



From struggle to embrace – TV’s technological conundrum

By [Sergey Bludov](#)

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Television is undoubtedly one of the most popular forms of mass media ever developed. While a television *set* can have static, television itself is far from static. The medium has changed considerably since its inception and is bound to change even more in the near future.

The Evolution of TV

Back in 1948, only one in ten Americans had even seen a television set. TV’s popularity exploded shortly thereafter and in 1960, 70 million U.S. viewers tuned-in to watch Senator John Kennedy and Vice President Richard Nixon in the first-ever televised presidential debate. TV’s penetration continued. By the end of the 1980s, almost 53 million U.S. households subscribed to cable, while the number of cable networks increased from 28 in 1980 to 79 in 1989. Within the ensuing decade, the number of national cable video networks exploded to 171, and by the end of 1999, approximately 7 out of 10 television-owning households (more than 65 million) were cable subscribers.

This growth trend continued through 2010, but then reversed. A 2013 Nielsen study found that the number of American households with TVs had been dropping since 2011, as a growing number of people have been “cord-cutting” by making the switch from traditional cable companies to watching videos online via mobile phones or through streaming services such as Netflix, Amazon Prime, Hulu and others. Recent reports from [TDG](#) and [Limelight Networks](#) also indicate that consumers are, in increasing numbers, cutting the cord and moving to OTT & video

streaming services. About 22 per cent of the 100 million households that subscribe to broadband do not have pay-TV service. And the number of consumers who have at least one OTT streamed video subscription has jumped by 15 per cent. Some consumers are even willing to pay for more than one streaming video service. Clearly, a growing number of people are taking a technological leap away from traditional television services and toward new offerings, creating an exciting time in the industry, and bringing massive changes and innovations in content delivery.

Online streaming services like Netflix and Hulu have dramatically altered the media consumption habits of Americans, particularly young adults. In fact, a recent study conducted by the Pew Research Center indicates that 61 per cent of people between the ages of 18–29 say the primary way they watch television shows is via streaming services on the Internet. Although the overall percentage of U.S. adults primarily watching TV via streaming services is considerably lower (at 28 per cent), these numbers clearly illustrate a monumental generational shift away from traditional television to algorithm-powered user-centric services offering curated, personalised viewing experiences.

Are Traditional Broadcasters on the Way Out?

For a long time, traditional broadcasters have viewed OTT as a threat and, accordingly, were slow to offer similar services themselves. Now, however, it seems the ice has broken, and the broadcasting and TV landscape is about to change. One major recent development was [Disney's announcement](#) that it is severing its distribution deal with Netflix in favour of launching its own streaming service in 2019. And with [official confirmation](#) that Disney is buying some of 21st Century Fox's core entertainment assets, including the Fox movie and television studio, Disney will have increasing ability to populate this streaming service with its own television productions, providing exclusive content to its own OTT subscribers.

The massive Disney-Fox deal illustrates that traditional players are not out of the game. Through a series of acquisitions and consolidations, participants in various segments of the value chain in television, filmed entertainment, and video are seeking to diversify and participate in other parts of the value chain (from content creation to distribution), trying to reach new audiences and revenue streams. A strategic shift to original content production and the wider adoption of direct-to-consumer offerings provide the opportunity for broadcasters to own the consumer relationship and access new markets without relying completely on third parties. These strategies will need to continue to evolve dynamically, as consumer behaviours evolve, which seems a certainty. Indeed, a recent Ericsson report predicts that by 2020, just 10 per cent of people will still watch TV only on a traditional screen.

The Brave New World

The broadcast industry is moving from an SDI workflow towards an IP-based workflow. A lot depends on this important technological shift, which is creating opportunities and risks (including the risk of being left behind). For instance, Comcast in the US [announced its Blockchain Insights Platform](#) with broadcast participants including Disney, Altice USA, Channel 4 UK and Cox Communications. The members will be able to match their individual data sets to target audiences across IPTV and OTT services. The objective of the Comcast Blockchain Insights Platform is to build better multi-screen ad planning and monetisation through information exchange of non-personal data for providing addressable advertising.

The IPTV workflow and other new technologies have the potential to change the way the users interact with television programs, creating new and improved viewing experiences.

Perhaps the easiest and most natural form of interaction is a conversation, and one of the latest innovations being used in broadcasting to increase engagement is chatbots. CNN is one of the networks that is leading the way in diving into the possibilities here, having rolled out a variety

of chatbots over the past six months across messaging apps such as Facebook Messenger, Kik, and LINE, in addition to voice-activated devices like Amazon Echo. The company considers itself to be in the experimental stage at this point, and says it is constantly evolving its usage while exploring additional chatbot possibilities on both smart home and automobile platforms. Others, such as Hulu, HBO, Netflix, and Channel 4, have also utilised chatbots as an engagement tool. As these offerings improve, it is very likely that consumers will increasingly use, depend upon, expect, and eventually demand their availability.

As consumers embrace new technologies, many experts believe that virtual reality (“VR”) will become an essential aspect of television and video in the not-too-distant future. Some go so far as to propose that VR can realise its social and immersive potential in avatar animation technology that would allow show creators to bring members of the audience into TV shows. Technologies are being developed for personalising the avatar to resemble the participant’s appearance through photorealistic human modelling. While these particular technologies concentrate on live television shows (where an actual two-way-conversation is possible), they are emblematic of some of the perhaps unexpected ways that technology can and will continue to transform television.

Which emerging technologies enter our lives and change our day-to-day experiences remains to be seen. But regardless of the exact direction that television takes moving forward, new tech-enabled services and engagement tools will continuously be used to hew and shape Television’s future path forward -- a path we all will traverse, whether as content creators, media executives, advertisers, technologists or simply as consumers.

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