Report for the Internet Society

Discussion paper on the contribution of the Internet to content creation

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1 Executive summary

The Internet is a platform that is ideal for the distribution of digital content such as music or video. In general, given that the Internet empowers technology at its edges, it allows companies to introduce innovative services that can grow quickly; more specifically, digital content can be copied perfectly an endless number of times and distributed at low cost, particularly compared with physical manufacture and distribution. Like in most cases, however, there are two sides to the coin: these same attributes can equally facilitate the illegal exploitation of content.

Analysys Mason Limited has been commissioned by the Internet Society to consider the contribution of the Internet to global content creation. Although online distribution does present some threats to the businesses of content owners, our view is that it allows for even greater opportunities. These are already being exploited to a substantial degree and there is large potential for further growth related to the online distribution of content in the future.

We have seen evidence that while, in some cases, traditional methods of content distribution are declining in popularity and being displaced by online distribution, overall growth persists. In particular the growth in adoption of the emerging, Internet-based, distribution of high-quality content is beginning to exceed the decline in physical distribution and overcome digital piracy, such that any declines in overall revenue from content associated with the emergence of online distribution are being turned around.

In our analysis we have considered the evolution of the content industry in terms of spending, content development and device adoption, with a focus on the new business strategies developed by content owners and distributors in order to take advantage of, and monetise, online distribution. In summary, by making rights available for online distribution, content providers are not only able to shrink the demand for pirated content, but also expand their markets and overcome corresponding decreases in the sale of physical content.

Specifically, through analysis of industry trends we have observed that:

- Increases in the online distribution of content have not generally resulted in declines in revenues for content owners, with overall increases in global spending on audiovisual content, which we expect to continue.
- There has been a fall in spending on physical home video since 2007, which is projected to continue. However, the overall decline in home-video spending looks set to reverse, due to growth in over-the-top services and the streaming of video content exceeding the decline in physical distribution.
- The year-on-year growth in spending on online distributed recorded music is such that the overall decline in spending on recorded music is starting to reverse, with 0.3% growth in the

global trade value of the recorded music industry experienced in 2012. In the USA, for example, online content sales accounted for roughly 50% of all music revenues in 2010.

- There is wide take-up of online distributed content with some services such as free online video now consumed by over 50% of the population in the USA and some European countries.
- The penetration of Internet-capable devices is high and is increasing in many countries, particularly smartphones and tablets, which can be expected to drive revenues from online content distribution even higher.
- The creation of some exclusive content for online distribution further demonstrates the importance of online distribution to content owners.
- The proportion of Internet users using legal music subscription and download services is now high (and growing) and recent studies have shown that the market for legal online distributed music may actually be expanded further by any illegal downloads (generating follow-on sales where otherwise there would not have been any purchase).

There are also a number of new business models which have helped to drive growth in the online content distribution market and correspondingly to the overall market for content. Our analysis has shown that these include:

- Free streaming models employed successfully by the likes of YouTube and Deezer to generate advertising revenue, and by the likes of the BBC to help retain viewers and promote wider access to their content.
- Subscription-based streaming services such as Netflix and Hulu Plus have provided new revenue opportunities for aggregation and distribution of content without the requirement to build expensive transmission networks.
- Huge businesses such as the iTunes store and Amazon MP3 have been set up and have contributed to reversing the trend of declining revenues in the recorded music industry.
- 'TV Everywhere' offers are helping traditional pay-TV operators such as Comcast, Time Warner and BSkyB to retain customers to their core business and to generate incremental revenues from online distribution.

2 Introduction

The Internet is a platform that is ideal for the distribution of digital content such as music or video. In general, given that the Internet empowers technology at its edges, it allows companies to introduce innovative services that can grow quickly; more specifically, digital content can be copied perfectly an endless number of times and distributed at low cost, particularly compared with physical manufacture and distribution. Like in most cases, however, there are two sides to the coin: these same attributes can equally facilitate the illegal exploitation of content.

Analysys Mason Limited (Analysys Mason) has been commissioned by the Internet Society to consider the impact of the Internet on content owners. In this paper, we show that as content rights have been made available to (online) companies, the reliably high-quality content that is increasingly delivered to new emerging devices such as tablets, coupled with innovative new business models, has enabled the positive impacts to overtake the downside of piracy, and has contributed to the dwindling of physical sales of content.

In this study, we take a particular focus on audio and video content and its impact on the industry. We have focused on key market trends, including spending, content development and device adoption, as well as the new business strategies developed by content owners and distributors in order to take advantage of, and monetise, this growing market segment.

Our results show that even where traditional methods of content distribution are being displaced by online distribution, overall growth persists. In particular, the growth in adoption of the emerging, Internet-based, distribution methods is beginning to exceed the decline in physical distribution such that any declines in overall revenue from content associated with the emergence of online distribution are being turned around.

We begin by providing an overview of the recent evolution of the content industry, including trends in revenues and sales, in Section 3. This overview demonstrates generally positive trends in the financial results of content providers. Our research shows that these can be largely attributed to various new business models creating a new channel for sales. These new business models can, to some extent, displace sales of physically distributed content but also, to a large degree, displace pirated content as well.

Section 4 highlights key new business models and some of the opportunities provided for content providers using the Internet. Finally, we draw some high-level conclusions in Section 5.

3 The evolution of the content industry

In recent years, there has been an increasing trend of online distribution of content, using a variety of existing and new business models, with encouraging results for the content owners.

This section provides an overview of the recent evolution of the content industry and is structured as follows:

- in Section 3.1, we take a holistic view of content distribution looking at global revenues, the penetration of various online media activities, and then noting the impact of device penetration and original content generation on online content distribution
- Section 3.2 considers trends in the distribution of audio content, including spending on recorded music and the proportion of this spending arising from online distribution
- Section 3.3 then considers trends specifically relating to the distribution of video content, focusing on pay-TV services and films.

3.1 Overview of trends in content distribution

The distribution of content, both audio and video, has traditionally been divided into in-home consumption, which includes television, radio and recorded media, and out-of-home consumption, which includes live concerts and cinema viewing. While it is true that the increased quality and availability of the former has led content owners to try to increase revenues from the latter, we will focus mainly on the former to show both the substitution and complementarity of online content and more traditional content.

In the past, much of the revenues for in-home consumption have been dominated by physical media, such as DVDs and CDs and traditionally distributed live broadcasts such as television and radio. However, the dominance of such distribution methods has waned since the rise to prominence of digital content distribution in the early 2000s. Online distribution now forms a much more important part of the strategies of content rights holders.

Content may be distributed online in either streamed or downloaded forms. Online distribution of content has been adopted both by traditional content distributors and also by new entrants to the market.

The move towards online content consumption has contributed to an increase in global spending on audiovisual content, as shown in Figure 1. This is a revenue trend, which is expected to continue.

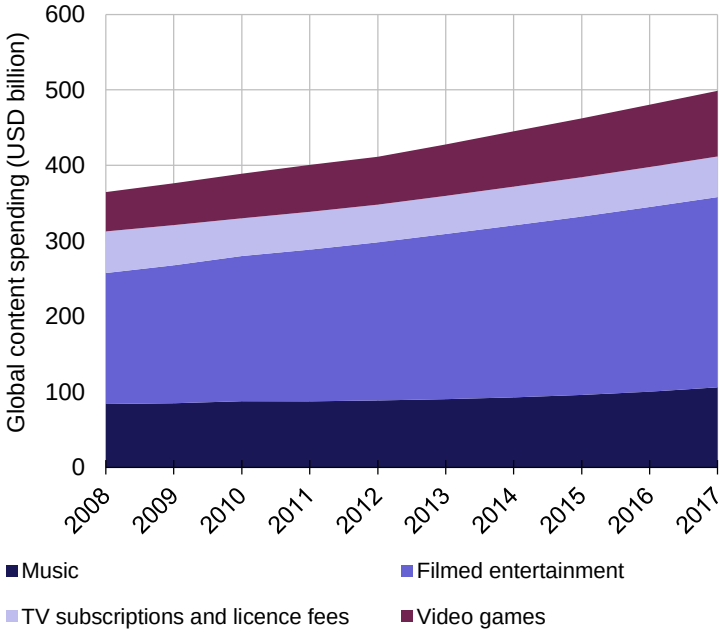


Figure 1: Historical and forecast global spending on audiovisual content [Source: PwC Global Entertainment and Media Outlook: 2013-2017, www.pwc.com/outlook, 2013]

Consumers split their consumption of content between both traditional and online formats. However, currently the majority of consumer spending remains on traditional distribution channels, with over 62% related to recorded music and 77% related to at-home filmed entertainment on physical media in the global market in 2012.

That being said, online content consumption is now very significant, in part due to online prices generally being lower, and this high penetration of online content consumption appears to be a global phenomenon, as illustrated in Figure 2.

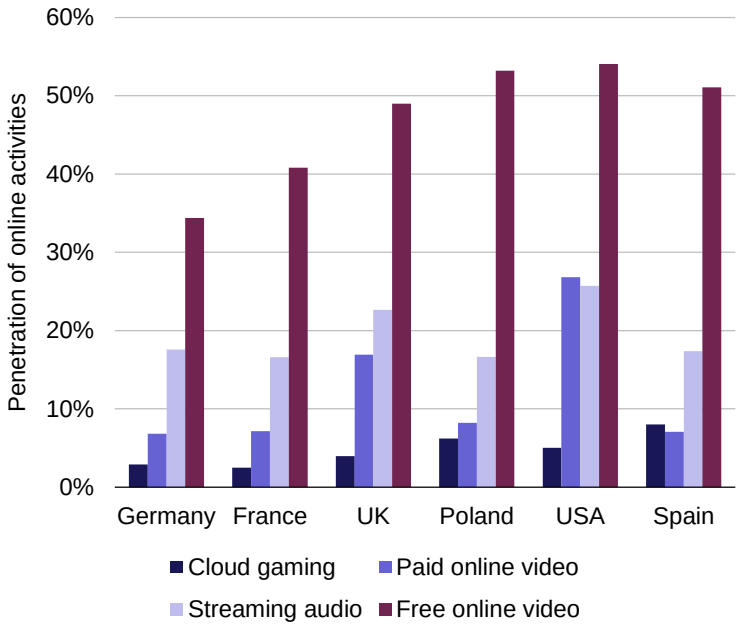


Figure 2: Penetration of selected online media activities across all devices, by country, as a percentage of respondents to Analysys Mason's Connected Customer Survey 2013 [Source: Analysys Mason, 2013]

We note that it is possible that the above figures may, to some extent, overstate the penetration of legal online video and audio services because it is not possible to fully disaggregate access to illegal content from access to legal online content. However, in that regard, according to NPD Group, illegal music file sharing in the USA is likely to have declined significantly in 2012.[1] In particular, the number of consumers using peer-to-peer (P2P) services to download music declined by 17% in 2012 compared to the previous year. NPD Group states that when P2P file sharing peaked in 2005, 20% of Internet users aged 13 and older (33 million people) used P2P services to download music but that by 2012 this number had fallen to 11% (21 million people). A reduction in the usage of P2P services does not in itself constitute a reduction in illegal use of these services. Therefore, although the likely implication of the NPD research is that illegal music file sharing is in decline, the figures must nonetheless be treated with some caution when used in this context.

The figures also suggest that, in general, not only were there fewer consumers (illegally) downloading, but that on average those that continued to download (illegally) reduced the amount they were downloading. For example, downloaded music files from P2P services decreased by 26% in 2012 compared to the previous year, according to NPD Group, even though the number of consumers using P2P only decreased by 17%. In addition, music files burnt and ripped from CDs owned by friends and family fell by 44%, the number of files swapped between hard drives dropped by 25%, and the volume of music downloads from digital lockers decreased by 28%.

NPD's "Annual Music Study 2012" also shows that 40% of consumers who had illegally downloaded music via P2P services in 2011 reported that they had stopped or downloaded less music from P2P networks. The NPD study found that nearly half of those who stopped or curtailed file sharing cited the use of free, legal music streaming services as their primary reason for

[1] See https://www.npd.com/wps/portal/npd/us/news/press-releases/the-npd-group-music-file-sharing-declined-significantly-in-2012/

changing their behaviour. It is likely that the higher quality of paid online content relative to that available in pirated format is also becoming more significant to consumers for video content, with the introduction of HD and 3D movie streaming and digital download services.

The resulting high penetration of online media activities shown in Figure 2 is reflected in a high proportion of total Internet traffic made up of entertainment and file-sharing services across both fixed and mobile devices as shown in Figure 3 and Figure 4. The importance of real-time entertainment[2] is projected to rise; Sandvine has forecast that it will make up close to 70% of mobile data traffic and over two thirds of fixed data traffic by 2018.

