

What Is Driving The Need For Next-Generation Internet Speeds?



Introduction

Over the past fifteen years the Internet has grown to play a key role in our lives. It influences how we manage our finances, communicate with friends and family and how we enjoy leisure time. It is no surprise that in this new decade, it's use and application is predicted to get even greater.

A recent Forrester Research report found that the average American now spends as much time online as he or she does watching television. The survey of 30,000 US consumers found that [people now spend an average of 13 hours every week online](#). The data, collected since 2007, showed those numbers to be up 121 percent in just three years, compared to traditional TV audiences being up only 5 percent over the same period.

While the research uncovered that adults under 30 were the heaviest net users, it also revealed that older age groups between 32-44 were increasingly splitting their time between TV and the Internet. There was even evidence that senior audiences aged 66 and over were now spending at least eight hours online per week.

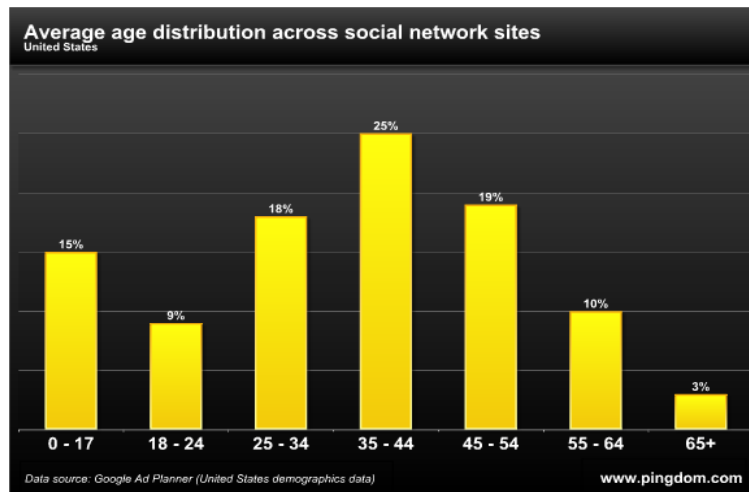
This is a very significant development in the evolution of home entertainment in the US. More and more Americans are now turning to the net to fill their leisure time and this, in turn, changes the demand for related services. Long gone are the days of regular Emails and simple web browsing. Today's Internet user is engaged in a plethora of interactive services that require comprehensive bandwidth resources and there are five activities in particular that are causing providers to change the way they think about service provision and delivery.

Social Networking

Despite the almost unlimited nature of what you can do on the web, [23 percent of US online time is spent using social networking applications](#). The influence of social media platforms like Facebook, Twitter and LinkedIn have grown exponentially over the last five years and as these online resources develop further with the introduction of camera applications and video streaming, time spent using them is only going to increase.

A 2010 study conducted by The Nielsen Group found that the USA had [the second highest time spent per person on social networks in the world](#). Americas were measured to spend an average of six hours and ten minutes per month using social media resources. Since the research was conducted, those numbers are estimated to have increased considerably – based on previous 82 percent year on year growth rates.

[A further study conducted by website monitoring firm, Pingdom](#), broke down social network usage by demographic to show which generations were using the platforms most. Split across applications such as Facebook, LinkedIn, Twitter and Last.fm, the biggest social media users, by quite a significant margin, were found to be adults aged between 35-44 years old.



This surprising revelation displaces the perceived notion that social networking is only used by teenagers and young adults. There is also clear evidence that the Baby Boomer generation has become tech savvy with many of them now using the medium for business and to stay in touch with friends and family.

Online Gaming

Online gaming is an entertainment medium that has seen significant growth over the past few years. Classified as any computer game played across a network, it includes anything from popular PC-based games like World of Warcraft to console and cross-platform based games like Call of Duty. It also includes [online-gambling sites that are slowly filtering their way into the US economy](#) and popular social network games like Facebook's FarmVille

The US online gaming market for console and PC-based games is currently [estimated to be worth more than \\$15 billion](#). In 2009, the average time spent playing games online spilt across the three most popular platforms (PC, Xbox360 and PS3) was 6.6 hours/week with the biggest users being males aged between 25-44. The growth and value for social media based online games has also been predicted to reach close to \$6 billion by 2015 with [over 250 million people worldwide playing games like Zynga's CityVille and FarmVille on Facebook every month](#).

Such has been the influence of online gaming over the past few years, some manufacturers have hinted at stopping all disc-based production altogether to focus purely on downloadable and streamed content. In early 2011 there was estimated to be an Internet connectible games console in 64 percent of US broadband households. That figure was up 25 percent since 2007. As manufacturers develop more interactive and realistic game experiences that [growth is only predicted to get stronger](#).

Online Video

Since the first YouTube video appeared in early 2005, online video streaming has seen explosive growth in the US and around the world. According to the IAB, to reach 50MM users, it took radio 38 years, TV 13 years, Cable 10 years and the Internet five years. [Online video reached 50MM users in just two years.](#)

[A 2011 online survey from content distributor](#), YuMe, found that over the next two years, heavy online video consumers will continue to increase their time spent watching shows and content online and decrease their traditional TV consumption. YuMe interviewed 498 US residents aged between 13-54 from which a number of significant conclusions were drawn.

