

Potential of 3-D TV has yet to be seen

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OKLAHOMA CITY - The Grammys and the Super Bowl have recently teased television viewers with three-dimensional commercials and programming, and manufacturers are promising 3-D TVs within the year.

If you're an excited technology aficionado, get your goggles ready, but don't forget the headache pain relievers. If you're more interested in the future implications of 3-D technology, stay tuned.

Dr. Hakki Refai, chief technology officer for 3D Icon Corp. in Tulsa and a professor at the University of Oklahoma engineering department, said that for longer 3-D programming, such as sporting events, the headaches will be more painful and the goggles a hassle.

And whether people will rush out to buy 3-D TVs remains to be seen, said Jim Mason, vice president of technology initiatives for The State Chamber of Oklahoma. Many people are now upgrading to high-end flat-screen TVs, so they may not be ready for another significant purchase, he said. People also may not want to experience the dizziness in their own home, but prefer to keep it as a movie theater event.

Regardless, the 3-D technology that's abuzz in the entertainment world may soon be replaced by "real" 3-D technology that will have implications for everything from medicine to airport security. Refai's company is working on volumetric 3-D, which will eliminate the need for goggles.

With current 3-D displays, the eyes are focusing on an object, and the brain interprets the eye's muscle data to understand the depth. That's what causes the headache. But with volumetric 3-D on a large screen, the brain will perceive all features of 3-D just as if a person were looking at a two-dimensional TV. The resolution his company is working toward – 800 million voxels – will be eight times higher than what is available now in 3-D, Refai said.

"The potential of the display is huge," Refai said. "We've still got a lot of work to do, but the ultimate goal is perfection. It will be helpful for medical scanners like CTs or MRIs so you can see the spinal cord or rib cage, or for any type of medical surgery. The doctor will not need to wear goggles - the image will be in front of him. It also may be used in airport security and air traffic control. It will be the real 3-D - no headache for the viewer."

In the short term, grab the goggles and watch 3-D football as you can. In the future, watch for "real 3-D" to be changing more than our leisure time.