

Streaming Is Killing Broadcast TV

Will local TV broadcasts go the way of the noble landline telephone call?

By Russell Fordyce / *Infinera*

If we learned anything over the past year, it's that bandwidth-hungry streaming video services are now an integral part of the entertainment ecosystem. According to the latest statistics, revenue from over-the-top (OTT) or streaming services is projected to reach \$171 billion in 2021 and more than double by 2025, growing to an astounding \$252 billion (see Chart 1 below).

But, as with some growing markets, if one segment is in growth mode, another may be stagnant or in decline. Looking at recent trends, it appears that the growth in streaming increased the market as a whole, but also took share away from traditional TV (see Chart 2). This was especially true in 2020.

Revenue from streaming services should surpass that from traditional TV in just a few short years. Though most people in the industry say, "duh," others watch this trend with intense focus – especially network operators offering internet access services.

SAME PLAY, DIFFERENT APP

At the turn of the last century, a similar trend shook the same industry, just with a different application. Remember traditional landline phone calls?

The noble landline was under attack in the late 1990s and early 2000s. VoIP calls started to take market share, and mobile phone calls also scaled rapidly. Phone traffic

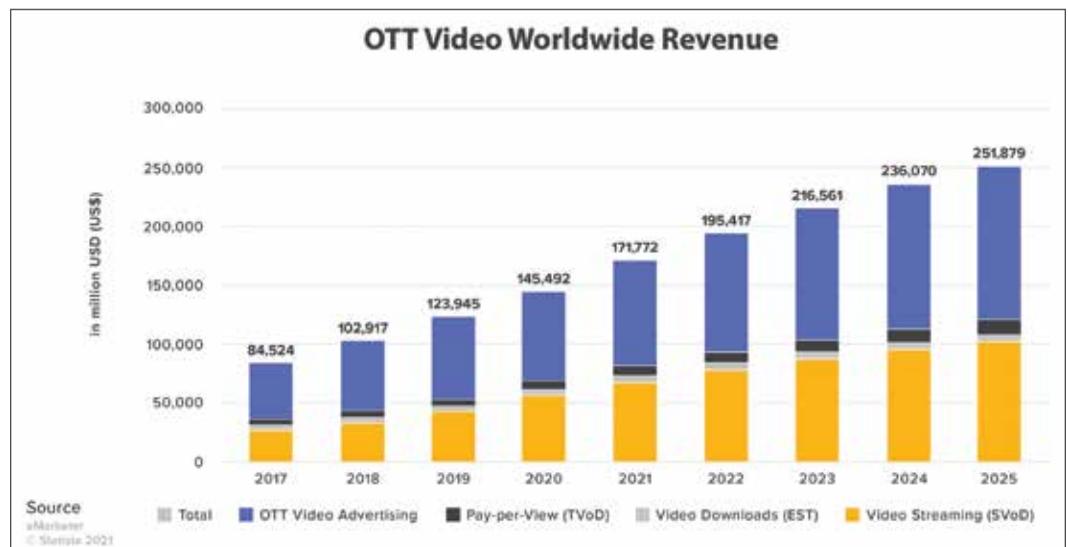


Chart 1

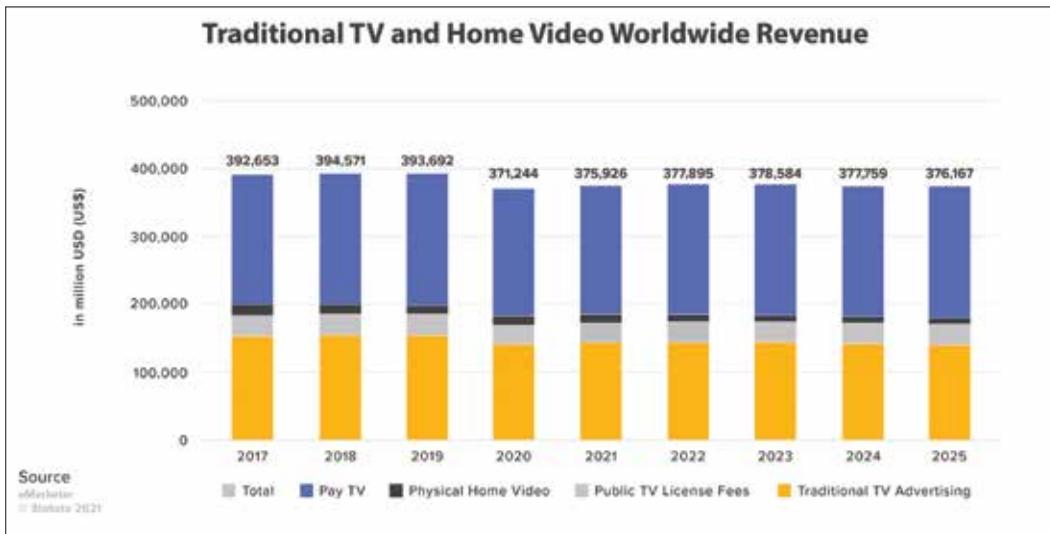


Chart 2

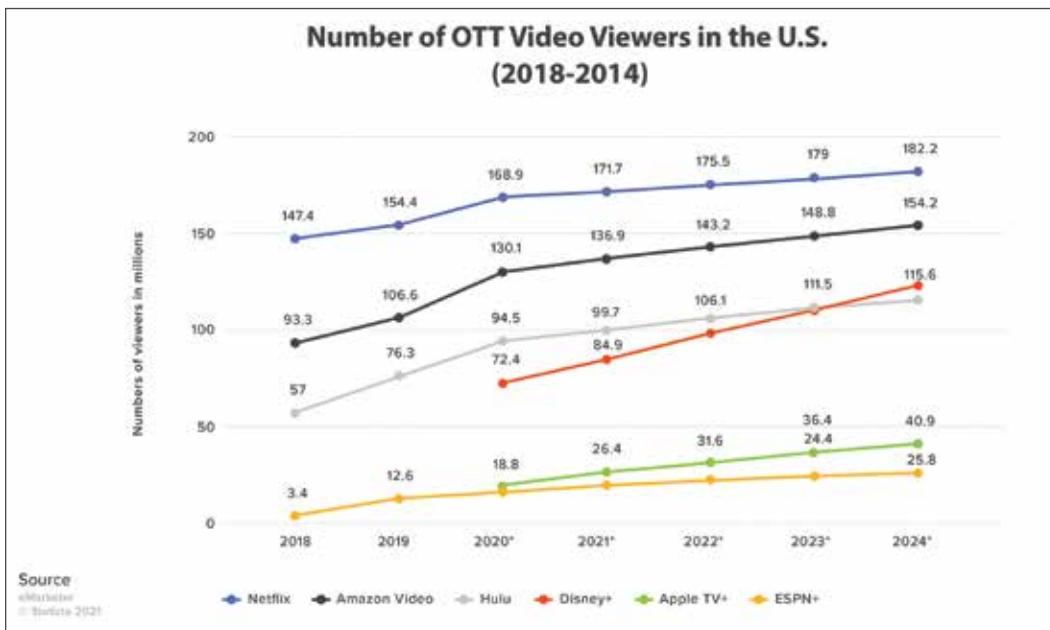


Chart 3

quickly moved from landlines to mobile phones and applications such as Skype and DialPad that offered free or cheap calls.

These advancements in technology, combined with deregulation, accelerated the commoditization of phone calls so much that now, most people don't even think about the cost of calls. They are either free with apps such as Microsoft Teams, Zoom, Skype, Google Hangouts, etc., or service plans offer unlimited calling. Today, phone is just another app, and

for most people, it is one of the least-used apps on a smartphone.

VIDEO KILLED THE BROADCAST STAR

Video content is following much the same path. When YouTube launched in 2005, it decentralized and democratized video publishing globally. Sure, other services offered video streaming, but none were like YouTube. The platform made uploading and sharing video easy, and the quality was far superior to other options. Some may

remember that the thumbnail videos from Broadcast.com sold to Yahoo in 1999 for a record \$5.7 billion.

