

**Entertainment
Services: *The future
is mobile***

White Paper
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Entertainment Services: ***The future is mobile***

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Executive Summary

It is no exaggeration to say that the future of entertainment is mobile and that the future of mobile depends on reliable networks that are able to deliver more capacity. As more and more people watch video on their mobile devices (tablets and laptops as well as smartphones), so the strains on the mobile infrastructure continue to mount. For the mobile industry, this is a never-ending challenge.

But this challenge is one that, to date, the industry has met. Mobile video is now more than half of all mobile data consumed in the U.S. And more people are not just downloading video to mobile devices, but streaming content directly. In fact, 60 percent of those that stream video told *iGR* in a recent survey that they watch streaming video at least once per day.

In addition to watching video 'on-the-go', people are also using what is known as LTE to consume entertainment at home. While this may seem paradoxical when over 90 percent of homes have Wi-Fi, in the many cases where the Wi-Fi is congested, consumers turn to LTE. In fact, up to 19 percent of U.S. consumers who choose to use their mobile data network, even when they are at home.

Think of a college student in a dorm or apartment – no surprise that Wi-Fi gets overloaded due to the high demand, so students will often turn on LTE and stream directly from the smartphone. Using their parent's cellular rate plan of course!

For today's millennials, who have grown up in a connected world, streaming content is the new normal. This is also increasingly true of older generations, who become more comfortable with streaming services as each new season of 'House of Cards', 'Blacklist', or any other streaming hit is released. And if streaming is 'normal', then that means consumers will not just demand, but expect, continuous broadband connectivity.

The entertainment industry therefore has a vested interest in the wireless infrastructure and its continued development. As demand for mobile video bandwidth will increase, so mobile networks will have to expand coverage and capacity. And the continued success of video streaming services depends on the ability of mobile operators to provide strong reliable connections at affordable prices.

Mobile Data Usage for Entertainment while On the Go and at Home

Activities while On the Go

It is no surprise that U.S. mobile consumers regularly use their mobile devices, including basic phones, smartphones and tablets, while they are on the go. *iGR* uses the term “on the go” to get respondents to think about their usage at times when they are *not* at home, school or work. What devices are being used on the go? In *iGR*'s latest survey, 98 percent of respondents reported using smartphones (as opposed to basic phones), while 50 percent said they use tablets.

While on the go, consumers are more likely to use mobile data, although usage on Wi-Fi networks in places such as coffee shops, shopping malls or airports, is also a possibility. Approximately 62 percent of respondents said their data plan is a limited (or capped) plan, while 30 percent have an unlimited plan. And the vast majority of mobile data usage is on LTE networks provided by one of the four major mobile operators: AT&T, Sprint, T-Mobile, or Verizon Wireless. LTE is the latest and fastest generation of wireless technology, a standard known as Long Term Evolution – LTE is also referred to as 4G.