Figure 3: Mobile data traffic by service and region [Source: Sandvine Global Internet phenomena, 2013]

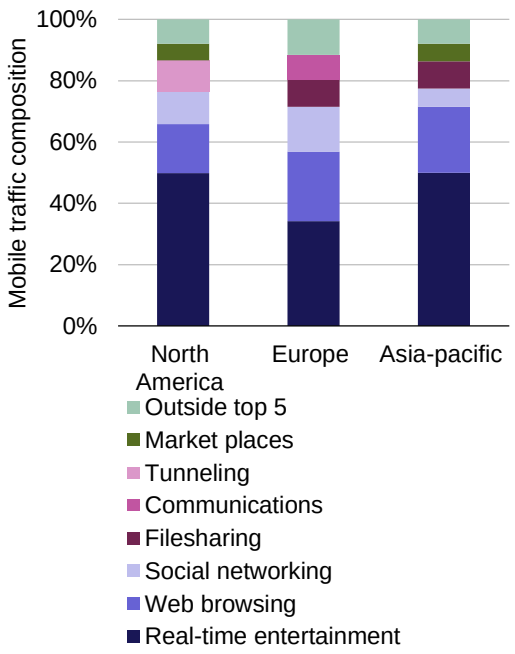
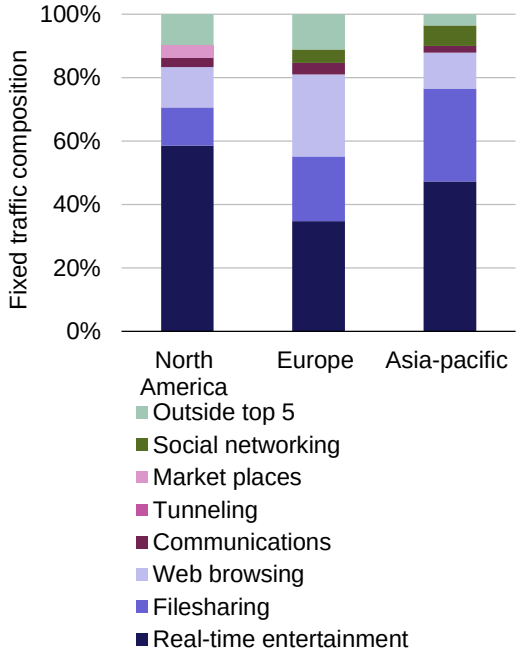


Figure 4: Fixed data traffic by service and region [Source: Analysys Mason, 2013]



Online distribution of content is therefore becoming more and more significant. Re-enforcing this are two key trends in online content consumption and distribution which are emerging and which we discuss in the following sub-sections. These trends are: the increase in the ownership of Internet-enabled devices, and the generation of exclusive/original content for online distribution.

[2] Defined as "Applications and protocols that allow 'on-demand' entertainment that is consumed (viewed or heard) as it arrives", for example streamed video.

3.1.1 Device ownership

Penetration of Internet-enabled personal devices is already high across multiple geographies as shown in Figure 5. This high penetration encourages the consumption of online content over such devices.

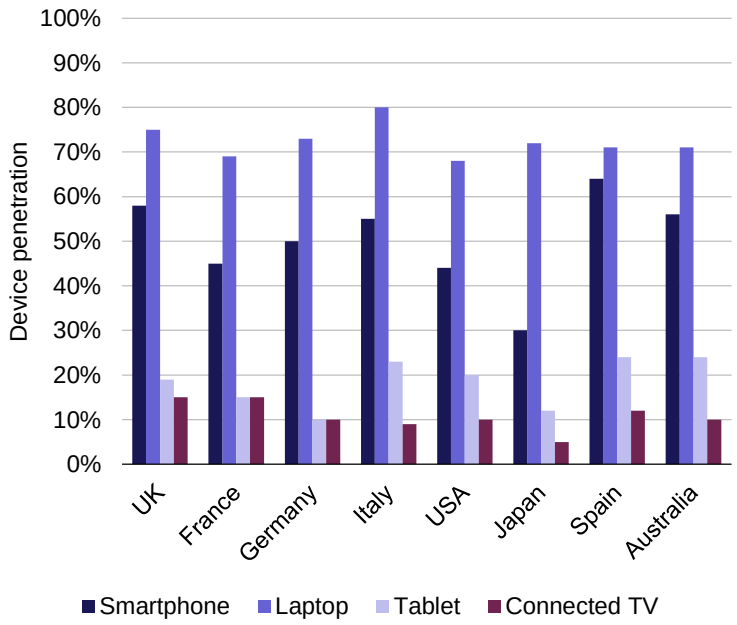


Figure 5: Penetration of personal devices [Source: Ofcom consumer research, 2012]

In a similar survey conducted by Analysys Mason,[3] the results of device take-up were presented by age group. As can be seen in Figure 6 below, the popularity of Internet-enabled devices is particularly high amongst the youngest age groups surveyed, suggesting that the move towards online content consumptions will increase as these young generations age and have greater disposable income.

[3] Analysys Mason, The Connected Consumer Survey 2013; http://www.analysysmason.com/Research/Content/Reports/Connected-consumer-survey-Mar2013-RDMV0-RDMM0-RDMY0-RDMB0/.

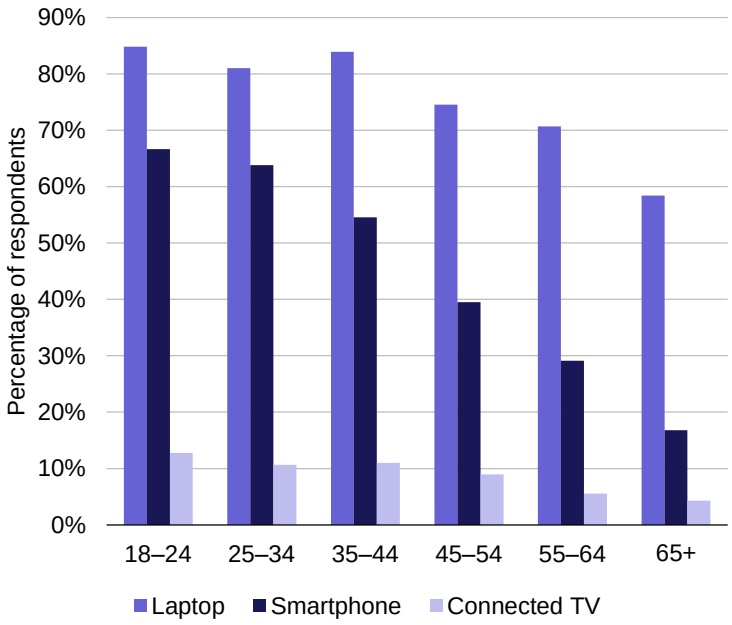


Figure 6: Ownership of devices, by age group [Source: Analysys Mason, 2013]

The penetration of smartphones, tablets and Connected TV sets can only be expected to increase, globally, in the coming years. A forecast of smartphone take-up is shown in Figure 7 below.

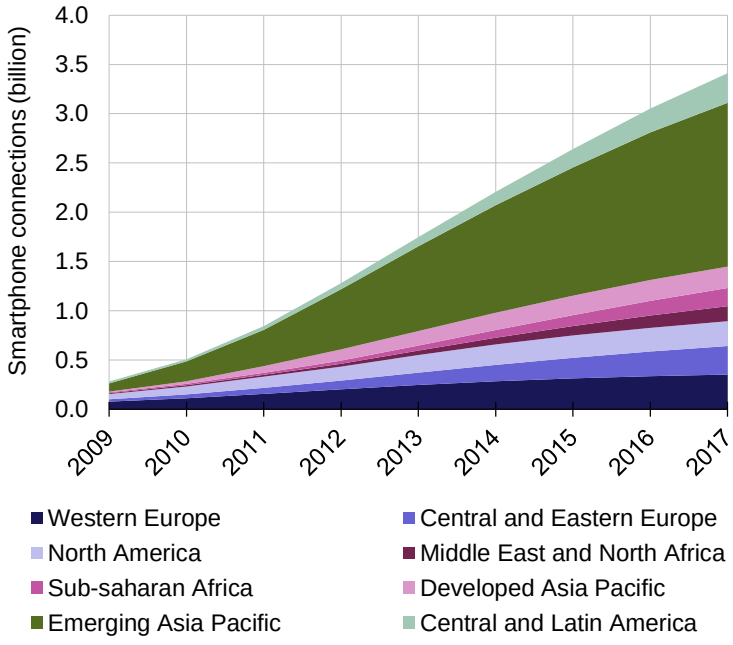


Figure 7: Historical and forecast smartphone connections by region [Source: Analysys Mason, 2013]

In the case of smartphones, the majority of US users in May 2012 (88%) use the device for the purposes of accessing entertainment content, with 61% using them to listen to music and 54% to watch video.[4] This high usage of a device for entertainment consumption is also seen for laptops

[4] See Google Our Mobile Planet: United States www.thinkwithgoogle.com/insights/uploads/614352.pdf/download/.

and for tablets, where 51% of US tablet owners in June 2012 used them to listen to music, while 54% used them to watch video content.[5]

The rise in device ownership has resulted in an increased capacity for 'multi-tasking' users and the popularity of accessing content via the Internet in conjunction with traditional consumption of video content is higher than for other simultaneous activities, including reading a newspaper as shown in Figure 8 below.

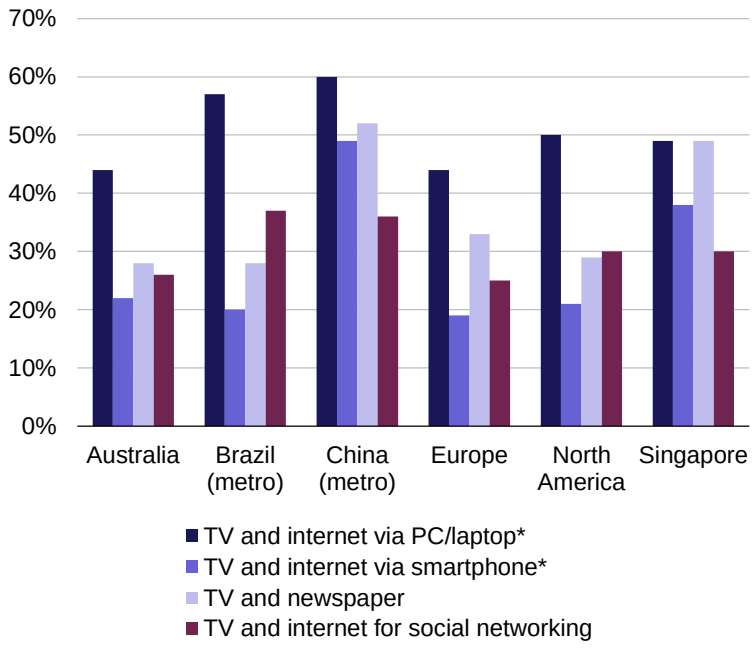


*Figure 8: Social activities engaged in simultaneously (*excl. social networking) [Source: KPMG, 2013]*

This propensity for multi-tasking re-enforces the idea that online distribution of content can largely be seen as complementary to, rather than a substitute for, traditional content distribution. In particular, the willingness of users to multi-task in this way has a market expansion effect whereby the total amount of content, which is likely to be consumed by a user, increases. This could increase the size of the overall market for content revenues.

3.1.2 Exclusive/original content

A recent trend emerging in the distribution of digital content is the development of content that is in some way exclusively created for online distribution. Much of this unique content has not been developed as a substitute or alternative to traditional modes of media consumption, and is instead meant to act as a complement.

For video content, this includes both the production of new web series by online content distribution companies such as Netflix and Hulu as well as exclusive online shorts and behind-the-

[5] See Online Publishers Association A Portrait of Today's Tablet User; http://onlinepubs.ehclients.com/images/pdf/MMF-OPA_--_Portrait_of_Tablet_User-Wave_2_--_Jun12_(Public).pdf.

scenes videos linked to existing traditional media programming, such as those provided by the UK's Channel 4.[6] This second category of original content has been described as 'social TV' as it is often available with customised content or interactive capabilities.

Similarly the music industry is using the online platform in order to market multiple products within a single 'release' or to allow personalisation of content. A particularly innovative example of such behaviour is the marketing of the 2012 Linkin Park album, *Living Thing*, and specifically the track *Lost In The Echo*. The band released the video to the track on a microsite that accessed the consumer's Facebook profile and incorporated photos uploaded by the user into the video feed.[7]

3.2 Audio content

The music market is broadly made up of spending on recorded music and on live performances, such as concerts and festivals. While digital techniques are unable to encroach upon spending on live music, as this needs to be consumed in person, online distribution of recorded music is becoming increasingly important in the recorded music market. As shown in Figure 9, spending on access to physical copies of recorded music has been declining rapidly, at a rate of roughly 10% year on year between 2007 and 2011, with an expected continuation of this trend. However, year-on-year growth in spending on online distributed recorded music is increasing such that the overall decline in spending is starting to reverse. This reversal of the trend has first become apparent in 2012, when a 0.3% growth in the global trade value of the recorded music industry was experienced.[8] This was the first growth in recorded music value since 1998.

