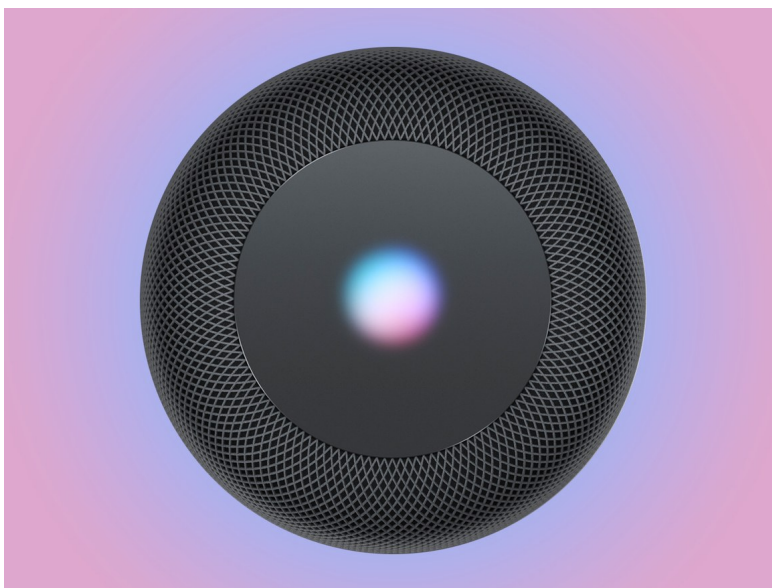




TOM SIMONITE BUSINESS 10.05.17 07:00 AM

'SIRI, WHY HAVE YOU FALLEN BEHIND OTHER DIGITAL ASSISTANTS?'



APPLE

APPLE HAS A reputation for entering markets late—think portable music players or smartphones—and then blowing away competitors with a superior product. When it comes to Apple's virtual assistant Siri, that storyline appears to be playing out in reverse.

Apple revealed Siri with the iPhone 4S in October 2011, one day before cofounder Steve Jobs died. Talking to a device to set alarms or answer messages was seen as revolutionary. It took other tech giants years to catch up: Amazon's Alexa assistant appeared in 2014 as part of the Echo home speaker, and the unimaginatively named Google Assistant appeared only last summer. Today, those relative newcomers offer more features than their predecessor, and get a more central role in their makers' product plans.

"The situation is that Google and Amazon are winning the race for virtual personal assistants," says Brian Blau, who tracks consumer technology at Gartner. "Apple hasn't improved to stay as competitive as it needs to be."

A Google product event Wednesday underscored the growing gap. Google Assistant was positioned as central to nearly all products the company unveiled: wireless earphones; two new smartphones; two new

seamless way,” Google CEO Sundar Pichai said on stage.

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What's more, Google executives showed off features of Google Assistant so far unmatched by Siri and Apple. For example, the new Google Home speakers can be configured to recognize different people from the sounds of their voices. Say “Hey Google, call mom,” and the device knows to use your contacts to phone your mother, not your mother-in-law. Amazon's Alexa also can't do that yet.

Apple's first home speaker, [the HomePod](#), doesn't arrive until December—tens of millions of units behind Google and Amazon's speakers, by analysts' estimates. HomePod includes Siri, but Apple CEO Tim Cook has positioned it more as a successor to the iPod, an attempt to “reinvent home music,” than the multifunctional home helpers it most resembles.

Google and particularly Amazon also have done more than Apple to enable outsiders to work with their assistants—borrowing a strategy the Cupertino company pioneered with the iPhone's app store. Outside developers have built more than 15,000 “skills” for Alexa, and the assistant is being integrated into dozens of cars, televisions, and home appliances. Google Assistant is being built into products from companies including [Sony](#). On Wednesday the search company announced tools to encourage developers to create Google Home apps and games for families. Apple restricts developers who want to build on top of Siri to [just nine use cases](#).

Apple may be saving some Siri upgrades for the HomePod's launch next month. The company typically waits until new features or technology are fully polished, in contrast to Google's approach of launching beta services and iterating in public.

Apple has made some recent improvements to Siri. At a June event, the service got a new, [more realistic voice](#), and translation capabilities. But on Wednesday, Google upgraded its own assistant's voice, and showed off a flashier live translation service using its new Pixel Buds wireless earphones. When a female

English, his words were rendered back into Swedish.

The Amazon and Google assistants also now work with images, in addition to voice or text commands. Amazon this year introduced an Alexa-powered device called the [Echo Look](#), with a camera that can offer feedback on your outfit, like a 21st century magic mirror. Google, which has invested heavily in image recognition research for many years, is going further.

On the new Pixelbook laptop shown off Wednesday, you can use a stylus to ask Google Assistant to look at images or text. In a demo, circling a musician's face on a webpage allowed the assistant to identify him and provide links to songs and video.

On the Pixel phones, a new feature called Lens lets the assistant access photos taken with the device's camera. If you snap a notice or document with an email address or phone number, you can tap to call or compose a message, for example. The Lens feature can also summon information about artworks, landmarks, movies or books.

As anyone who has used them knows, all virtual assistants are still far from perfect. Many features of the way we use language still elude machines. Creating software capable of keeping track of conversations with back-and-forth responses is still a major research challenge, says William Wang, a professor at the University of California Santa Barbara. Another is giving the systems a broader understanding of things in the world and how they relate to one another, in the form of databases dubbed "knowledge graphs." Wang and other researchers are trying to figure out how to create those resources automatically, for example from data found online.

Google has an advantage on that technology, which it has been [developing for years](#) as part of its search engine. An April study by marketer Stone Temple that asked 5,000 general knowledge questions to virtual assistants reported that Google's got 91 percent correct, compared to Alexa's 87 percent, and Siri's 62 percent.

Apple's VP of product marketing Greg Joswiak [complained about such comparisons](#) to WIRED last month, saying "we didn't engineer this thing to be Trivial Pursuit!" In fact, there's evidence that Apple is heading in that direction—with good reason.

Survey results [released by ComScore in May](#) found that answering general questions was the top use case cited by owners of smart speakers (weather and music came second and third). Apple is currently recruiting several engineers and engineering managers to work on "knowledge graphs" for Siri.

Another job [posted last month](#) asks for candidates who want to help improve Siri's general knowledge, citing queries such as "Why are fire trucks red?" and the chance to "settle a few dining room quandaries between families." For Apple, the most crucial question of all could be: "What's the best personal assistant?"

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