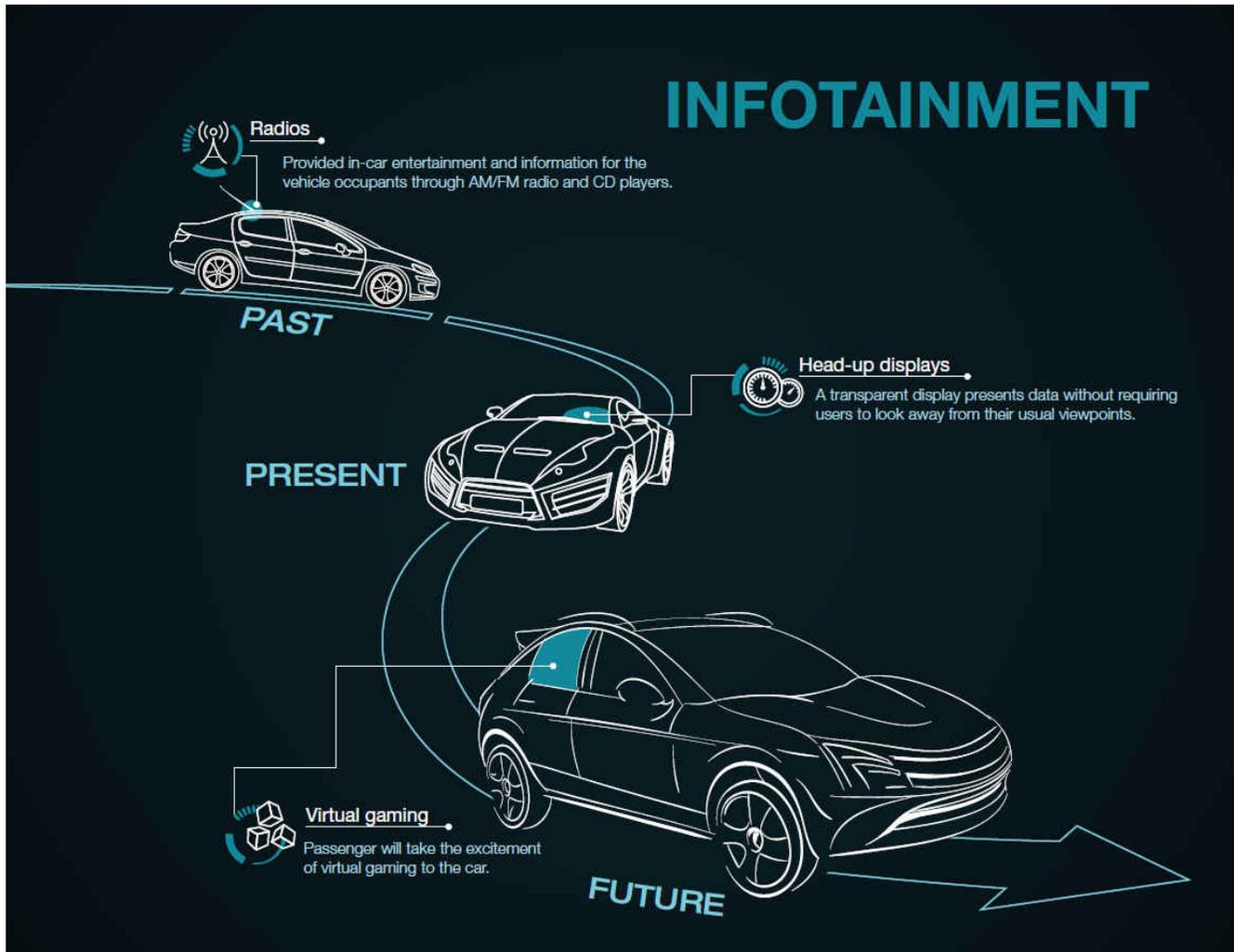# How Infotainment and Cluster Solutions Can Help Drivers Stay Informed, Not Distracted

TEXAS INSTRUMENTS

mwclaassen

As a teenager learning to drive in rural Kansas, one of the most impactful sayings I ever heard from my driver's education instructor was "behind a bouncing ball, a life changing event may follow."

A few decades later, I experienced these words of wisdom firsthand. Driving my pickup truck on a Texas farm road one day, a puppy darted right in front of me. And chasing after the dog was a 3-year-old boy, followed by his panic-stricken grandmother.

I quickly swerved and stopped just in time. It was a scary ordeal, but fortunately, no one was harmed.

To this day, I often think about how much worse things could have turned out. Because of this experience, I bring a unique perspective to my role leading automotive cluster and infotainment solutions at Texas Instruments.

What Happened to the Simpler Days of Driving?

The time when three rear view mirrors, a simple dashboard and a clean windshield were the sum of an informed driving experience is long gone.

Driven by heightened consumer expectations in a world of ubiquitous personal technology such as smartphones, today's automobile makers are adding displays that more prevalent, larger and more connected than ever before.

From people texting to the usual rush hour gridlock, driving today is already brimming with real-world dangers. Today, the greatest challenge is keeping the driver more informed – not more distracted.

Consider the modern interior of some luxury cars. There are screens everywhere. Screens for navigation, rear entertainment screens, backup camera screens, the traditional cluster screen – list seems endless. Unfortunately, it's all too easy to focus on what these screens are showing that it is to focus on the biggest, most important screen of all, the windshield.

Why Balancing Simplicity and Complexity Is No Easy Feat

So how do we keep the focus on the road when our attention is being drawn to multi-screen interactive systems, multifunction steering wheels, and consoles bristling with buttons, knobs and touchscreens?

Fueled by smart sensors and advanced display technologies like head-up display (HUD), I think automakers have a compelling opportunity to evolve the cluster and infotainment experience.

It's time to shift gears from information overdrive to information control. Advances in HUD can result in a more selective and responsible display for the driver so that they see only pertinent information when needed.

Consider things like rear impact and lane detection, speed, and navigation. Drivers probably don't need to see all of these things all the time, or at the same time. A smarter HUD solution means relevant data appear only when necessary. Otherwise, it simply fades from view.

Could HUD Be the Answer?

Making such a solution a reality is still a few years away from the automotive dealer showroom. A HUD-based system like this requires myriad additional sensors, faster data processing, higher data payloads, and more power than current offerings can provide in a reliable and cost effective manner.

Striking a balance between the competing demands of information and distraction won't be easy. But as the automotive industry shifts from pure horsepower to extreme processing power, I believe it can and will happen.

Fortunately, our automotive industry spans more than 35 years at TI. Combined with the industry's broadest analog and embedded processing solutions, we are well positioned to develop the intelligent, scalable infotainment and cluster solutions of the future.

And a decade from now, when someone is driving along a country road in Texas unaware of what comes behind a bouncing ball, hopefully our efforts will have made a difference.

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