Television’s business model
Fit for a digital world
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Television appears assailed by a range of digital challengers: how is it faring in this environment? This report assesses television’s current performance and outlook given the following developments:

• The rise of subscription video-on-demand (SVOD) providers: will the broadband networks enable the disintermediation of the traditional ad-funded or pay TV broadcaster?

• Sports: does the rise of the Internet and the abundance of sports related information available from the Web, challenge television’s primacy as the principal source of premium sports content?

• Video clips: as the most popular clips now attain ‘viewing figures’ in the billions, is short-form video content finally toppling the traditional (thirty or sixty minutes) programme length?

• Innovation: technology companies seem to dominate when it comes to innovation, launching a range of headline-grabbing products and services. Today, few TV broadcasters have sizeable research and development departments. Can the TV industry compete in the race to innovate?

Deloitte’s assessment of each of these areas suggests that television remains in fine health, and its near-term outlook remains positive. SVOD is growing fast, but is currently less than two per cent of the European pay TV market, and an even smaller share of all TV revenues in the region. Television remains the home of premium sports, with rights values globally forecast to rise by 12 per cent in 2015 to $28 billion, following a double-digit rise in 2014. Long-form traditional TV content remains dominant relative to short-form in terms of viewing hours and advertising. The most viewed online video clip ever, Gangnam Style, has been watched two billion times globally; every day two billion hours of long-form programmes are consumed in Europe alone. Long-form ads generate about $200 billion annually worldwide, about 40 times greater than estimated revenues from video clips. As for innovation, the TV industry has long proven adept at exploiting a range of technological advances, from video compression to lightweight drones. More critically the television industry has delivered consistent innovation in its prime role – that of storytelling.

Television has fared positively in an increasingly digital world, but should be neither complacent nor unnecessarily distracted by the ever-changing digital environment.

Jolyon Barker
Managing Director,
Global Technology, Media & Telecommunications (TMT),
Deloitte Touche Tohmatsu Limited

Ed Shedd
Lead Partner,
Global Media Leader,
Deloitte Touche Tohmatsu Limited

Paul Lee
Technology, Media & Telecommunications,
Head of Research,
Deloitte Touche Tohmatsu Limited

www.deloitte.com/ibctv
About the research
Deloitte has researched and written this report as part of its support for the 2014 IBC Leaders’ Summit.

The research was led by Deloitte’s dedicated research division, which consists of full-time research individuals based around the world, working with Deloitte’s network of practitioners that serve our technology, media and telecommunications (TMT) clients.

Deloitte’s approach is to analyse the TMT sectors as an inter-related, inter-dependent ecosystem. Deloitte’s analysis of market dynamics for the TV sector is guided by our analysis of capabilities and limitations in corollary sectors, such as: fixed or mobile broadband networks, evolution of operating systems for mobile phones; economies of scale in screen technologies; pricing models for mobile broadband; developments in processors; diversification of the smartphone form factor; increases in satellite capacity.

Deloitte’s research approach combines qualitative and quantitative research. Deloitte’s TMT research team holds many hundreds of meetings with executives in TMT companies, investment banks and industry analysts.

Specific programmes of quantitative research that have informed this report include:

• Inputs from an online survey of 2,000 nationally representative respondents in the UK looking at a wide span of TV consumption patterns and attitudes to TV. The survey was fielded by Ipsos and based on a question set written by Deloitte and Ipsos reflecting inputs from industry executives. Fieldwork took place during July 2014. Respondents were sampled and weighted to reflect the UK adult population (16+).

• Selected inputs from Deloitte’s Global Mobile Consumer Survey, an online survey taking place in 22 countries. Fieldwork took place during May-July 2014.

For further information about this research please contact paullee@deloitte.co.uk

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Subscription video-on-demand: a complement, competitor and a channel

Broadcast sports rights: looking ahead to 2015

Television should not go short on long-form

Innovation: can the television industry compete?
Subscription video-on-demand: a complement, competitor and a channel
Proclamations of doom by commentators about the future of television are easy to find. Every major technological advance, such as the Internet and tablets has prompted a flurry of misguided obituaries for traditional television.

Traditional television’s current nemesis is subscription video-on-demand (SVOD), a service that delivers television programming via broadband networks. This is seen primarily as a challenge to traditional pay TV providers, but is also perceived as a potential threat to free-to-air broadcasters. SVOD competes for spend, as well as for on-screen talent, programme producers and writers, and viewer attention.

Television-on-demand is a decades-old service. 2014 is the thirtieth anniversary of the first major video-on-demand (VOD) trial in Europe, which was run by France Telecom in Biarritz and lasted seven years. The trial found that, while the service appealed to consumers, the fibre-to-the-home (FTTH) upgrade required to deliver the service was a cost that neither customers nor the carrier wanted to bear.

However, technology progresses steadily and unceasingly. Connectivity speeds have increased at a double-digit rate year-on-year, such that the same millimetre-thick copper strands going into our homes that were good for 19.2 Kbit/s twenty years ago can now deliver 100 Mbit/s – albeit depending on the distance from the telephone exchange. A constant two Mbit/s link may now be sufficient to deliver video-on-demand to a TV set at a quality equivalent to terrestrial broadcast; and in ideal conditions an 18 Mbit/s connection can deliver ultra-high definition (UHD) images.

With every year, SVOD’s addressable market widens. Faster and better broadband have made SVOD a commercially viable proposition, and user numbers and revenues both appear to be growing rapidly. The best-known SVOD provider, Netflix, has over 50 million subscribers in over 40 countries; and investors’ faith in the company is such that as at the beginning of August 2014 its market capitalisation was over $25 billion, implying a PE ratio of 160. The critics have been impressed too. Netflix has 31 nominations (compared to HBO’s 99) in the 2014 Emmys for shows for which it is the distributor.

Our assessment is that the SVOD market will continue to grow both in Europe and globally; and in some markets, SVOD offerings may challenge established pay TV players.

However this progress should be put into perspective. There are thousands of SVOD services, of which only a handful may be commercially viable in the long run. SVOD will both compete with and complement other TV services, and TV broadcasters need to determine just how much of a threat – or a partner – SVOD services may be.

SVOD is typically a complement, and rarely a substitute, for pay TV. A first reality check concerns the motivations of consumers who subscribe to SVOD. The fear among existing broadcasters is that customers who sign up for SVOD will cancel their traditional pay TV service at the same time – an action which is sometimes known as ‘cord cutting’. Pay TV packages often cost tens of dollars per month. In Europe SVOD is typically priced at a single-digit fee per month; for example Netflix is priced at €8 per month in the Netherlands.
Deloitte’s expectation is that most customers will add SVOD to their existing pay TV content and will see SVOD as a way of adding to their existing suites of programmes, equivalent to adding a family pack or a sports pack to a conventional pay TV package. We base this view on observed behaviours in the US and the UK, and the typical human preference for accumulating rather than choosing between alternatives.

Indeed, Deloitte anticipates that by the end of 2014 at least 50 million homes globally, some ten per cent of them in Europe, will subscribe to conventional pay TV and one or more SVOD services.

This is not an aggressive forecast. It extrapolates observed trends over the past eight years in the US and the last two years in the UK. In the US, as of July 2014 Hulu, Netflix and Amazon Prime had between them over 55 million subscriptions (with some customers having multiple subscriptions). Netflix has built up a base of 36 million subscribers over the past eight years; Hulu has built a six million plus base for its premium service over the last four years; and since 2011 Amazon has included access to TV and movies content for its 10-15 million Prime subscribers in the US. Over the eight years that SVOD services have been available in the US, the number of US homes with pay TV has increased.