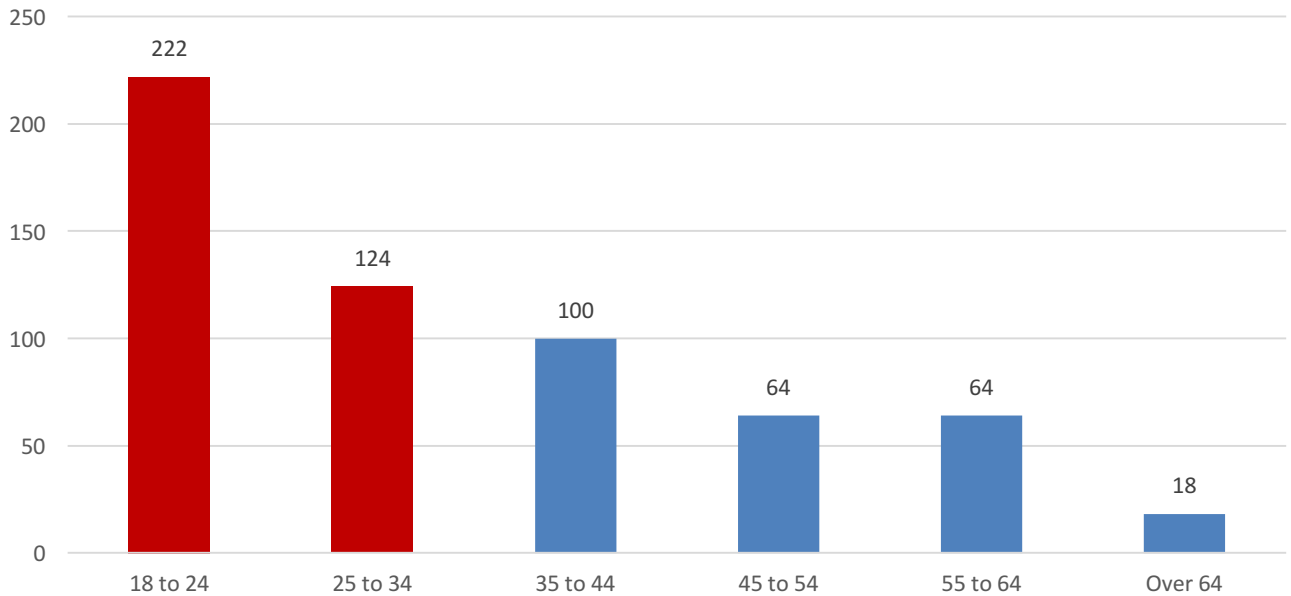
U.S. mobile consumers engage in a variety of activities including email, social networking, Web browsing, gaming, and audio and video streaming, while they are on the go. Although some activities are more frequently engaged in than others, 11 percent said that they **stream video** while on the go. Video streaming can include all types of video from short YouTube clips to full-length features on Netflix.

Importance of Age Demographic for Video Streaming On the Go

While 11 percent of all respondents said that they stream video while they are on the go, this is not the whole story. *iGR* looked at the responses according to the respondents age and found that younger respondents are significantly more likely to stream videos (see chart below).

The figure includes indexed values, which are whole numbers showing an above average or below average incidence of use, where 100 is average. The figure shows that 18 to 24 year olds are 122 percent more likely than average to watch streaming video on the go, while 25 to 34 year olds are 24 percent more likely than average.

Figure 1: Watching Streaming Video While On the Go, By Age



Source: *iGR*, 2016

Those consumers who stream video while they are on the go do so frequently. In fact, 60 percent of the survey respondents who stream video said they do so at least once per day and up to continuously throughout the day.

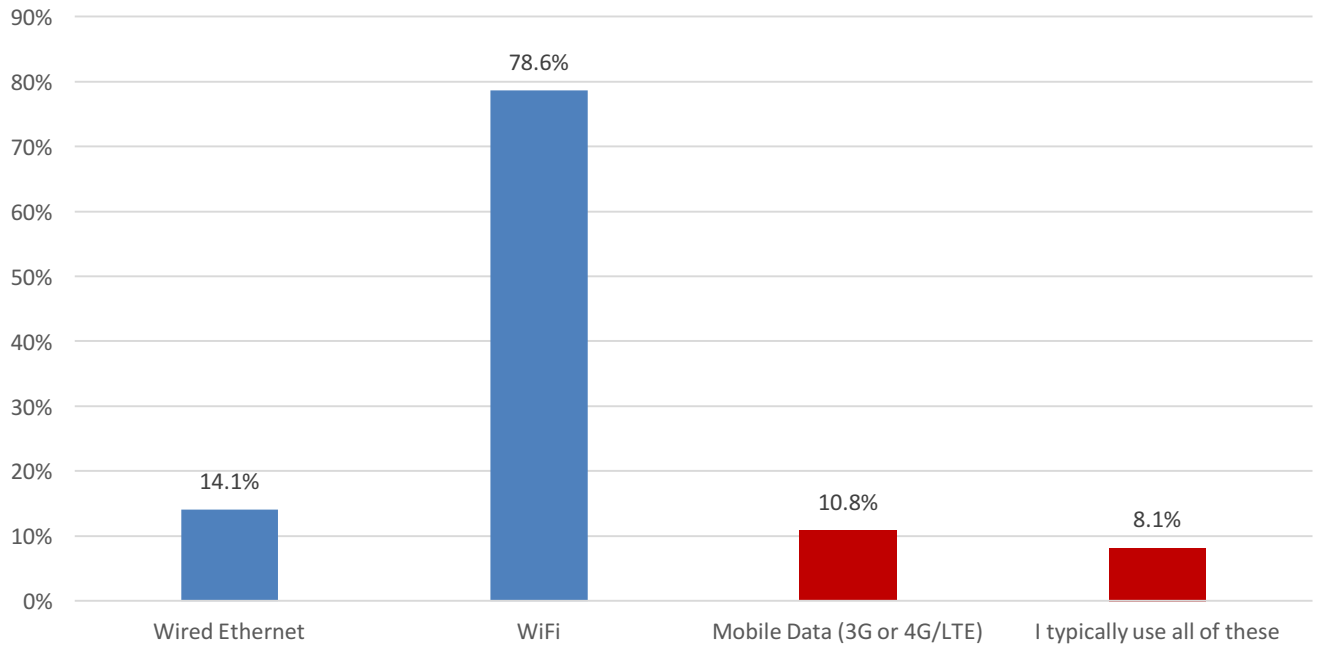
Mobile Device Usage for Entertainment while at Home

