statista, 2017). Facebook owns several subsidiaries: WhatsApp, Instagram, Facebook Messenger, Oculus VR, and Tbh (To be honest). WhatsApp was initially founded by two former employees of Yahoo in 2009, and then acquired by Facebook in 2014. It quickly attracted 20.5 million users in the United States. Facebook Chat was the former Facebook Messenger. It was separated from the main app in 2015. Apple’s own Message application contains an iMessage function that enabled people to send messages through iPhone and the internet at no cost. Those mentioned applications all provide free services and no cost to download. They are all compatible with iOS, Android, and Windows Phone.

Europe

United Kingdom. In Europe, OTT service is also showing its popularity. According to the Parks Associates Report, 33% of broadband homes subscribe to OTT video in the United Kingdom, and 55% of the UK broadband homes watched TV shows and films online by the end of 2015 (see Chart 13).

In the United Kingdom, Netflix, Amazon Prime Video and NowTV are leading the OTT market these years. The UK was one of the first countries in Europe to offer Netflix (BBC, 2012). “More than 5 million households, or 24% of the total, subscribed to Netflix at the end of 2015, compared with 14% in 2014” (Jackson,2016). There are about 1.6 million households subscribing to Amazon Prime Video in the United Kingdom, increasing from 300,000 in 2015, and fewer than 1 million signed up to Sky’s NowTV. In total, more than 6.5 million households are subscribing to OTT services.

Netflix offered service in the UK market in 2012 with the lowest £5.99 ($9.6) monthly bill. Amazon Prime Video acquired the Lovefilm, a UK-based company that provides SVOD and DVD rental services in the United Kingdom and Germany. In 2011, Amazon Prime then entered the United Kingdom in 2014. Compared to Netflix, it was a little too late. As shown in Chart 14, the market share of Netflix was 26% more than Amazon Prime Video in 2017. NowTV is owned by Sky UK limited, a UK telecommunication company, and was introduced during the same year as Netflix. NowTV provides various options. People can subscribe to the service online for video content or buy a set-up box that delivers channels and other video content. For SVOD options, users can pick or select combinations from four passes: NowTV Sky Cinema Pass, Now TV Entertainment Pass (Effective 2017), Now TV Sky Sports Month Pass, and NowTV Kids Pass. The price for each pass is different, and users can combine them in their own ways. The Sports Pass is the most expensive one out of those four—£33.99. In contrast, Kids Pass is the cheapest option with £2.99 monthly fee.

Both Skype and Viber are European-based message apps. Skype was founded in 2003 while Viber was founded in 2010 with an initial iOS version at first. Skype has free and paid services. Viber only provides free service. However, in the United Kingdom, WhatsApp is the most popular message app according to Statista: 50% of surveyed people in the United Kingdom chose WhatsApp and 42% selected Facebook Messenger. Skype and Viber only took 19% and 10% respectively (see Chart 15).

France. Unlike the previous four countries, France OTT service has faced some regulatory obstacles. According to Kagan, “the French government signed a new law in September this year (2017) under which international streaming services that operate in France have to pay a 2% revenue tax to the Centre National du Cinéma et de l'Image Animée (CNC) that will be used to finance original French programming”. *eMarketer* stated that “the average time consumers spent with traditional TV content each day in 2015 was very similar to time spent in 2014”. In other words, the OTT service did not bring too much change to France’s television market. A 36-month window between film theatrical release and SVOD debut has slowed down the growth of SVOD services in France (Chandakas, 2017).

Netflix debuted in France in 2014; the cheapest plan started at €7.99 ($8.86). France, Austria, Belgium, Germany, Luxembourg, and Switzerland were in the next group of countries of Netflix’s second phase of European expansion. As shown in Chart 16, there were 0.98 million subscribers in the first half of 2016 and the subscribers reached more than 1.5 million in 2017. Netflix gained more than half a million subscribers just in one year in France. Chart 17 shows that Netflix maintained its top position in the French OTT market and generated 38% more than the second place SVOD provider, CanalPlay. Netflix’s rival in France. CanalPlay is owned by French media company Vivendi SA and introduced its SVOD service in 2011 at €9.99 per month. Unlike Netflix, CanalPlay lost 10% subscribers from 2016 to 2017. Chart 16 also shows that Canal Play’s subscription level peaked in 2016 with

600,000 subscribers and has been decreasing ever since. However, CanalPlay still holds 21% of the SVOD market share. SNL Kagan assumed that "The decline in Canalplay's subscriber base can be partly attributed to the growth of Netflix and the launch of Zive by SFR in late 2015".

In France, Facebook Messenger dominated the OTT message application. Statista estimated that Facebook subscribers in France would reach 31.23 million in 2017 (see Chart 18). This number represents about half the population of the country.

Asia

People's Republic of China. China is definitely one of the biggest market in the world that no investor wants to miss. China has the largest population in the world that subscribes to pay TV. According to SNL Kagan, 321.6 million people in China subscribe to pay TV which translated into a 31.8% share of the global market and a 54.2% share of the Asian pay TV market in 2016. In other words, China is the world's largest broadband and pay TV market. However, compared to that in western countries, the definition of OTT in China seems vague. According to MBAlib, the website of a Chinese Business Research Company, "OTT means a service provided through the Internet to users with a variety of application services in a manageable and controllable model that emphasizes content regulation. This kind of application is different from the communication service provided by the current operator, which only utilizes the operator's network, and the service is provided by a third party other than the operator (MBAlib)." Unfortunately, due to the large population, the complex market and the restrictive government, official data about the specific penetration rate of OTT services in China are unavailable. Statista estimated the penetration rate of OTT service in China in the first quarter of 2017 was about 13%. However, China still leads the OTT market in Asia. Rethink Research Technology predicted that China would make up 60%

of SVOD revenue by 2021in the world, and the number of OTT services subscribers would reach 77.2 million.

License is a significant requirement for internet service providers in China. In 2017, Netflix was available in more than 190 countries around the world excluding China and regions subject to U.S. sanctions (Crimea, North Korea and Syria). Under the regulation of State Administration of Press, Publication, Radio, Film and Television of The People's Republic of China (SAPPRFT), Internet licenses are only provided to local companies. It is the reason why Netflix lost nearly a quarter of the world's broadband households. China has a conservative regulator system that limits what can be seen on the Internet. All the movies, programs and videos must be reviewed by the SAPPRFT before being released to the public. No foreign-based SVOD company could operate in China. The Chinese market was dominated by China-based companies, such as Youku, iQiyi, LeTV, and Tencent Video. Those companies are mainstream online video services and initially offered free movies, dramas and shows. According to Sohu, a Chinese internet media company based in Beijing, the number of people who pay for online video websites will surpass 100 million in 2017 (Ying Da Ren, 2017). Sohu's latest reports showed that Youku has more than 30 million members, iQiyi has more than 20 million members, LeTV has more than 20 million members, and Tencent Video has more than 43 million members. There is no single leader in the current market.

