

Too much technology

Sometimes simplifying a car's myriad dashboard controls only makes them more difficult to use

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Posted: 04/24/2009 10:27:53 AM PDT

Updated: 04/24/2009 10:27:53 AM PDT

In certain science-fiction scenarios, technology goes haywire. Robots turn against the human race or computers take over the world. Thankfully these plots are all fantasy. But in the car business, technology occasionally seems to stretch beyond a human's

ability to master it, particularly when it comes to multimedia control systems. These controls combine an increasing number of functions for the sake of efficiency, but they often do so using an interface that's difficult to understand.

One of the first examples of auto technology that proved too smart for the average user was the menu-driven knob control BMW introduced in 2002. BMW's iDrive system in the 7 Series sedan included a knob-like control mounted on the center console. It was designed to control a myriad of amenities, from climate and audio to navigation and communication, in conjunction with a series of menus displayed on a small screen. Although it became immediately apparent that the control actually made these systems more difficult for users to operate, rather than less so, iDrive was quickly imitated by other upscale automakers, including Audi (with something called MMI) and Mercedes-Benz (with COMAND). For the most part, automotive reviewers slammed the devices. Even today, the term infuriating is the descriptor most likely to precede the word iDrive in the pages of the enthusiast magazine Car and Driver.

The first generation of BMW's iDrive was a slick system and could do a lot of cool things, but it wasn't user-friendly, says Stephen Lovett, a director with the market research firm Harris Interactive in Rochester, N.Y. The idea behind the system was to reduce dashboard clutter resulting from electronic features, especially in top-of-the-line models, that had proliferated in the name of making autos more luxurious and desirable. Single-knob controls working in tandem with dashboard-mounted display screens seemed like an elegant way to avoid an abundance of buttons. But the ostensible advancement forced users to contend with layers of computer-style menus in order to operate what were once simple functions. Consumer Reports auto content specialist Mike Quincey outlined the nine steps required to set the clock in a BMW 650i. His ninth step starts with the words, Start swearing

Where an old-fashioned button or knob delivered desired results instantly, with a single click or twist, unified multimedia systems take their sweet time. A user must often press a button and wait for the system to confirm the command before proceeding to the next step. It took 40 seconds for one reviewer to switch from AM to FM radio using BMW's iDrive interface.

What's more, many models now incorporate voice control, which allows a motorist to operate various functions just by talking. Although some people may find speaking to an inanimate object uncomfortable, voice systems do allow the driver to keep both hands on the wheel and maintain a constant view of the road ahead. Unfortunately, users also usually need to learn a precise set of commands in order to make the system work. Issuing an incorrect command may force an errant motorist to start again from the beginning. What's more, most voice-control systems have difficulty recognizing commands when there is excessive background noise (including passenger conversations) or when the user speaks with an accent.

Nevertheless, these systems are improving, however incrementally. The latest generation of BMW's iDrive, appearing on its 3 Series cars for 2009, is light years ahead of the original. The new iDrive is spectacular and very easy to use. I can't imagine anyone having a difficult time using this system, raved one reviewer in *Automobile* magazine. Among the biggest improvements: the new system's response time is as quick as a button or touch-screen control.

Automakers have learned that a knob does not necessarily eliminate the need for all other buttons. As BMW gradually refined iDrive over the past few years, it reintroduced buttons for radio presets and for switching from AM to FM reception. The latest generation includes handy buttons that afford direct-entry control of the radio, CD player, telephone and navigation.

To help make voice command systems more intuitive to operate, Lexus introduced the Flexible Voice interface on its 2010 RX 350 crossover SUV. The new voice recognition system was designed to allow the driver to speak more flexible, conversational commands for easier access and control.

For example, earlier voice systems required a user to speak specific commands in a precise order: Phone. Dial by name. Dial Bob. Using the new system a driver may simply say, Call Bob at home. Lexus claims the system will recognize and respond to other casual phrases, including Make it cooler, I want a Japanese restaurant and Where's the nearest gas station?

Future generations of computer-aided interfaces may make it even easier for automakers to upgrade a vehicle's technology, adding electronic functions that users will master with ease as they motor boldly toward whatever strange new worlds lie ahead.