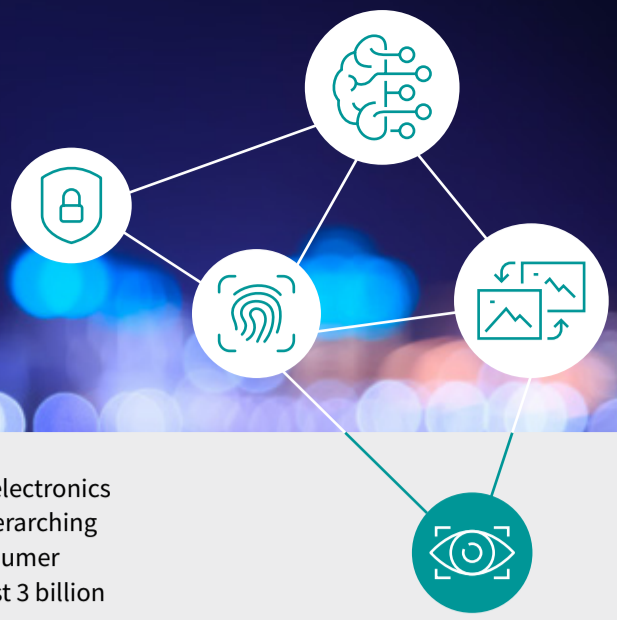


AI and digital assistants — a 2018 surge



As they become more ubiquitous in homes and in various consumer electronics products, AI and digital assistants are likely to be two of the major overarching themes in 2018 across technology industries. More than 5 billion consumer devices supporting digital assistants will be in use in 2018, with almost 3 billion more added by 2021.

Despite its growth, there are still hurdles to overcome before consumer adoption is widespread:

Amazon has taken a lead in driving smart speaker sales, third-party apps and service support, and wider partner device integration. However, more needs to be done by all platforms to help users discover new skills and uses for technology.

Google's dominance of the global Android installed base, coupled with device maker services like Samsung's Bixby, means Amazon needs more device partners to compete at scale on mobile.

Major technology companies continue to make investments and acquire companies that increase AI expertise. Apple has been the most acquisitive to date, but Google has been the most active investor in third-party, AI-centric companies.

Google's and Amazon's advances highlight Apple's challenges with Siri: it has failed to translate its early mover advantage into a platform that offers the widespread app support of its competitors.

Key features in the development of AI and digital assistants:

Video surveillance will continue to be a critical component of the smart home in 2018, with video cameras and video doorbells representing nearly **20 percent** of devices shipped into the smart home globally this year.



Smart home security

Video surveillance will become even more intelligent by pairing noise classifications and voice and facial recognition and by allowing consumers to filter what is most important in their daily lives. Moreover, there will be more all-in-one devices launched in 2018, which will combine smart speakers, video cameras, and hubs connecting all devices in the home.

As smart home players look to differentiate themselves and grow market share, smart home products will achieve more proprietary expansions through acquisition and in-house research and development. These deals will likely enhance the opportunities for AI and home automation.

Although Amazon and Google will continue to ramp up partnerships, Amazon will direct its focus on developing equipment in-house, while Google will re-vamp relations with Nest.

39 million smart speakers are forecast to be shipped globally in 2018, up sharply from **27 million** units shipped in 2017.



Smart speakers

2018 is the year competition in this market truly begins, and the year true mainstream adoption accelerates. IHS Markit expects numerous third-party smart speakers built around one or more digital assistants, giving consumers more choices when it comes to price, form factors, style, and audio quality.

Heavyweights Google and Amazon are aggressively ramping up competition in the space, with both standalone products and voice-based interfaces to the smart home.

The global smart connected major home appliance market is forecast to grow from less than **1 million** units in 2014 to **330 million** units in 2021.



Smart appliances

The integration of voice assistant technology will soon move beyond major white-goods home appliances to small appliances and personal- and hygiene-care appliances. IHS Markit expects some appliance makers to embed microphones in their premium appliances, complementing smart speakers in digital assistants within the smart home.

How these companies might choose to use the data generated out of this user experience will be an interesting development to watch.