Statista showed that out of 1.39 billion mobile phone users in China, 56% of them use smart phones (Statista, 2017). In addition to owning Tencent Video, Tencent owns the largest standalone instant messaging app—WeChat. Tencent is the world's biggest investment corporation and one of the largest Internet and technology companies in the world (GBTimes Beijing, 2017). Launched in 2011, WeChat has more than 1 billion monthly active users they are largely Chinese. QQ, an instant message app and platform owned by Tencent, also has more than 877 million monthly active users. Tencent Company has monopolized the OTT message apps in China.

Japan. With regard to total revenue and paid subscribers, Japan is one of the leading SVOD markets in Asia. The penetration rate of OTT households in Japan is not as considerable as OTT revenue. The main reason is that the level of Digital Terrestrial Television (DTT) is pretty high in the Asia-Pacific area, especially Japan. In fact, the penetration rate of DTT is largely driven by free-to-air (FTA). Japanese broadcast networks generally provide free content (Adkins, 2017). Chart 19 shows that the FTA DTT has a penetration of 98% in Japan, whereas the penetration of FTA DTT of Asia summary is only at 18%. It is Indeed a big problem that OTT providers need to solve.

“The launch in Japan marks Netflix's first foray into Asia” (Kharpal, 2015) Netflix Japan started providing SVOD service in September 2015 with monthly plans started at ¥650 ($5.41). At the same time, Netflix Japan announced a partnership with SoftBank Group, a leading mobile provider and the third largest company in Japan, to facilitate the sign-up process and payments for Japanese users (Netflix, 2015). Nevertheless, the service has been grown slowly. SNL Kagan stated that by the end of first half of 2017, Netflix had an estimated 760,000 paid subscribers. Comparing to Netflix, Amazon Prime Video and Hulu perform better in the Japanese market. Amazon Prime Video also launched in 2015 as an addition to Prime membership, which has been available since 2007. Kagan estimated that by the ending of first half of 2017, Amazon Prime Video subscribers would reach 2.07 million. On the other hand, Hulu Japan began in 2011 and three years later was acquired by Nippon Television Network Corporation (Variety, 2014). Kagan also stated that Hulu had 1.56 million subscribers by the end of first half of 2017. However, the biggest competitor in Japan against Netflix, Amazon, Hulu is a local OTT service provider — dTV, and it has 4.4 million subscribers by the end of 2016. dTV is a joint venture between a telecommunication company —NTT DOCOMO Inc, and a media company — Avex Group Holdings Inc. dTV originally launched in 2011 as d-Video and only provided to NTT DOCOMO mobile users, but was rebranded in 2015 as dTV that offers as OTT service to all internet users. dTV has relied heavily on its NTT DOCOMO mobile user base to attract subscribers (Adkins, 2017).

Line Message app is famous for its peculiar gifs. It was created by Line corporation, a Japanese subsidiary of the South Korean biggest internet company NAVER Corp. Based in Tokyo, it started in 2011. Line gained 100 million subscribers within eight months and have more than 218 million users worldwide in 2017. It is the most popular instant message app in Japan (Sevitt, 2017). Chart 20 shows that among all the mobile phone users in Japan, 92.8% used Line Message. Line undoubtedly monopolized the Japanese instant message app market.

Discussion

Overall, OTT service is growing worldwide and performing better every year. It alters the traditional ways to watch movies, dramas, shows, and videos. This service is still in the development phase in many markets. In North America, the OTT service basically reached more than half of the population via the broadband households. Netflix is the leading OTT service with its high penetration and market coverage. Netflix now is hitting saturation and maturation in the United States. While Amazon Prime Video is also trying to catch up Netflix in SVOD service and gaining the market by taking advantage of its dominating online retail position. Canada also has millions of Netflix subscribers, and many of the Canadians even subscribed to two versions of Netflix (Canada Netflix and U.S. Netflix) whereas local OTT service provider CraveTV is left behind with only more than a million subscribers. Broadly, the North American market now seems hard for new providers to penetrate, but there is possibility of entry through acquisitions.

Meanwhile, on the other side of the Atlantic, the European market struggles with local OTT service providers and the competitors from America. The United Kingdom has a welldeveloped market for OTT service in contrast to other European countries. As the leader of Netflix’s expansion in Europe, the United Kingdom offers many new services and OTT technologies. The UK government also does not have many restrictions toward the development of foreign-based companies. France, the other European country, being imposed some content limitations on SVOD providers. This regulatory frame work a 36-month window before a new released film is available on the SVOD services and extra taxes on foreign OTT companies. The rules have slowed down the growth of OTT in France.

In Asia, OTT providers probably faced the most challenging problems. None of the big three SVOD providers — Netflix, Amazon Prime Video, Hulu — is available in mainland China. None of the foreign-based video services providers or message services can entered the Chinese market. In other words, China almost closed the gate to every internet service providers from abroad and there is no sign this situation will change anytime soon. There is a special license that OTT providers must obtain before launching their services on Chinese websites. Nevertheless, those licenses are originally written for Chinese companies. Netflix stated that they are still waiting for a chance to enter this huge market. Meanwhile Chinese SVOD companies, such as Youku and iQiyi, are doing well with millions of active members. Those video companies also offer other services besides providing SVOD and VOD to their users. As the first country in Asia to provide Netflix to all the internet users two years ago, Japan is a tantalizing target. Unfortunately, the local OTT service dTV basically took up half of the market.

Some people assumed that China would lead the OTT market in Asia in the future. Revenue is expected to go up to $10 billion by 2021. In fact, the subscription fee of Youku is only at ¥15 ($2.27) a month, and the company recently offered a SVOD for TV which costs ¥33 ($4.99) monthly. In the meantime, they still relied on advertising for profits since most of the videos are free to all users and have sponsors. It is hard to tell how they could make a huge profit out of each subscription, but those plans are priced at a very low rate. In the same vein, most of the television channels in Japan are provided to people for free. Thus, it is hard for companies like Netflix and Hulu to attract audience’s attention based only on the content they provide. Asia is a difficult and complex continent but also represents a significant chapter of growth and development. Hopefully, in the future, there will be a regulation that can be followed and a healthy system for companies to grow in Asia, especially in China.

Disney just dropped all the contents on Netflix in 2017, and is trying to build a streaming service on their own. For Netflix, this was an unexpected news. For the audience, it is a choice needed to make since they have to purchase another service if they want to watch the Disney films. Probably in a few years, there is a company that could acquire all those providers, or Apple is going to make some big steps that could affect them. Europe may follow the process that Americans achieved now with a higher penetration of the OTT service in a few years.