6 See http://www.e4.com/select/video/latest/watch.e4.

7 http://lostintheecho.com/.

8 IFPI Digital Music Report 2013; http://www.ifpi.org/content/library/dmr2013.pdf.

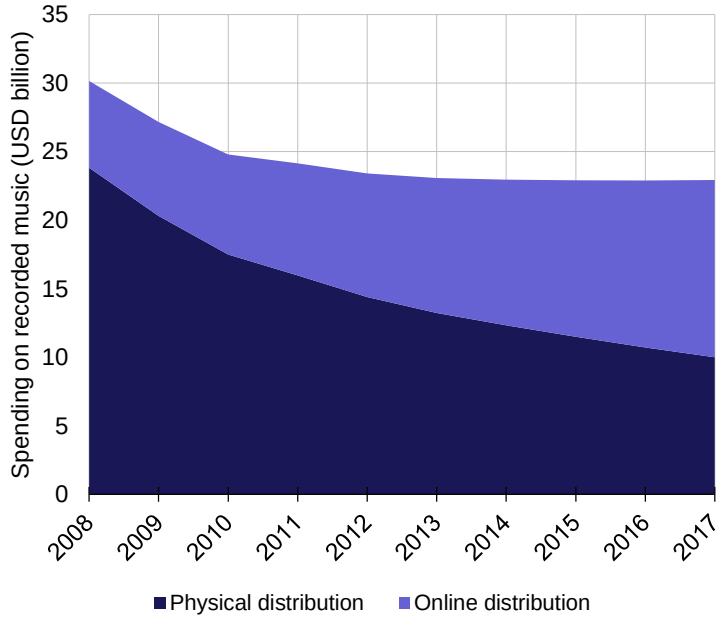


Figure 9: Global spending on recorded music [Source: PwC Global Entertainment and Media Outlook: 2013-2017, www.pwc.com/outlook, 2013]

This pattern of moving to spend on online content distribution is led by North America, as shown in Figure 10, but is in evidence across all geographies. In the USA in particular, in 2010 online content sales accounted for roughly 50% of all music revenues.[9]

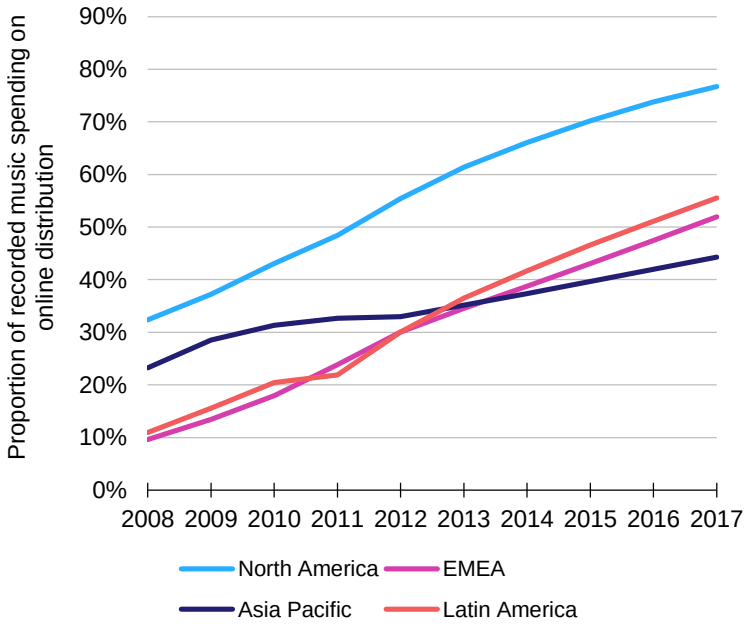


Figure 10: Proportion of revenue from online distribution of recorded music, by region [Source: PwC Global Entertainment and Media Outlook: 2013-2017, www.pwc.com/outlook, 2013]

There are multiple online distribution platforms for audio content, with the most significant growth in the music market projected to be for subscriptions and download services as shown in Figure 11.

[9] RIAA Let's Play: The American Music Business; http://www.ifpi.org/content/library/riaa_brochure_final.pdf.

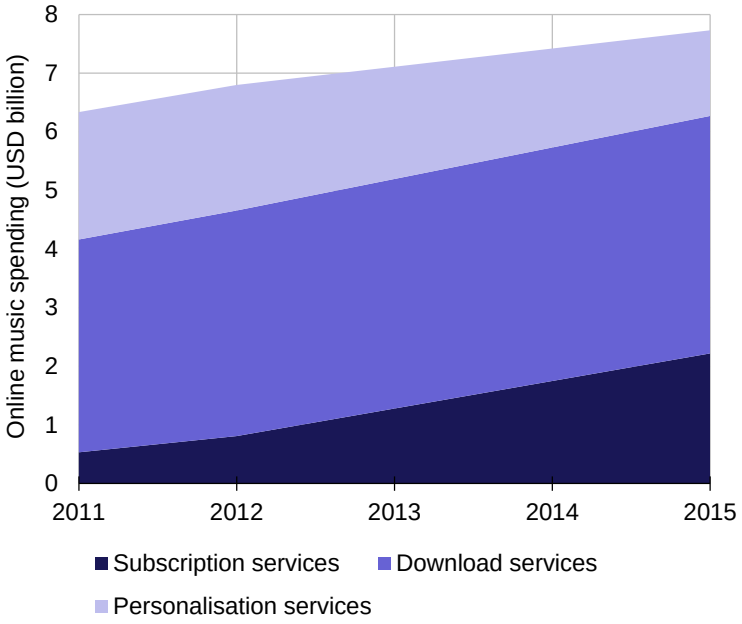


Figure 11: Global online music spending by service [Source: Gartner Media IAS Online Music Forecast, 2011]

The growth in spending on these online music services reflects that such legal methods to access content are often being chosen by consumers in preference to music piracy. By February 2013, 62% of Internet users had recent experience of using a legal online music service, with the proportion rising to 81% for Internet users aged between 16 and 24.[10] This high take-up of legal online music services is driven by the high quality of the services available[11] and in a recent survey[12] 64% of legal online music service users and 57% of pirate users agreed that "there are good services available for legally accessing digital music".

While both subscription and download services are available in most geographical regions, it is interesting to note that the popularity of these different access methods varies by country as can be seen in Figure 12. There is a correlation between the popularity of the different access methods and the availability and level of awareness of various services in the different countries. For example, in Sweden, where take-up of subscription services is the highest, 94% of consumers are aware of the Spotify service, while awareness is only at a 56% level across the USA, the UK, France, Germany and Sweden in aggregate. A reflection of the impact of this level of take-up can be seen in the UK, where paid download take-up sits at 33% of Internet users and the Official Charts Company announced in April 2013 that downloads of one billion songs have been exceeded.[13]

10 Ipsos MediaCT The Digital Music Consumer - A Global Perspective February 2013; http://www.ifpi.org/content/library/DMR2013_IPSOS_Slides.pdf.

11 Legal online music services generally provide good user interfaces and sound quality comparable to physical media such as CDs. The quality available is likely to generally be higher than for illegal online music, and reliably so.

12 Ipsos MediaCT The Digital Music Consumer - A Global Perspective February 2013; http://www.ifpi.org/content/library/DMR2013_IPSOS_Slides.pdf.

13 See http://www.bbc.co.uk/newsbeat/22081325.

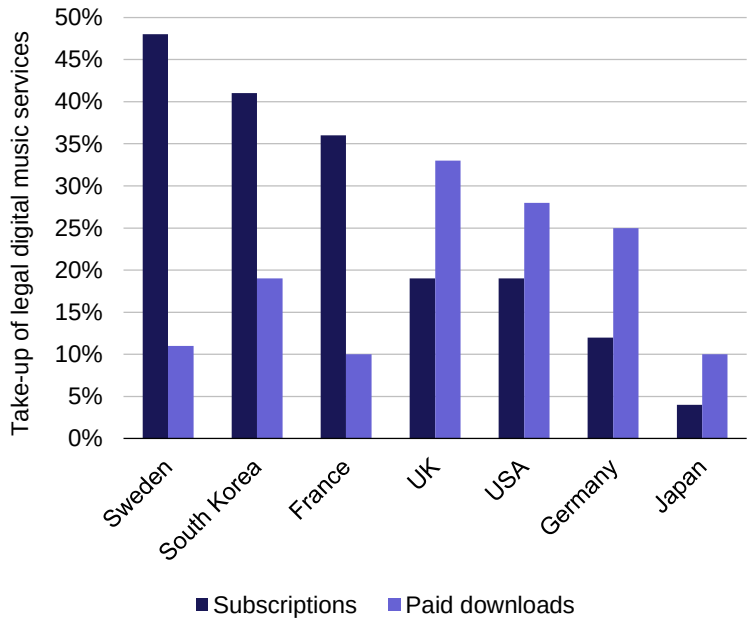


Figure 12: Proportion of Internet users using legal music subscription and download services in the six months to February 2013 [Source: Ipsos MediaCT, 2013]

At the same time, there have been a number of academic studies focusing on the impact of piracy on the legal consumption of traditionally distributed music.[14] The consensus of these studies is that while there is some negative impact of piracy on the purchase of legal music, with some music consumers substituting legal music purchases with illegal content consumption, the majority of illegal music consumed would not have been purchased were pirated copies unavailable. Waldfogel (2010) refers to these earlier studies, saying "a growing empirical literature examines the relationship between music file sharing and legal purchases of music. Most inquiries find large amounts of file sharing activity and small rates of displacement, generally less than a one-fourth reduction in sales per stolen piece of music." [15] Given the recent decline in the amount of illegal downloading, a case could be made that these numbers have fallen further since then.

While early studies on the impact of piracy focused on physical music sales, as physical sales have been displaced by online sales, the focus of studies has shifted towards the impact of piracy on online sales of music. Recent academic research into this relationship has concluded that a more complementary relationship exists.[16]

14 Hui and Png (2003) "Piracy and the Legitimate Demand for Recorded Music"; Peitz and Waelbroeck(2004) "The Effect of Internet Piracy on Music Sales: Cross-Section Evidence"; Liebowitz (2008) "Research Note-Testing File Sharing's Impact on Music Album Sales in Cities"; Zentner (2006) "Measuring the Effect of File Sharing on Music Purchases" Journal of Law and Economics.

15 Waldfogel (2010) "Music file sharing and sales displacement in the iTunes era" Information Economics and Policy.

16 Danaher et al (2012) "The Effect of Graduated Response Anti-Piracy Laws on Music Sales: Evidence from an Event Study in France"; Bastard et al (2012) "L'impact du Piratage sur l'Achat et le Téléchargement Légal : une Comparaison de Quatre Filières Culturelles".

Of particular note is the Joint Research Centre's 2013 report on digital music consumption on the Internet, commissioned by the European Commission.[17] The paper investigated the relationship between illegal and legal online music consumption on an empirical level and found no evidence of digital music sale displacement by illegal content. In fact, the results showed the existence of a small complementary relationship such that illegal downloads, and to a greater extent streaming, were stimulating online music sales.[18]

Overall, online music has led to a decline in physical sales, with online piracy having played a part in this. Online piracy has not had the same impact on online sales however, because of the convenience of online legal music content. For instance, online content sales allow consumers to purchase individual songs rather than obliging them to acquire entire albums[15] therefore reducing the incentive of users to consume the illegal content. Thus, it is likely that the new business models described in Section 4 below are making legal online purchases more attractive and further driving the complementary relationship between piracy and online legal music content sales.

3.3 Video content

Audio content is generally of lower bandwidth than video content and is thus easier to stream (and therefore to pirate). However, following the development of legal streaming services with a variety of options and devices, we have seen that legal online music services rapidly gained in popularity. Online video services were generally developed after online audio services were already well established. Users were familiar with the concept and therefore these legal online video services have been quickly adopted once they were made available. In this section, we discuss the levels of adoption of such services and the revenue implications for content owners before going on to look at some examples of specific business models which have helped to drive these trends in Section 4.

Online distributed video content is available by three main methods: free of charge (supported by advertising), to be purchased and to rent. It is interesting to see, as shown in Figure 13, that video consumption under all three of these methods, particularly those involving payment, is more prevalent for consumers who already have a pay-TV subscription. This indicates that those consumers who place the highest value on video content are not substituting away from traditional TV viewing, but rather supplementing it with online content.

17 JRC Technical Reports, Institute for Prospective Technological Studies Digital Economy Working Paper 2013/04, Digital Music Consumption on the Internet: Evidence from Clickstream Data, 2013; ftp://ftp.jrc.es/pub/EURdoc/JRC79605.pdf.

18 We note that the results of this study may not be conclusive because of the difficulty inherent in disaggregating between usage of legal and illegal online services. In particular, we note that the International Federation of the Phonographic Industry (IFPI) had significant concerns about the study and recently stated that "the study contains significant flaws and is therefore misleading in its conclusions about the impact of piracy". See www.ifpi.org/content/section_news/20130320.html.

