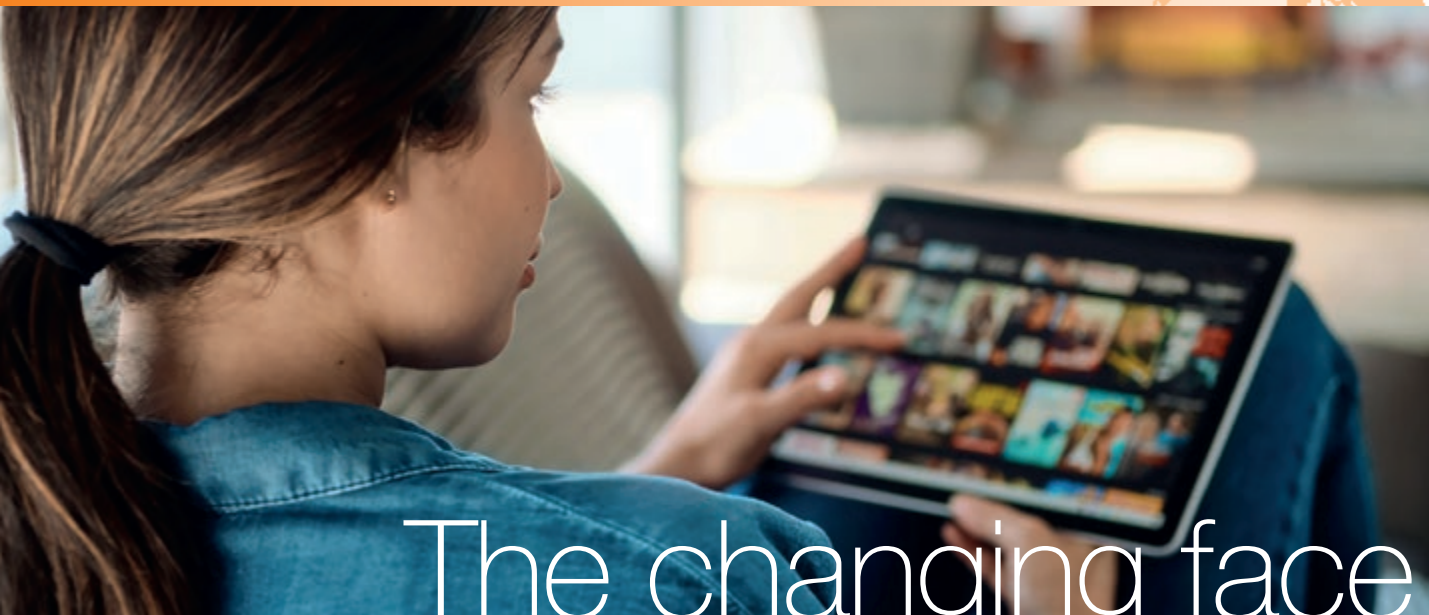




The changing face of video consumption

by Phillip Neighbour, COO of PlayBox Technology UK

Not so long ago, when terrestrial television was pretty much the only game in town, technology limited us to just a handful of channels. The first cable systems changed things by delivering a modest number of channels to viewers for the first time, but given the price point they reached a limited number of viewers in many territories. There was little commercial justification for more channels as a result.

That changed with the coming of satellite television at the beginning of the 1990s. First came analogue satellite using the D-Mac system, which made tens of channels widely available. Digital satellite delivery soon followed, opening the market up to hundreds of channels. In cabled markets, the digital revolution also made huge amounts of content readily available.

This created a marketplace for content. Entrepreneurs could set up a channel by targeting an audience. There was a direct trade-off between quality – digital satellite and cable is sold by the bandwidth – against audience and therefore revenues. Niche channels could start off at a data rate of maybe 1Mb/s until they either proved themselves and therefore justified more bandwidth and better quality, or failed and could be dropped. When it became clear that the multi-channel benefits of digital delivery were attractive to consumers, telcos speculated how they could get involved. At the turn of the century there was a lot of talk about IPTV: delivering channels as data streams over telephone cables. It was never attractive to consumers because you could not flick through channels to see what was available, and if you did find a programme to watch, the low bandwidth made the experience far from satisfying.

Today, though, the data experience is very different. In most territories there is a ready availability of fibre broadband: fibre to the cabinet, if not fibre to the home. That has given consumers huge amounts of bandwidth and choice. Indeed, you could say that all this broadband was a solution looking for a challenge.

What has filled the bandwidth is streaming video. Much of this is video on demand, but there is a growing market in streamed channels, providing a mix of live and packaged content.

