



Your Car Could Become Virtual Personal Assistant -- and Even Know When You've Had a Bad Day at the Office

- With nearly all new cars expected to offer voice recognition by 2022, future systems may evolve to interpret tone of voice, facial expressions
- Ford's in-car connectivity system SYNC 3 already enables voice control, Apple CarPlay and Android Auto, and will soon enable drivers to use Amazon's virtual assistant Alexa
- Ford with RWTH Aachen University is researching using multiple microphones to improve speech processing and reduce the effect of external noise and potential disruptions

AACHEN, Germany, Feb. 21, 2017 – We are now used to cars that understand what we say. Experts predict that in future they may also know how we feel – sometimes without us having to say a word.

Nearly 90 percent of all new cars are expected to offer voice recognition capability by 2022. * The next step for the cars of tomorrow could be to pick up on tiny changes in our facial expression as well as modulations and inflections in our speaking voice, easing the driving experience for consumers.

Advanced systems – equipped with sophisticated microphones and in-car cameras – could learn which songs we like to hear when we are stressed and those occasions we prefer to simply enjoy silence. Interior lighting could also complement our mood.

“We’re well on the road to developing the empathetic car which might tell you a joke to cheer you up, offer advice when you need it, remind you of birthdays and keep you alert on a long drive,” said Fatima Vital, senior director, Marketing Automotive, Nuance Communications, which helped Ford develop voice recognition of the SYNC in-car connectivity system.

Cloud-based voice control is anticipated to be available on 75 per cent of new cars by 2022, * and it is predicted future systems would evolve into personal assistants that shuffle appointments and order takeaways when drivers are held up in traffic jams.

Movie fans will recall in the film “Her,” Scarlett Johansson’s character Samantha catered to Theodore Twombly’s every command, as a voice recognition system, which with uncanny accuracy, learned his mood, needs and wants – just from the sound of his voice. Someday soon, your car could do something similar.

This summer, Ford’s in-car connectivity system SYNC 3 will enable drivers to connect to Amazon’s virtual assistant Alexa and offers 23 different languages and many local accents. By accessing cloud-based resources, cars of the future could enable even more drivers to speak their native language, good news for those celebrating [International Mother Language Day](#).

“Voice commands like ‘I’m hungry’ to find a restaurant and ‘I need coffee’ have already brought SYNC 3 into personal assistant territory,” said Mareike Sauer, voice control engineer, Connectivity Application Team, Ford of Europe. “For the next step, drivers will not only be able to use their native tongue, spoken in their own accent, but also use their own wording, for more natural speech.”

Apple CarPlay™ provides a simplified way to use the iPhone interface on a car's touch screen, giving users access to Siri Eyes-Free voice controls, as well as Apple Maps, Apple Music, Phone, Messages, and a variety of third party apps. Android Auto™ delivers Google Maps and music to a car's screen while enabling voice controls for phone calls and messaging. *

A research project Ford is currently running with RWTH Aachen University includes using multiple microphones to improve speech processing and reduce the effect of external noise and potential disruptions. Nuance says that within the next two years, voice control systems could prompt us with: "Would you like to order flowers for your mum for Mothers' Day?" "Shall I choose a less congested but slower route home?" and "You're running low on your favourite chocolate and your favourite store has some in stock. Want to stop by and pick some up?"

Future gesture and eye control would enable drivers to answer calls by nodding their head, adjust the volume with short twisting motions, and set the navigation with a quick glance at their destination on a map.

So is there a danger that, as in the movie "Her," we might fall for our advanced voice recognition systems?

"Lots of people already love their cars, but with new in-car systems that learn and adapt, we can expect some seriously strong relationships to form," said Dominic Watt, senior lecturer, Department of Language and Linguistic Science, University of York. "The car will soon be our assistant, travel companion and sympathetic ear, and you'll be able to discuss everything and ask anything, to the point many of us might forget we're even talking to a machine."

At Mobile World Congress, the world's largest gathering for the mobile industry, in Barcelona, next week, Ford will reveal the next advances in mobility and connectivity.

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* <http://www.autonews.com/article/20170122/OEM06/301239846/alexa-do-i-need-a-virtual-assistant-in-the-car>

** SYNC languages include Arabic, Chinese, Czech, Danish, Dutch, English (Australian), English (UK), English (US), French, French (Canada), German, Italian, Korean, Norwegian, Polish, Portuguese, Portuguese (Brazil), Russian, Spanish, Spanish (Mexico), Swedish, Taiwanese, Turkish, Coming later this year are English (India), Finnish and Thai.

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