In addition to using their mobile devices while they are on the go, U.S. consumers also use the mobile data network while they are at home. To watch a streaming video at home, consumers have a choice: they can use a wired Ethernet connection, a connection to their home's Wi-Fi network, or they can connect to the 3G or 4G LTE mobile data network. Although Wi-Fi is the most common type of connection, *iGR* found that 11 percent of respondents typically stream videos over a mobile network, while an additional eight percent typically use all three types of connections.

That means up to 19 percent of U.S. consumers choose to use their mobile data network, even when they are at home. This could be due to a congested Wi-Fi connection because of too many household members, a dead spot in the house where the Wi-Fi signal is not strong, or a desire to connect in a room in the house where there is no wired Ethernet.

Additionally, *iGR* found that younger respondents between the age of 18 and 34 were much more likely than older respondents to use mobile data to watch their streaming video.

Figure 2: Watching Streaming Video While On the Go



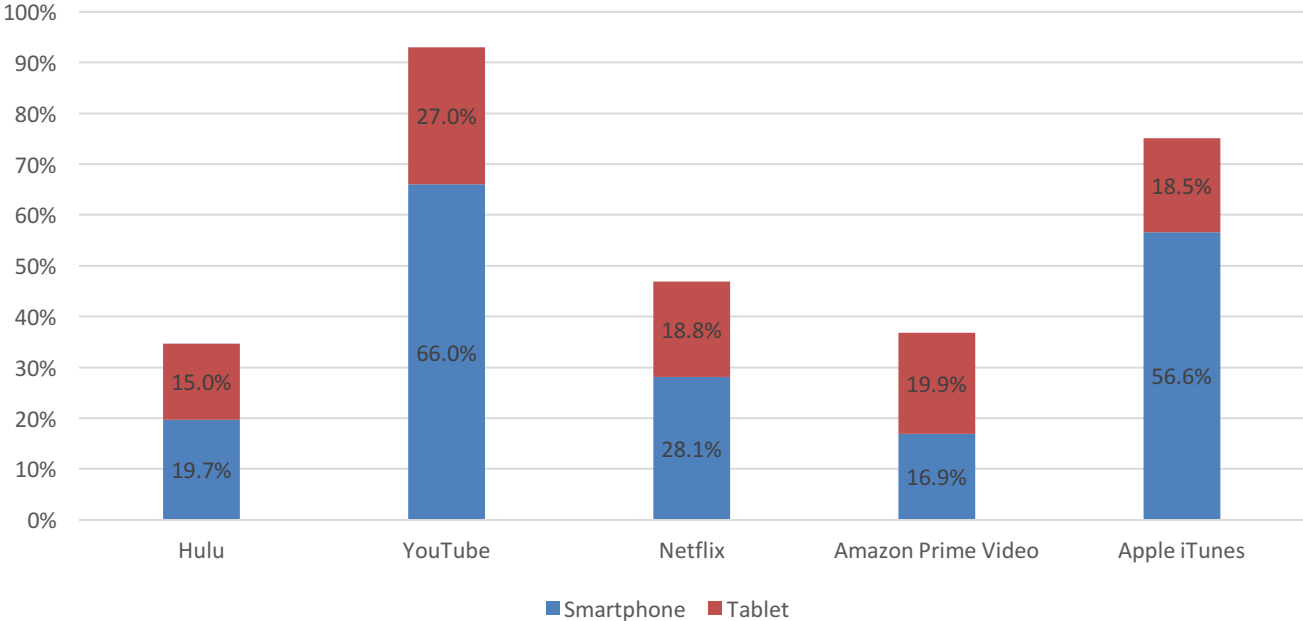
Source: iGR, 2016

Mobile Device Usage for Entertainment Services

Today when consumers watch movies or programs from an Over the Top video service (where the content is accessed from the Internet using a broadband connection), such as Hulu, Netflix, Amazon Prime Video, iTunes or YouTube, they have a choice of which device to use. Internet-enabled TVs are becoming increasingly popular, as are connected TV devices, such as Apple TV or Roku.