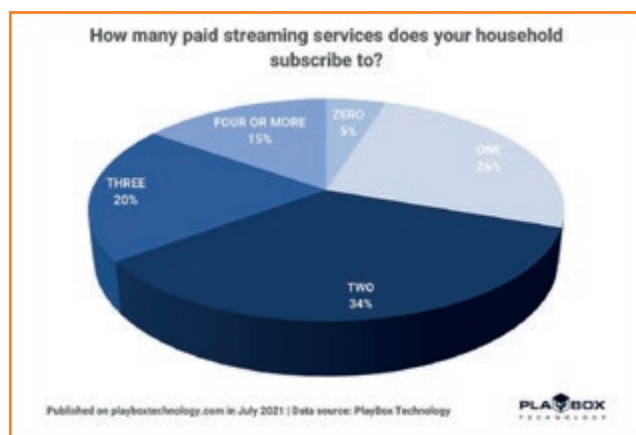
Cisco currently predicts that, by 2022, 82% of internet traffic will be streamed video. Thanks to 4G and now 5G, 79% of mobile traffic will be streamed video.

Changing habits

The obvious difference between the broadcast world of 40 years ago and the multi-platform world of today is that in the old days, you watched what the schedule planners told you to watch, at the time it was broadcast. Today, in a remarkably short space of time, we have all got used to watching the content we want, when we want it, on the device which happens to be most convenient at the time. If we go back to 2019 for the last “normal” statistics, Leichtman Research Group looked at the US market, and found that the major pay-TV providers lost 1.74 million subscribers in the third quarter alone.

Researchers Ampere Analysis looked at the big five markets in Europe – UK, France, Italy, Germany and Spain – and found that 80% of pay-TV households also subscribe to at least one streaming service. In the UK, 31% have three or more services.

That matches original research carried out in 2021 on behalf of PlayBox Technology. Virtually everyone in our study had access to at least one paid-for streaming service, and fewer than a quarter had only one. 34% had two services, 20% three and 15% four or more.



According to Streaming Media, live streaming grew by 93% in 2019, with an average of 26.4 minutes per session. And Tech Jury found that the online streaming industry grew 99% between April 2019 and April 2020. In the US, Conviva research says that in 2019 video on demand use had risen 76% year on year. Live streamed video grew by 32% over the same period.

The pandemic

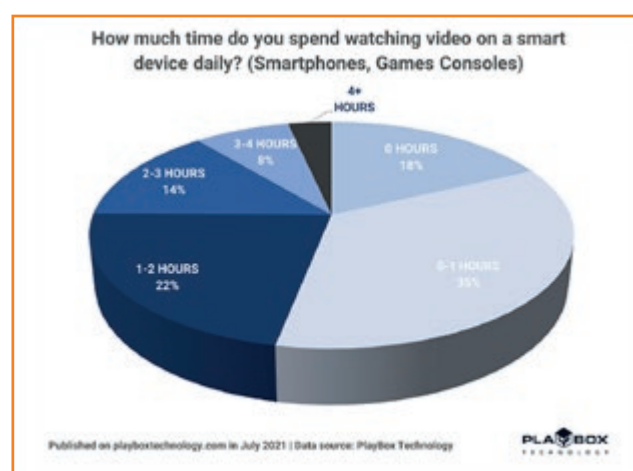
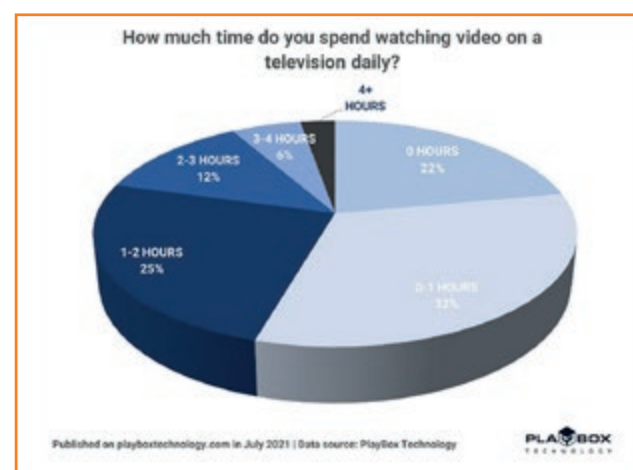
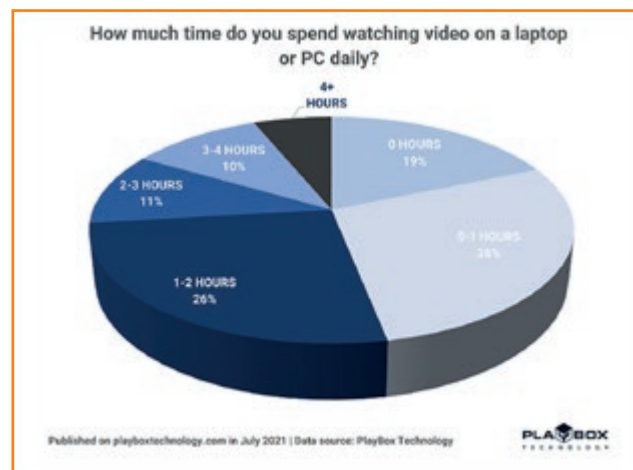
The events of 2020 changed every aspect of our lives. Our approach to viewing is a part of that change. Ofcom, the UK statutory body responsible for media, found that adults were spending 40% of their day in front of screens during the height of lockdown.