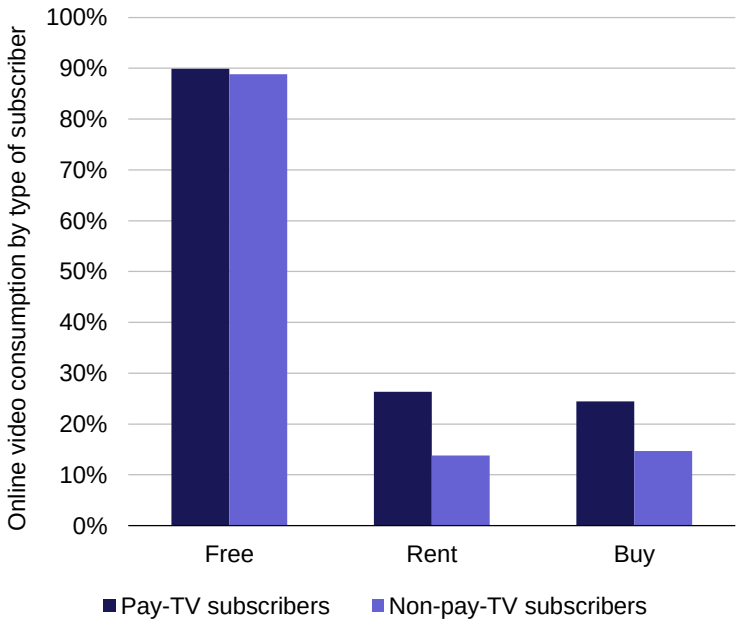


Figure 13: Online video consumption, by type and type of consumer [Source: Analysys Mason, 2013]

The online video market is large and expanding rapidly. Cisco has stated that global video Internet traffic (excluding video exchanged through P2P file sharing) will rise from 51% of all consumer Internet traffic in 2011 to 55% in 2016,[19] thus continuing to outpace the already high growth rates of Internet traffic. It additionally forecasts that when this Internet video traffic is combined with TV, video on demand (VoD) and P2P video traffic, it will make up 86% of global consumer traffic by 2016.

As shown in Figure 14, it is those consumers in the youngest age groups that are the most significant consumers of online video content. This relationship between age and penetration of online video consumption is particularly significant for paid online video content, for which take-up penetration of the youngest age group (18–24) is approximately 490% of that for the oldest age group (65+).[20] This leads to a similar conclusion to the pattern shown for Internet-enabled devices as discussed in Section 3.1: the move towards online video content consumption, particularly paid, will increase as these young generations age.

19 See Cisco Visual Networking Index: Forecast Update, 2011–2016; http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf.

20 For free online video, take-up penetration of the youngest age group is approximately 220% of that for the oldest age group.

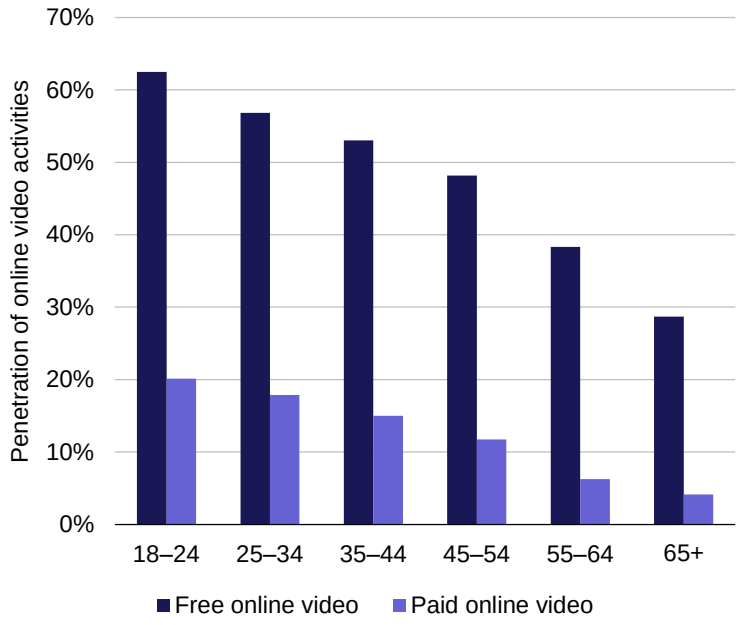


Figure 14: Penetration of online video activities across all devices, by age group [Source: Analysys Mason, 2013]

The digital content available online includes both pay-TV and film content, as discussed in turn below.

3.3.1 Pay TV

As shown above in Figure 13, there is evidence that pay-TV consumers do not move away from traditional consumption due to the introduction of online content distribution, but rather choose to watch using both distribution methods. This notion is supported by data showing that in the major content consumption markets of North America and Europe, there has been a continuing trend of growth in spending on pay-TV services. As shown in Figure 15 and Figure 16, while this growth is led by Internet Protocol Television (IPTV) and over-the-top (OTT) video, there is no evidence of a move away from spending on traditionally distributed pay-TV services in either geography.

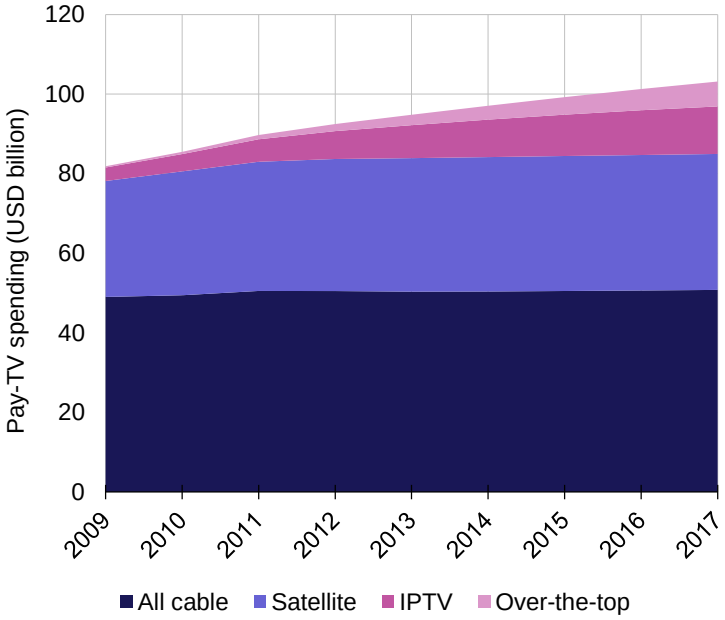


Figure 15: Historical and forecast North American pay-TV spending by platform [Source: Analysys Mason, 2013]

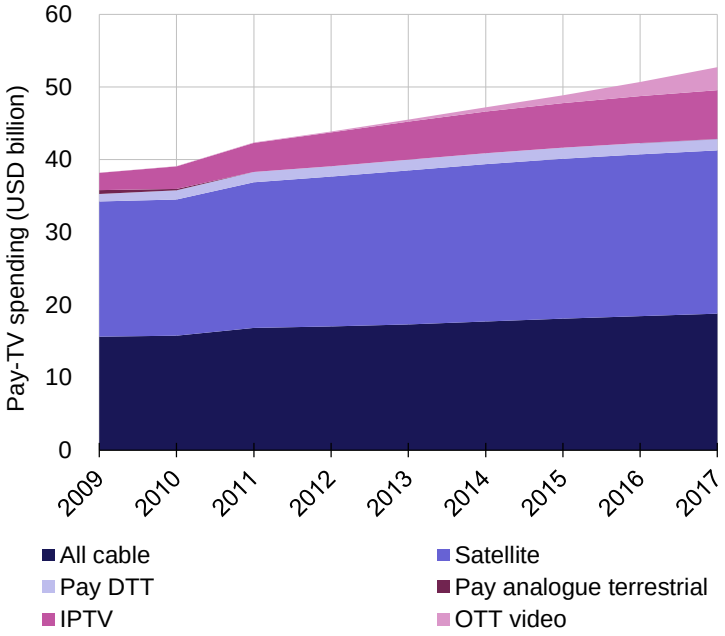


Figure 16: Historical and forecast European pay-TV spending by platform [Source: Analysys Mason, 2013]

As discussed in Section 3.1 above, OTT streaming services are following the lead of premium TV channels and introducing exclusive original content, thereby making subscription to their service more desirable.

The extent of adoption of these new services varies by country, with roughly one third of adults with access to Internet from home watching online catch-up services in the UK in Q1 2012.

The growth in pay-TV viewing across both traditional and emerging distribution technologies is reflected in the device choice for watching video. As shown in Figure 17, minutes of viewing for

the average consumer in the USA are increasing across all devices. Between 2009 and 2011, the increase in traditional TV viewing minutes was roughly 2%, while the increase in TV viewing over the Internet or using mobile devices, as well as time-shifted TV, over the same period exceeded 30%.

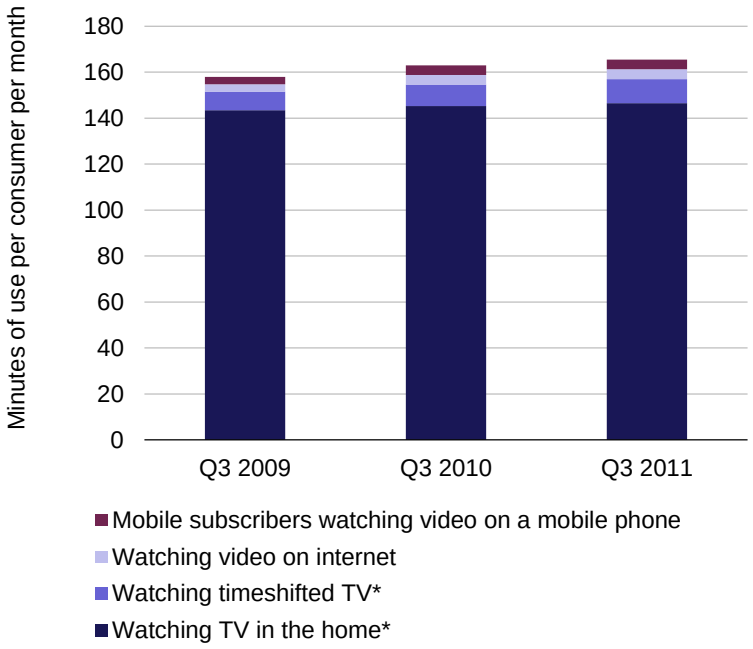


*Figure 17: Service consumption per user per month in the USA (*incl. DVR, VOD and DVD recorders playback) [Source: Nielsen cross platform report, 2012]*

Drivers of this rapid take-up of TV viewing online may be linked to factors including the convenience, the 'catch-up' element of being able to watch past or missed episodes or the reduced proportion of time spent watching adverts. As shown in Figure 18, in 2010 only 8.5% of the time spent viewing premium content online (1.6% of all online video) consisted of watching adverts, as opposed to 25% for traditional TV viewing.

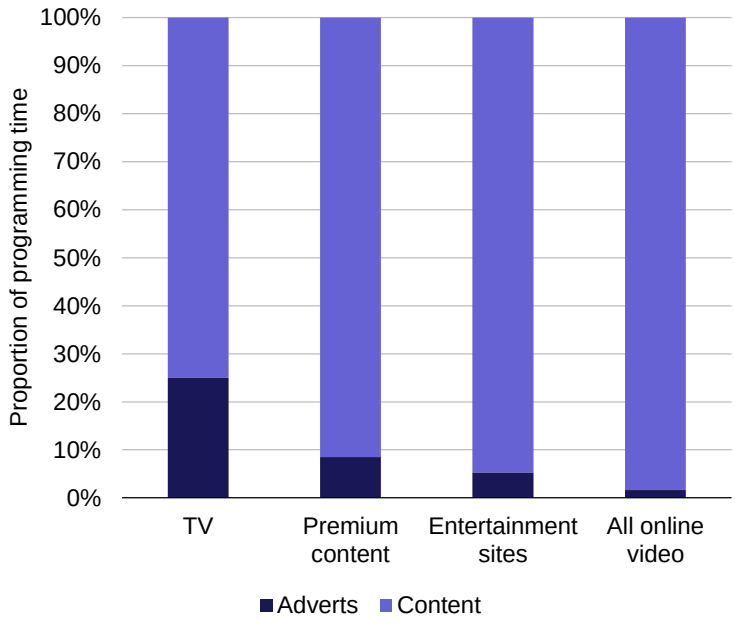


Figure 18: Proportion of content viewing time spent watching adverts by distribution type [Source: ComScore The state of online video, 2010]

3.3.2 Films

Spending on filmed content includes both out-of-home spending at the box office and in-home spending on purchase and rental of home video. While spending on out-of-home viewing has continuously grown, there is a much more interesting global spending pattern for in-home viewing. The discussion below focuses on the in-home segment of the filmed content market as this is where online content distribution has the potential to act as a substitute.