Undoubtedly, the 21st century is the era of OTT. No matter the country viewers want to make their own choices when it comes to selecting the programs they want to watch and they want to have freedom to watch them on any platform at any time. Frankly, the main goal of all OTT services is to try to get as many subscribers as possible. What makes it different between countries is how this emerging industry is influenced by the government, the industry, and audience. The current situation raises some key questions: How will other markets fare in comparison to the markets reviewed in this study? What will be the next step for Netflix? In the future, will there be any alternative options that can compete with OTT? Will local OTT providers be able to compete with such OTT giants as Netflix? Those questions are worth thinking about.

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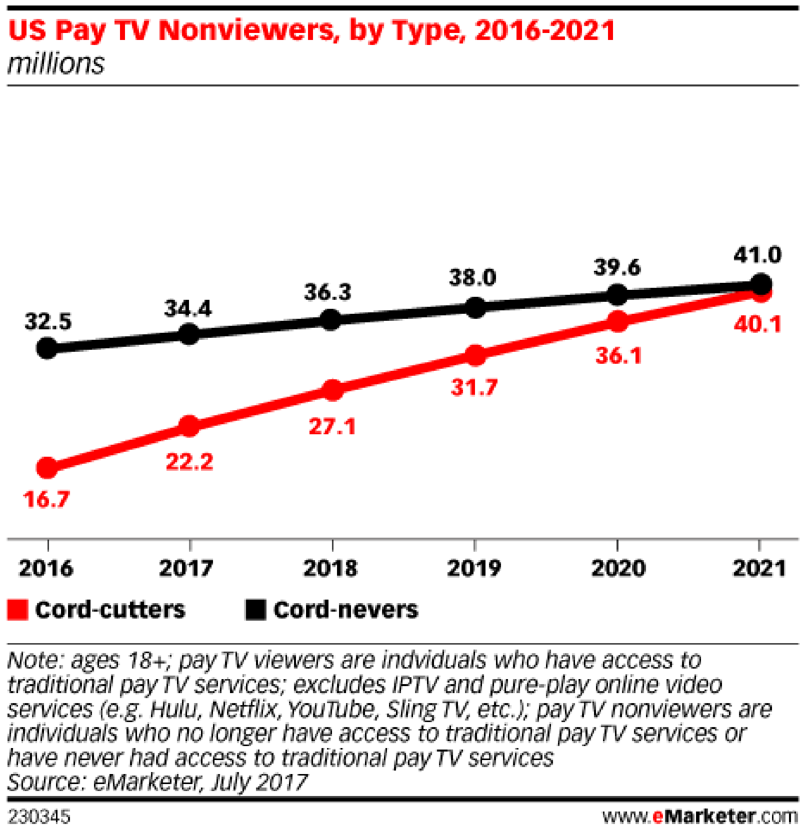
Chart

Chart 1



US Pay TV Nonviewers, by Type, 2016-2021

Source: “US Pay TV Nonviewers, by Type, 2016-2021 (millions).” eMarketer (2017).

Chart 2

US Adult Pay TV and Non-Pay TV Viewers, by Type, 2016-2021

millions and % change

	2016	2017	2018	2019	2020	2021
Pay TV viewers	**201.1**	**196.3**	**192.0**	**188.3**	**184.7**	**181.7**
Pay TV viewer growth	**-1.6%**	**-2.4%**	**-2.1%**	**-2.0%**	**-1.9%**	**-1.6%**
Non-pay TV viewers	**49.2**	**56.6**	**63.4**	**69.7**	**75.7**	**81.0**
—Cord-nevers	32.5	34.4	36.3	38.0	39.6	41.0
—Cord-cutters	16.7	22.2	27.1	31.7	36.1	40.1
Non-pay TV viewer growth	**13.7%**	**15.1%**	**12.1%**	**9.9%**	**8.5%**	**7.1%**
—Cord-nevers	6.7%	5.8%	5.6%	4.7%	4.2%	3.6%
—Cord-cutters	30.2%	33.2%	22.0%	17.0%	13.7%	11.0%

Note: ages 18+; pay TV viewers are individuals who have access to traditional pay TV services; excludes IPTV and pure-play online video services (e.g., Hulu, Netflix, YouTube, Sling TV, etc.); non-pay TV viewers are individuals who no longer have access to traditional pay TV services or have never had access to traditional pay TV services
Source: eMarketer, July 2017

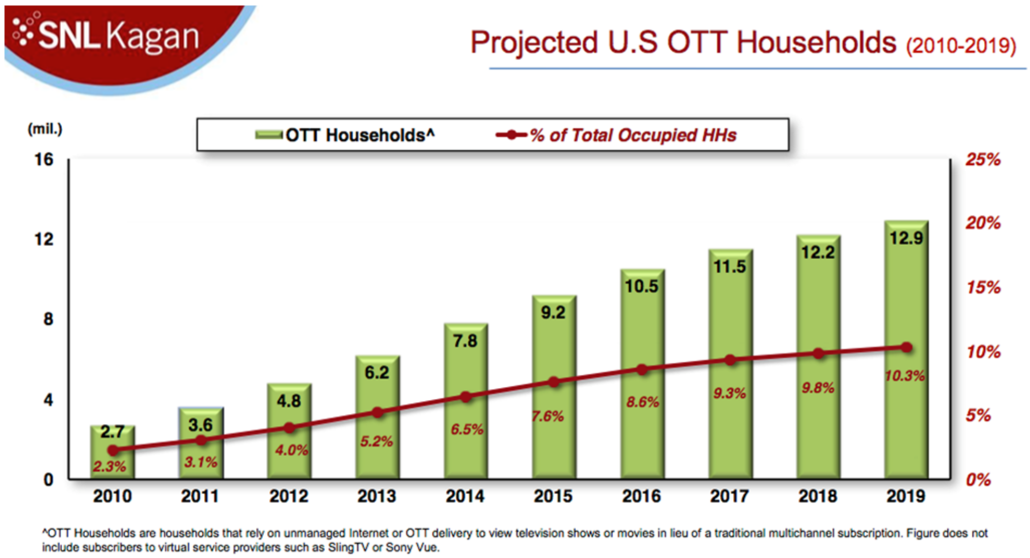
228923 www.eMarketer.com

US Adult Pay TV and Non-Pay TV Viewers, by Type, 2016--2022

Source: “US Adult pay TV and Non-pay TV Viewers, by Type, 2016—2022.” eMarketer (2017).