In addition, mobile consumers can use their mobile devices. The following chart shows the usage rates of several popular video services on mobile devices – both smartphones and tablets. This chart shows that 66 percent of respondents said they use their smartphone to watch YouTube videos and 27 percent use their tablet, while Apple iTunes was used on smartphones by 57 percent of users and tablets by 19 percent of users. And for Netflix, on which users often watch full length movies or programs, 28 percent use their smartphone and 19 percent use their tablet.

Figure 3: Watching Video Services on Mobile Devices



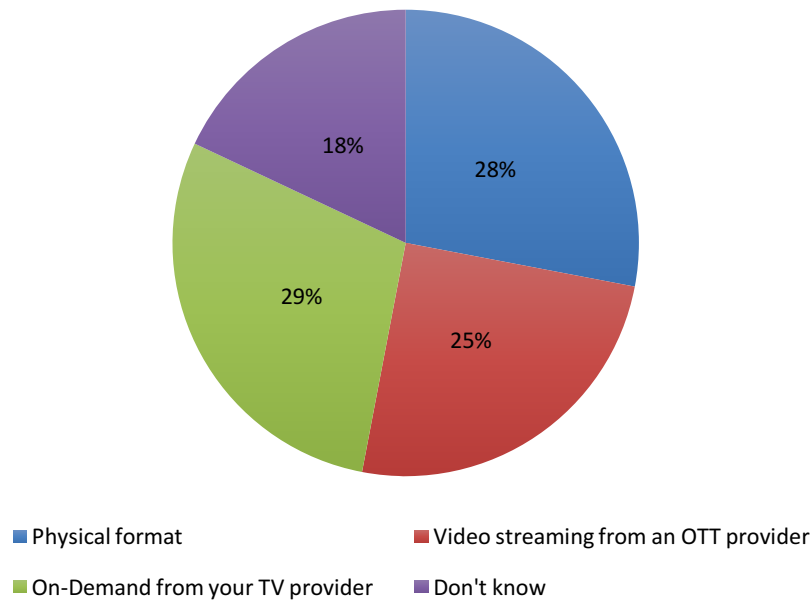
Source: iGR, 2016

Preferred Methods to Watch Video

Survey respondents were presented with the following hypothetical: *A first-run movie has just come to DVD/Blu-Ray and digital formats. You decide to rent it. There is no difference in price. Which do you choose?*

iGR found that responses were evenly split between their choices. Twenty-eight percent said they would rent a physical DVD or Blu-ray, 29 percent would rent “on-demand” from their TV provider, and 25 percent said they would rent from an OTT provider, such as Google Play, Apple iTunes and Amazon. (Eighteen percent said they didn’t know what they would do.)