As shown in Figure 19, there has been a fall in spending on physical home-video since 2007, which is projected to continue. However, the overall decline of in-home-video spending looks set to reverse, due to growth in OTT services and the streaming of video content exceeding the decline in physical distribution. Spending in the market between 2011 and 2012, as illustrated below, was forecast to rise globally by 0.3%.

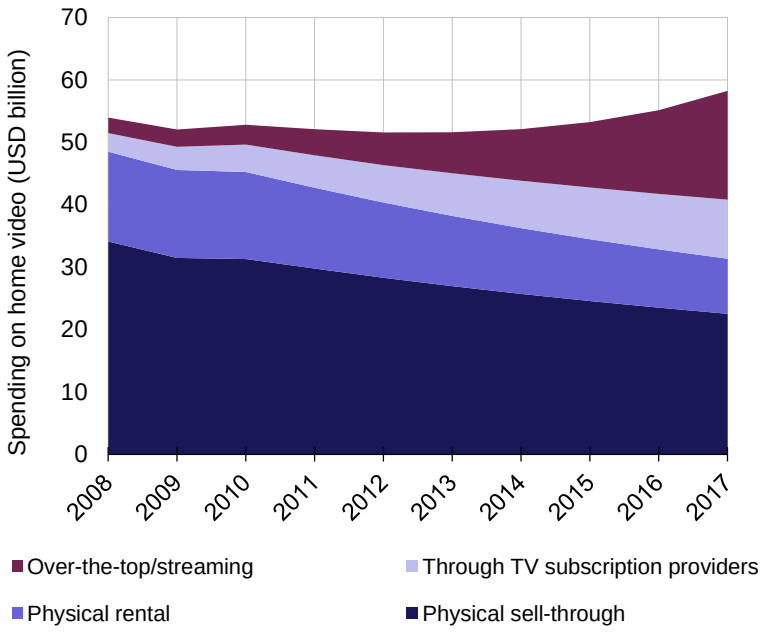


Figure 19: Global spending on home video [Source: PwC Global Entertainment and Media Outlook: 2013-2017, www.pwc.com/outlook, 2013]

Unlike for pay TV, a substitution effect can be seen, with the fall in physical home video spending associated with a move to online alternative methods of accessing films, which are often cheaper. Price is of course not the only motivation for this move, as streaming or downloading content is often more convenient than accessing a physical copy.

Additionally, films are often made available to subscribers of VoD or pay-per-view (PPV) services before they are shown on regular pay-TV channels. VoD and PPV are also substitutes for physical home video, but are also declining in popularity due to OTT. OTT is likely a complement to all linear programming and is potentially the largest threat to VoD and PPV.

Of note relating to the fall in physical media consumption is that while overall sales and rentals are falling, there is still growth in spending on Blu-ray disks. The emergence of this new physical distribution technology simultaneously to the online distribution channels, which do not require the same level of capital investment in a media player, may have partly served to subdue take-up of the technology. However, the growth in the Blu-ray market, which has been observed despite the overall decline in physical home-video distribution, suggests that, as for audio content, consumers value the high quality of (in this case) video that online distribution methods allow them. The disparity in the quality of paid online content and that available in pirated format is becoming more significant with the introduction of HD and 3D movie streaming and digital download services by companies such as Netflix[21] and Vudu[22] in North America. If the value attached by consumers to quality continues to be high, then it is likely that the proportion of online video content made up of pirated content will fall as higher quality legal online distribution services expand.

21 See http://www.complex.com/tech/2013/01/netflix-launches-super-hd-and-3d-streaming-content.

22 See http://www.vudu.com/.

4 New business models

In the previous section, we have provided an overview of the recent evolution of the content industry, highlighting trends in revenues and sales. This overview has demonstrated generally positive trends in the financial results of content providers. These can be largely attributed to various new business models creating a new channel for sales. In particular, as mentioned in our discussions of audio and video content distribution in Sections 3.2 and 3.3 respectively, there have been several different strategic models adopted by traditional distributors and new entrants to take advantage of, and monetise, the online distribution market. These models help to explain the financial results in recent years for the content providers, in which overall sales may even be up, with online sales increasingly displacing physical ones.

The following sub-sections look at specific examples of businesses that have developed operations using various strategies in the online distribution market:

- Section 4.1 considers international video and audio content case studies in which a streaming strategy has been adopted
- Section 4.2 discusses case studies in which a paid digital download service has been introduced
- Section 4.3 looks at examples of companies which provide devices that can aggregate several content platforms
- Section 4.4 discusses a number of international video content case studies in which pay-TV operators have developed 'TV Everywhere' strategies.

4.1 Streaming

Streaming services allow users to watch online distributed content in real-time (i.e. downloading the content as it is watched, but not storing it). These services can be subscription based, or can be free to the viewer, and financed by other means, such as through advertising or licence fees.

Below we describe a number of specific examples of these streaming services, looking in particular at services that have used a 'free' streaming strategy, a paid subscription strategy or a hybrid of the two.

4.1.1 'Free' streaming services

As discussed above, some subscription services are offered to consumers free of charge, a number of these are discussed below.

YouTube channels

YouTube is a video-sharing website designed to enable users to upload, view and share videos. Since November 2006 it has been owned by Google, which acquired it in exchange for USD1.65 billion in Google stock. With over 800 million global users, it is the world's most popular digital video service. Traffic to and from the site typically makes up a significant proportion of both fixed and mobile user's Internet traffic usage, as shown in Figure 20 and Figure 21 below. As can be seen from the figures, Europeans tend to make more use of the website via fixed Internet connections whilst in the US YouTube traffic generated using mobile devices is highest.

Figure 20: Proportion of total fixed network peak-period traffic to and from YouTube by region [Source: Sandvine Global Internet phenomena, 2013]

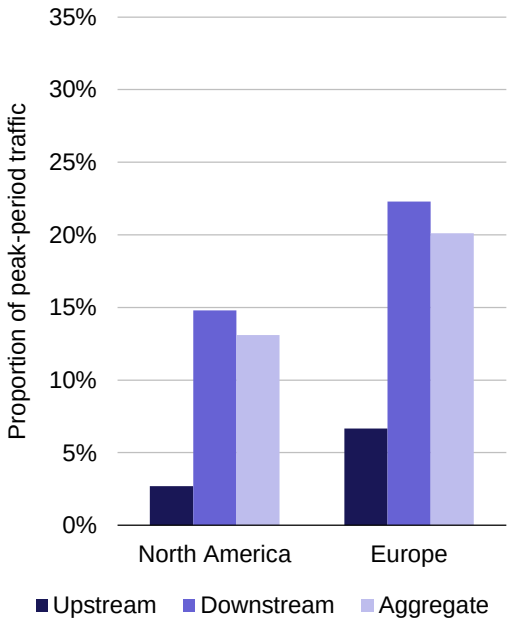
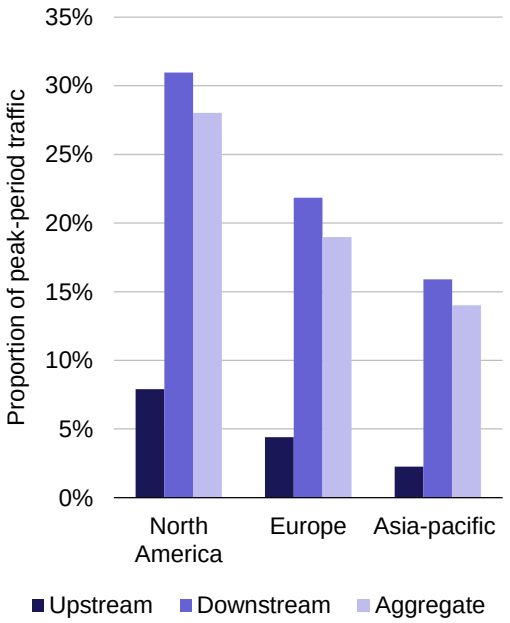


Figure 21: Proportion of total mobile network peak-period traffic to and from YouTube by region [Source: Sandvine Global Internet phenomena, 2013]



Whilst the purpose of the site is for video streaming, YouTube is nonetheless very popular with music fans, with nine of the ten most viewed videos on the site made up of music videos. The most popular video is that for South Korean musician PSY's song *Gangnam Style* which exceeded 1 billion cumulative views on 21 December 2012.

YouTube supports the development of original content to be shown on dedicated channels, and in 2011 it sought out bidders to receive USD100 million of funding to provide approximately 20 channels showing original content. Of the 600+ proposals that were submitted to Google, 100 were selected for funding from a variety of genres, included pop culture, sports, lifestyle, music and news. This reflects the fact that there is no dominant genre on the site, which can also be seen from its most popular channels in Figure 22 below.

Figure 22: Top-10 YouTube channels, 15 April 2013 [Source: VidStatsX, 2013]

Channel	Channel views	Videos	Subscribers (million)	Genre
RayWilliamJohnson	427 371 233	362	8.3	Comedy
BlueXephosBlueXephos	358 748 548	2000	4.4	Shows
smosh	254 826 951	288	9.1	Shows
nigahiga	221 396 815	149	7.9	Comedy
PewDiePie	184 667 258	1200	6.7	Games & Gaming
Machinima	184 456 517	22 900	7.2	Shows
Barely Political	165 753 571	827	2.6	Shows
sxephil	150 922 300	1100	2.5	Entertainment
ShaneDawsonTV	144 199 598	234	3.7	Film & Animation
RoosterTeeth	142 264 040	4100	4.3	Shows

Machinima, a channel that was a recipient of Google funding in 2011 and is now in the YouTube Top 10, provides an interesting example of an innovative YouTube channel. It produces gaming-focused original content programming, targeting a young male demographic. As shown in Figure 23, Machinima has been successful in increasing its viewer minutes. This trend of increasing popularity has continued to March 2013, with 202 million unique views and over 2.2 billion videos watched.[23] Video viewing was not solely on fixed devices as approximately 950 million views were over mobile devices.

[23] See http://www.machinima.com/.

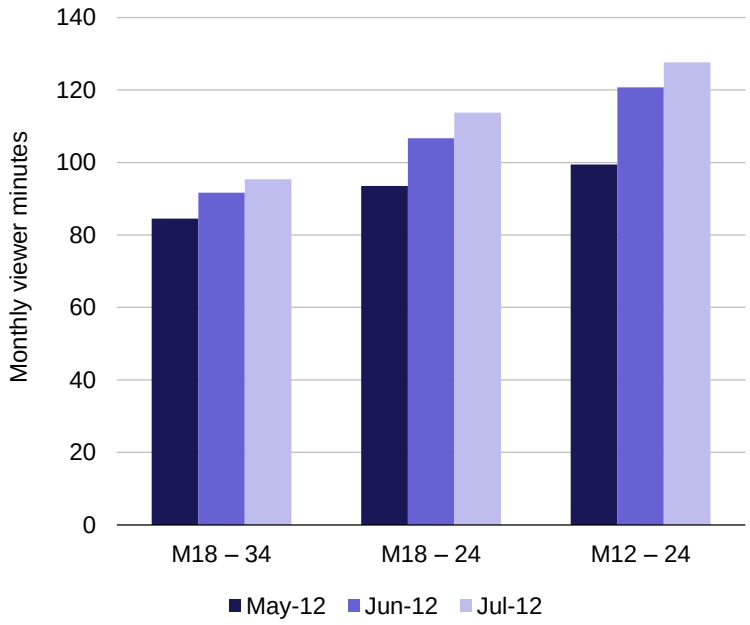


Figure 23: Machinima's monthly viewer minutes by male age group [Source: Machinima, 2013]

Machinima's original content offering is being boosted by a March 2013 agreement to partner with Ridley Scott's production company, RSA, in order to create twelve "original high-octane science-fiction" short films. Depending on the popularity of these shorts amongst the Machinima audience, there is potential for these to be developed into fully fledged franchises.

BBC iPlayer

BBC iPlayer is a free online service available within the UK that enables users to access radio and television programmes broadcast on the BBC throughout the previous week. It can be accessed both through the dedicated site as well as on downloadable mobile and tablet apps. Additionally some of the content, including news programming and much of the radio content, is also made available outside of the UK.

The popularity of both radio and TV services offered is steadily increasing as shown in Figure 24 and Figure 25 below. The popularity is now such that in 2012 iPlayer accounted for 5.1% of fixed network downstream traffic in the UK.[24]

[24] Sandvine Global Internet Phenomena Report 2H 2012 http://www.sandvine.com/downloads/documents/Phenomena_2H_2012/Sandvine_Global_Internet_Phenomena_Report_2H_2012.pdf.