The complementary nature of SVOD is also shown by usage patterns. Research by Nielsen has found that SVOD is only a small part of overall viewing: among the top 20 per cent of US viewers who used streaming to get programmes, their average streamed content was 22 minutes per day, compared with an average of 242 minutes for their watching of live TV.

The UK, where services have been available since 2012, is the most mature of the large SVOD markets in Europe. So far, the usage pattern of SVOD in the UK is similar to that in the US: the service is typically a complement, and not a substitute. A survey undertaken earlier this year found that that 67 per cent of Netflix customers and 77 per cent of Amazon Prime customers also had pay TV.

SVOD’s lower subscription costs may make it hard for it to compete for a wide basket of rights

The ability of SVOD services to grow their share of the viewing market will be a function of their content budget. This in turn will depend on the revenues they can generate, as well as the sales, production and marketing costs.

TV programmes are either leased through licence agreements or commissioned by television channels and programme services. The more successful a series, or cast and production team, the more sought after it will become, and the cost of its rights invariably increases.

The demand for good television content is at an all-time high: there are over 350 scripted series in production in the US currently, and a two-year wait for editors and script writers.

In short, good television content is scarce and almost always expensive. Netflix’s licences for the first two 13-episode series House of Cards were reportedly $100 million, and this did not include streaming rights in Germany, France and Italy.

The best television talent also comes at a hefty price: the recent pay negotiations for Big Bang Theory reportedly settled on $1 million per 22-minute episode for each of the three main stars, or $72 million dollars in total for the 24-episode run.

In 2013 estimated global SVOD revenues were $5.3 billion; in comparison, spending on content in the same year by UK TV channels was in the region of $10 billion. SVOD revenues are likely to increase, and their content budget should grow accordingly. However, the total annual SVOD content budget is estimated at $13.8 billion by 2018. Although this is a significant amount, it also sets a limit on potential revenues.
SVOD is currently a small part of European pay TV revenue and may remain so in the medium term
In 2014 SVOD is expected to generate revenues of $950 million in Europe, which is only 1.5 per cent of the $63 billion pay TV market in Europe, in spite of annual growth of 23 per cent in the prior year. SVOD’s share of the market is little different when looking just at Western Europe, where the SVOD offering is more mature: in Western Europe its share is 1.4 per cent of pay TV spend. Worldwide SVOD’s share is higher, at 2.6 per cent of the market.

In the medium term SVOD is forecast to grow annually through 2018 at double-digit rates, both in Europe and globally, but is still expected to remain a small part of the total pay TV market. By 2018 SVOD is forecast to generate $15.6 billion globally, of which $2 billion will be from Europe. This equates to four per cent of all pay TV revenues globally and 2.5 per cent of the European market.

It is worth noting that SVOD revenues are dominated by a handful of players. Total SVOD revenues in 2014 are estimated at $6.9 billion; Netflix and Hulu together are likely to generate over $5 billion, or about three-quarters of the total.

In Europe there are 3,600 VOD services; and globally there are probably thousands more, many of them generating revenues from subscriptions. So hundreds, or possibly thousands, of SVOD companies are sharing just $2 billion or so in revenues.

Traditional television broadcasters and pay TV platform operators are likely to expand their SVOD offer
Most discussions about SVOD focus on new players in the TV space, most commonly Netflix, Amazon and Hulu (which has not yet launched in Europe). However the SVOD market in Europe includes services provided by traditional pay TV companies and free-to-air broadcasters, many of which are extending their SVOD offer.

For example:
• BSkyB launched its SVOD service in July 2012 with a movie service marketed under the NOW TV brand; in October 2012 it added an entertainment package; in July 2013 it announced a subsidised streaming box; by July 2014 the service was accessible via leading games platforms.
• Pro-Sieben, a German pay TV provider, has recently launched an SVOD service, comprising several of its channels and aimed at the nine million German expatriates around the world.
• HBO, the US-based producer, is planning to expand beyond the 60 markets where it currently operates, and target customers in any market with sufficient bandwidth.

Over the next few years, standalone SVOD players will have to compete not only with the SVOD offerings from existing broadcasters, but also with enhanced VOD from pay TV operators and terrestrial broadcasters.
The addressable market for SVOD in Europe

A key constraint on the reach of SVOD providers is broadband penetration. In Europe there are about 186 million homes with broadband. This may seem a sizeable market to address, but as of Q2 2014 Netflix had only 14 million customers outside its home market.\(^{28}\) So the number of broadband homes might indicate significant potential for growth. However not every broadband-connected home may be a potential client.

While average broadband speeds are increasing markedly year by year, variations in speed are becoming ever higher.

In general, people prefer to watch television on TV sets: watching on smaller screens is typically a fall-back rather than a first choice. Delivering video to a TV set in high definition requires a five Mbit/s connection, and consumes about three gigabytes per hour.\(^{29}\)

Of the 186 million homes with broadband, a significant proportion may have a connection that is too slow for streaming video to a television set. Homes in rural areas are the least likely to have sufficiently fast connections. One of the principal factors that determines the broadband speed for a house over a conventional copper connection is its distance from the nearest telephone exchange. In the countryside, homes are typically a long way from their local exchange, and every hundred metres of additional distance from the exchange leads to a further fall-off in broadband speed.

City dwellers tend to live closer to exchanges; but proximity does not guarantee a reliable, fast connection. The Internet is a shared resource, and your neighbours’ usage of this resource affects how much is available to you. At peak times there may be congestion, meaning that it may not be possible to watch video-on-demand on a TV set (although you may have sufficient bandwidth to watch on a PC or a tablet). By comparison broadcast is a non-rivalrous service — the quality of a broadcast television signal to your home is not affected in any way by your neighbours’ viewing habits.\(^{30}\)

Another factor affecting speed is the quantity of devices in a household. A growing number of individuals own multiple connected devices, which may remain connected and using bandwidth even when not in active use. Devices may download photos, videos and apps in the background. A family with teenage children may well have ten bandwidth-sapping devices between them, all debilitating the quality of video-on-demand being watched on the TV.

As a SVOD provider’s subscriber base grows it may need to deploy a content distribution network to maintain quality of service, and it may need to pay to set up direct connections to Internet Service Providers’ (ISP) networks, adding to the operational costs of running the service.\(^{31}\)
A likely challenge for any regional SVOD player in addressing the European market is language. Markets have differing levels of tolerance for foreign content and subtitled content.

The major SVOD players’ licenses are predominantly for English language content. In Northern Europe many citizens are proficient in English, reducing the need for subtitles or dubbing. In the rest of Europe, consumers may be more reliant on sub-titles, which can add to the cost. Smaller European countries such as Romania and Greece are accustomed to watching subtitled content – dubbing may be too expensive for those markets. But in larger markets such as France, Germany and Italy, viewers may expect content to be dubbed with only a minority of viewers able to watch in English, or tolerating subtitles.

The challenge of language
A likely challenge for any regional SVOD player in addressing the European market is language. Markets have differing levels of tolerance for foreign content and subtitled content.

The SVOD market will likely be blended into the overall television market
Historically, the SVOD market has consisted mainly of recently-formed companies delivering content via the Internet, with funding from subscription, but as the range of SVOD services offered by existing pay TV companies grows, and as more pay TV companies make on-demand a key part of their subscription, the boundaries are becoming ever more blurred.

Traditional pay TV companies have launched SVOD services both under their own brand (for example, HBO in the Nordics) and via new brands, such as Sky Deutschland’s Snap.