Chart 3

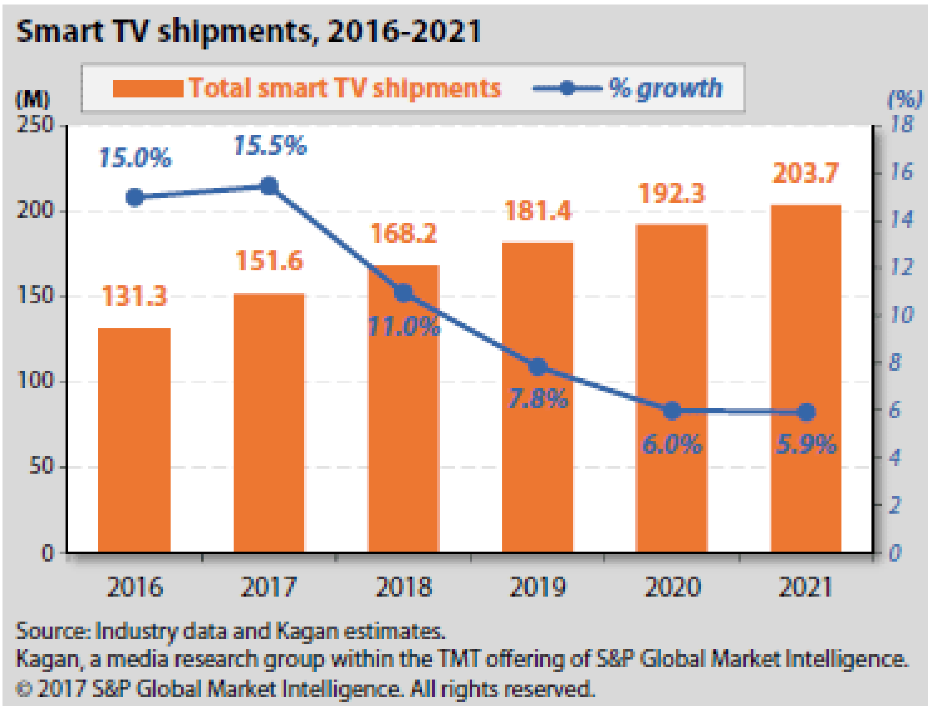
Projected U.S OTT Households (2010-2019)



Source: “One in ten of all US homes to take OTT in 2019.” DigitalTV (2016)

Chart 4

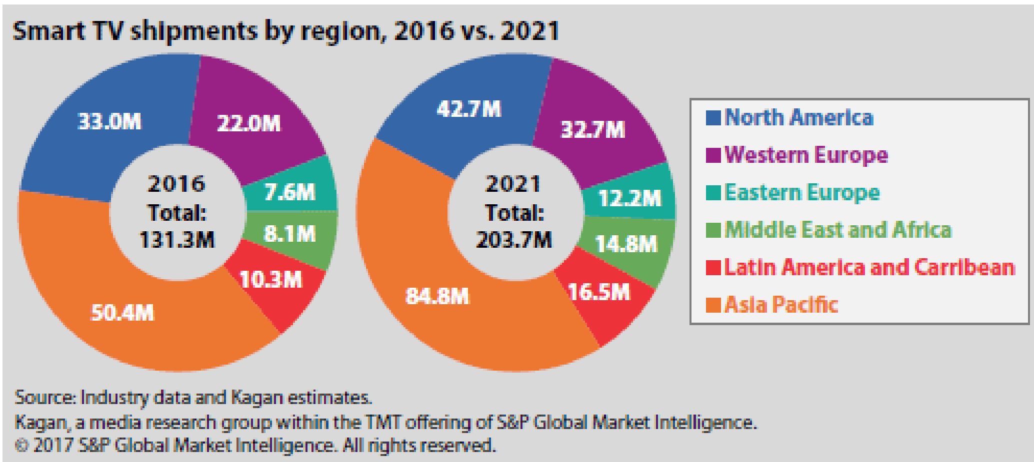
Smart TV shipments, 2016-2021



Source: Potter (2017).

Chart 5

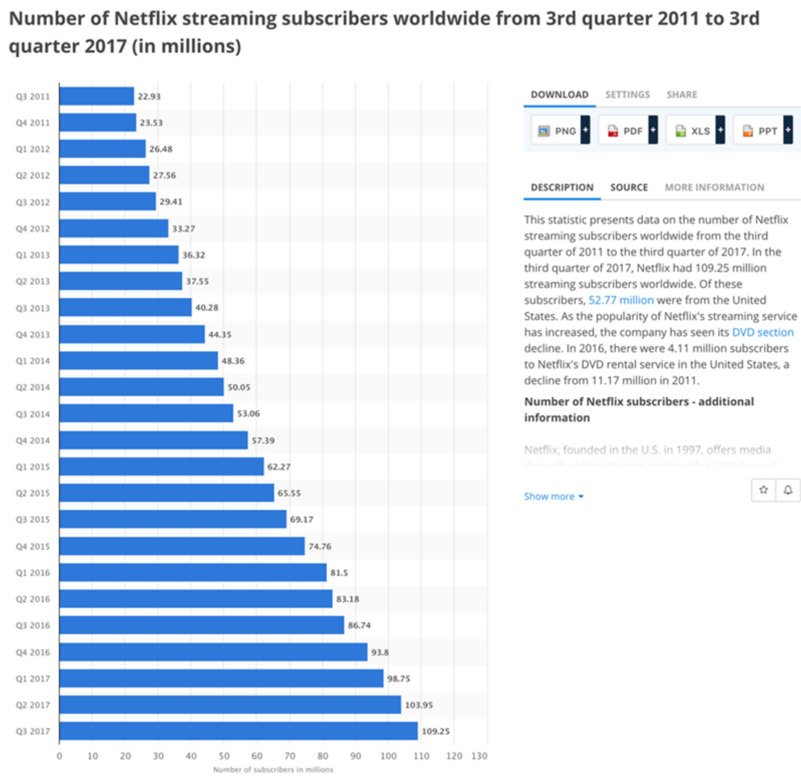
Smart TV shipments by region, 2016 vs. 2021.



Source: Potter (2017).