Figure 24: TV requests to BBC iPlayer [Source: Ofcom Communications Market Report 2012, 2012]

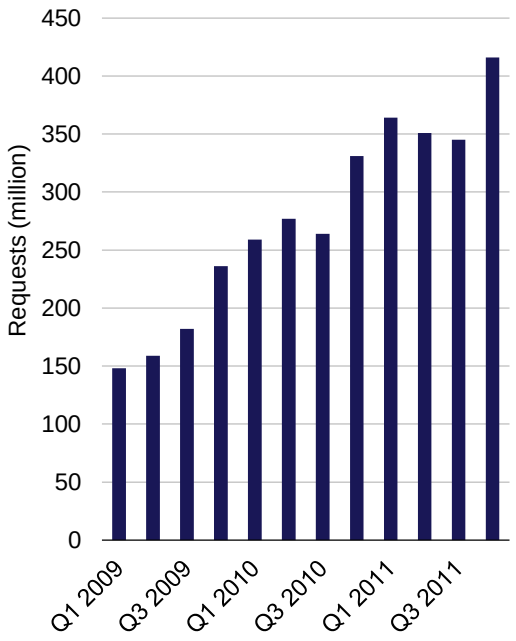
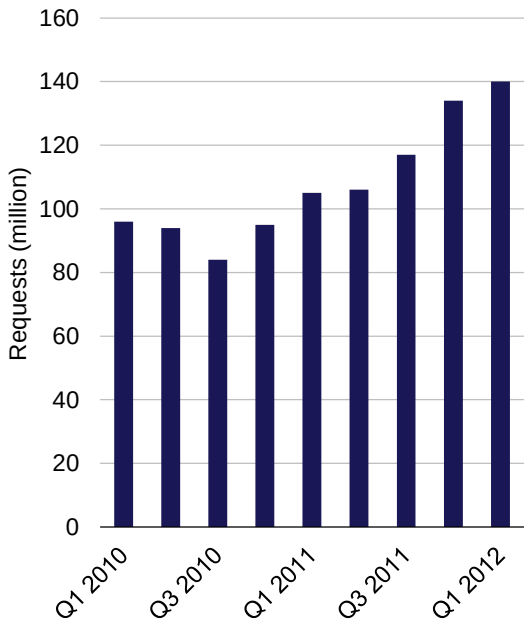


Figure 25: Radio requests to BBC iPlayer [Source: Ofcom Communications Market Report 2012, 2012]



In March 2013, the BBC announced an expansion of its commissioning of original content exclusively for distribution on its iPlayer service. Six drama films are due to be produced over the next two years, building on the current online-only catalogue of shorts including a *Doctor Who* mini-series released in 2012.

Pandora Internet radio

Pandora is an Internet radio service available in the USA, Australia and New Zealand that 'recommends' music to the user, by selecting music to play in a genre similar to that of any of the user's selected artists. The service then reacts to feedback from the user for future song choices.

Launched in 2005, Pandora had approximately 100 million users by July 2011. This user base has subsequently grown rapidly as shown in Figure 26, and in April 2013 Pandora passed the 200 million user mark with around 70 million of these users active on a monthly basis.[25] This increase in users is reflected in the rise in hours of content streamed by users, as shown in Figure 27. By February 2013, the service constituted 8% of all radio listening in the USA.

[25] See http://blog.pandora.com/.

Figure 26: Users of the Pandora online radio service [Source: Pandora Detailed Historical Financials, 2013]

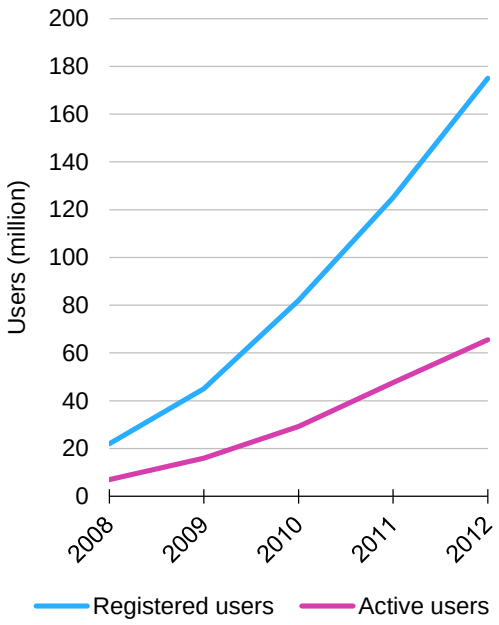
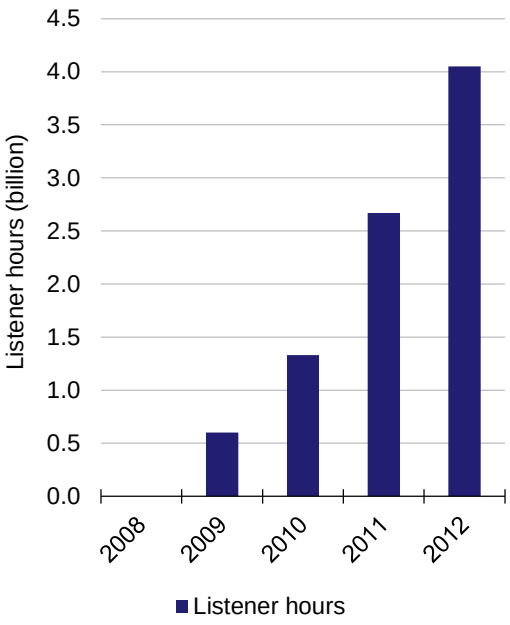


Figure 27: Hours of content listened to per annum by Pandora service users [Source: Pandora Detailed Historical Financials, 2013]



4.1.2 Paid subscription streaming services

While the streaming services discussed above are offered to the user free of charge, others are offered on a subscription basis. In this section, we consider several examples.

Netflix

Netflix launched in the USA in 1997 as a DVD rental service, in competition with local rental stores. As the DVD market began to slow, Netflix introduced an online subscription service offering on-demand streaming of films and TV series from its library. It offers its subscribers unlimited access to its library titles at a fixed monthly cost, often significantly below the cost of purchasing a single physical copy of a title. After rapid growth in the USA, Netflix has expanded its online subscription service into Canada, South America, the Caribbean, the UK, Ireland, Sweden, Denmark, Norway and Finland.

Take-up of Netflix's online service is significant in the USA, where in 2012 it reached a total of 27.1 million streaming customers.[26] As can be seen in Figure 28, Netflix-related traffic constitutes a significant portion of downstream traffic in the USA, particularly over fixed access networks. Netflix is copying this success in its new markets, for example with more than 13% of Internet traffic in Canada attributable to Netflix just six months after launch.[27]

26 See: http://ir.netflix.com/results.cfm.

27 CMPA Content Everywhere, Mapping the Digital Future for the Canadian Production Industry; http://www.cftpa.ca/newsroom/pdf/CONTENT_EVERYWHERE-2012-02-27.pdf.

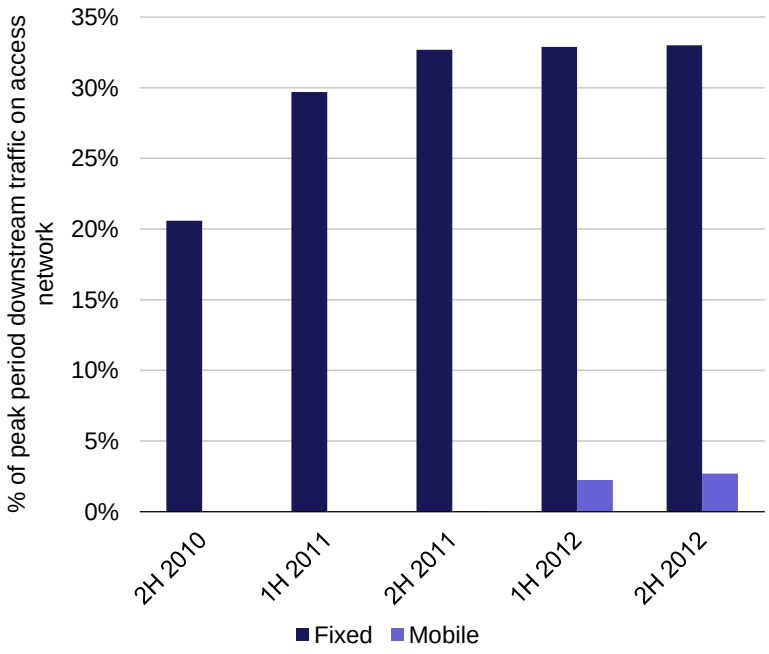


Figure 28: Proportion of peak-period downstream traffic in the USA on Netflix on both fixed and mobile access networks [Source: Sandvine Global Internet phenomena, 2013]

Recently, Netflix has made moves to introduce original and exclusive content to its library to increase its attractiveness to subscribers. The most recent of these original series to be released was *House of Cards*, a drama series starring Kevin Spacey, which reportedly cost Netflix USD100 million. Further original series produced by Netflix are shown in Figure 29 below.

Series title	Genre	Release date
Lilyhammer	Comedy drama	6 February 2012
House of Cards	Political drama	1 February 2013
Hemlock Grove	Horror/Thriller	19 April 2013
Arrested Development	Comedy	26 May 2013
Derek	Comedy drama	2013
Orange is the New Black	Comedy drama	2013
Turbo: F.A.S.T	Animation	December 2013
Narcos	Drama	2014
Sense8	Sci-Fi drama	2014

Figure 29: Original and exclusive content produced by Netflix[28] [Source: Wikipedia, 2013]

[28] While these series are exclusive to Netflix, it is important to note that they are not shows developed by Netflix, but rather that Netflix has provided financing to developed projects that already have a cast attached in exchange for the rights.

KKBOX

KKBOX, founded in Taiwan in 2004, is Asia's leading provider of digital music subscription, offering its customers access to over 10 million tracks from roughly 500 labels.[29] While KKBOX will provide free preview clips to non-subscribers, its full library of music is only available to customers on a monthly paid subscription basis. By way of example, subscription costs in Japan were JPY980 per month in April 2013.[30] With their subscription, consumers have access to music for both online streaming and caching to devices (including laptops, smartphones and tablets) for offline access. KKBOX's library of music includes tracks and albums, to which it has exclusive digital copyright.

The service operates in a number Asian markets including Taiwan, Hong Kong, Singapore, Malaysia and Japan, with plans for expansion throughout the region. As of August 2008, KKBOX owned approximately 80% of the online digital music market in Taiwan.

4.1.3 Hybrid streaming services

There are also some streaming services available that offer both free access to content and a paid subscription option, which gives users additional benefits such as more content and the ability to use the service on a wider range of devices. Examples of such hybrid services are discussed below.

Hulu

Hulu is a joint venture between three content providers, NBCUniversal, News Corp and Disney, alongside a private-equity company, Providence Equity Partners. Hulu provides online videos from over 410 content owners as well as originally produced video content. The videos are available through a number of sites including MSN, IMDb, AOL and Yahoo! as well as Hulu's own site, Hulu.com.[31]

Hulu now has a hybrid model. While the traditional Hulu service is free to use and funded by advertising, Hulu Plus requires a paid subscription of USD7.99 per month to access its greater library of content, including full seasons of shows and additional episodes, as well as to make use of the service via Connected TVs, Blu-ray players, gaming consoles and mobile devices.

While Hulu's business strategy focuses on catch-up viewing of content from its owners, it has recently expanded to act as a platform for viewing programming not available via cable services such as UK shows, including *Misfits* and *The Thick of It*, making it the exclusive US distributor of such content. This fits in with its entry into the original content market with offerings such as the Morgan Spurlock documentary, *A day in the life*, and the political campaign mocumentary *Battleground*.

29 See http://www.kkbox-inc.com/en/index.shtml.

30 See http://www.startup-dating.com/2013/04/kddi-kkbox-music-service.

31 See http://www.hulu.com/about.

Deezer

Deezer is a French online music streaming service giving its users access to over 20 million music tracks which they can listen to on various devices, both online and offline.[32] Since its launch in 2006, Deezer has expanded significantly and by February 2013 was available in 182 countries with over 30 million users, 3 million of which were paid subscribers. Of this growing subscriber base, 60% initially joined the service using a mobile device.

Deezer offers three account types to its subscribers, with most using its basic free 'Discovery' package, which gives them access to unlimited music for six months with a limit of two hours per month kicking in after this point. This package is funded by audio advertisements between the songs. Subscription to either of the paid premium packages enables users to stream higher quality audio, unlimited and without adverts; the most expensive subscription is also available on mobiles and Connected TVs, and allows content to be synched to devices and listened to offline.

4.2 Digital download services

Paid digital download services offer users the ability to download a digital copy of a piece of content (e.g. video or music). This can be done based on individual, one-off payments or via a subscription model such as those described above like KKBOX. In this section, we discuss two examples based on the one-off payment model.

iTunes store

iTunes is Apple Inc.'s online media library service, allowing users to download and organise digital video and audio content on PCs, laptops and Apple devices. The third-party content in the library is available to purchase or rent from the iTunes store. The service is available across approximately 120 countries spread across all regions.[33]

The service offered is hugely popular, and in 2012 iTunes held a 63% share of the paid US music download market.[34] Furthermore, in February 2013, Apple announced that over 25 billion songs had been purchased from the iTunes store.[35]

This large market share and global presence has enabled the iTunes store to generate increasingly large amounts of revenue for Apple Inc. as shown in Figure 30.