We have come a long way from Judson Laipply's "Evolution of Dance," which received 70 million views in less than eight months after it was uploaded in 2003. At the time, it held the distinction of being the top-rated video and was the most viewed YouTube video of all time. The video now has more than 300 million views and 215 million comments! (For comparison, the most-viewed video as of the writing

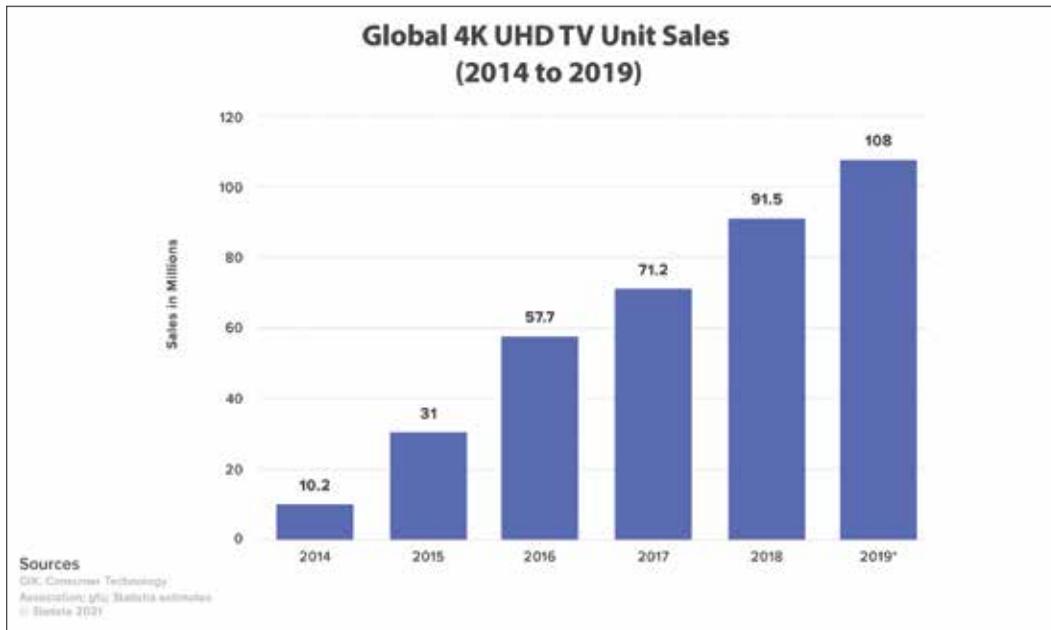


Chart 4

of this article is “Baby Shark Dance,” with 8.3 billion views.)

And then there’s Netflix. Every month during quarantine, U.S. Netflix subscribers streamed 6.1 billion hours of content. That’s 16 hours a month for every American. According to Netflix, streaming an hour of HD video consumes 3 GB of data. Do the math: 18 billion GBs of data per hour – just in the U.S. and just from Netflix. Oh, and Americans aren’t consolidating around one streaming platform. On the contrary: Six new major streaming services launched during quarantine alone. More streaming. More streaming platforms. More bandwidth growth.

PILE ON MORE BANDWIDTH

One thing that complicates the equation even more is 4K and 8K video resolutions.

4K delivers four times as many pixels as standard 1080p resolutions. Four times the pixels equal four times the bandwidth too, in theory. Many providers work their algorithms to compress streams as much as possible before quality degradation is too noticeable.

The internet has already killed a lot of real-world, offline institutions. VoIP and mobile killed the landline. Craigslist is said to be largely responsible for the demise of newspaper classifieds, and though some newspapers survive, revenues continue to decline.

BROADCASTERS EVOLVING

So, what’s in store for broadcast TV? Even as local stations pivot to streaming their own content, broadcast ratings still largely drive revenues. As the population continues to age and as streaming becomes even more prevalent, broadcasters must evolve.

And they are. Content is still king, and the large players in broadcast TV are getting in on the streaming game. Comcast, owner of NBC, moved hit shows such as “The Office” off Netflix and onto its own new streaming service, Peacock. CBS also doubled down on streaming, first by extending broadcast and some original programming to stream on CBS All Access, then upping its game by rebranding the service as Paramount Plus and expanding content options. And recently, Amazon paid an estimated \$1 billion per year to have exclusive rights for “the most watched live programming in the United States.” Yep, NFL Thursday Night Football will be on Amazon only. Game on, Netflix!

At the current rate of decline, broadcast will be around for a while, but the clear trend is that streaming will take over. As streaming traffic continues to grow, internet service providers will need to continue to rapidly scale bandwidth in their optical networks, from edge to core. ❖

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