Chart 6

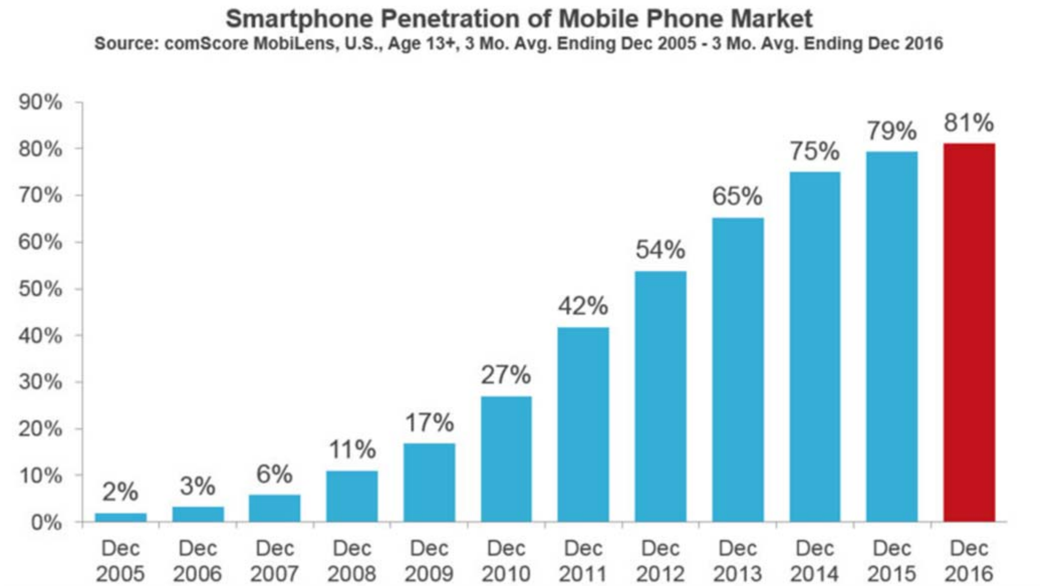
Number of Netflix streaming subscribers worldwide from 3rd quarter 2011 to 3rd quarter 2017 (in millions)



Source: “Number of Netflix streaming subscribers in the United States from 3rd quarter 2011 to 3rd quarter 2017 (in millions)”.

Chart 7

Smartphone Penetration of Mobile Phone Market.



Source: Lella (2017).

Chart 8

Mobile Phone Messaging App Users and Penetration in Canada, 2014—2019.

Mobile Phone Messaging App Users and Penetration in Canada, 2014-2019

	2014	2015	2016	2017	2018	2019
Mobile phone messaging app users (millions)	**9.4**	**13.4**	**15.2**	**17.3**	**19.1**	**20.7**
—% change	30.1%	42.9%	13.7%	13.6%	10.9%	8.1%
—% of mobile phone internet users	49.2%	62.7%	66.0%	71.2%	76.5%	80.6%
—% of mobile phone users	33.8%	46.6%	52.1%	58.0%	63.5%	67.7%
—% of population	26.3%	37.2%	42.0%	47.2%	51.9%	55.5%

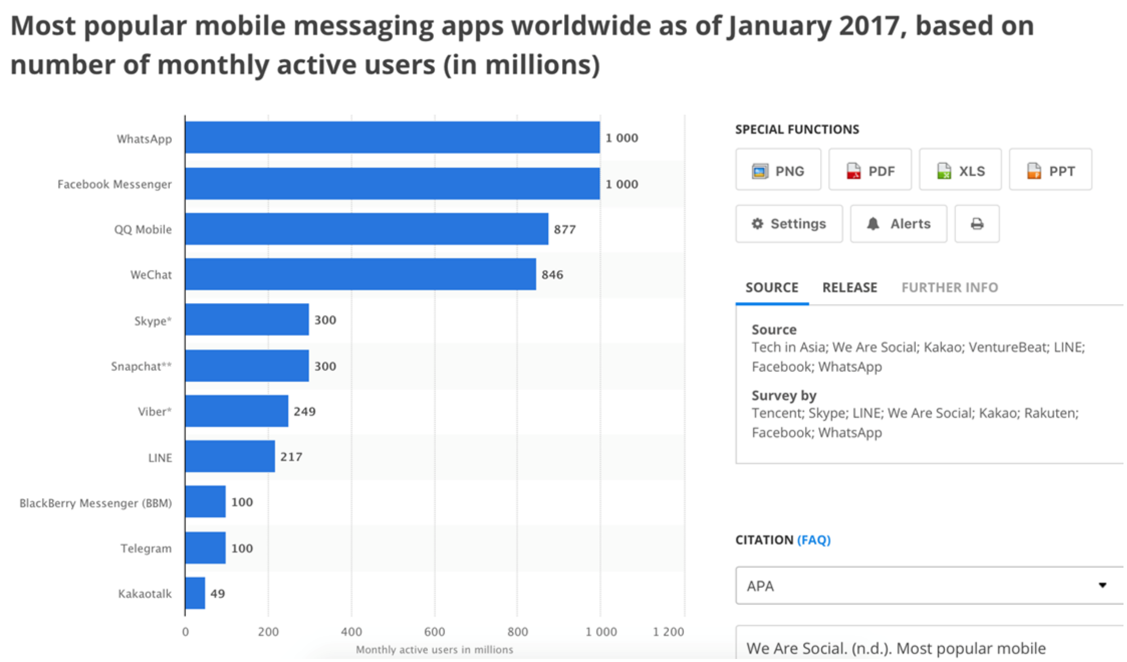
Note: mobile phone users of any age who use an over-the-top (OTT) messaging app via mobile phone (browser or app) at least once per month
Source: eMarketer, Nov 2015

199653 www.eMarketer.com

Source: “Most Mobile Internet Users in Canada Use Messaging Apps.” (2015)

Chart 9.

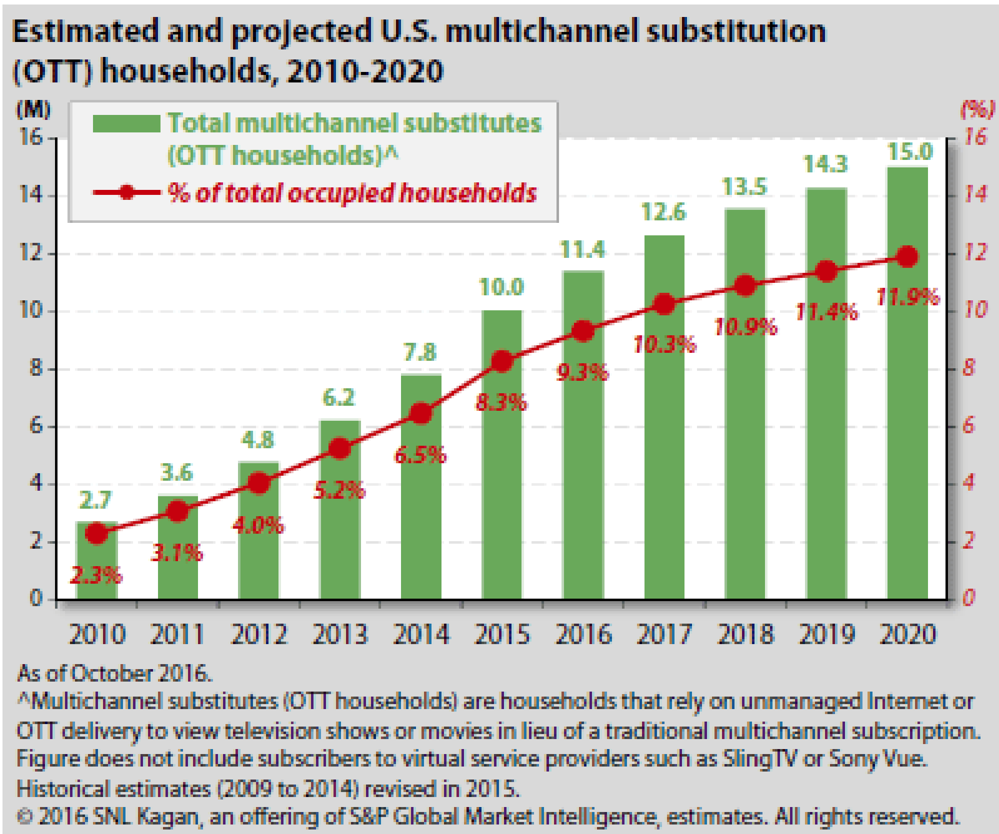
Most popular mobile messaging apps worldwide as of January 2017. Based on number of monthly active users (in million).



