

Third time unlucky for 3-D television – so what went wrong this time?

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3D TV was all the rave at one time – so what happened? Credit: Flickr/Warrenski, CC BY-SA

Television broadcasts in 3D promised to give people an extra dimension in viewing movies, sport and other entertainment but take up of the technology has not been that great. This is not the first time the industry has tried to use television screens to bring 3D to our living rooms. So what's going wrong?

The latest generation of [3D-enabled televisions](#) have been available in Australia since April 2010.

In 2011, 24 million 3D capable televisions were [sold globally](#), rising to 41 million in 2012. In Australia, sales of 3D sets during 2011 [accounted for](#) 4% of television's sold, and that figure was expected to rise.

The Canon [Consumer Digital Lifestyle Index Report](#) for 2011 (Q4) noted that:

[...] 6% of Australian households currently own, and a further 16% state they intend to purchase a 3D TV in the next year.

Ownership of 3D TVs in Australia grew from [10% in 2013](#) to [12% in 2014](#), but currently there are no 3D broadcasts available from Australian television broadcasters.

It is important to note that ownership of smart TVs also grew, [from 17% in 2013](#) to [21% in 2014](#). This may have influenced the growth of 3D TV ownership, with 3D being a "feature" of many new smart televisions. But the sale of a 3D capable television doesn't reflect its intended use.

For example, Australian retailer [Harvey Norman](#) lists 92 televisions on its website, of which 53 are 3D capable, and notes in its 3D TV [buying guide](#) that:

[...] most free-to-air broadcasters and Pay TV operators are currently working on how to deliver 3D television content. In reality, it may be a year or two before this reaches the screens of the wider viewing audience.

During 2010 to 2012, the Seven Network, Nine Network, Foxtel and SBS started [3D broadcast trials](#) of sporting events.

Such events included the [2010 State of Origin](#) rugby league clash, the [2010 World Cup](#) soccer, the [2010 AFL Grand Final](#) and the [2012 London Olympics](#).

But 2013 was said to be the year 3D TV died, as the Sydney Morning Herald [noted](#):

Vale 3D television, born 2009, died 2013. Deeply mourned by television manufacturers, hardly noticed by buyers.

What went wrong?

A Nielsen [survey during 2010](#) reported 64% of people who were asked said sports programming was one of the things they were "most interested" in seeing on 3D TV.

But the hype of 3D TV appears to have not transpired as a broadcast method for Australian television networks. Network Ten [said it had no plans](#) to broadcast the 2014 Sochi Winter Olympics in 3D, despite Olympic organisers committing to shooting it in 3D.

The BBC in the UK and Foxtel in Australia confirmed [they were ditching 3D](#) in 2013 due to a "lack of interest".

[EPCN 3D](#), once said to be "the largest and most important source of 3D TV content", was also [discontinued in 2013](#). The talk then was that broadcasters were concentrating more on [high definition images](#), an early pointer of things to come.

Despite all the hype, part of the problem with 3D TV was the proprietary glasses needed to view the 3D image, which has proved [unpopular](#) and [expensive](#).

There are now prototypes of 3D TVs that don't need the viewer to wear special glasses. At this year's Consumer Electronics Show (CES), in the United States, Samsung demonstrated its new 110 inch 8K television. Not only did it showcase a high resolution image, but also the ability to present 3D television glasses-free.

But as Gizmodo's [Mario Aguilar](#) says there is still more work needed:

[...] after looking at this 3D, I felt sick. Sure of the image popped out of the screen, but overall, it sort of felt like I was drunk. Only little bits of the image were in focus, and the overall picture looked warped and wacky. I felt dizzy. I wanted to look away.

Not the first time 3D TV has failed

If you think 3D TV is a new technology then think again. A form of 3D TV (known as [stereoscopic](#)) was demonstrated by [John Logie Baird](#), one of the influential inventors of television, in Britain during 1928.

This came a year before [television broadcasts started in Britain](#), although Baird's stereoscopic television was not part of the introduction. The initial television broadcasts in Britain consisted of three 15 minute broadcasts per week using Baird's 30-line (horizontal) television system.

3D's second failure came less than 15 years later, when the debate of 3D TV was raised again in Britain. It came with the establishment of the Hankey Television Committee. The committee was to review television prior to broadcasts recommencing, after it was terminated during World War II.

[Baird discussed with the committee](#) his updated stereoscopic television component which he had been working on for the past five years. It could be added to standard television sets for an increase of

approximately 25% of the manufacturing costs. Baird stated, in relation to stereoscopic television that:

I think it will come into universal use within a reasonable period, and should be operating in the London area shortly after the war.

Baird's perception did not come to fruition, the Committee's final report was published during March 1945, but didn't include 3D TV. Instead the focus of the report was upon improving picture quality.

The Committee recommended the standard of broadcast television in Britain be 1,000-lines, more than double the current 405-lines standard at the time.

3D TV as a gimmick

Over the years several 3D TV experiments have been conducted using the anaglyph method. This allowed the viewer to use their standard television, but required them to wear the glasses with one red and one blue lens.

Several television programs have been broadcast using this method although they were typically just one-off episodes such as that of the comedy [Home Improvement](#).

These programs were never seen to be anything more than a gimmick, with 3D failing to win over viewers and [critics](#).

Picture quality over depth

The Australian Media and Communication Authority ([ACMA](#)) has referred to the latest 3D TV broadcasts as, "[Temporary Trials of 3D TV](#)"

[and other emerging technology](#)".

As noted by [ACMA](#), the last 3D TV broadcast trail was completed during July 16 to August 13, 2012, with no evidence of further trials in the near future.

The focus is again on how the picture quality can be further enhanced, with discussion of Ultra High Definition; with 4K and 8K image resolutions.

The 4K image is [3,840-lines](#) (horizontal), more than three times the current High Definition standard of 1,080-lines (horizontal), while 8K is 8,192-lines (horizontal) allowing for even further quality images.

But the support and push for the better image quality is not coming from traditional broadcasters, instead it's coming from video streaming services.

Netflix was extremely public at CES 2015 about its views of next generation content and the [future of 4K](#). The issue here, though, is going to be bandwidth as the service is internet based. This will be of particular interest in the coming months when Netflix launches in Australia.

Will Australia's traditional television broadcasters follow the lead of video on demand services such as Netflix to bring 4K content to the Australian public?

So where does this leave 3D TV?

For now 3D TV as a broadcast method lies dormant. We may see it re-emerge if manufactures can refine their glasses-free technology, but this is just one part of the problem.

The production of 3D TV is another major hurdles which will take a great deal of effort, based on the previous results.

It could be that 3D is incorporated within new virtual reality and holographic technologies, seen as a more singular and immersive media format. Two examples recently showcased have been the [Avegant Glyph](#) headphones/headset shown at CES and Microsoft's new HoloLens.

Interestingly the promotion video for the HoloLens shows sport on [television](#) as a flat 2D image projected on a wall.

So do we need new 3D TV broadcasts, or for those who want a 3D fix, can they get it at the cinema?

3D movies appear to have been more successful in their uptake. Disney's [Big Hero 6](#) sold [more tickets for 3D sessions](#) than for 2D sessions.

But even the growth of 3D movies in [cinema is slowing](#) with only [23 movies listed](#) so far for 3D release this year, down from 28 last year and [39 in 2011](#).

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