Some SVOD offerings, such as Netflix content, are being distributed via pay TV platforms such as Virgin Media in the UK. Other SVOD content, such as BT’s sports channels in the UK, can be accessed multiple ways, via: Sky UK’s satellite service, Virgin Media’s cable network or BT’s own IPTV network.

As boundaries blur, differentiation is focusing increasingly on content, which is the current basis of competition for most players in the television space. Yet again, whoever has the best rights wins but as no single company owns all the rights, there will be several different winners.

A likely challenge for any regional SVOD player in addressing the European market is language. Markets have differing levels of tolerance for foreign content and subtitled content.
Broadcast sports rights: looking ahead to 2015
Deloitte estimates that the total value of global premium sports rights in 2015 will be $28 billion, a 12 per cent increase on 2014.35 It will be the second year of double-digit growth. Key drivers of the increase are new domestic broadcast deals for major North American sports properties, namely the NFL, NHL and NASCAR, all of which are delivering a substantial uplift in rights fees compared to previous deals.

Between 2013 and 2015, the value of premium sports rights will have increased by a third, that is $7 billion (see Figure 1). The double digit growth in 2014 and 2015 compares with an average of five per cent between 2009 and 2013, and will exceed the increase in global pay TV revenues for 2014 and 2015.

While much of the 2015 growth will be driven by deals in North America, Deloitte estimates that the total value of broadcast rights to European top-tier domestic football leagues and UEFA club competitions will remain at about $10.6 billion in 2015, or 40 per cent of the total global value of premium sports rights.

This percentage share has been relatively constant over the past five years. As the value of European rights has increased, so too have those for other premium rights, particularly for US sports. The value of European sports rights is dominated by the big five European domestic leagues and the UEFA Champions League, which contribute almost $9 billion of this total.

Methodology for calculating the value of premium sports rights

Our methodology for estimating the value of premium sports rights takes the following approach:

• Only recurring annual competitions are included. The Olympic Winter and Summer Games, FIFA World Cup and UEFA European Championship are not included.

• The annual value of rights fees are averaged over the duration of the respective contract.

• Fees are converted into US dollars, where applicable, using the June 30 exchange rate in that particular year.

• For competitions operating within a calendar year, values are based on rights fees generated in that year. For competitions that operate across two calendar years, values are attributed to the year in which the competition ends. So 2009 refers to competitions operating in 2009 and 2008/09.

• Our information is obtained from several sources: publicly-available information released by rights holders; trade publications; and confidential and proprietary sources.
In 2015 three quarters of global premium sports rights will be generated by just ten sports properties. The premium sports in each market represent a small proportion of all professional sports activity measured by the number of minutes televised, but they represent the vast majority of viewer interest and the bulk of all television revenues. The vast majority of the increases in premium rights fees are come from rights fees paid by domestic broadcasters, but the value of exported content outside the domestic market is increasing. For example the English Premier League generates the highest annual rights fee outside its domestic market of any domestic sports competition, and in the most recent round of contract negotiations, increased average annual rights fees from about £480m per annum to c.£750m per annum (a 56 per cent uplift).

Many commentators continue to ask when the sports rights value ‘bubble’ will burst\(^6\), leading to stagnating or declining rights fees. Deloitte’s view is that rights fees for live rights to premium properties will continue to grow.

Figure 1. Global premium sports rights fees 2010-2015

Note: Rights fees in each year are calculated by averaging the value of rights arrangements across the duration of contracts

Source: Deloitte Sports Business Group, 2014
Premium live sport continues to deliver large audiences, typically with an attractive demographic profile. It drives subscriptions and can generate advertising for broadcasters, particularly in an increasingly diverse media landscape.

The development of pay TV in particular has transformed the broadcasting of premium sports leagues. Live content is a key subscription driver and underpins pay TV business models. As the pay TV subscriber base rises and revenue per user grows, operators are investing increasing sums to secure this key content.

Along with substantial growth in rights fees, there continues to be further investment in the quality of broadcast production for sports. Premium rights owners face a continual challenge to ensure cutting edge broadcast quality, for example by evaluating the viability of coverage in ultra-high definition (UHD, also known as 4K).37

It is important for broadcasters and production teams to review continually the technologies available to them, in order to enhance the value that their viewers derive from watching sport. For the television experience, this includes UHD, super-slow motion and an enhanced choice of live matches. On-demand services available to viewers include camera angles, player tracking, instant replays, statistics and commentary. Making all of this available, not only on the television but also through any other device that fans may want to use, should increase the perceived value of the experience, even if these additional viewing options are seldom exercised.

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**Premium live sport continues to deliver large audiences, typically with an attractive demographic profile. It drives subscriptions and can generate advertising for broadcasters, particularly in an increasingly diverse media landscape.**
Television should not go short on long-form
Traditional television is characterised by its long-form format, with most programmes of 30 minutes or an hour’s duration. For decades, viewers have conformed pliantly to these fixed lengths, even though in other media, from music to films and from books to newspaper articles, there is far more variety.

Online video clips, from the ‘cat-on-skateboard’ genre to instructional videos, are challenging traditional lengths, by being highly popular yet typically ten minutes or shorter. Already, programmes for young children have been getting shorter, partly in a nod to lower-attention, multi-tasking younger generations. Traditional broadcasters are experimenting more with other short-form commissions. A brief foray online reveals many articles, with eye-popping numbers to accompany their argument, that argue that short-form is already dominating over long-form, mostly at the expense of traditional TV.38

Does long-form – the foundation of traditional television – have a future?

Deloitte’s view, is that it very much does, even though at first glance, long-form might appear to be in short-form’s shadow.

Short-form’s (bold) ‘billions’ contrast with television’s (mere) ‘millions’

One of the most successful traditional TV shows in the US at present, Big Bang Theory, attracted an average audience of 17.5 million viewers in its most recent season.39

In comparison, Korean star PSY holds the title for the most-watched video on YouTube, Gangnam Style,40 which has amassed over two billion views since its release in 2012.41 PSY’s official channel has had almost four billion views,42 including 114 million for his most recent hit Hangover, a collaboration with Snoop Dogg.43

PSY undeniably has form. Arguably he may have it easy: his uploads are slickly-produced, tightly-choreographed, big-budget music videos, some of which co-feature world-renowned stars. This helps to attract those hundreds of millions of views. (Arguably, during MTV’s heyday as a music video station, a global hit such as Michael Jackson’s Thriller might have been watched dozens of times by tens of millions of viewers, generating the equivalent of billions of views).44

It is not just music video that can generate billions of hits: the home-made, low-budget clip can do even better.

By August 2014 PewDiePie, a UK-based Swede, had amassed 5.5 billion views and 29.5 million subscribers, and was getting in the region of 200 million views per month.45 His videos, mostly voiced-over video game play, typically get a few millions views each, and over time he has accumulated billions of views by posting 2,000 clips – and no rap stars were involved.

Opening children’s toys on camera can also generate billions of views. DisneyCollectorBR is a non-Disney affiliated channel whose core video output is to show new Disney-branded children’s toys being taken out of their box and used, accompanied by a voiceover.46 About fifty new videos are posted a month. The channel’s host is anonymous: all that is known of her is her voice and her hands.