- **Online Video's Explosive Growth Will Continue:** More than 66% of respondents surveyed on YuMe's network said they watch more online video now than they did 12 months ago and 48% expect they will continue to watch more in 2011.
- **Online Video Has Gone Mainstream:** Consumers who are watching more online video compared to 12 months ago skew older, female and higher educated.
- **Watching Online Video Is a Daily Routine:** 49% of respondents said they watch online video daily, with 7 hours being the mean time spent per week.

The Nielsen Company conducted a report in early 2011 that found [online video consumption in the US to be up considerably over the same time last year](#). Time spent viewing video on PC/Mac/laptops from home and work locations had increased by 45%. The report also found that although the number of unique online video viewers only increased by 3.1% from last January, level of activity was up as viewers streamed 28% more video and spent 45% more time watching. Total video streams also saw significant year-over-year growth, up 31.5% to 14.5 billion streams. Unsurprisingly, YouTube and Facebook were the two applications most commonly used when viewing online video content but there has also been the emergence of a very significant player in the future of online video – Netflix.

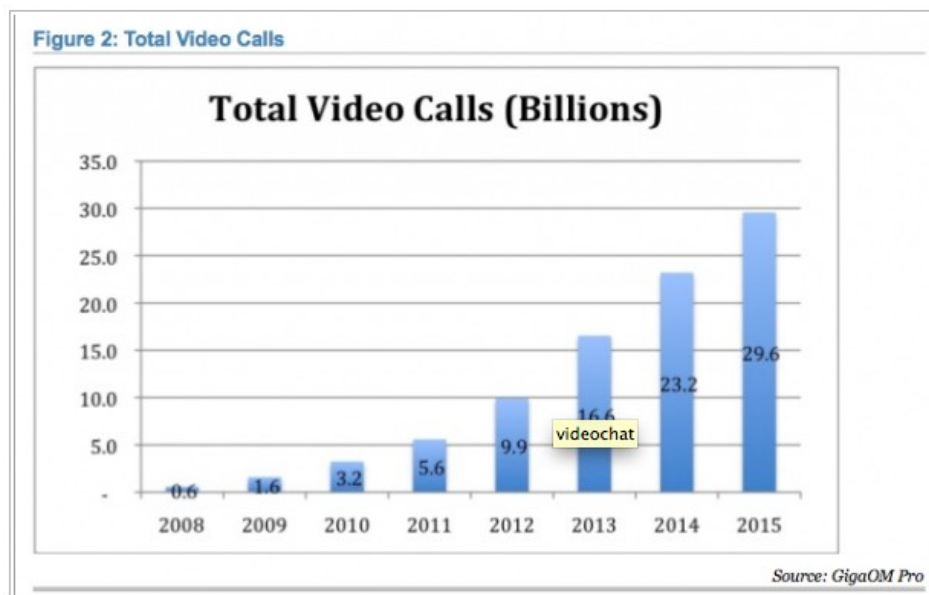
Currently running at 20 million subscribers, Netflix has been experiencing [60 percent year on year growth](#) thanks to its 'Watch Instantly' service. The California-based company that allows users to stream movies, TV shows and documentaries through their computer or TV costs only \$8/month and has become popular due to its convenience and on-demand nature. Out of the top ten online video content providers, Netflix users spent the longest average time online – an average of 11 hours per month. Copy-cat companies and services have already started appearing in this market space.

Video Chat

Made famous by Luxembourg-based giant, Skype, Video Chat has seen massive growth over the past five years. A Video Chat service allows users to see and communicate with each other through cameras and microphones installed on their computers or smart phones. It has revolutionised the way people communicate over short and long distance and its use is only predicted to get greater in the coming decade. [Research conducted by In-Stat](#) projects mobile video calling revenue to exceed \$1 billion by 2015, by which time North America will be responsible for over 9 petabytes of data traffic per year.

The current main players in the Video Chat market are Skype, FaceTime from Apple, ooVoo, Fring and Tango. At the end of 2010, Skype had 663 million registered users and in December 2010 it hit a new record of [30 million people online at the same time](#). Meanwhile, 24 million users are registered with New York-based, ooVoo, who are said to be [adding 1 million users every month](#).

A 2010 report from GigaOM Pro's Alfred Poor and Michael Wolf estimates that Video Chat calls will grow from what was just under 600 million video calls in 2008 to almost 30 billion by 2015.



The paper, ['Can You See Me Now? The New World of Consumer Visual Communications'](#) explains how ubiquitous high speed broadband connections and low cost and integrated webcams will make it easy for consumers to connect not just with voice, but with video. The report goes into depth on the current and emerging players in video chat, as well as breaking down the number of video calls that will take place on a PC, television and on mobile phones.

