

TV — Today, tomorrow and in the very near future

Q&A with Torkel Thoresen

The technology is out there and the possibilities are endless – but what are the actual driving factors that will help to develop these technologies to change our viewing experience?

Torkel Thoresen discusses today's technology, tomorrow's technology and the failures and successes that are enriching and changing the TV experience of the future.

In your opinion, have there been any amazing technologies brought to market which were good but did not succeed because of a lack of acceptance by consumers?

There have been many mistakes in the broadcasting industry. For example, interactivity on your home TV, which unfortunately lacked the refinement to gain full market acceptance. This was due to the rise and rise of tablets, which have far more computing capacity compared to a TV. With interactivity on your TV screen, the experience was too slow and it took over your entire screen. Instead, using your tablet as a complementary device makes for a much better and cleaner user experience.

What happened to 3D in the home?

This was definitely what everyone was talking about three years ago, but audiences were not enthusiastic about this in a home environment (and certainly not keen on sitting in a specific position or wearing glasses to gain the full effect). The 3D technology is enabled, developed and available on most screens today, but there still seems to be no consumer appetite for this to develop any further, at least in the next few years.

The sports world has benefitted greatly from HD within the homes – what's next?

Ultra HD (which delivers four times as much detail as 1080p Full HD – eight million pixels compared to two million pixels) is making great progress and is definitely the buzz word for 2015. Ultra HD provides better clarity, finer detail and greater texture. With Ultra HD comes a different way of watching.

Viewers could follow an individual player throughout a football match – for example, experiencing exactly how Messi moves and handles the play throughout his 90 minutes on the pitch. The technology to do this is out there today, but it has not yet been completely updated.

It is not just a question of more pixels: Ultra HD is also about "better" pixels. Unlike HD, there is no longer any interlacing and all versions of Ultra HD are progressive, which will improve all movement within the picture. In addition, the Ultra HD standard also allows more frames per second, which further improves the display of movement and will greatly benefit televised sports.

The big discussions at the standardisation bodies today is about how to take Ultra HD to the next level by adding high dynamic range (HDR), which provides a lot more light in television pictures and allows the display of a much wider range of colours from the blackest black to the whitest white.

The Tokyo Olympics in 2020 will be transmitted in a more advanced version of Ultra HD, which offers 8K resolution (four times the resolution of 4K and 16 times that of 1080p).

To really appreciate this enormous resolution, you need a very big screen and you also need to sit close to it. For instance, with a two-metre television display, the ideal viewing distance would be 1.5 metres. Sitting three metres away from such a display would mean that the viewer would not perceive the difference between an 8K and a 4K screen.

Finally, what does it take to gain market acceptance for changes in the way we watch TV today, tomorrow and in the future?

In my opinion, three things are needed for any application to become a success. First, you need to have the technology in place. Second, you need to have broadcasters who are willing to bet on and proactively use this technology. Finally, and most importantly, viewers must like the technology and want to use it and adapt themselves to it.