DisneyCollectorBR was the third-most viewed YouTube channel worldwide in April 2014. In the week commencing 4th July it was the most-watched channel on YouTube in the US, with 55 million views. Since DisneyCollectorBR started posting in April 2011, it has had 2.7 billion views.47

According to reports, these viewing volumes are lucrative. One source claims that PewDiePie and DisneyCollectorBR earn $7 million and $4 million respectively from advertising each year; but this assessment may have confused lifetime views with annual views, and the actual numbers are probably lower.48

Some short-form online video stars earn additional tertiary revenues. For example Michelle Phan, one of the original US-based how-to stars, now has her own make-up line.49

Traditional media companies are going short-form

Traditional television companies and production houses are responding to the challenge. Disney, for example, acquired Maker Studios for $500 million. The acquisition came with 55,000 channels generating over 60 billion views a year.50 Fremantle, a subsidiary of RTL Group, in a joint venture with VICE Media has set up Munchies, an online food channel that provides short-form on-demand content.51

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Broadcasters are also investing. Channel 4 in the UK in its 15th series of *Three Minute Wonder* and has created a hub for short-form content. BCC3 has created an online space for short-form, two-to-ten minute documentaries.

So is short-form the long-term future of the format formerly known as television? Has short-form already displaced traditional television?

There are, after all, few traditional TV shows that boast the same number of regular viewers as short-form stars PewDiePie (29.5 million) or HolaSoyGerman (18.8 million) have subscribers. The most-viewed video on the DisneyCollectorBR is *Angry Birds Toy Surprise Jake and the Never Land Pirates Disney Pixar Cars 2 Easter egg* (sic) *Spongebob*, which has had over 90 million views since first posted in May 2013. This video is a sequence that shows six toy eggs with different gifts inside being taken out of their box.

**Short-form is significant of itself, but insignificant compared to long-form television**

It is worth looking at the numbers more carefully. *Big Bang Theory* in the US attracted an average audience of 17.5 million viewers in its most recent season; which may seem modest in comparison to the volume of views for short-form online videos.

If we convert both viewers and views to total hours viewed, US residents have spent an aggregate of 38 million hours watching *Gangnam Style* since 2012, equivalent to the total viewing time for four-and-a-half episodes of *Big Bang Theory*, or one fifth of the 24-episode series. We have assumed that the average time the four-minute-12-second video is watched for is about 200 seconds (80 percent of the total time), and that US residents have contributed a third of views of the video worldwide. Given these assumptions, the total time spent watching *Gangnam Style* in the US is about a fifth of the most recent 24-episode series. Between *Gangnam Style’s* online launch and August 2014, US audiences have therefore spent ten times more time watching *Big Bang Theory* than PSY.

A similar comparison with *NCIS* offers an even starker contrast: US viewers spend almost as much time watching one episode of *NCIS* as they have ever spent watching the world’s most-watched online video. About 17 million viewers in the US watch each hour-long *NCIS* live and a further 18 million either catch up within seven days of broadcast or watch on affiliate networks. If we assume that every online view of *Gangnam Style* anywhere in the world has been watched in its entirety, the 144 million hours that this represents would be equivalent to just four episodes of *NCIS* watched by US audiences. *NCIS* has 24 episodes per series; it has just completed its eleventh series and its 258th episode; it is broadcast in 200 countries; its first spin-off series, *NCIS: Los Angeles*, has just completed its 121st episode; and a further spin-off starts this year.

Looking at the totality of all short-form viewing, YouTube claims one billion unique viewers and six billion hours of viewing per month; including other online video sites might add a further 25 per cent to this total. In comparison, European residents watch about two billion hours of TV every day, and US residents about 1.5 billion hours.
Viewers and views are fundamentally different

Television viewing is typically quantified by viewers (live, or within a few days) and online video by views (all-time). There are fundamental differences between these two metrics which are occasionally overlooked when comparing traditional TV with newer forms of video format.

In mature television markets, between one and two per cent of advertising revenues are spent measuring TV viewing among a representative samples of respondents. Whenever anyone in the sample is in front of a TV set, their viewing habits are recorded and aggregated. The approach is typically agreed by all key industry players, and underpins the $200 billion dollar global TV advertising industry.

With online video, the definition of a view is typically any request made to a server to play a piece of video. There is no agreed measurement of what constitutes a view, and a view could be anything from a millisecond to the entire clip. According to comScore’s data, the average length of a ‘view’ is about four minutes. With online video, the definition of a view is typically any request made to a server to play a piece of video. There is no agreed measurement of what constitutes a view, and a view could be anything from a millisecond to the entire clip. According to comScore’s data, the average length of a ‘view’ is about four minutes. There do not appear to be any industry-wide or national standards for measuring online video views. There is also no official data for annual online short-form video revenues, but Deloitte estimates this to be about $5 billion currently.

There is no certainty that a video is actually visible on a screen when it is playing; it may well be playing ‘under the line’, on a part of the page that is not visible on a screen. There is no data on how many people are watching each view.

There is also no way of knowing for sure how each online video is used. Music videos, like music stations on TV, may be used more as a jukebox, playing music in the background, rather than as a conventional video service where viewers predominantly look at a screen. Of the top ten all-time views on YouTube, which together have amassed billions of views, nine are music videos. Up to 40 per cent of all online video views may be views of music videos.

Short-form and long-form: distinct and similar

Arguably, comparing long-form with short-form in this way is unfair, and Deloitte does not disagree with this view. However the comparison is useful in demonstrating, by means of a common metric (viewing time), the strength and resilience of consumer demand for long-form television.

The comparison is not useful insofar as, from a consumer’s perspective, short-form and long-form content are quite distinct propositions, even though industry commentators sometimes position them incorrectly as substitutes for, or competitors of, each other.

Consumers seem to prefer different devices for short-form and long-form. Conventional long-form television programmes, whether broadcast live or delivered on-demand, are typically watched on television sets; shorter video content is more typically watched on computers, smartphones and tablets.

Deloitte’s research has found that among the two-thirds of UK adults who watch short-form video, about 70 per cent use a PC to do this, 35 per cent use a smartphone, and only a quarter a television set. Among those who watch video clips on more than one device, about half named a computer as their preference for this activity.

In comparison, 94 per cent of all respondents watch television on a TV set at least weekly, a third on a computer, and just 15 per cent on a smartphone.

Among respondents using a TV to watch content on-demand (TVOD), about two thirds had watched long-form programmes on-demand on their set, but only ten per cent had used it to watch YouTube. Over time TV is likely to capture an increasing share of TVOD. Of those watching TVOD on a TV set, 60 per cent are watching more long-form TV programmes on-demand compared to a year ago, among those using computers to watch TVOD, the figure is 43 per cent.

An explanation for this behaviour is that different types of video suit different needs. Across the entire population, video clips are likely to be viewed through the day; whereas long-form is typically watched in the evening.
During the day we are more likely to have smartphones, PCs or tablets with us, and can spend a few minutes watching a clip, or sequence of clips. Clips watched during the day fill small voids of time, for example when waiting for friends, or simply to break the monotony of the day.

In the evening, most people want to relax, and prefer to watch a sequence of long-form content on a large television set, with choice ideally curated by a third-party. We do not want to put together ourselves a long sequence of five-minute videos for watching: we want someone else to do that for us, hence the emergence of TV shows such as MTV’s ridiculousness and Channel 4’s Rude Tube, which are based on a sequence of short video clips.76

Low-budget content created as clips for watching on small screens, and with low-quality sound, may not work so well on larger screens, and with better speakers. Production flaws that look quirky and are appealing on a small screen may be off-putting when shown on a large screen.77 The appeal of ridiculousness and Rude Tube is that they are traditional TV shows: shot in a studio, with professional cameras and proper lighting, into which excerpts from a small selection of short-form clips are interspersed.