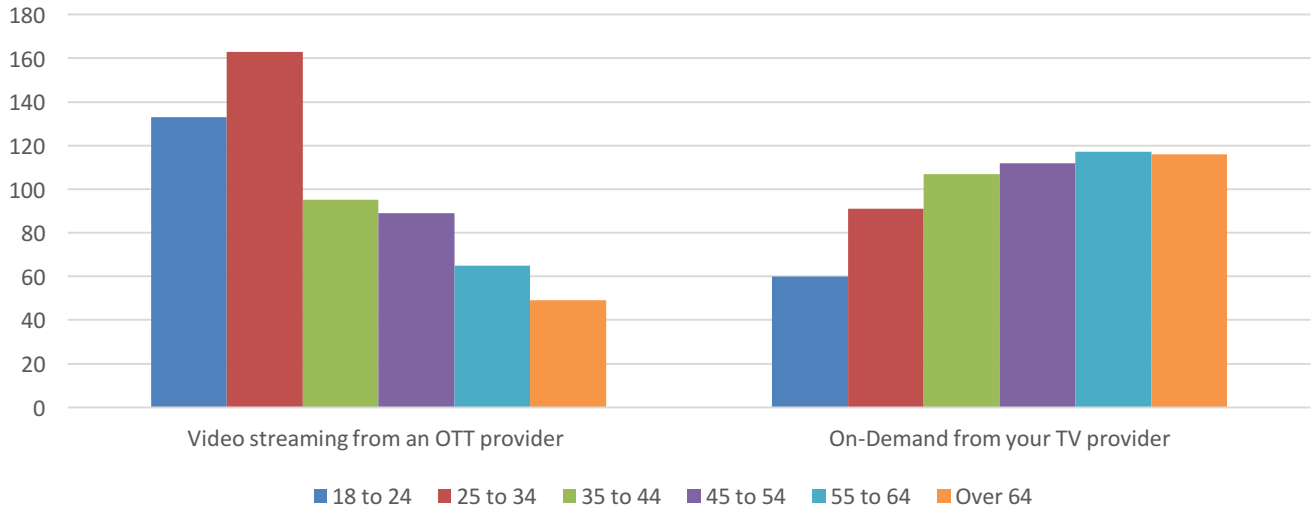
Figure 4: Preferred Method to Rent a Movie



Source: iGR, 2016

However, once again it is interesting to analyze these preferences by age demographic. The following indexed chart shows that younger respondents (between the age of 18 and 34) were significantly more likely than older respondents to choose to stream their new release, while older respondents were more likely to rent on-demand from their TV provider. In fact, the youngest group of 18 to 24 year olds were 40 percent less likely than average to rent on-demand from their TV provider.

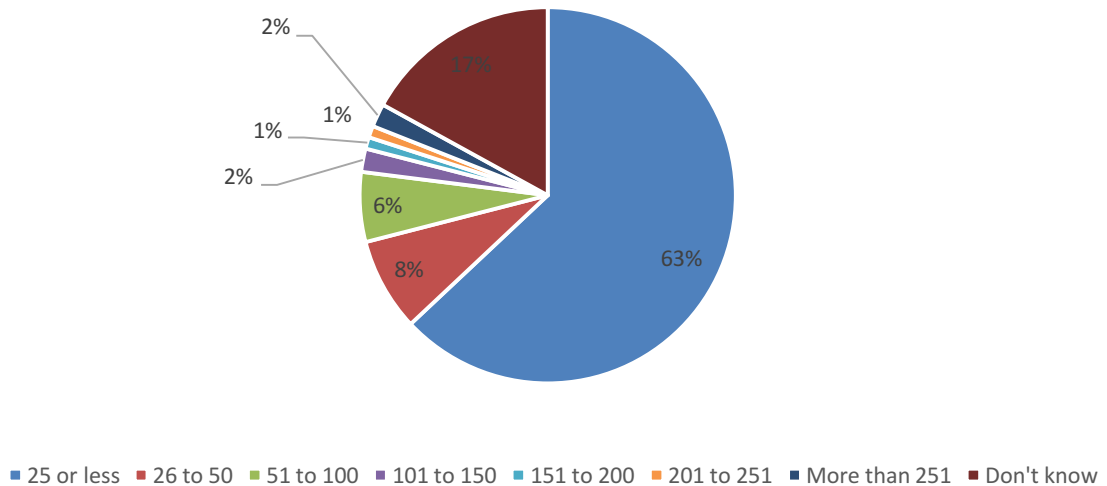
Figure 5: Preferred Method to Rent a Movie, by Age



Source: iGR, 2016

Younger respondents are increasingly thinking of online options when they want to watch a movie or some other type of programming. In fact, a trend of younger consumers preferring digital format movies can also be seen when we consider the movies that consumers **own**. First iGR asked all respondents how many digital format movies they own, and as is shown in the following chart, most respondents own fewer than 25.