Some of that was certainly the very many Zoom calls we all endured. One of the Royal Statistical Society's numbers of the year was that globally we spent 5.5 million years on Zoom in 2020.

But much of it was screen viewing for relaxation and enjoyment. Ofcom's research says that our time on streaming services doubled during the pandemic. Viewing for pleasure was, on average, six hours and 25 minutes a day in 2020.

Our research found that the amount of time spent viewing on a television, a computer and a smart device (phone or games console, for example) was broadly similar, with around a quarter of respondents spending one to two hours on each

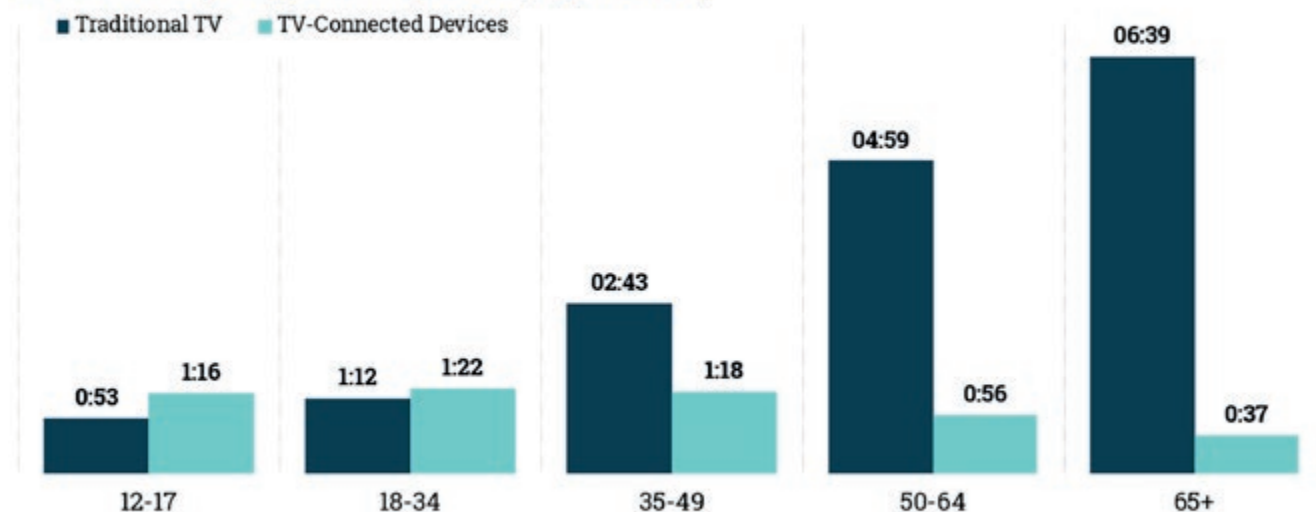
platform. 2.8% reported watching four or more hours on a television, with 6.2% reporting the same four plus hours on computers.



Perhaps the most interesting statistic is that online viewing and live streaming is not a generational thing. Certainly, two in five 16 – 24 year olds say they would rather watch on a non-

Traditional TV vs. TV-Connected Device Usage in Q3 2020 (daily hh:mm, total population)

marketing charts



Published on MarketingCharts.com in May 2021 | Data Source: Nielsen

Traditional TV refers to all live + DVR/time-shifted TV viewing during the quarter for the total population

Connected TV refers to DVD/Blu-Ray Devices, Game Consoles, and Internet-Connected Devices (including streaming media players and smart TVs)

television device. But Ofcom found rates of streaming rising 25% for 55 to 64 year olds, and by 12% for the over 65s.

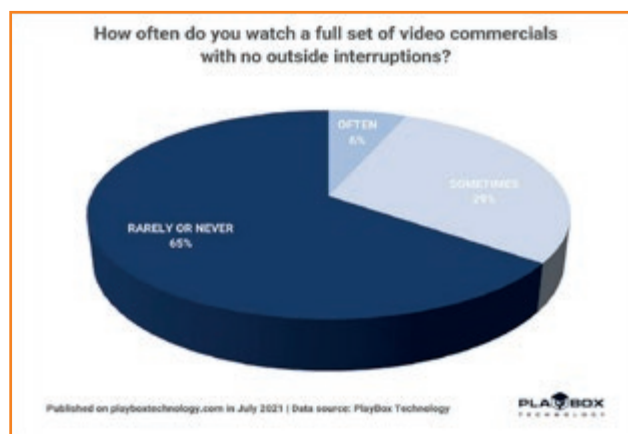
In the US the differences are perhaps less marked. Nielsen, the advertising analytics body, produced the above research.

