

THE NEED TO KNOW

The onslaught of technology vs. the need for good old-fashioned knowledge and understanding.

By Joanne Ritchie

With technology marching ahead at a blistering pace, do all the high-tech solutions we're being offered really hold a legitimate fix for a genuine problem, or is much of it simply the work of various marketing departments? Kinda like the supermarket tabloid headline I saw a while ago that read "miraculous cure found for which there is no known disease."

Don't get me wrong, I'm no Luddite – I applaud the advances in technology that are changing trucking in a positive way. But using technology as a tool to make a driver safer and more comfortable is one thing – it's quite another to have technology take over to the point where the driver is removed completely from the equation.

That thought kept running through my mind as I sat through the various sessions at the Society of Automotive Engineers (SAE) Commercial Vehicle Engineering conference in Chicago last Fall. One particularly intriguing panel discussion called "Operator-Vehicle Interfaces: Technology Challenges Today and Tomorrow" was a good example.

On one side of the table sat four of the creators and purveyors of these new and exciting technologies, and on the other, three end-users of what the first four folks dream up and turn into reality.

Dr. Myra Blanco, a research scientist at the Virginia Tech Transportation Institute, opened the proceedings with comments and remarks gleaned from several years

of applied research dealing with the human information processing and perception aspects of different types of new technologies. At one point, she used a video clip of a test that had been conducted during research on new technology to eliminate blind spots. What we saw was a pair of high-definition video monitors mounted on the A-pillar of a truck, with the usual west-coast style mirror and a standard-issue eight-inch convex mirror in the background – both covered with a gray sack.

While Dr. Blanco didn't comment specifically on this bit of work, I couldn't help wondering how a video screen could ever be called upon to replace a mirror. Even with my very limited bit of time behind the wheel of a truck, I couldn't image how a big-ticket item like a pair of video monitors could do a better job than a mirror. And they'd need to be molded into the A-pillar so as not to obstruct the driver's lateral vision, so where's the improvement in that? Where's the cost-savings or the safety enhancement?

At a point later in the discussion – in an unrelated observation – Don Nehring, an owner-op with FedEx Ground (and president of the Trucker Buddy board of directors) mentioned that his fleet had experimented with rear-facing hood-mounted cameras to help drivers with blind spots.

The cameras were fine, he said, except when the sun was shining directly into the camera when you're heading away from the sun – for example – near sunset or sunrise. Then the screen just goes bright white. Oops.

Nehring also observed that technology as a tool is good, except when the operator isn't taught the basics because of a reliance on the electronics. He cited the example of using an external temperature probe to help drivers determine when the road may be icing up as the temperature drops.

This is great, until the unit quits working for some reason. If the driver isn't aware of the tell-tale signs of impending icing conditions – ice on the mirror brackets, lack of spray from tires – because the advent of technology makes that old lore redundant, things could get pretty dicey out there on the road.

That, I think, is the rub. Driving remains a mostly visual exercise. You need to see what's going on around you, and there are certain things about the vehicle a driver just absolutely needs to know. And drivers, after all, are the ones who ultimately have to use the technology.

So here's the point: whatever the problem-solvers might be dreaming up at this very moment, it's absolutely critical that they consult extensively with drivers to validate the need and applicability of any new technology.

Kudos to the engineers at that particular forum who recognize that end-users need to be included in the design of a new technology right from the start – beginning with an assessment of the need for the technology in the first place. Let's hope they're all so open-minded. I'm certainly not against making drivers' lives easier or safer through technology, but let's face it – nothing's going to replace good old-fashioned know-how. ☺