Source: *"Most popular mobile messaging apps worldwide as of January 2017. Based on number of monthly active users (in million).".*

Chart 10.

Estimated and projected U.S, multichannel substitution (OTT) households, 2010—2020.



Source: Olgeirson (2016).

Chart 11.

Video cord cutter / never household estimates.

Video cord cutter/never household estimates

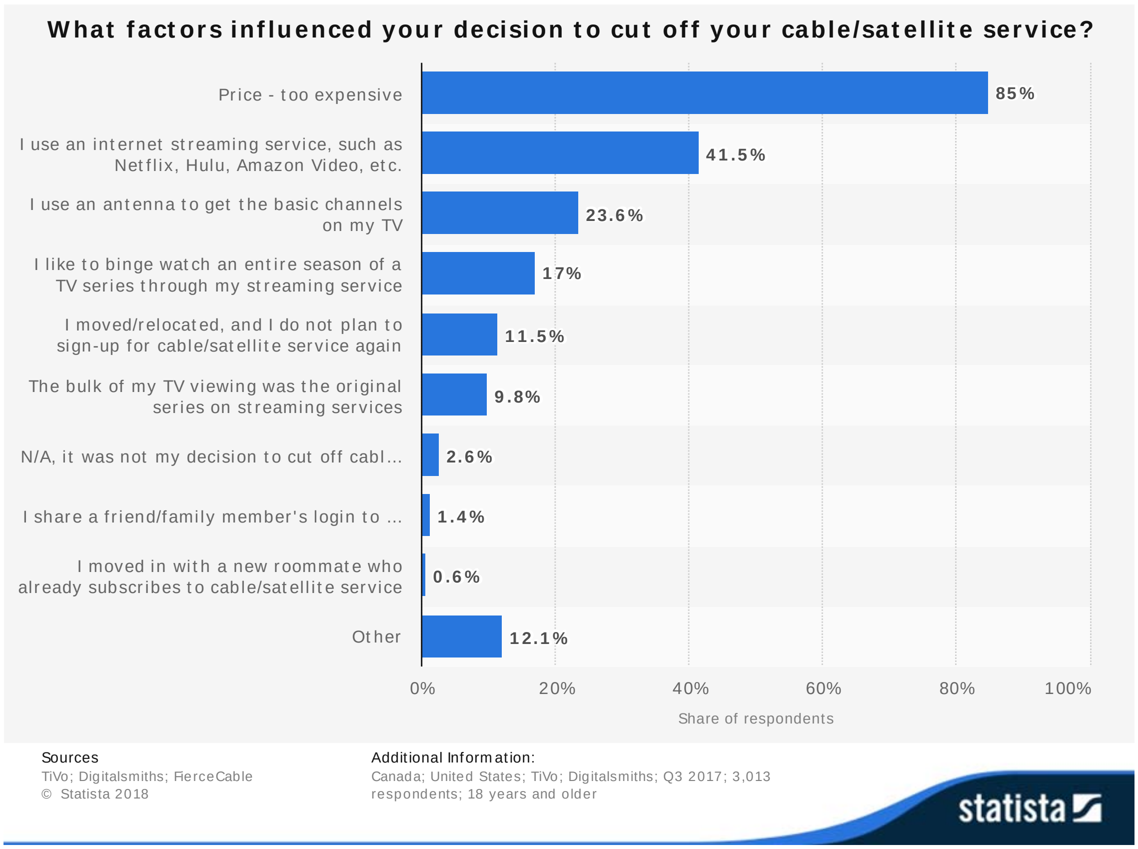
	YE 2015	YE 2016
	----- (M) -----	
Total video cord cutter HHs	12.8	13.9
Total video cord never HHs	13.3	15.3
Total non-multichannel TV HHs	26.1	29.2

Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, estimates.

Source: Nissen (2017).

Chart 12

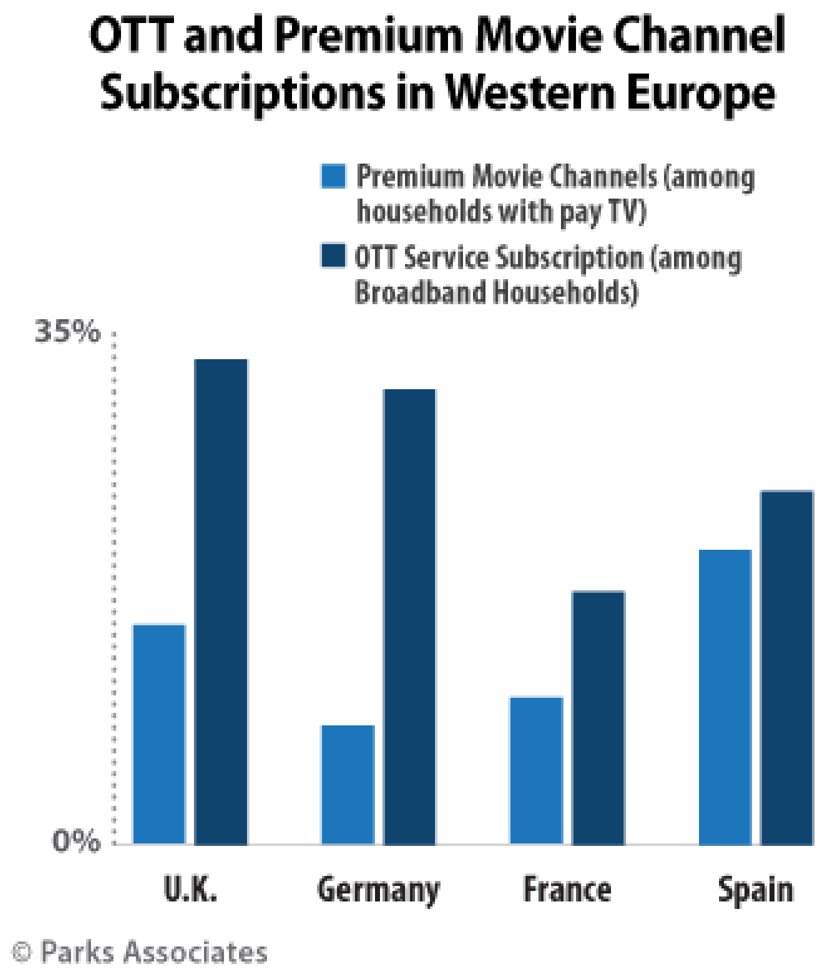
What factors influenced your decision to cut off your cable/satellite service?