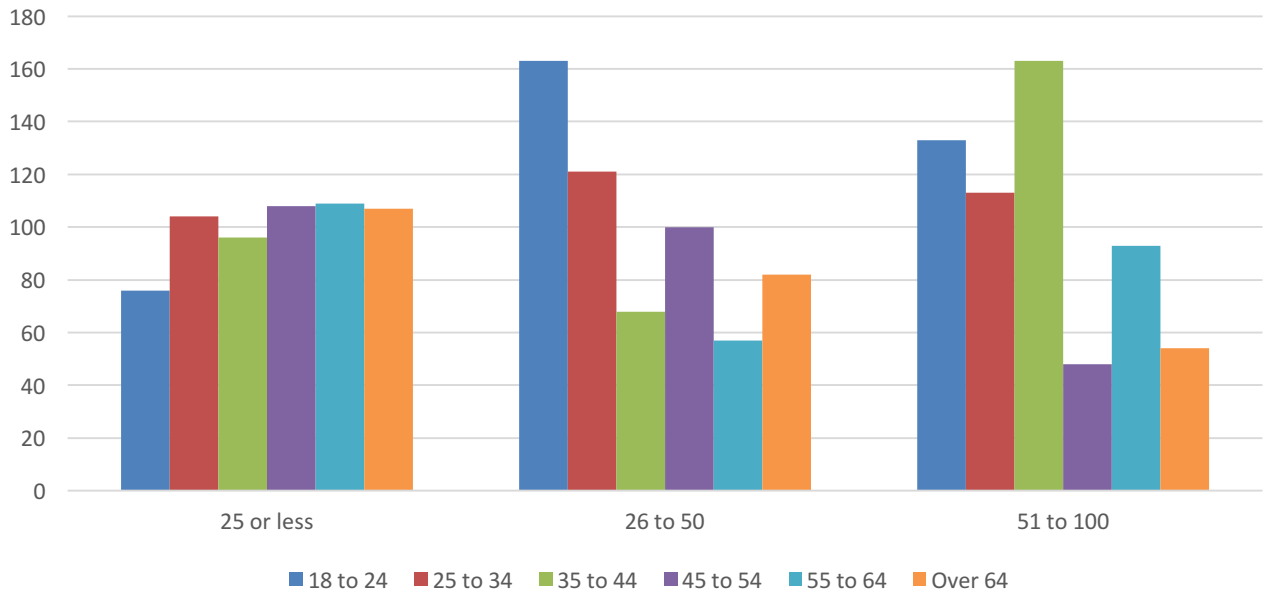
Figure 6: Number of Digital Movies Owned



Source: iGR, 2016

However, there is a tendency for younger respondents to own more digital format videos than older respondents. For example, 18-24 year olds are 63 percent more likely than average to own 26-50 digital videos and 33 percent more likely to own 51-100 digital videos. The survey data also shows that 35 to 44 year olds were also likely to own more than average number of digital movies – this is likely related to higher income and higher disposable income.