For younger generations, short-form may be the main source of video content. For some people, this may last their lifetime; but for others, their preferences may change to those of their parents, and long-form may become their default choice for watching TV, because they prefer the complexity that long-form content offers. A recent survey conducted by Deloitte on viewing behaviour in the UK found that about eleven per cent of adults aged 16 or more had access to Netflix, but among 16-34 year olds the proportion was double this.78 A recent analysis of UK viewing patterns for Netflix found that a majority of the top ten most viewed titles were dramas, such as Breaking Bad, Dexter and House of Cards.79

**Broadcasters may only commission short-form as an exception**

Deloitte does not expect that traditional broadcasters will move to commissioning short-form as their mainstream offering, except for younger audiences (aged ten and below), who have always had shorter content, with stories contained within a five-minute episode. Offering children long-form content as they grow older would simply follow the pattern of children with books. For toddlers, when being read to or when learning to read, the demand is for short books with hundreds of words. As children grow older they progress to books with hundreds of pages.

The broadcasting model has been built around long-form, and arguably inertia might be one of the forces for maintaining long-form in the future. There would also be practical difficulties in changing over to commissioning thousands of short-form titles, rather than hundreds of long-form titles every year. Furthermore the current TV advertising model, based on inserting a sequence of ads during a thirty minute or hour-long programme, works well and is something that viewers accept; consumers would be less tolerant of ads within a two-minute clip.80

Deloitte expects that broadcasters will look at short-form video portals as a way of identifying talent, similar to the way that music labels have scouted for new performers and hits. Short-form video stars have a large portfolio of their previous work online, and the more successful come with an existing fan base. The caveat is that there are so far few examples of short-form stars migrating to traditional TV, and one attempt to transfer an Internet hit to traditional TV did not work out as planned.81
Riepl’s law still rules
A European media executive recently commented: “New, further developed types of media never replace the existing modes of media and their usage patterns.” Short-form is newer than traditional long-form; television is newer than the cinema. TV and cinema co-exist, even if television and the film industry may have traded cartoon characters for drama, and the emergence of television did not mean the disappearance of films. Similarly short-form has not displaced long-form, and in our view it is not likely to do so.

Both forms are created in a similar process (talent in front of a camera), but the outputs and the needs which they address (with the exception of music videos) are largely dissimilar, even if they are watched by the same audiences. Demand for both short-form and by long-form, or TV and movies, or social networks and meeting in bars, is a human pattern, observable over millennia. We often accumulate, and rarely discard.

Riepl, the German publisher who made his observation in 1913, has form (like PSY).

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Innovation: can the television industry compete?
Innovation: can the television industry compete?

If you were to ask a hundred senior executives to name five innovative companies, you would likely end up with a list dominated by Silicon Valley’s finest but bereft of traditional media companies. If you were to compare the research and development budgets of the top ten technology companies with those of broadcasters, you might struggle to find sufficient broadcasters with R&D teams of any scale.

This does not imply, however that the traditional television industry is not innovative. Rather it reflects popular perceptions of ‘innovation’ which tend to focus on disruptive technology-centric innovations, such as the self-driving car, delivery by drone or tablet computers.

Television’s innovations are typically smaller in scale and greater in quantity: the aggregate of all these changes over the last decade is a television service which for consumers and suppliers alike is distinct from a decade back, and which has retained audiences and grown revenues despite the recent surge of digital and digitally-enabled distractions.

Television is the traditional media sector that has remained resilient throughout the rise of digital

The past decade has experienced the mainstream adoption in Europe of major new device types, new digital services and connectivity services. It is worth reminding that since 2004, television has had to contend with the following:

- the smartphone, tablet, digital video recorder and broadband has gone mainstream in most European countries; globally spend on living room consumer technology is about $800 billion;

- the average processor power in each device has ratcheted up, with processor speeds in high-end smartphones and tablets doubling year-on-year;

- traffic flowing over networks is now measured in dozens of Exabyte (billions of gigabytes) per month, and has grown by double-digit amounts year-on-year;

- Facebook and YouTube have grown from zero or minimal numbers to over a billion users each;

- Billions of copies of Angry Birds games, Farmville and Candy Crush have been downloaded to digital devices around the world.

During this time, average viewing hours in Europe have risen slightly from three and a half hours to just under four. Television advertising revenues in the region increased from $34.7 billion to $38.9 billion between 2004 and 2013.

Television has reinvented itself through myriad innovations

The TV industry has survived this decade of change through reinventing itself technologically across multiple aspects.

Production quality has improved markedly: the majority of footage from just a few years back is markedly dated. One reason is due to the increase in the quantity of programmes shot in high definition and ultra-high definition. Second, the range of camera angles is steadily widening, thanks to the miniaturisation of high definition (HD) quality cameras. This means that sports fans are ever more able to follow the action from the players’ perspective: horse racing enthusiasts are offered a view from the jockey’s helmet; multiple cameras are placed on Formula 1 cars; nature enthusiasts can enjoy footage from bird-borne lightweight cameras.

TV has also become more agile in delivering stories by exploiting advances in connectivity. For example news broadcasters are using multiple 3G and 4G channels simultaneously to deliver a high-quality feed from wherever there is sufficient mobile coverage, rather than having to wait for the satellite truck.

The distribution of television pictures has undergone profound change over the past decade. The majority of broadcasters in Europe have successful migrated to digital terrestrial transmission, increased their HD offer and launched on-demand services. Broadcasters have yet to launch ultra high definition (UHD) services; these are expected in the next two years. UHD content is available via on-demand sites, including Netflix and YouTube.
Wealth – and its implications – is a constant theme in stories, televised or otherwise. In the 1970s, *Dallas* relayed the ups and downs of a family whose wealth was based on an abundant, valuable resource. *Keeping up with the Kardashians*, which has aired nine series so far, portrays the ups and downs of a family whose value is partly derived from its abundant fame.

In addition to retelling centuries-old stories, television is developing new ones, notably scripted reality in the last decade and reality in the decade prior to that.

More storytelling is fundamental to one of the biggest sources of funding of TV content – the advert, which generates over $200 billion globally per year. The best produced ads can be some of the most compelling content on television, and are least likely to suffer the fate of being fast-forwarded. The ads for the Super Bowl can attract as much attention as the game itself.

Television's evolution is long-term
Looking ahead, television will continue to evolve – as it has no other alternative. Change is likely to continue to be characterised by multiple increments, some taking many years to deploy fully, rather than dramatic change.

For example, one emerging innovation is the use of lightweight drones (pilotless aircraft) to capture shots. The miniaturisation of HD cameras makes these portable on small, rotor-equipped drones, meaning that aerial footage no longer requires a helicopter. A small drone, costing a few thousand dollars, can be used to capture overhead shots, and due to their small size can get closer to the action.

Drones are already used for filming in sports, news and nature programmes. Drones are not yet used more widely due to uncertainty over regulation: it may take many years to resolve fully what usage is permitted. There are also technological challenges, such as maintaining the stability, increasing the range and improving the speed of drones.

There has also been innovation in the financing of programming, with initial funding being raised from a variety of rights – from streaming on mobile to subscription video-on-demand in other territories – in addition to first broadcast. Crowdfunding is also being used – it provided the money needed to revive *Veronica Mars*: fans raised $5.7 million to bring the title back to life.

**Television is constantly refining the art of storytelling**
Stories are a core human trait. Television’s most central role is storytelling. There are few storylines. So maintaining audiences requires television to relentlessly improve its ability to relay the same tale.

The current *House of Cards*, produced by Media Rights Capital, with Netflix as the original channel, provides an example of how the same centuries-old story – the allure of power – can be made more compelling over the years. The Washington-based *House of Cards* was based on the BBC’s *House of Cards*, set in London which was an adaption of Michael Dobbs’ 1989 book *House of Cards*. Shakespearean themes are common to all three works, particularly the characters of Richard III and Lady Macbeth; the technique of the ‘breaking of the fourth wall’, in which the actors speaks directly to the audience, is used in the current *House of Cards* as well as in Richard III.

