

Voice-activated iPhone could snarl laws on drivers' texting

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Apple's iPhone 4S is one of several new devices that make it possible to send text messages with both hands on the wheel. As drivers begin to use these new technologies, states may have to decide what they will and won't allow on the road.

When Apple introduced its new iPhone 4S earlier this month, tech analysts raved about the phone's voice-activated [personal assistant](#), nicknamed "Siri." One thing they loved was how Siri can be used to dictate text messages without typing - or read incoming texts aloud - a convenience that seemed perfect for life behind a [steering wheel](#). "Big news for drivers," declared The New York Times' David Pogue. The Wall Street Journal's Walt Mossberg noted that he'd had success using Siri to dictate emails and text messages in the car.

There's just one problem. Texting while driving is illegal in dozens of states. And while some states have written their laws to allow for hands-free use of emerging voice-activated texting technologies, many others haven't.

For instance, laws in Maine and Michigan disallow reading text messages while driving - something that [iPhone](#) 4S users may be compelled to do if they want to spell-check Siri's dictation before sending a text.

Connecticut and Maryland prohibit text messaging from [handheld devices](#), a possible pitfall since Siri users must push the iPhone's home button to activate the system. Vermont's statute bans the sending of [electronic communications](#), making no allowance for hands-free texting.

Siri is not the only voice-activated application available to drivers. Similar applications, including Vlingo and Sensory, can be downloaded to cell phones. Carmakers are in on the action, too. Ford and BMW have designed speech-to-text systems for some of their newest vehicles, allowing drivers to hear messages as they are received and dictate messages that the car's systems will send.

The new technologies are designed to make texting while driving safer - and in some cases, to tuck neatly into legal exceptions that states such as Indiana and Illinois have carved into texting bans, specifically allowing for hands-free or voice-activated devices.

New York's law banning texting while driving specifies that text messages amount to "manual communication." Voice-operated systems would be considered something different, says Richard Carey, deputy director of the New York Chiefs of Police Association. "If drivers are using a voice-to-text feature without manipulating the device while they're driving," Carey said, "that would not be a violation of New York State law."

As more drivers adopt these technologies, however, lawmakers in states with more restrictive rules may need to decide whether using Siri and her ilk to send messages is any less distracting to drivers than thumbing out texts from the road. While voice texting technologies are too new to have been the subject of much research, studies of drivers who talk on cell phones have shown increased distraction risks, even when drivers use hands-free devices.

Currently, 34 states have banned texting while driving; nine states have banned the use of handheld phones while driving, according to the National Conference of State Legislatures. While no state has outlawed all phone use in the car for adults, California, Georgia and Massachusetts, among others, have done so for drivers under the age of

18.

It's not clear that these laws have had much of an effect. Surveys have shown that even in states where typing out texts while driving is banned, about 45 percent of 18-to-24 year olds admit to doing it anyway. A 2010 study from the Highway Loss Data Institute, a safety research organization, found that in four states with texting-while-driving bans, the crash rates actually increased; researchers there speculated that drivers were hiding their phones in their laps to avoid ticketing.

Dave Grannan, CEO of Vlingo, says that's why voice-recognition programs like his are important. He believes technology will do more to make drivers' actions safer than trying to ban people from doing certain things. "We need laws that mandate safe technology solutions, not laws that are going to be simply ignored by people," Grannan says. "You can't change people's behavior."

Others say doing anything with a cell phone while driving creates an intolerable safety risk. The National Safety Council, an advocacy group for workplace and transportation safety, has promoted a total ban on all cell phone use while driving, but has not yet taken a position on voice-to-text systems. Most of the council's work has focused on the risks of talking while driving, even with hands-free equipment.

According to a white paper put out by the research group, drivers experience cognitive distraction even when they talk on cell phones hands-free. The brain is forced to switch back and forth between the two competing activities, causing it to "look at" but not "see" objects, a phenomenon called "inattention blindness" that can cause drivers to miss exits or blow through red lights and stop signs.

In another study, researchers at the University of Utah found that drivers using hands-free cell phones had slower reaction times than a person

with a blood-alcohol content level of 0.08 - the legal threshold for a drunken-driving arrest. Multiple studies on hands-free versus handheld cell phone use have found an equal four-fold increase in crash risk for both activities.

Research from Virginia Tech University's Transportation Institute came to a different conclusion about using hands-free devices to talk on cell phones. Drivers using voice-activated hands-free systems had a much lower risk of crashing, according to one study, because the driver's eyes stayed on the road. When it comes to typing out text messages by hand, however, the Virginia Tech researchers found a clear safety risk. Doing that while driving, they found, increases collision risk by a factor of 23.

Research on texting using voice-recognition technology is in the beginning stages, and not far enough along to offer policymakers much advice. "We don't have very satisfying answers," said Russ Rader, vice president of communications for the Insurance Institute for Highway Safety. "There's a lot we don't know about distraction and how (voice-controlled) systems are affecting the driving task. Intuitively, you would think that they'd help because they are aimed at helping drivers at least keeping their eyes on the road, if not their minds."

But, Rader added, "We don't know to what extent the devices become frustrating if they don't work well, and we don't know if the technology encourages drivers to use these systems more than they would."

The National Safety Council is similarly taking a wait-and-see attitude with the new technology. "Text to speech may have some benefits," said John Ulczyk, group vice president for research, communications and advocacy. "But it just hasn't been proven."

For now, the Governors Highway Safety Association, an advocacy group for improving traffic safety in the states, is encouraging states to tackle

known risks, such as manual [texting](#) while driving, and to ban [cell phone](#) use for novice drivers. The group also recommends low-cost safety solutions, such as installing rumble strips on roads to alert [drivers](#) when they drift out of their lanes, educating the public about the risks of distracted driving, and enforcing existing distracted-driving laws.

"We're really where we were with drunk driving 25 years ago," said Jonathan Adkins, communications director for the Governors Highway Safety Association. "We know there's a problem (with distracted [driving](#)), but we don't have a clear sense as to the scope of the problem or exactly what will work to reduce it."

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