



The need to know

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Here's a question I'm not sure enough people are asking these days: 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."

I recently attended the Society of Automotive Engineers (SAE) Commercial Vehicle Engineering conference in Chicago and got a technology fix that will keep me going for a while. One session I sat through was an intriguing panel discussion called Operator-Vehicle Interfaces: Technology Challenges Today and Tomorrow.

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 during her talk, Dr. Blanco 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 she 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 here?

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. He said the cameras were fine, 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. I don't think they've yet invented a camera iris that's as flexible as the human eye – even when looking through something as primitive as a mirror.

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, puts us all into murky waters. 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. In bygone years, drivers used dash-mounted tools like pyrometers and turbo boost gauges to improve their fuel economy. Today they rely on the engine's computer to do that. But I have it on good authority – thanks to my gang of old-timers – that even with the ECM, an experienced, well-trained driver can do a better job of balancing fuel consumption and optimum engine output with the aid of those two gauges. And a lot of today's trucks don't even have those gauges anymore.

Which brings me to my final point: whatever the engineers might be dreaming up at this very moment, they really ought to consult extensively with drivers to validate the need and applicability of any new technology. Drivers are the ones who ultimately have to work with the machine, and if the need for a new gizmo just isn't there, or if they think technology replaces good old-fashioned knowledge and understanding, then they will have failed to deliver a product that is truly an improvement.

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 I know many drivers who'd be glad to offer an opinion on whether or not what the problem-solvers are contemplating next is really worth the price and the effort.