Another core storyline is the rags-to-riches story immortalised by Cinderella. Reality shows excel at conveying the same tale. The best-known winners of the global Got Talent franchise have typically been drawn from humble backgrounds. Susan Boyle, the winner of 2009’s *Britain’s Got Talent*, was 47, single and unemployed at the time of her first appearance on the show; Liu Wei, who took first prize playing piano in China’s Got Talent, had no arms and used his toes; Sung-Bong Choi, the winner of 2011’s Korea’s Got Talent, was abandoned by his parents at three, ran away from his orphanage aged five, lived in a container for ten years and was once buried alive.
Sports coverage has always been at the forefront of innovation in TV and is likely to remain so. One emerging innovation is greater measurement of athletes on the field. Their total distance run is already measured; one innovation being introduced for American Football Players is measuring their speed and acceleration. In future seasons, as measurement technology improves, even more data, such as heart rate, body temperature and lung capacity may be monitored and shared with viewers.

Another future long-term innovation is the evolution of distribution of content. What is very likely is that TV images will be available in both higher resolution and greater ranges of resolution, to suit diversifying sizes of television set. Programmes are likely to remain being relayed via a combination of terrestrial broadcast, cable, satellite and online. Higher resolution will be made possible by better compression, as well as higher network transmission speeds.

Online delivery of television programmes will become steadily more popular and more voluminous. Viewers will expect the quality of on-demand delivery to be similar to that offered by broadcast, even though the underlying technologies are very different: the Internet, after all, was not designed for real-time delivery of content. Broadcasters, SVOD providers and network operators will need to work together to architect networks so as to be able to replicate the broadcast experience.

One of the biggest innovations required for TV advertising is an upgrade to measurement systems. Currently viewing on a TV is captured, but most measurement systems in Europe are not yet able to capture data for consumption on computers, tablets and smartphones, resulting in a growing volume of watching being under-counted, particularly among younger age-groups.

More mature industries which already serve a mainstream market, such as television or automotive have less licence to change. This is not because they are expected to stagnate, but because their customers are content with the current offer, and may be hostile to any iterations of this product that looked or felt very different.

Changes need to be subtle in the consumer’s perception, even if the innovation required to deliver a minimal increment is profound. Over the past decade the self-driving capability in cars has ratcheted up, via features such as distance and lane control, automated parking, traction control and satellite-navigation guided automatic gear boxes. Yet cars still look like cars.

All sectors, as they mature, have to tread the tightrope between change and continuity. A decade ago, less than five per cent of mobile phone owners had a smartphone. Today smartphones are the predominant mobile phone format. Each year, major new models are launched, and with each launch the scope for the perception of radical change lessens. The demand is the same but better: meeting this can still deliver enormous value.

Today’s television still largely resembles that from a decade back: channels, story arcs, peak programming timings are all constants. But at the same time, TV has become profoundly different, production quality has ratcheted up, formats are more refined, there are more channels, there is more choice over when and where to consume. The consumer’s response to this has been to largely carry on as before: the majority of viewers choose to watch in the living room, live, in the evening, with adverts, in the company of people, and with the TV tuned to the channels that dominated ten years ago; teenagers and older children living at home, choose to watch in their bedrooms, but on lap tops now, and not on portable TV sets. Television has innovated; its consumers have largely chosen to stick with it.

Change and continuity
What innovation means differs according to an industry’s maturity. Companies in newer sectors, such as consumer robotics, are expected to launch disruptive, surprising products and services.
Recent thought leadership


Media Consumer Survey 2014: http://www.deloitte.co.uk/mediaconsumer/


Survival of the fastest: TV’s evolution in a connected world: www.deloitte.com/ibctv


What television is: 2013 Perspectives on the UK television sector: www.deloitte.com/TV
Television’s business model
Fit for a digital world

Contacts

Jolyon Barker
Managing Director,
Global Technology, Media &
Telecommunications (TMT),
Deloitte Touche
Tohmatsu Limited
+44 20 7007 1818
jrbarker@deloitte.co.uk

Ed Shedd
Global Media Leader,
Deloitte Touche
Tohmatsu Limited
+44 20 7007 3684
eshedd@deloitte.co.uk

Paul Lee
Technology, Media &
Telecommunications,
Head of Research,
Deloitte Touche Tohmatsu
Limited
+44 20 7303 0197
paullee@deloitte.co.uk

Contacts at other Deloitte member firms – Europe, Middle East and Africa

Vincent Fosty
Belgium
+32 2 749 56 56
vfosty@deloitte.com

Joan O’Connor
Ireland
+353 1 417 2476
joconnor@deloitte.ie

Joao Costa Da Silva
Portugal
+351 210 427 635
joaolisboa@deloitte.pt

Ivan Luzica
Central Europe
+421 2 582 49 266
iluzica@deloittece.com

Tal Chen
Israel
+972 3 608 5580
talchen@deloitte.co.il

Mark Casey
Southern Africa
+27 11 806 5205
mcasey@deloitte.co.za

Olga Tabakova
CIS and its Russian office
+7 495 787 0600
ootabakova@deloitte.ru

Alberto Donato
Italy
+39 064 780 5595
aldonato@deloitte.it

Jesus Navarro
Spain
+34 91 443 2061
jnavarro@deloitte.es

Christian Sanderhage
Denmark
+45 2342 2924
csanderhage@deloitte.dk

Nikhil Hira
Kenya
+254 20 423 0000
nhira@deloitte.co.ke

Erik Olin
Sweden
+46 75 246 31 16
eolin@deloitte.se

Jukka-Petteri Suortti
Finland
+358 20 755 5561
Jukka-Petteri.Suortti@deloitte.fi

George Kioes
Luxembourg
+352 45 145 2249
gkioes@deloitte.lu

Franco Monti
Switzerland
+41 58 279 6160
frmonti@deloitte.ch

Ariane Bucaille
France
+33 1 5561 6484
abucaille@deloitte.fr

Santino Saguto
Middle East
+971 4 376 8888
ssaguto@deloitte.com

Tolga Yaveroglu
Turkey
+90 212 366 60 80
tyaveroglu@deloitte.com

Karim Koundi
Francophone Africa
+216 71 909 285
kkoundi@deloitte.tn

Daan Witteveen
Netherlands
+31 88 288 0236
dwitteveen@deloitte.nl

Ed Shedd
United Kingdom
+44 20 7007 3684
eshedd@deloitte.co.uk

Andreas Gentner
Germany
+49 711 1655 47302
agentner@deloitte.de

Halvor Moen
Norway
+47 23 27 9785
hmoen@deloitte.no

Dan Ison
United Kingdom
+44 20 7007 8064
dison@deloitte.co.uk


4. The actual speed realised depends on distance from the exchange, among other factors. Fibre to the cabinet delivers about 100 Mbit/s at a distance of half a kilometre, and falls to 50 Mbit/s at a distance of a kilometre. See: Very-high-bit-rate digital subscriber line 2, Wikipedia: http://en.wikipedia.org/wiki/Very-high-bit-rate_digital_subscriber_line_2


8. Amazon has not published an exact number of Prime members, but has stated that as of end 2013 there are tens of millions; some reports suggest there were 20 million Prime members as of the start of the year. Based on warehousing acreage and capillarity, which is greatest and densest in the US, we estimate that at least half but no more than quarters of Prime members are in the US. See: Amazon Says It Has 20 Million Prime Members, Business Insider, 7 January 2014: http://www.businessinsider.com/amazon-prime-members-2014-1