Source: Fierce Cable.

Chart 13.

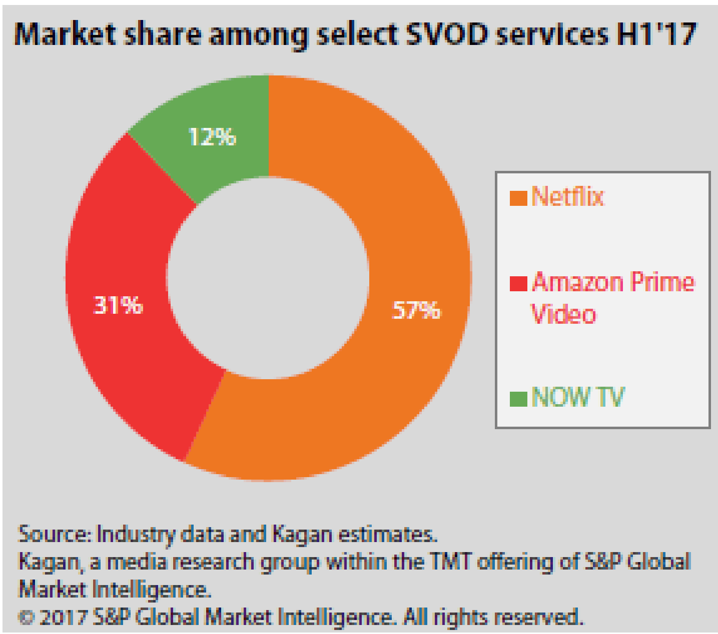
OTT and Premium Movie Channel Subscriptions in Western Europe



Source: “One-third of U.K. broadband households have an OTT video service subscription.” Parks Associates (2016).

Chart 14.

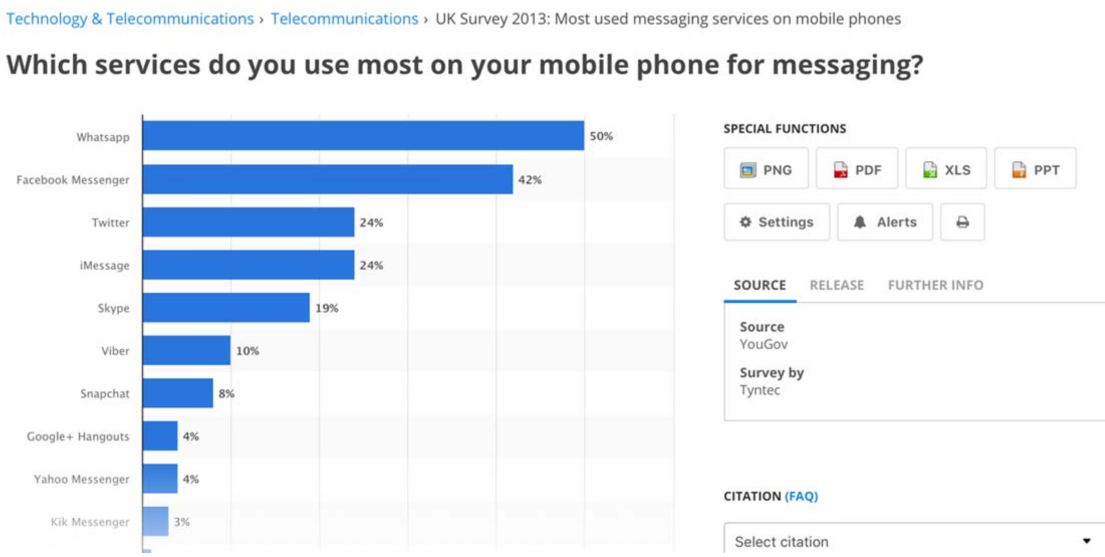
Market share among select SVOD services H1'17



Source: Chandakas (2017).

Chart 15.

Which services do you use most on your mobile phone for messaging?



Source: “Which services do you use most on your mobile phone for messaging?”. YouGov (2013)

Chart 16.

France select subscription OTT estimated paying subscribers.

France select subscription OTT estimated paying subscribers

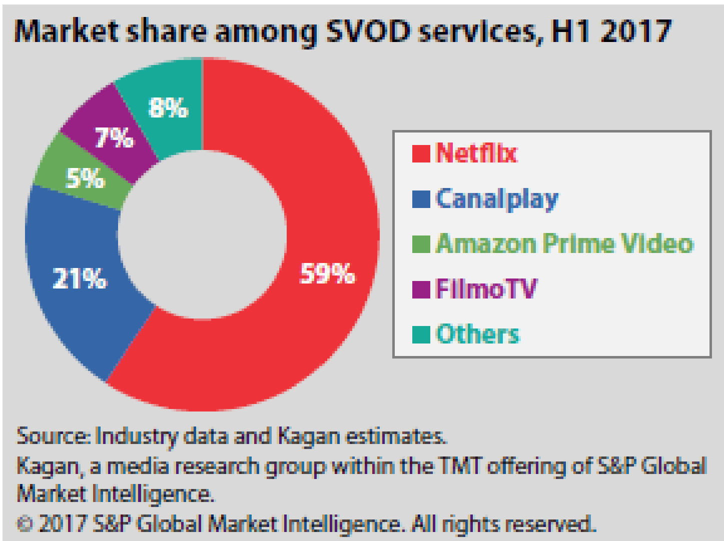
	Launch date	YE 2015	H1 2016	YE 2016	H1 2017	H1'16 -H1'17 growth
		----------(M)----------				(%)
Netflix	Sept. '14	0.93	0.98	1.25	1.55	58
Canalplay	Oct. '11	0.59	0.60	0.56	0.54	(10)
Amazon Prime Video	Dec. '16	-	-	0.05	0.14	-
FilmoTV	Oct. '08	-	-	0.15	0.17	-

Source: Industry data and Kagan estimates.
Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

Source: Chandakas (2017).