Figure 7: Number of Digital Movies Owned, By Age



Source: iGR, 2016

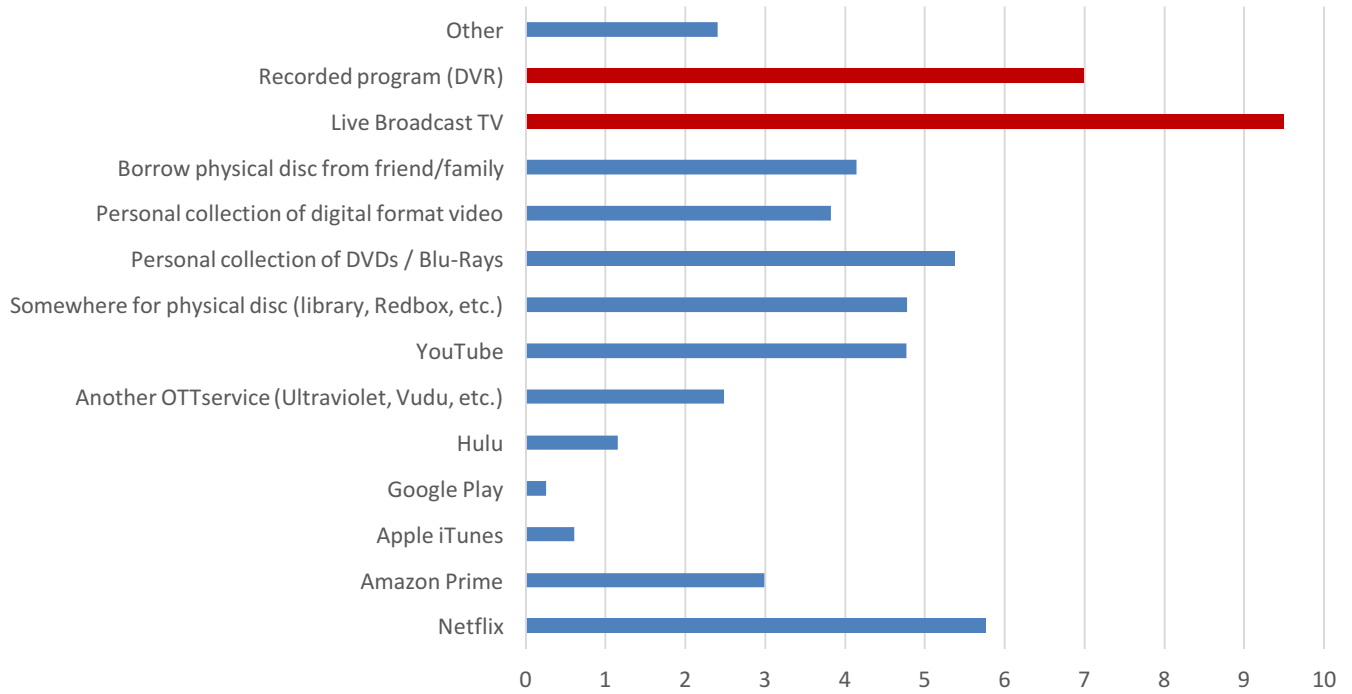
Survey respondents were presented with another hypothetical: *Consider the following list of options. Please RANK in order, from top to bottom, the steps you'd go through to find some video content to watch. "If I want to watch something, I would first check _____, then I'd check _____ and finally check _____."*

From their choices, iGR calculated a ranking score between one and ten. For all respondents, live broadcast TV was ranked the highest, followed by recorded programs.

However, the results for young consumers between the age of 18 and 24 were significantly different. Their rankings once again show a preference for online entertainment. As shown below, YouTube had the highest ranking, followed by Netflix.

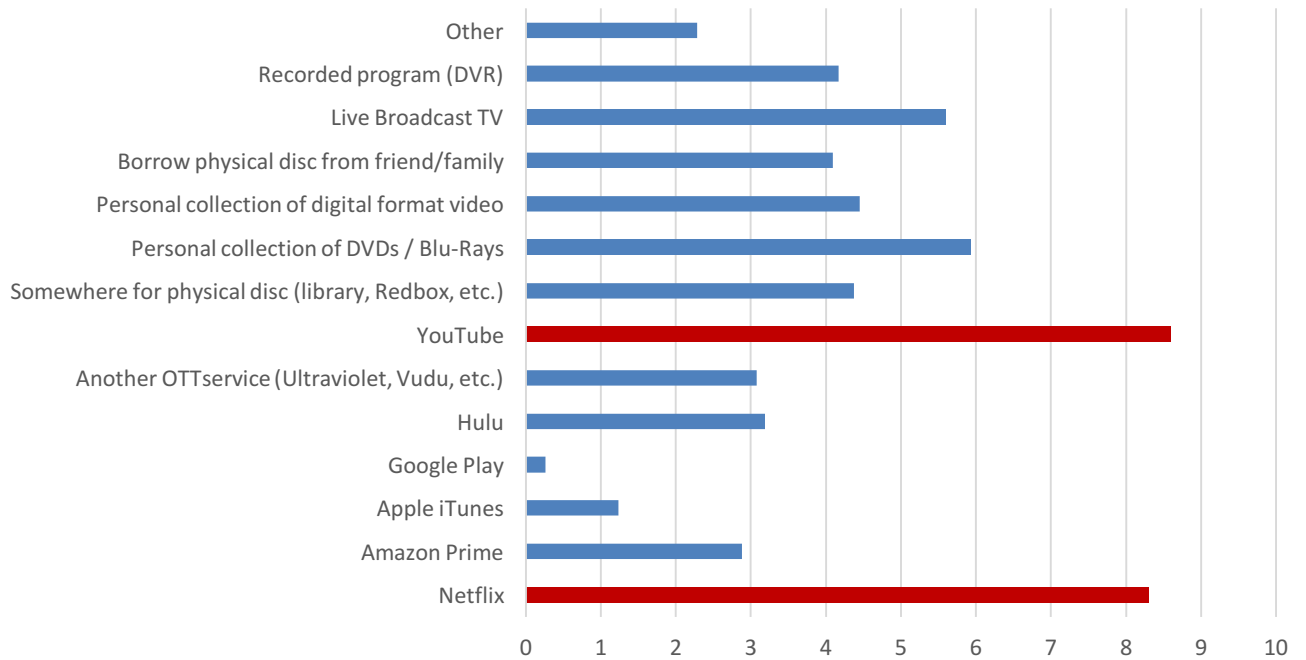
The results of the overall sample and the 18 to 24 year old sample are shown in the following two charts.