32 See http://www.deezer.com/en/.

33 See http://www.apple.com/choose-your-country/.

34 See https://www.npd.com/wps/portal/npd/us/news/press-releases/the-npd-group-after10-years-apple-continues-music-download-dominance-in-the-u-s/.

35 See http://www.apple.com/uk/pr/library/2013/02/06iTunes-Store-Sets-New-Record-with-25-Billion-Songs-Sold.html.

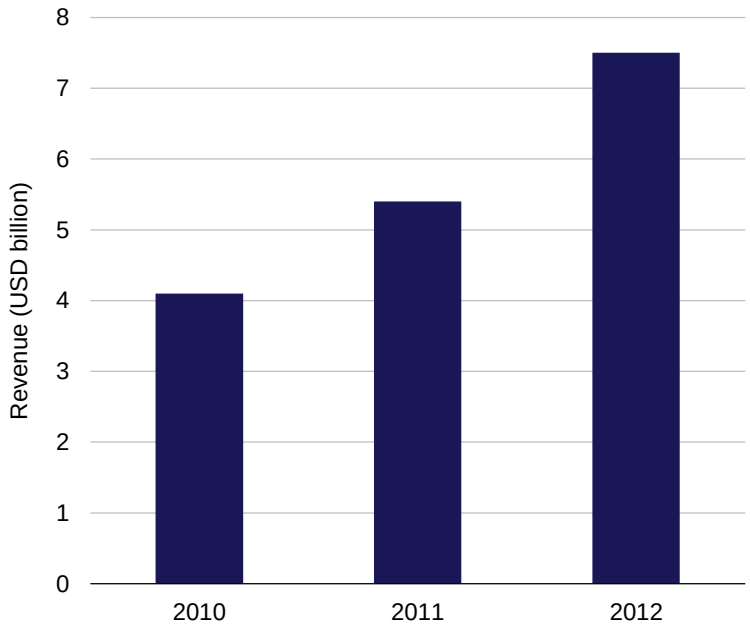


Figure 30: Revenue generated by the iTunes store [Source: Apple 10-K filings, 2013]

Apple has made use of its large installed base of hardware devices to enable integration between the download store and these devices. For example, customers' iPhones and iPads will automatically synchronise video and audio content from the user's iTunes library as well as acting as devices from which customers can access the store and directly download music. Additionally, Apple's iCloud product allows the streaming of library content to any of the customer's compatible devices. By February 2013, the iCloud service was being used by 190 million people.[8]

Amazon

Amazon has operated an online music store called Amazon MP3 since September 2007. One of the unique aspects of this service is that the music downloaded is free of per-customer watermarking or digital rights management (DRM). The service operates in the USA, Japan and across Europe and can be accessed via apps on BlackBerry and Android devices, enabling mobile users to download music over a Wi-Fi network. This service currently has a share of over a fifth (22%) of the market for digital music downloads in the USA.

Additionally, Amazon offers the Amazon Instant Video service, allowing users to download from a library of over 100 000 movies and TV shows.[36] The TV content is available the day after its TV airing, while films can be purchased via the service on the day of the DVD release. The cost of a new title starts at USD3.99, while the site offers 'Daily Deals' which can see content reduced to USD0.99.

[36] See http://paidcontent.org/2011/10/11/how-netflix-blockbuster-hulu-and-amazon-stack-up/.

Amazon has also rolled out a Cloud Player in the USA and Europe, which for an annual fee of USD24.99 allows customers to access their music library remotely. A similar service is also offered by Apple in the USA.

4.3 Device strategies

A number of companies have taken advantage of the growth in online content consumption by providing devices that can aggregate the available content platforms. Similarly, there are companies seeking to develop a vertically integrated, fully streamlined walled garden environment with the development of devices alongside online content services. Some of these device manufacturers and their strategies are discussed below.

Roku

Roku is a manufacturer of digital media receivers that act as something approaching universal aggregators, allowing customers to access Internet-streamed video or audio services through Connected TVs. Customers are given access to roughly 750 entertainment 'channels', over 300 of which provide movie and show content, featuring 100 000+ programmes.[37]

In April 2013, Roku announced that it had sold 5 million of its streaming devices since its launch in 2008.[38] Consumers had used these devices to stream 8 billion pieces of content in that period. This made for 2.5 million devices sold in the 15 months from January 2012, up from 1.5 million in the year January 2011 to January 2012 as can be seen in Figure 31 below.

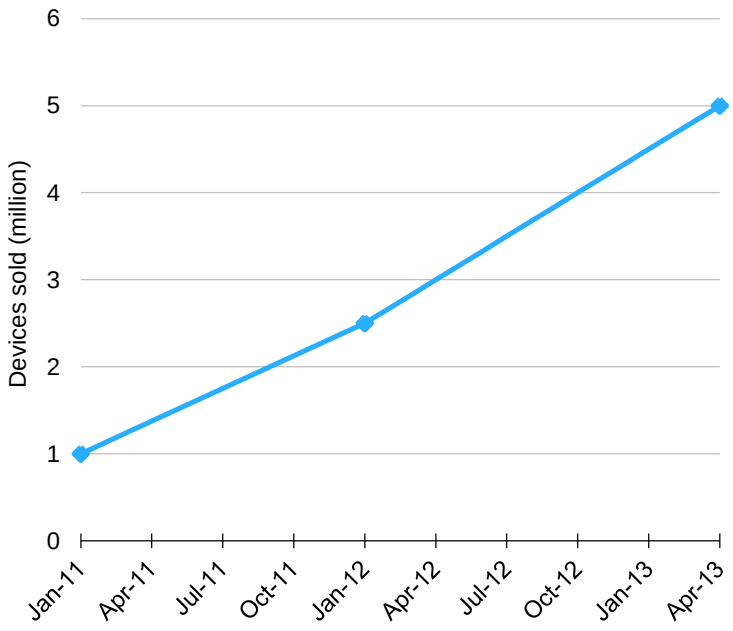


Figure 31: Roku devices sold [Source: Roku, 2013]

37 See http://www.roku.com/uk.

38 http://blog.roku.com/blog/2013/04/10/celebrating-5-million-roku-players/.

Roku devices are available online but also via major retailers (e.g. Best Buy, RadioShack, Wal-Mart) from USD50 to USD100, and can be purchased in the USA, Canada, the UK and Ireland.

One of the attractions to the Roku device is Roku's large number of partnerships with both content owners and distributors, which allows it to bypass traditional aggregation. Partners include Disney, HBO Go, ESPN, Netflix, Hulu Plus and Spotify. Not only do these partners provide content for the Roku devices, but in certain cases they provide financial backing; a significant instance of this occurred in July 2012, when Roku received a USD45 million investment from partners including BSkyB.[39]

While a large proportion of the content consumable through a Roku device is free, certain channels, such as Netflix, can only be accessed in conjunction with a monthly subscription to that service. Similarly, there are a number of premium content channels that operate on a PPV basis through the device.

Sonos

Sonos is a company based around its Wireless HiFi System, which allows for the streaming of online music via Wi-Fi. The system can be controlled through apps available for Android and iOS platforms, and Kindle Fire, as well as through a computer using either Apple or Microsoft software. The company currently sells its devices and corresponding software in 60 countries.[40]

The tag-line used by Sonos in marketing its devices is "all the radio on earth" and the device enables users to access their cloud-stored music library, music subscription services and more than 100,000 free radio stations, podcasts and programmes.

Microsoft (Xbox)

Microsoft is taking advantage of the 76 million[41] Xbox consoles it has sold since the launch of the device in 2005 and its corresponding Xbox LIVE service to which 46 million users are connected, to create an instant device market through which content distributors can provide their services. As a result, the box aggregates content from Microsoft's partners and other online content providers, acting as a universal set-top box.

Apple

Unlike the other device manufacturers discussed above, Apple is a vendor of online audio and video content through its iTunes store, discussed in Section 4.2 above. Apple uses the links between this service and its devices, including the iPhone, iPad and iPod, to create a vertically integrated content and device ecosystem. The iTunes store acts as the main hub for users of Apple products to access content, and the development of the iCloud looks to extend the reach of the

39 See http://www.businesswire.com/news/home/20120726005556/en/Roku-Raises-45-Million-News-Corporation-BSkyB.

40 See http://www.sonos.com/.

41 See http://www.slashgear.com/microsoft-xbox-360-sees-76m-units-sold-globally-12269019/.

store across the devices with its ability to enable content purchased on iTunes to be made available and synchronised across all registered devices. Apple's Internet-enabled devices are hugely popular, with year-on-year sales increasing rapidly as shown in Figure 32 below.

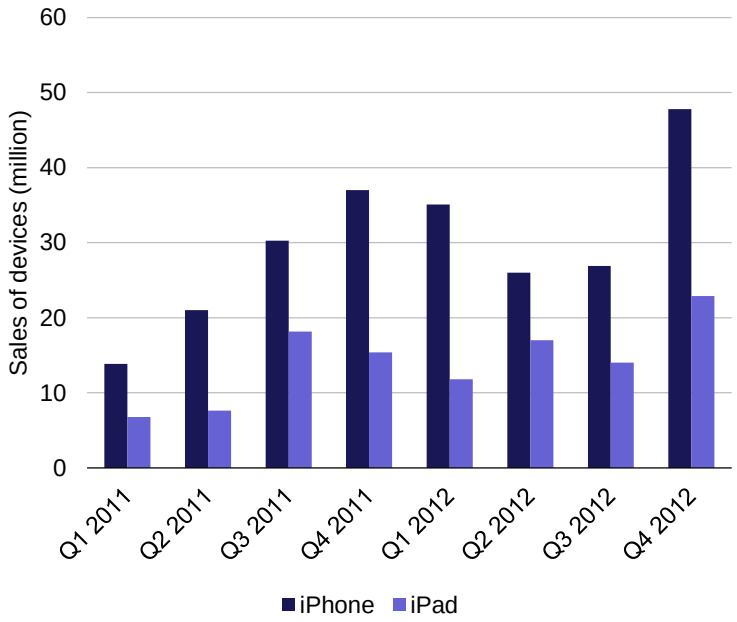


Figure 32: Sales of Apple devices [Source: Apple Press Info, 2013]

Apple, like Roku, is also present in the set-top box market with its 'Apple TV' offering, retailed at around USD100. This device provides users with access to the iTunes store, content in the iCloud and OTT services, such as Netflix.

4.4 TV Everywhere

In the previous sub-sections, we have noted several examples of new entrants to the content distribution market offering various online approaches to content distribution. In this section, we consider a number of examples of traditional content providers responding to this threat. These examples are in part defensive strategies, but do also open up some new revenue opportunities for the traditional providers, as discussed below.

TV Everywhere services have begun to be implemented by traditional cable or satellite pay-TV operators to allow their existing subscribers to log on to an online account and view the content which they already subscribe to, but online on devices such as computers, smartphones and tablets.

Such services can be provided for an extra fee to subscribers, or for no additional cost to improve customer retention. In fact, a recent GfK survey[42] found that close to 25% of respondents claimed they would be more likely to keep their existing TV services because of the availability of TV

[42] TV Everywhere 2012: A How People Use® Media; http://www.gfk.com/us/news-and-events/news/pages/%E2%80%9Ctv-everywhere%E2%80%9D-services-from-networks-have-higher-awareness-use-than-those-from-pay-tv-providers.aspx.

Everywhere products. Such services have been rolled out across many locations, with particularly interesting examples in the USA and the UK, which we discuss in more detail below.

Comcast Xfinity and TWC TV

The first TV Everywhere services were announced by two US cable-TV providers, Comcast and Time Warner, in June 2009. These services have since been developed into the two operators' current market offerings, 'Comcast Xfinity' and 'TWC TV'.

Comcast's TV Everywhere offering is available across on-demand, online and app platforms, and by September 2012 over 1.5 billion shows had been streamed across these delivery platforms with over 6 million downloads of its Apple and Android app services.[43] Perks of using the Xfinity service include early access to film and series premieres, and the service can be upgraded for USD4.99 per month to 'Streampix', which allows unlimited streaming of content to multiple devices.[44]

Similarly, TWC TV enables customers of any Time Warner Cable video package to watch live TV and 4000 on-demand programmes on various devices including tablets, computers and smartphones, from any room in the home. Time Warner Cable has additionally teamed up with Roku, which offers a device that streams the Internet to a TV set in order to stream up to 300 channels of live TV.[45]

BSkyB

BSkyB in the UK runs a TV Everywhere service called 'Sky Go', which is available free of charge for its existing TV customers to stream content related to that included in their TV subscription to a variety of devices including laptops, smartphones, selected tablets and Xbox. Since January 2013, users can upgrade from 'Sky Go' to 'Sky Go Extra' for a GBP5 monthly fee, which enables them to download content to their devices.