Overall, it is clear that the media landscape continues to change dramatically. While it is likely that the enforced isolation of Covid-19 has driven many people to explore new sources of content, the shift from linear broadcast to on-demand online content was already moving rapidly with unstoppable force.

Advertising

Television remains the big player in advertising sales. According to IMARC, the global television advertising market was \$278 billion in 2020, a staggering number. For comparison, the video streaming market was \$50.11, but growing at a CAGR of 21% to 2028 (Grand View Research). Given the growth in online advertising almost certainly means a reduction in television advertising, we can expect to see parity in the next few years.

That is despite the common feeling that most viewers now ignore advertising. Certainly our research found that two-thirds rarely or never watch a full set of video commercials uninterrupted, with only 6% "often" doing so.



Published on playboxtechnology.com in July 2021 | Data source: Playbox Technology

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There are several key differences between the way that advertising is delivered on television and online, which will affect the way that advertisers direct their spend.

On television, there are limits on the amount of advertising. In Europe, the general rule is 12 minutes of advertising in any hour. Different countries have their own rules on when advertising is permissible: Austria does not allow centre breaks; German public service television has no advertising after 20.00.

There are also regulations on what can be advertised. Tobacco and alcohol are controlled to a greater or lesser degree. Fast food may be banned from children's programmes. Actors

taking leading roles in programmes should not appear in commercials within those programmes, although this rule seems to be largely ignored.

The internet, on the other hand, is the wild west: anything goes. While the major players will want to appear to be responsible hosts for advertising, in a global market streamers can deliver what advertising they want, in whatever quantities they think their audiences will tolerate.

The other key difference is that broadcasting delivers more or less the same commercials to all its audience, whereas streaming services have a closer relationship with individual consumers, and can therefore target advertising to the likely preferences of each viewer. It is perfectly possible to deliver a unique advertising selection to each consumer, although most feel that revealing precisely how much you know about your viewership may be not the best policy.

Tailored advertising is possible even in live streams, thanks to server-side dynamic advertising replacement. Essentially, this drops the required commercials into the video stream before the delivery encoder for a seamless experience.

There is some interest in dynamic advertising replacement for broadcast services, using similar technology. It provides slightly more granularity in the demographics, but even if anyone wanted it, broadcast services could never approach tailoring down to the individual.

Conclusion

Certainly, in the developed world where fast broadband is commonplace, we can expect to see an increasing reliance on video streaming. That includes catch-up services, video on demand and live streaming.

Given the relatively low cost of entry – no need to be licenced or sign high value, long term contracts with satellite providers and the accessibility of cloud playout and storage – we can also reasonably expect to see the number of video streaming services to grow.

Traditional broadcasters are not going to roll over and die, though. They have the advantage of being trusted brands, and of having the ability to signpost new content. One of the big challenges of streaming services is discovery: broadcasters

can tell you to watch something; on a streaming service you have to find it, which can be a problem if you do not know what you are looking for.

Broadcasting – terrestrial, cable and satellite – is a well proven technology, delivering identical quality whether there is one person watching or 20 million. There are too many stories of online services going down due to the entirely reasonable demand that viewers need to trust them completely.

This need for guaranteed reliability and quality, together with trusted brand status, means that consumers will continue to turn to the major broadcasters for key events. As the pandemic gathered pace, the BBC reached an audience of more than 20 million for its evening news bulletins in March 2020. Her Majesty the Queen addressed the nation on 5 April 2020 and was watched by over 14 million.

When England's footballers made it to the final of the Euros, 29.85 million watched the entire game (split across the two rights-holding broadcasters). The audience peaked at almost 31 million during extra time.

Aside from broadcast's ability to reach large audiences, there is another factor which may come into play: online streaming is really not very green. The internet – essentially a chain of data centres – is a massive consumer of energy. According to KTH, the Royal Institute of Technology in Stockholm, the internet (80% video, remember) now uses 10% of the world's total energy consumption.

To put it another way, the internet had the same CO2 footprint as air travel in 2019 before the pandemic slashed the number of flights. And the internet is growing faster than aviation. A green backlash may not have a major impact, but it could see some users reluctant to go online.

The future, then, is hybrid. Traditional broadcasting via playout is ideal for live events – sport, entertainment competitions and more – and for trusted news. For entertainment, consumers are likely to want their access any time, any place, any device.



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