Chart 17.

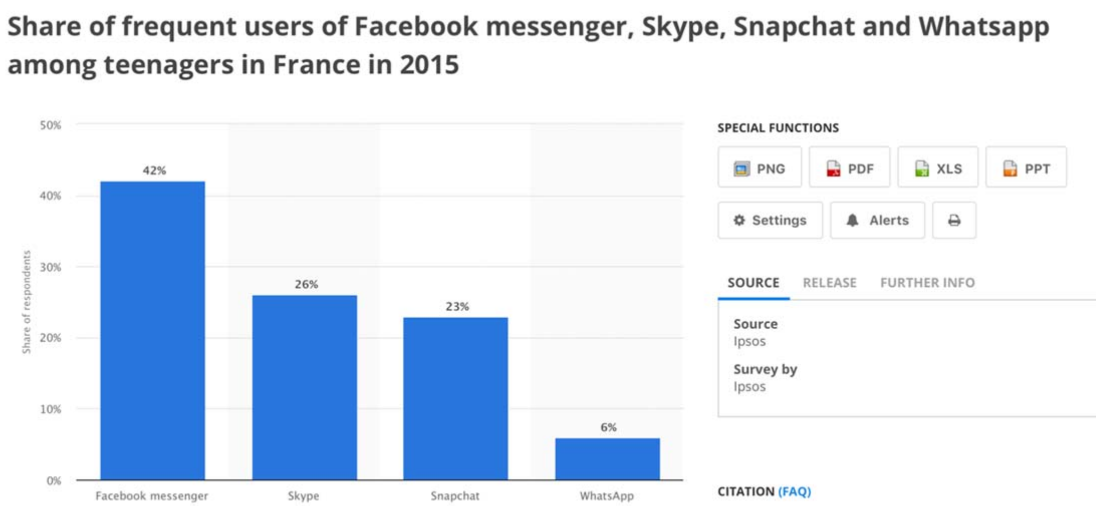
Market share among SVOD services, H1 2017



Source: Chandakas (2017).

Chart 18

Share of frequent users of Facebook messenger, Skype, Snapchat and Whatsapp among teenagers in France in 2015



Source: "Share of frequent users of Facebook messenger, Skype, Snapchat and Whatsapp among teenagers in France in 2015"

Chart 19.

2017 multichannel, digital terrestrial television and free-to-air digital terrestrial television penetration of occupied household.

2017 multichannel, digital terrestrial television and free-to-air digital terrestrial television penetration of occupied household

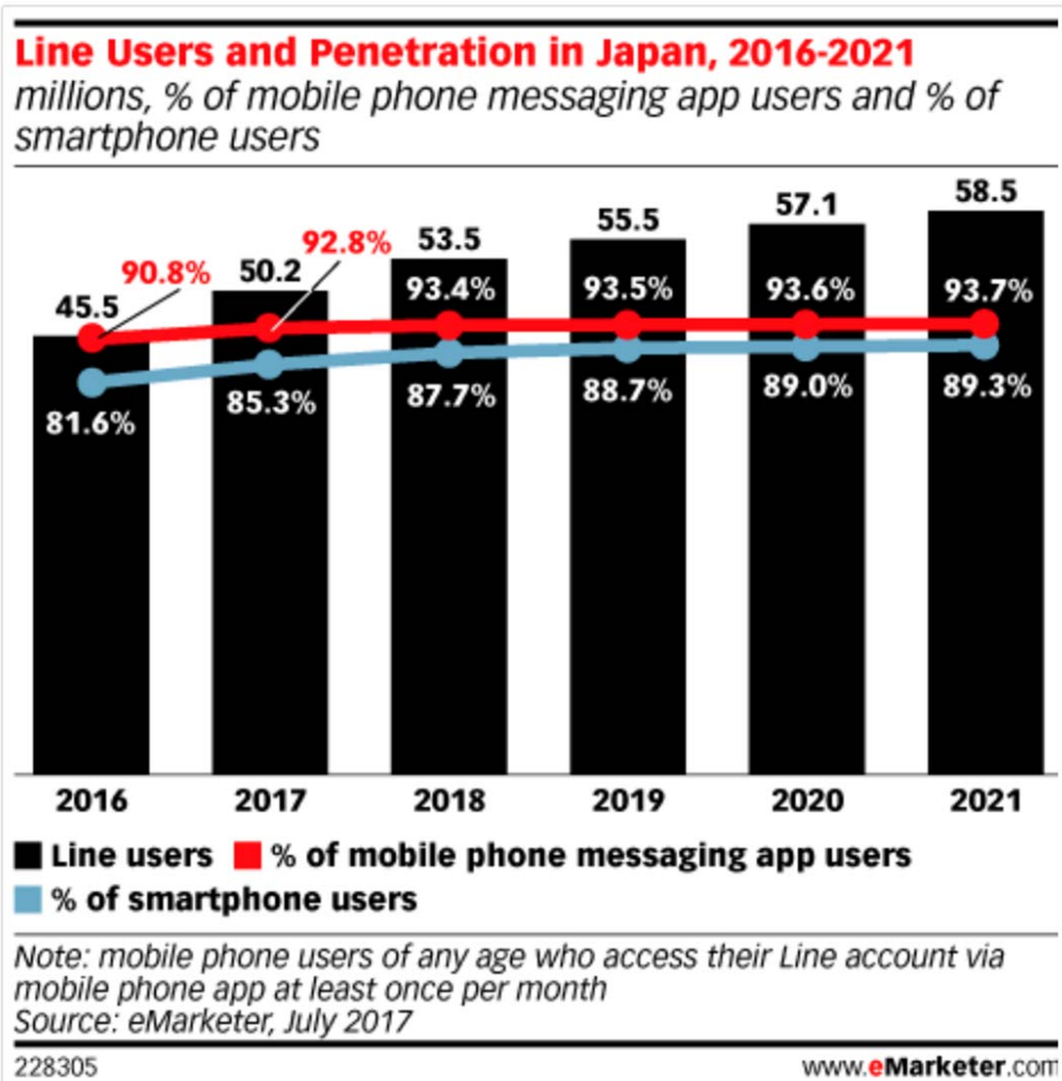
	MC	DTT	FTA DTT
	----------------(%)----------------		
Japan	30	98	98
Asia Summary	58	18	18

Source: Industry data and Kagan estimates.
Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

Source: Adkins (2017).

Chart 20

Line Users and Penetration in Japan, 2016-2021.



Source: “Line Users and Penetration in Japan, 2016-2021 (millions, % of mobile phone messaging app users and % of smartphone users).” eMarketer (2017).