

## The whole TV business is turning 3D, starting 2010

by Bernard Mendiburu



**Bernard Mendiburu is a stereographer and digital cinema consultant working with feature animation studios in Los Angeles, where his credits includes “Meet The Robinsons” and “Monster vs Aliens”. He just published “3D Movie Making, Stereoscopic Digital Cinema from Script to Screen” with focal Press. His lectures and workshops on 3D cinema were selected by Laika and CalArt's Experimental Animation department. In 2009, Bernard presented a paper on 3D Workflows at the SPIE Stereoscopic Display and Applications conference and at the NAB's Digital Cinema Summit. He gave the Paris' Dimension3 two days workshop on 3D Post Production. He recently joined the 3D@Home Consortium's Advisory Committee on 3D Quality and was an active member of the SMPTE 3D Task Force.**

I'm joining the Tin-Foil-Hat gang. I know it will definitively damage my professional credibility as an industry analyst, but that's the only way I can keep my word to tell the truth as I see it. The whole TV business is turning 3D. That's it, I wrote it, you read it, it's official, I'm nuts. My shrink made me add “starting 2010”.

I contracted this medical condition at IBC 2009, when I saw the satellite operators presenting their 3D sat'cast offers. Satellite operators are not softball players – they are rocket scientists with a tie and a business plan. They won't move if there's no grass on the other side of the fence. I could have recovered if it were not for the set-top-box makers that inoculated me with this new 3D insanity. Set top box makers are not people playing with their money. It's a cut-throat business with a handful of customers ordering truckloads, boatloads, warehouses of devices. There's no space for a lost dollar in their universes. Still, they jumped on the 3D boat. Why? What do they know?

I would say they have a relationship with the CE industry we don't have. They know about something. And my bet is they have seen business plans for 3DTVs sales, and maybe preproduction samples. I wish I could keep saying, “someday, in a few years, 3DTV, blah, blah...”, but my guts tells me we are now at the “Soon, Sooner, Tomorrow...” point of the 3DTV race to mass market.

Where do we go from there? We just freeze the 3DTV technology picture and look at the situation that is most likely to be the starting point. We have two glasses technologies – Active Shutter and Polarization. I don't see glasses-free and Infitec displays making it to the home market by next CES. The price battle is on between active glasses and micro-polarization filters. And the answer will vary upon the household size. If you have kids, go for polarization, and stockpile Real D glasses. If not, go for active glasses and enjoy 3D in full resolution.

At this point I'd like to comment on all that “Glasses Sucks, therefore 3D Sucks” we read on low-brained pseudo-tech blogs that seems to have found here a way to pretend they were not caught pants down by the 3D outbreak. There are many reasons to frown at 3D. Some are good, some are not. Among these, “glasses sucks” is the most annoyingly stupid. Here's why: You can repeat it, word for word, to explain why books will never sell, because most people will refuse to wear glasses to read them. The claim that auto-stereo will save the day is basically the same as saying “only large-print books will ever sell, for they do not need glasses to be read”. As it appends, every other western adult is wearing glasses to have access to printed media, and, age and income figures coming to help, they are buying more than 75% of books sold on earth. Breaking news, we wear glasses to read books!

Let's talk about the every other guy that does not wear glasses to read books. You know, these tech-savvy downloading teenagers that happen to be our kids. Did you notice they use earplugs to listen to music? The sound is bad, with virtually no low frequencies, and they are rapidly painful, unless you replace them with bulky headphones. Bulky... sound familiar? Again -- breaking news, people wear headphones to listen to music. Truth is,

I've even been told some of them are using a headset to make phone calls while walking in their house, rather than shouting out loud to their hand-free set next door. Honest, I can't believe it, I have to investigate.

That's my point. Nobody cares about what physical form an entertainment technology will incarnate itself in. The only relevant question is "Is it worth the trouble?" And answering this question takes us one step further into foreseeing 3D-watching habits. The very gesture of wearing 3D glasses, including checking batteries and sync link, places 3D-watching in a more active and planned activity than mere TV-watching. One might not wear 3D glasses for news and weather. One will wear glasses for movie nights. Just like you dim the lights, raise the sound up and call your family to join in when you are watching a rental DVD. Or maybe like when you are playing a video game, as a special moment, an entertainment treat. Putting glasses on will eventually be a thoughtless act, just like setting the sound level when navigating to a YouTube page. The main inconvenience will be to find out where the glasses are. On that one, wired glasses may even have a shot.

Let's wrap up. Starting next spring, you'll not be alone in your neighborhood with a 3DTV. Sorry about that, the geek factor has peaked. Prepare for endless debate at the end-of-year barbecue about the respective value of sunglasses versus big-glasses. I don't think the general public will name them Polarized and Active Shutter.

And one last tidbit... What are we going to watch, beside the very same movies we saw or skipped at the theater, and how will that content reach our entertainment center? For the delivery channel and format, I foresee the obvious Blu-Ray and Internet. There's no economy in affecting broadcast bandwidth on satellite and cable for 3D until we have 10-15% of equipped households. 3D delivery over Internet will have the interesting specificity not to relate on any standardized format. Whatever way you'll see 3D, on DVR, PC, Game Console... there'll a VPU or a GPU formatting it for your display, if it's not the display itself that is totally 3D-agnostic.

For the content, I can't really tell, for I don't know, and if I knew, I'd have to sign an NDA. All I can say is that my contacts in the few 3D production companies that can put content together are rushing gear and crews from plane to plane, trying to save some capacity for the research and development still going on. They are even starting to call each others, and complaining that the 3D takeover of TV is starting too soon. But they cannot say that, for they cannot afford the Tin Foil Hat effect.

## *A new weekly report on the future of TVs*

*by Ross Young*

**Ross Young is the co-founder of YMR and the founder and former CEO of DisplaySearch - the leading flat panel display market research firm. Ross has also worked in the semiconductor, flat panel, TV and solar industries at Samsung LCD, GE's TV JV General Displays, OWL Displays, Fusion Semiconductor, Brooks Automation and GCA. Ross is also on the Board of Directors of UniPixel Displays and the Advisory Board of Illumitex.**



13.5 years ago, I started my first newsletter, *The DisplaySearch Monitor*, which basically launched DisplaySearch which was sold to The NPD Group in 2005 and now has over 50 employees. The first issue was just 5 pages and it consisted of analysis of news and data that I translated from Japanese display magazines. I still remember sitting on the couch two days before I left for the SID Conference telling my girlfriend, who I later married, that I really should start a newsletter. She told me to stop talking about it, apparently I had been mentioning this for some time, and just do it already. I chose a clip art image of a monitor as my logo and cobbled something together. At SID, I made hundreds of copies and put them outside the conference rooms. People started taking them and subscribing. The price was just \$395. *The DisplaySearch Monitor* grew to over 150 pages per month and had well over 100 different companies subscribing. That was how DisplaySearch was born. I am glad I got off that couch.