Hdtv; The 2Nd Coming? Essay, Research Paper

The television industry would have you believe it?s the second coming. Retailers preach the scriptures of higher resolution and digital video and audio quality, while consumers are shepherded by consumer magazines looking out for their best interests, providing previews and coming attraction for the self-made home ?theatre-phile.? What is the excitement about? HDTV: high definition television broadcasting is sending ripples throughout the television industry?s pond.

Since 1988, the industry has been developing a system of high definition televisions in order to receive digital quality broadcasts, the next evolutionary step in home entertainment. After a decade of R & D (research and development for all the non-engineering types reading this essay), the television networks thought that the world was ready for HDTV broadcasts –perhaps a bit premature, as yet there are still several bugs to be worked out. On November 8, 1998, America?s first HDTV broadcasts aired. CBS (through New York City affiliate WCBS-TV) broadcast a Buffalo Bills / New York Jets football game in the HDTV format, even though the number of digital televisions in the market? the only sets capable of receiving HDTV signals? coul interlaced d be counted on one hand. Also debuting was the first Phillips brand digital television, the model 64PP9901 (or 9901 for short). Even though the viewing experience was well, less the revolutionary, an indelible impression was made.

The idea behind HDTV is to increase the quality of the video picture by increasing the lines of revolution projected. The national standard for video display, the NTSC (National Television System Committee), uses 525 of interlaced video running at thirty frames per second.

interlaced video: each frame of a video image is divided into two fields consisting of odd- and even numbered lines. To display the frame, an electron beam scans each line of the first field across the face of the cathode ray tube (TV screen), then goes back and scans the line of the second field in between the lines of the first field.

The new, digital format allows for 1080 lines of interlaced resolution or 720 lines of progressive resolution at either 24, 30, or 60 frames per second.

progressive video: each frame of video is scanned sequentially, through one pass of scanning. This option is unavailable in the standard NTSC format.

Bottom line, this means that the picture quality of digital television is far beyond any comparison to any video medium now in use (film not included as a ?video? medium). But these enhancements are only available through high definition video feeds. In order to produce a high defintion video feed, the program must first be filmed in high definition, then broadcast via the UHF band (that?s right, grab your rabbit ears).

Standard NTSC video can also be broadcast over high definition airwaves, but without the same enhancement of video seen in high definition broadcasts. The way this is done is by ?up-converting? the NTSC format for analog broadcast. This conversion is done at the broadcast tower and is translated at home by an up-converting receiver that must be purchased separately from the digital TV (usually costing at least $3000). The NTSC signal was enhanced to 800 lines in the Phillips 9901, but failed to reach the full 1080 that the set was capable of projecting.

Also, analog broadcasting also allows several different signals to be broadcast simultaneously from the same tower. As CBS prepared for the upcoming game on November 8, they broadcast soaps and daytime programming through different channels, creating several different digital viewing options from CBS to be viewed at the same time. In the long run, this means that individual networks will have several different channels to place programming, thus giving the public that much more to watch. But now, in the early stages of this new technology, this benefit can not be fully appreciated.

Also now in the early stages of HDTV, there are some severe weak points that need to be addressed soon in order to make HDTV a possibility. The main issue that needs addressing is the broadcast itself. Because the signal is broadcast through the UHF band, it is subject to atmospheric interference. For instance, the WCBS-TV tower in New York is stationed atop the Empire State Building. The broadcast from the tower bounces off the other buildings around it in the city, causing an effect called ?multipath.? In digital television, multipath creates multiple ?ghost images? on the screen, disrupting the viewing experience.

Another problem dealing with the UHF broadcast is that the broadcast signal is a directional signal. Strong signals coming from proxy stations could disrupt one another, and since all stations will be looking to place their towers atop the highest masses (for clearer broadcasts), there will be considerable interference until antennae are created that will be able to discern the different signals and translate them into desirable pictures.

However, these problems are small compared to the one glaring problem networks are facing. The main problem to contend with is a lack of programming from the networks spearheading the conversion to HDTV. This lack of programming has been caused by the haste of the industry to put the product out before working out the bugs; leaping before looking so to speak. Unfortunately, this has caused major annoyances for those fortunate enough to have been exposed to DTV related programming. Some of these annoyances could be construed into skepticism, which will be either erased or indulged over time.

It may seem that there is nothing good to come out of this desired conversion to digital programming, but there are some extremely positive points that may outweigh all of the early disappointment that has been experienced with HDTV. Obviously, the picture quality is so enhanced that television viewing will become an entirely new experience. One viewer said that HDTV would force make-up artistry change in order to keep up with the detail that the new sets present. Another said that it made watching television like ?viewing through a screen door.?

But there is more to it than that. Now networks will have an explosion of time that needs to be programmed for because of the expansion of channels that a tower can broadcast. Whether the amount produced proves to be a godsend, or the pike that television impales itself upon remains to be seen. Hopefully, the viewer will be exposed to a variety of programming never experienced before instead of being subjugated to copy-cat programs and info-mercials. Only time will tell.

Apparently, there will be a second coming, an evolution in entertainment which is far more complex and grossly more expensive than anything the industry has faced to date. But like the transfer from black and white to color, the industry hopes to bring to the audience a picture so captivating that it will be hard to move from our seat once we sit down and start watching. And that?s the goal of television. These new HDTV, once standardized, will make it even easier to tune in and tune out