Voice over IP

Similar to Video Chat applications like Skype, Voice over IP (VoIP) services have seen a huge rise in popularity in the US over the last few years. VoIP allows users to make regular phone calls to friends, family and associates using an internet connection rather than a traditional telephone line. Using digital instead of analog frequencies to facilitate conversations, VoIP helps consumers avoid the traditional public telephone network and consequently save money.

Since the entry of Comcast and other cable companies, VoIP services have been emerging at pace. In 2010, US cable companies alone were [providing VoIP services to more than 19 million residential subscribers](#). The market is currently dominated by providers such as Vonage and Skype, although Microsoft, Apple and most recently Google, have recently come out with their own VoIP projects – which are expected to receive huge pickup as soon as the marketplace matures.

Conclusion

Given clear evidence for the growth and demand for internet-based activities, US-based service providers have a responsibility to deliver connectivity capable of supporting such platforms. With more time being spent online, simultaneously, and with greater importance of use, ISPs need to look at the provision of greater download and uploads speeds and infrastructure that improves reliability.

Faster and more reliable connectivity is what is needed to satisfy consumer demand for all of today's Internet based functions. Whether you want to pay a bill, socialise with friends or download and watch a movie, services need to suit those activities without prohibiting the enjoyment of them. Soon enough, more bandwidth intensive and desirable services like HD video streaming and evolutionary online gaming will become commercial available, leaving service providers at the mercy of consumer demand.

For many ISPs, the growth of bandwidth intensive services is a source of concern. Internet activities now require far more bandwidth compared to the days of simple email and web browsing. It's a fully interactive and resource intensive experience and providers are concerned about how increased traffic will affect their network quality. Many already implement caps, tiered pricing plans and network management tactics that slow broadband during times of congestion or during certain hours.

But will those service levels pass with today's tech savvy consumer? Many subscribers already feel that they have been getting a raw deal with the amount they pay for broadband. Stifling their enjoyment further only serves to affect the goodwill of providers who arguably don't have their customer's best interests at heart.

References

CBS Los Angeles “America Turned Off? Internet Use Catches Up To TV” -

<http://losangeles.cbslocal.com/2010/12/14/america-turned-off-internet-use-catches-up-to-tv/>

NielsenWire “What Americans Do Online: Social Media And Games Dominate Activity” -

http://blog.nielsen.com/nielsenwire/online_mobile/what-americans-do-online-social-media-and-games-dominate-activity/

Smedio “Nielsen Study – Social Media Is More Popular Than Email” -

<http://smedio.com/2010/08/03/nielsen-study-%E2%80%93-social-media-is-more-popular-than-email/>

Go Rumours “Average Time Spent On Social Networks (By Country)” -

<http://gorumors.com/crunchies/average-time-spent-on-social-networks-by-country/>

Pingdom “Study: Ages of social network users” -

<http://royal.pingdom.com/2010/02/16/study-ages-of-social-network-users/>

Bloomberg Business Week “NV Assembly panel OKs amended online gambling bill” -

<http://www.businessweek.com/ap/financialnews/D9MIC7V80.htm>

Buzzing Up “Online Gaming Industry Statistics [Infographic]” -

<http://www.buzzingup.com/2010/12/online-gaming-industry-statistics-infographic/>

PwC “Playing to win: The outlook for the casino and online gaming market to 2014” -

http://download.pwc.com/ie/pubs/2010_playing_to_win.pdf

Parks Associates “Social Gaming: Market Updates” -

<http://www.parksassociates.com/blog/article/parks-pr2011-socialgaming>

YuMe “YuMe Releases New Data Demonstrating Changing Attitudes to Online Video and TV,

Validates Importance of Online Video Audience” - <http://www.yume.com/content/yume-releases-new-data-demonstrating-changing-attitudes-online-video-and-tv-validates-import>



YuMe “WHITE PAPER: Online Video and Television Viewing Attitudes and Behaviors – February 2011” - http://www.yume.com/sites/default/files/YuMe_Online_Video_Attitudes_Whitepaper.pdf

NielsenWire “January 2011: Online Video Usage Up 45%” - http://blog.nielsen.com/nielsenwire/online_mobile/january-2011-online-video-usage-up-45/

Cnet News “Netflix rises as studios' DVD money plunges” - http://news.cnet.com/8301-31001_3-20030627-261.html

InStat “Mobile Video Calling: Market Analysis and Technology Adoption Estimates” - <http://www.instat.com/catalog/wcatalogue.asp?id=294#IN1004744MCM>

Fierce VoIP “Skype sets new record with 30 million concurrent online users” - <http://www.fiercevoip.com/story/skype-sets-new-record-30-million-concurrent-online-users/2011-03-28>

Yahoo! Finance “ooVoo Makes 3-Way Video Calling Free” - <http://finance.yahoo.com/news/ooVoo-Makes-3Way-Video-bw-2796610587.html?x=0>

Gigaom “Can You See Me Now? The New World of Consumer Visual Communications” - <http://gigaom.com/2010/06/07/can-you-see-me-now-the-future-of-video-chat/>

The Register “US VoIP subscribers 21 million strong” - http://www.theregister.co.uk/2010/06/30/voip_stats/