Figure 8: Ranking of Video Content, All Respondents



Source: iGR, 2016

Figure 9: Ranking of Video Content, 18 – 24 year olds



Source: iGR, 2016

Conclusion

As this paper has shown, the future of entertainment is mobile and that the future of mobile depends on reliable networks that are able to deliver more capacity. The statistics in this paper clearly demonstrate that more people are watching video on mobile devices in more places – simply put, consumers expect access to their entertainment wherever they are, at all times of day.

Consider that:

- 50 percent of consumer said that they use a tablet – nearly all have a smartphone
- Overall, 11 percent of consumers said that they **stream video** while on the go
- But 18 to 24 year olds are 122 percent more likely than average to watch streaming video on the go, while 25 to 34 year olds are 24 percent more likely than average
- 60 percent of the survey respondents who stream video said they do so at least once per day and up to continuously throughout the day
- Overall, 19 percent of U.S. consumers choose to use their mobile data network, even when they are at home
- Younger respondents (between the age of 18 and 34) were significantly more likely than older respondents to choose to stream their new movie release.

The challenge for the mobile industry is that as more and more people watch video on their mobile devices, the strains on the mobile infrastructure increase. Today's millennials have grown up in a connected world and are accustomed to get everything on demand, instantly. For this age group, streaming content is the new normal. This is also increasingly true of older generations - and if streaming is 'normal', then that means consumers will not just demand, but expect, continuous broadband connectivity.

The entertainment and mobile infrastructure industries are therefore tied together in a common goal – enable wireless networks that are capable of delivering the content consumer demand, no matter their location or the time of day. Without responsible deployment of wireless infrastructure, including towers and small cells, the future of entertainment will simply not exist.

Methodology

The consumer data referenced in this white paper is based on a Web-based survey of 1,021 U.S. consumers that *iGR* fielded during May 2016. In order to participate in the survey, respondents were required to:

- Be between 18-64 years of age
- Own and use a mobile phone.

The survey results presented in this white paper are shown in figures, and where applicable, some results are also described using an index. An index of potential has the objective of demonstrating which market segments offer the greatest opportunity for efficiently and effectively selling a product or service. In this white paper, the index is a whole number showing an above average or below average incidence of use, where 100 is average.

Additionally, the results were weighted against the U.S. Census Bureau's distribution of people by age, so that the respondent sample approximated the U.S. national averages by age group.

Disclaimer

The opinions expressed in this white paper are those of *iGR* and do not reflect the opinions of the companies or organizations referenced in this paper. All research was conducted exclusively and independently by *iGR*.

About WIA

The Wireless Infrastructure Association represents the businesses that develop, build, and own the nation's wireless infrastructure. Members include wireless carriers, infrastructure providers, and professional services firms that are responsible for telecommunications facilities around the globe. Through public affairs and advocacy efforts – on the local, state and federal level – WIA works to support the widespread deployment of wireless infrastructure in order to deliver mobile broadband access to all citizens and communities. For more information, visit www.wia.org.

About *iGR*

iGR is a market strategy consultancy focused on the wireless and mobile communications industry. Founded by Iain Gillott, one of the wireless industry's leading analysts, we research and analyze the impact new wireless and mobile technologies will have on the industry, on vendors' competitive positioning, and on our clients' strategic business plans.

A more complete profile of the company can be found at <http://www.iGR-inc.com/>.