10. Amazon had previously offered a range of pay-per-view rental and download-to-buy options via Amazon video on demand. See: Amazon Prime Members Now Get Unlimited, Commercial-free, Instant Streaming of More Than 5,000 Movies and TV Shows at No Additional Cost, Amazon, 22 February 2011: http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1531234

11. The number of pay TV homes fell for the first time in 2013: 2012 was the peak year for pay TV homes. The decline in 2013 was less than a quarter of one per cent. In all previous years the number of pay TV homes increased by a small amount. The number of pay TV homes in the US has stayed constant against a background of rising household formation, so the proportion of homes with pay TV in the US has been in decline for a number of years. See: TV Subscriptions Fall for First Time as Viewers Cut the Cord, Bloomberg, 20 March 2014: http://www.bloomberg.com/news/2014-03-19/u-s-pay-tv-subscriptions-fall-for-first-time-as-viewers-cut-the-cord.html


13. We have calculated pay TV subscribers as being all respondents with Netflix or Amazon Prime who only had digital terrestrial reception. See the appendix (page 7) in, Netflix – Friend or Foe?, BARB, 21 July 2014: http://www.barb.co.uk/whats-new/329


17. Spend on all content by UK TV channels was £5.8 billion ($9.8 billion at August 2014 exchange rates) in 2013, an increase of 3.7 per cent on the previous year. Source: The Communications Market 2014, Ofcom, 2014. See: http://stakeholders.ofcom.org.uk/binaries/research/cm/cm14/UK_2.pdf


19. While the SVOD offer may be superior in Western Europe, so is the traditional pay TV offer.

20. Source: Consumer Video Media Services, Worldwide, 2011-2018, 1Q14 Update, Gartner (Report is accessible for paid subscription)

21. We have not included the contribution of Amazon’s video-on-demand service as it is now bundled into its Prime service, whose principal offer is free delivery. At the start of the year Amazon had 20 million Prime subscribers, and the cost of service in the US is $100 per year. If we assume a fifth of the value of a Prime membership is the ability to access TV content on demand, this would represent at least $400 million.

22. For the latest list, see: MAVISE, http://mavise.obs.coe.int/


27. The increased appeal of broadcasters’ VOD service is reflected by demand: in March 2014 the BBC’s iPlayer received 248 million requests, a 25 per cent increase on the previous year. See slide 4 in: Monthly Performance Pack, June 2014: http://downloads.bbc.co.uk/mediacentre/iplayer/iplayer-performance-jun14.pdf


30. SVOD providers can mitigate the impact of congestion by setting up what are known as content distribution networks. This can increase the quality of service, but it can also increase connectivity costs. For more information on this, see: Content delivery network, Wikipedia: http://en.wikipedia.org/wiki/Content_delivery_network

31. For more information, see: Netflix Signs Peering Deal With AT&T to Reduce Buffering, Mashable, 30 July, 2014: http://mashable.com/2014/07/29/netflix-att-peering-deal/


34. Netflix content is streamed to Virgin Media’s set top box. For more information see: Watch Netflix on your TV with TiVo®, Virgin Media: http://store.virginmedia.com/digital-tv/channels/netflix.html

35. The estimates in this section have been developed by the Deloitte Sports Business Group, using their definition of premium sports broadcast rights which is rights fees for the most popular sports competitions in the biggest sports around the world. These include: the top-tier domestic football leagues in each European, Latin American, Middle East and African country; the top regional club football competition on each continent; four major North American professional leagues – Major League Baseball (MLB), National Basketball Association (NBA), National Football League (NFL), and National Hockey League (NHL); the top US college sports conferences; the National Association for Stock Car Auto Racing (NASCAR); Formula 1; the Indian Premier League; and Indian national team cricket

37. For example, Sony trialled UHD (4K) at the Confederation Cup in Brazil, 2013. 4K footage was also captured at Wimbledon 2013. Source: Sony and FIFA began testing 4K technology in the FIFA Confederations Cup 2013, Sony, 25 April 2013. See: http://www.sony.es/pro/press/pr-fifa-4k; Also see: BBC and Sony to trial 4K TV at Wimbledon, Techradar, 24 April 2013: http://www.techradar.com/news/home-video/video/television/tv/audio/sony-and-bbc-to-try-trial-4k-tv-at-wimbledon-1147095


39. Source: PSY – Hangover feat, Youtube, 8 June 2014. See: https://www.youtube.com/watch?v=HkMNOlYcpHg

40. Source: PSY – Gangnam Style, Youtube, 15 July 2012: https://www.youtube.com/watch?v=9bZkp7q19f0

41. 3,943 million as of 10 August 2014. See: PSY Official YouTube Channel, Youtube, 2014: https://www.youtube.com/user/officialpsy/about

42. 2,058 million as of 10 August 2014. See: PSY – Gangnam Style, Youtube, 15 July 2012: https://www.youtube.com/watch?v=9bZkp7q19f0


44. There are no data readily available on the number of views of Thriller on MTV. What is known is that MTV part-funded the video, by contributing towards the cost of the Making of ‘Thriller’ and that when Thriller was released in 1983, the song was on heavy rotation at a time when MTV was showing music videos constantly. As of August 2013, 97.7 million US homes had access to MTV. See: 12 Thrilling Facts About Michael Jackson’s ‘Thriller’ Video, Rollingstone, 29 October 2013: http://www.rollingstone.com/music/news/12-thrilling-facts-about-michael-jacksons-thriller-20131029; Nielsen data quoted in: List of How Many Homes Each Cable Networks Is In – Cable Network Coverage Estimates As Of August 2013 Categories: 2-Featured, Cable TV, TV Ratings Reference, 23 August 2013, TV by the numbers: http://tvbythenumbers.zap2it.com/2013/08/23/list-of-how-many-homes-each-cable-networks-is-in-cable-network-coverage-estimates-as-of-august-2013/199072/


47. Source: DisneyCollector, Youtube, 2014. See:https://www.youtube.com/user/DisneyCollectorBR/about

48. This article bases its estimate of annual earnings on all-time historical views; all the mentioned stars mentioned in the article have been posting for several years, so the estimated figure for annual earnings may be in excess of actual. See: The 25 Highest Earning Youtube Stars, Celebrity Networth, 9 March 2014: http://www.celebritynetworth.com/articles/celebrity/the-25-highest-earning-youtube-stars/. For example Michelle Phan, who is listed as earning $1.3 million each year from advertising revenues, is reported in the LA Times as earning ‘more than $1 million’ in 2014 from all sources of income, including a make-up line, endorsements and a book deal. See: YouTube’s biggest stars are making money, LA Times, 7 August 2014: http://www.latimes.com/business/la-fi-youtube-stars-20140808-story.html#page=1; The Daily Mail estimates that PewDiePie earns $4 million a year. See: Meet the man making $4m a YEAR from posting hilarious and often expletive-laden clips of himself playing video games on YouTube, Mail Online, 19 June 2014: http://www.dailymail.co.uk/news/article-2663123/Meet-man-making-4m-YEAR-posting-vulgar-hilarious-clips-playing-video-games-YouTube.html


The methodology for this calculation is as follows: Gangnam Style is 4:12 minutes long and had accumulated 2.06 billion views as of 10 August 2013. This equates to 144 million hours viewed. Not all videos are viewed in their entirety. It is assumed that that on average 80 per cent of the video is viewed (so that most views of the video are in their entirety, but some views may be very brief), we get to 115 million hours. If we focus on the US (so that we can make the comparison with Big Bang Theory) and assume that a third of all views are in the US, the total hours spent watching Gangnam Style since it was uploaded in July 2012 is 38.4 million hours. This is equivalent to four-and-a-half episodes of Big Bang Theory or about a fifth of one of the seven series shown so far.

