The car of the future, today

January 15 2014, by Mira Oberman

Visitors look over cars at the North American International Auto Show on January 14, 2014 in Detroit, Michigan

Cars that park themselves, radar-guided safety sensors and infotainment systems with web access; automakers are competing for customers who now expect constant innovation.

The speed at which the new features are migrating from premium models downward and spreading among brands is accelerating as automakers jostle for attention in an increasingly crowded market.

"The hottest new technology in cars today is voice-to-text functionality that reads a driver's emails or texts as they come in and allows the driver to dictate a response without looking away from the road," Karl Brauer, senior analyst at Kelley Blue Book, told AFP.

Automakers have aligned themselves with tech giants to lure customers with increasingly complex—but hopefully still intuitive—systems to transform their consoles into souped-up smart phones.

Navigation has been upgraded to integrate online consumer reviews from sites like Yelp, and guide motorists to roadside businesses.

Touch screens reminiscent of an iPad have been added to consoles outfitted with apps like Pandora music streaming.

Then there are proprietary apps aimed at fixing life's little problems.

Touch a button on your phone and your lost car will pop up on a map. Still can't find it in the parking lot? Tap again and the phone will honk your horn. Locked the keys inside? Another button opens the door.

Worried that your teenager is driving too fast or hanging out with the wrong crowd? There's an app that will send you a text message if they surpass a chosen speed or leave a designated area.

The real challenge for automakers is to make sure all of this technology doesn't become a dangerous distraction, said Art St. Cyr, head of product planning at American Honda.

A display of tech apps available for modern cars are displayed on November 19, 2013 in Los Angeles

Keeping it out of the car simply isn't possible: people are too attached to their smart phones and "don't want to be disconnected," he said.

"The key is to reduce the cognitive load," St Cyr told reporters on the sidelines of the Detroit auto show.

Voice activation certainly helps, but automakers have also invested in developing safety systems that can compensate for distracted or sleepy drivers.

Initially available only in luxury cars and then premium models, complex collision-avoidance technology is being introduced to the mass market.

Chrysler is decking out a new midsized 200 sedan—unveiled in Detroit

Monday with an entry price of just $21,700—with a full spectrum of safety features previously only available in pricier models.

The Chrysler 200s is introduced at the 2014 North American International Auto Show in Detroit, Michigan, January 13, 2014

Video cameras mounted onto the windshield detect lines in the road to warn drivers if they are straying out of a lane and electrical steering wheels will even kick the car back into position.

Radars mounted under the grill can see through fog to measure the distance to the nearest vehicle, register a change in speed and then slow down or even stop the car if a driver doesn't notice the looming brake lights.

And a blind spot monitor will sound an alert if a driver misses a blinking

light in the side view mirror and flips the turn signal.

Rear view cameras are becoming standard features even on entry-level models like Honda's new compact Fit and Kia is stepping up the game by adding front and side views to the K900 which was unveiled in Detroit.

The 2015 Honda Fit is introduced during a press preview at the North American International Auto Show January 13, 2014 in Detroit

Plenty of premium models are helping drivers with pesky parking problems by measuring distances and controlling the steering wheel for the perfect parallel—or even perpendicular—parking job.

BMW takes it a step further in its new electric i3 which hits showrooms in a few months.

Not only does it help to search for parking spots big enough to squeeze into, it will then completely take over the job by controlling the steering, braking and acceleration.

Employees of German carmaker BMW work on the production of the new electrical vehicle i3 at the plant in Leipzig, eastern Germany on September 18, 2013

Automakers are also competing with simpler features like a vacuum cleaner in Honda's top-selling Odyssey minivan, a sensor that will pop the trunk of a Mercedes, Ford or Cadillac when your hands are full, and "EZ-lift" tailgates on the new GMC pickup.

But the biggest innovations are under the hood, said Bob Carter, head of automotive operations at Toyota Motor Sales USA.

Complex hybrid engines have become commonplace and people are even getting used to seeing purely electric cars like Nissan's Leaf on the road.

The holy grail of green cars—hydrogen fuel cell engines that emit nothing but water vapor—is already on the road in test markets and will be hitting Toyota showrooms next year. Rivals Ford, Honda, BMW, Daimler, and Renault-Nissan won't be far behind.

"To bring it to the floor is over 20 years of research," Carter told AFP in an interview on the sidelines of the show.

Citation: The car of the future, today (2014, January 15) retrieved 3 September 2024 from https://phys.org/news/2014-01-car-future-today.html