Sky Go has shown a rapid take-up, with quarterly unique users increasing from 2.1 million in Q2 of financial year 2011/12 to 3.1 million in the same period of financial year 2012/13, an increase of 46%.

43 See http://www.cedmagazine.com/blogs/2012/09/comcast-tv-everywhere-scorecard-15b-and-counting.

44 See http://www.comcast.com/xfinity-streampix.html.

45 See http://www.timewarnercable.com/content/twc/en/residential-home/tv/features/twc-tv.html.

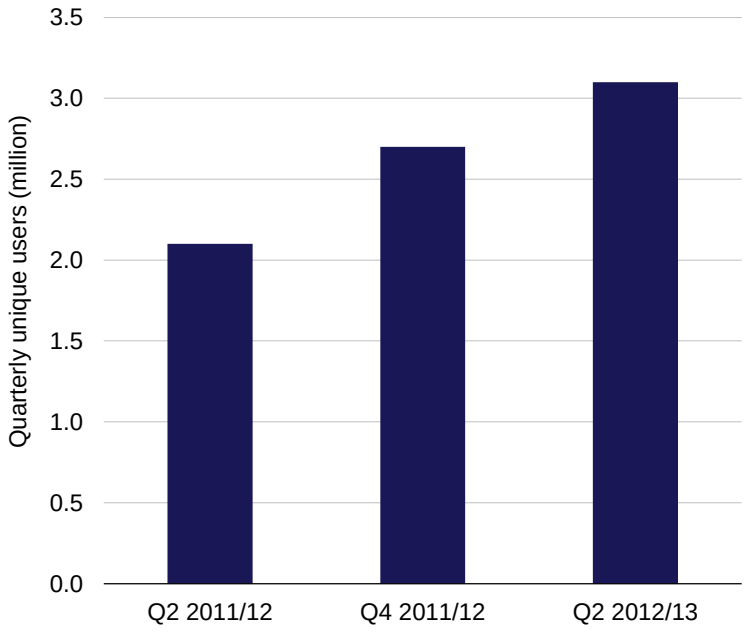


Figure 33: Quarterly unique Sky Go users [Source: Sky First Half Results 2013, 2013]

Similarly, three quarters of these users had used the service over five times by the end of the period. Over the same period, BSkyB had increased the content available and the device compatibility of the service.[46]

While Sky Go is primarily used by BSkyB as a customer retention tool, it also offers the service on a standalone basis, i.e. without a traditional pay-TV subscription for a similar monthly charge to BSkyB's traditional pay-TV service. This allows BSkyB to sell its services to users that would not have been able to subscribe to its standard pay-TV offering, for example those who live in multi-dwelling units and would not be able to obtain permission to erect a satellite dish on the building.

HBO Go

A new model in the USA is for the content providers such as HBO (and more recently Disney) to offer their own TV Everywhere apps. This is not like BskyB, in that users cannot buy access directly from HBO (yet), but rather, they download the app and then their pay-TV provider validates that they are indeed a subscriber. Users can access the app from anywhere, not just via home Wi-Fi.

[46] Sky First Half Results 2013; http://corporate.sky.com/documents/pdf/latest_results/1213_q2_presentation.pdf.

5 Conclusions

In this paper, we have considered the impact of online distribution of content on content owners. Our analysis shows that in recent years, there has been an increasing trend of online distribution of content. However, this has not generally resulted in declines in revenues for content owners, which can be seen by examining the share prices for a variety of content owners, including film studios and record labels, as shown in Figure 34 below. Over the five-year period from 2008 to 2012, when online distributed content was becoming an increasingly large proportion of all content consumed, there was no clear trend of decline in stock prices of these firms. This is against the backdrop of a serious global recession, suggesting that there is no clear negative correlation between the increase in online content consumption and the performance of content owners.[47]

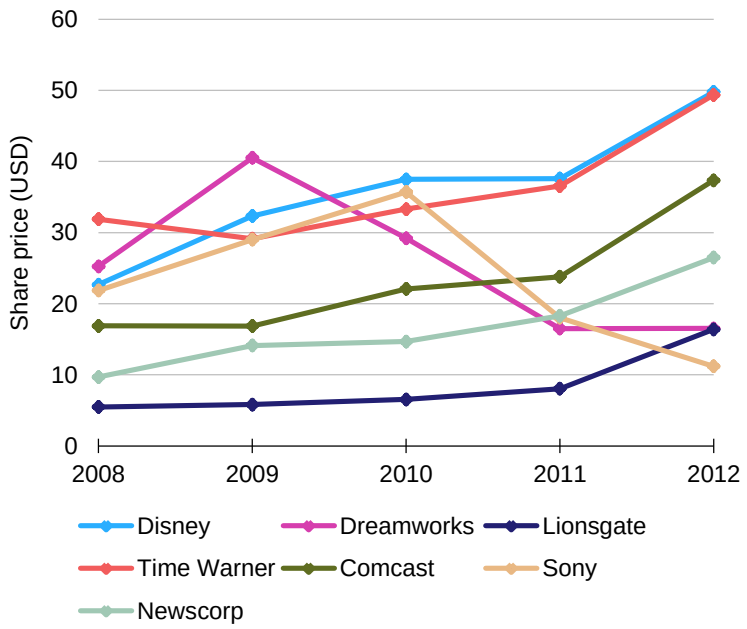


Figure 34: Share prices for a selection of content owners [Source: Yahoo! Finance, 2013]

Although online distribution does present some threats to the existing business models of content owners, in reality it allows for even greater opportunities. These are already being exploited to a substantial degree and there is large potential for further growth related to the online distribution of content in the future.

We have seen evidence that while, in some cases, traditional methods of content distribution are declining in popularity and being displaced by online distribution, overall growth persists. In particular, the growth in adoption of the emerging, Internet-based, distribution of high-quality content is beginning

[47] We note that there has been some negative performance from a couple of the content owners considered, but it is not always clear that this is related to the content portion of their businesses. For example, Sony also manufactures consumer electronics, such as TV sets, cameras and laptops, and it is these areas of its business in particular which have been struggling in recent years.

to exceed the decline in physical distribution such that any declines in overall revenue from content associated with the emergence of online distribution are being turned around.

In our analysis, we have considered the evolution of the content industry in terms of spending, content development and device adoption, and also in terms of the new business strategies. We were able to observe that, in recent years, a wide variety of audio and video content has been made available online, either directly by the owners, or indirectly with new aggregators such as Netflix making available existing and new content. These new business models have given a new role to device manufacturers, including Apple, which have effectively become content aggregators in their own right and have enabled content owners and distributors to take advantage of, and monetise, online distribution. In this context, by making rights available for online distribution, content providers are not only able to shrink the demand for pirated content, but also expand their markets and overcome corresponding decreases in the sale of physical content.

Annex A About us

A.1 About the Internet Society

The Internet Society is a leading advocate for a free and open Internet, promoting the open development, evolution and use of the Internet for the benefit of all people throughout the world. We are the trusted independent source for Internet information and thought leadership from around the world. The Internet Society has worked for more than 20 years to ensure the Internet continues to grow and evolve as a platform for innovation, economic development, and social progress.

The Internet Society educates, informs, and communicates with technology, business and government stakeholders, as well as the general public, to promote an open Internet for everyone. We advocate for the ongoing development of the Internet as an open platform that empowers people to share ideas and connect in new and innovative ways, and which serves the economic, social, and educational needs of individuals throughout the world. To achieve this mission, the Internet Society:

- facilitates open development of standards, protocols, administration, and the technical infrastructure of the Internet
- supports education in developing countries specifically, and wherever the need exists
- promotes professional development and builds community to foster participation and leadership in areas important to the evolution of the Internet
- provides reliable information about the Internet
- provides forums for discussion of issues that affect Internet evolution, development and use in technical, commercial, societal, and other contexts
- fosters an environment for international cooperation, community, and a culture that enables self-governance to work
- serves as a focal point for cooperative efforts to promote the Internet as a positive tool to benefit all people throughout the world
- provides management and coordination for on-strategy initiatives and outreach efforts in humanitarian, educational, societal, and other contexts.

The Internet Society is at the centre of the largest global network of people and organisations focused on ensuring the Internet continues to evolve as a platform for innovation, collaboration and economic development. By tackling issues at the intersection of technology, policy and education, we work collaboratively to preserve and protect the multi-stakeholder model of development and management that has been key to the Internet's success. With more than 130 organisational members and over 55 000 individual members in over 90 Chapters, the Internet Society represents a worldwide network of

corporations, non-profit organisations, entrepreneurs, and individuals who are interested in working to identify and address the challenges and opportunities that exist online.

Among its many initiatives, the Internet Society has embarked on a multi-year programme to assist emerging economies in developing robust, cost-effective, and efficient Internet interconnection and traffic exchange environments. Our work includes a range of activities, such as:

- Assisting universities, government network operators, and ISPs to gain the world-class knowledge and skills needed to build reliable, cost-effective, and interconnected networks,
- Facilitating the development of new IXPs, and helping stakeholders to maximise the use of IXPs already in place,
- Assisting policy-makers and regulators in developing approaches to expanding the Internet achieving a beneficial interconnection and traffic exchange landscape, and
- Facilitating multi-stakeholder collaborations on these issues, including the African Peering and Interconnection Forum (AfPIF), and supporting the Latin American and Caribbean IXP association (Lac-IX).

For more information about the Internet Society, including our work to improve the Internet interconnection and traffic exchange environment in emerging economies, please visit our website at http://www.internetsociety.org

A.2 About Analysys Mason

Analysys Mason is a trusted adviser on telecoms, technology and media (TMT). We work with our clients, including operators, regulators and end users, to:

- design winning strategies that deliver measurable results
- make informed decisions based on market intelligence and analytical rigour
- develop innovative propositions to gain competitive advantage
- implement operational solutions to improve business efficiency.

With around 230 staff in 13 offices, we are respected worldwide for our exceptional quality of work, independence and flexibility in responding to client needs. For over 25 years we have been helping clients in more than 100 countries to maximise their opportunities.

A.2.1 Consulting and research in TMT

At the core of our offer are two key services, shown below: consultancy and research.

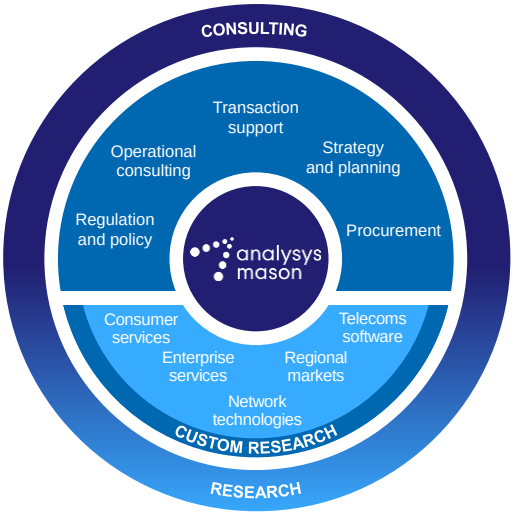


Figure A.1: Analysys Mason's consulting and research propositions [Source: Analysys Mason, 2013]

Consultancy

Analysys Mason's focus is exclusively on TMT. We support multi-billion dollar investments, advise clients on regulatory matters, provide spectrum valuation and auction support, and advise on operational performance, business planning and strategy. We have developed rigorous methodologies that deliver tangible results for clients around the world.

For more information, including case studies and topical articles on work we have done in these areas, visit http://www.analysysmason.com/Consulting/.

Research

Analysys Mason analyses, tracks and forecasts the different services accessed by consumers and enterprises, as well as the software, infrastructure and technology delivering those services. Beyond our published subscription research (shown in the table below), our custom research team offers specialised, bespoke research projects that address specific client needs in opening up new markets and exploiting emerging opportunities.

Practices	Programmes			
Consumer Services	Fixed Broadband and Media	Mobile Broadband and Devices	Mobile Content and Applications	Voice and Messaging
Enterprise Services	Enterprise		SME Strategies	
Regional Markets	Global Telecoms Forecasts	*Europe* European Country Reports	European Core Forecasts	Telecoms Market Matrix
		MEA The Middle East and Africa	*APAC* Asia–Pacific	
Network Technologies	Fixed Networks	Wireless Networks	Spectrum	
Telecoms Software Strategies	Analytics Software Strategies	Customer Experience Management Software Strategies	Operational Transformation Software Strategies	Digital Economy Software Strategies
Telecoms Software Markets	*Application programmes* Revenue Management	Service Assurance	Customer Care	*Data programmes* Telecoms Software Market Shares
	Infrastructure Solutions	Service Delivery Platforms	Service Fulfilment	Telecoms Software Forecasts

For more information including more detail on the programmes and a catalogue of recent publications, visit http://www.analysysmason.com/Research/.