Using on-demand or by watching a pre-recorded copy stored on a digital video recorder (DVR)


There is a wide variety in unofficial estimates of YouTube’s revenue, ranging from $3.7 billion (Forbes estimate) to $5.6 billion in 2013 (eMarketer, quoted in the FT). See: YouTube advertising revenue surges 50% to $5.6bn, Financial Times, 11 December 2013: http://www.ft.com/cms/s/0/377ed152-6220-11e3-bba5-00144feabcd0.html#axzz39bo7uW1v. Also see: Google Earnings: Ad Volume Soars Even as Cost Per Click Declines, Forbes, 21 July 2014: http://www.forbes.com/sites/greatspeculations/2014/07/21/google-earnings-ad-volume-soars-even-as-cost-per-click-declines/

According to comScore metrics for the US market in December 2013, 188 million unique viewers watched 52.3 billion views (comScore defines a view as anything over three seconds in duration), and the average monthly time spent per viewer was 1,165 minutes. This equates to about 252 seconds per video. This average includes long-form video from sources such as Turner Digital, which had the tenth-highest number of unique viewers. See: comScore Releases December 2013 U.S. Online Video, Rankings, Comscore, 10 January 2014:http://www.comscore.com/Insights/Press-Releases/2014/1/comScore-Releases-December-2013-US-Online-Video-Rankings

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This would be similar to how music channels on TV are often used, as an alternative to listening to music radio.

The other video making up the top ten is Charlie Bit My Finger – Again! which ranked at number four at 21 July 2014. See: Most viewed YouTube videos: From ‘Gangnam Style’ to ‘Wrecking Ball’, The Independent, 15 July 2014: http://www.independent.co.uk/arts-entertainment/music/features/most-viewed-youtube-videos-from-gangnam-style-to-wrecking-ball-9607483.html


Source: Deloitte UK TV survey, July 2014, 1,941 respondents (respondents with access to a TV, tablet, PC, laptop, smartphone or MP4 video player at home)

Source: Deloitte UK TV survey, July 2014, 597 respondents (respondents who watch short video clips on two or more devices).

Source: Deloitte UK TV survey, July 2014, 2,000 respondents (adults aged 16+ in Great Britain)

Source: Deloitte UK TV survey, July 2014, 889 respondents (respondents who use VOD services on any TV).

Source: Deloitte UK TV survey, July 2014, 774 respondents (respondents who use VOD services on any TV).

Source: Deloitte UK TV survey, July 2014, 567 respondents (respondents who use VOD services on any computer).


78. Source: Deloitte UK TV survey, July 2014, 2,000 respondents (adults aged 16+ in Great Britain)

79. The results for the US had similar findings to those for the UK, albeit with a little more comedy among its top ten. See: GfK Study reveals, for the first, time audience figures and drivers of sign-up for SVOD services in the US and UK, GfK, 7 August 2014: http://www.gfk.com/documents/press-releases/2014/20140807_subscription%20video%20on%20demand_us-uk.pdf

80. The average 60 minute program on commercial ad-funded television typically has between 10-15 minutes of ads in peak-time. Some percentage of that is ad skipped (about half of programmes that have been pre-recorded; in homes which have a digital video recorder, the average quantity of viewing watched pre-recorded is between 15 and 20 percent). Adverts that are inserted into programmes watched on-demand, e.g. via broadcaster on-demand sites, can typically not be skipped. Five minute videos often have 30 second pre-rolls, much of which is skipped after a few seconds, leading to a much lower ad load, in the region of ten percent.


82. For example, nine of the 10 most innovative companies in Fast Company’s ranking for 2014 are technology companies, or are heavily technology-based (e.g. a data-analytics-centric charitable organisation). See: Bloomberg Philanthropies, 10 February 2014: http://www.fastcompany.com/most-innovative-companies/2014/bloomberg-philanthropies

83. This comprises the range of devices used in the living room: televisions, PCs, tablets, smartphones, games consoles, digital video recorders (DVRs), streaming video boxes such as Apple TV

84. For a depth discussion on differences in CPU and GPU performance between Apple’s iPhone 5 and 5s, and between models of iPad, see: iPad Air’s A7 chip is identical to the iPhone’s, just faster, ARS Technica, 30 October 2013: http://arstechnica.com/apple/2013/10/ipad-air-s-a7-chip-is-identical-to-the-iphones-just-faster/

85. IP traffic in Western Europe is forecast to reach 19.3 exabytes per month by 2018, a CAGR of 18 per cent. See: The Zettabyte Era—Trends and Analysis, Cisco, 10 June 2014: http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/VNI_Hyperconnectivity_WP.html

86. As of January 2014, Angry Birds apps had been downloaded two billion times. As of November 2013, Candy Crush has been downloaded 500 million time. See: Angry Birds downloaded 2 billion times, has as many MAUs as Twitter, VG24/7, 22 January 2014: http://www.vg247.com/2014/01/22/angry-birds-downloaded-2-billion-times-has-as-many-maus-as-twitter/; also see: Half a billion people have installed ‘Candy Crush Saga’, The Verge, 15 November 2013: http://www.theverge.com/2013/11/15/5107994/candy-crush-saga-500-million-downloads

87. In 2004 average daily viewing time was 215 minutes; by 2010 it was 228 minutes. Source: One TV Year in the World, 2011

88. Numbers are in nominal terms and exclude online video advertising, a significant proportion of which would be earned by broadcasters for advertisements placed within programmes delivered online. In 2013 online video advertising revenue was $1.2 billion. Source: Bloomberg


90. Cameras have been attached to gannets. See: Camera attached to a gannet captures bird’s eye view, BBC, 12 November 2013: http://www.bbc.co.uk/nature/24898391


94. Source: Susan Boyle’s First Audition – I Dreamed a Dream – Britain’s Got Talent 2009, Youtube, 4 September 2010. See: https://www.youtube.com/watch?v=dElR9oEfrso

95. Source: Winner of China’s Got Talent Final 2010 – Armless Pianist Liu Wei Performed You Are Beautiful, Youtube, 10 October 2010. See:https://www.youtube.com/watch?v=B1Qut0Nrsaw

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98. In 2014 television is expected to generate $207 billion in net advertising revenue, or 40.2 per cent of the global advertising market. See: MAGNA GLOBAL Ad Forecasts: Reaching the Half Trillion Mark, Magna Global, 16 June 2014: http://news.magnaglobal.com/article_display.cfm?article_id=1578

99. For example one advert, to market the launch of a new TV channel in the Belgian market, has been seen 51 million times online, see: How television advertising deals with DVRs destroying their business, SFGate, 27 December 2013: http://blog.sfgate.com/techchron/2013/12/27/dvr-advertisements/; Also see: A dramatic surprise on a quiet square, Youtube, 11 April 2012: https://www.youtube.com/watch?v=316AzLYfAzw


101. In the forthcoming American Football season, National Football League (NFL) players will have RFID chips within their shoulder pads to enable their location, speed and other metrics to be calibrated. See: NFL players will wear RFID chips this season to track their movements, The Verge, 31 July 2014: http://www.theverge.com/2014/7/31/5957277/nfl-players-will-wear-rfid-chips-this-season-to-track-their-movements

102. In the forthcoming American Football season, National Football League (NFL) players will have RFID chips within their shoulder pads to enable their location, speed and other metrics to be calibrated. See: NFL players will wear RFID chips this season to track their movements, The Verge, 31 July 2014: http://www.theverge.com/2014/7/31/5957277/nfl-players-will-wear-rfid-chips-this-season-to-track-their-movements