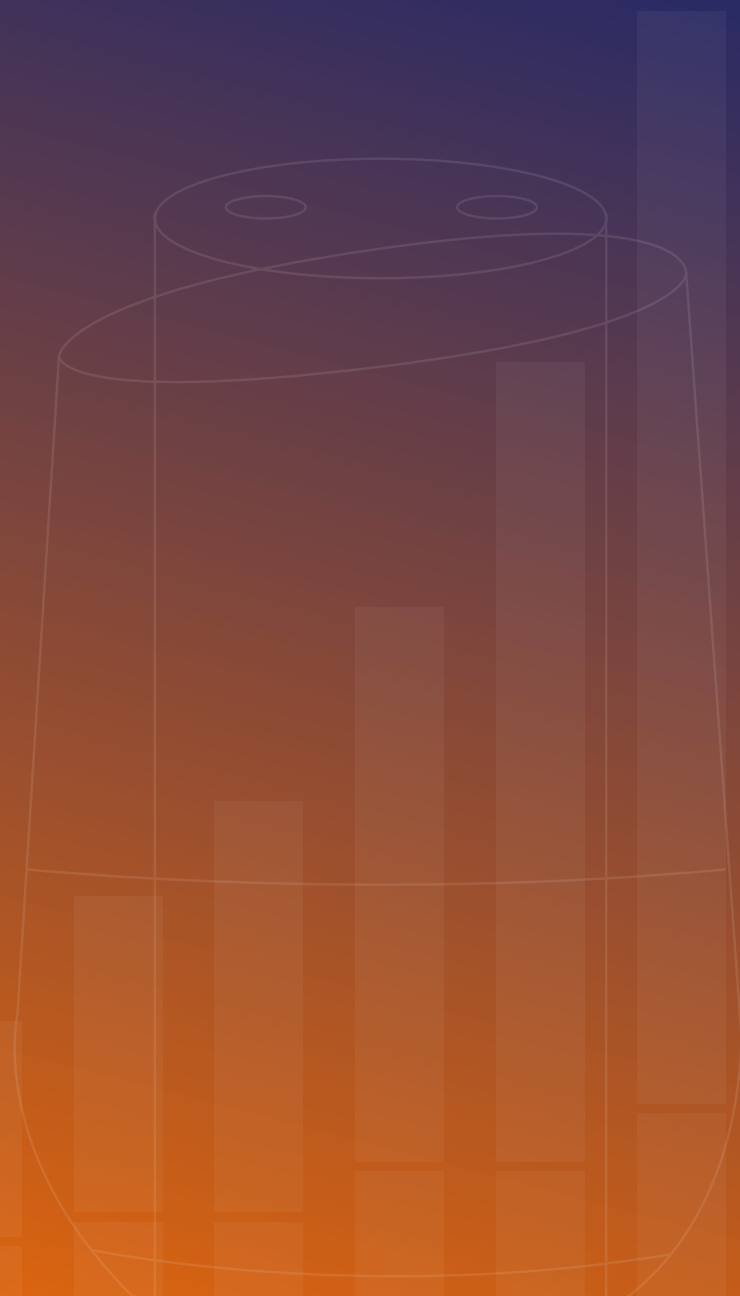# The 2017 Voice Report

EXECUTIVE SUMMARY

by: **V** **VoiceLabs**.CO

In 2016, Amazon Echo evolved from novelty to in-the-home powerhouse, with over seven million devices in households. Google Home launched in November, legitimizing a multi-platform ecosystem of voice-first devices. These two devices are simply the start of a much bigger future, where consumers will enjoy a more natural way of interacting with machines - conversational voice.

Using only your voice, you can now seamlessly play music, turn on your lights, order a pizza and get breaking news. While early innovation is about taking phone and mobile app use cases and porting them to voice-first platforms, in 2017 we will see unique voice-first experiences that will take the world by storm. Get ready for always communicable family members, a personalized home assistant that makes life easier, and a conversational device that anticipates your needs.

As Mary Meeker pointed out in her 2016 Trends Report, voice commands to your phone are increasing. **However, until we had an always-on, dedicated voice device, the Amazon Echo, the voice-first market did not exist.**
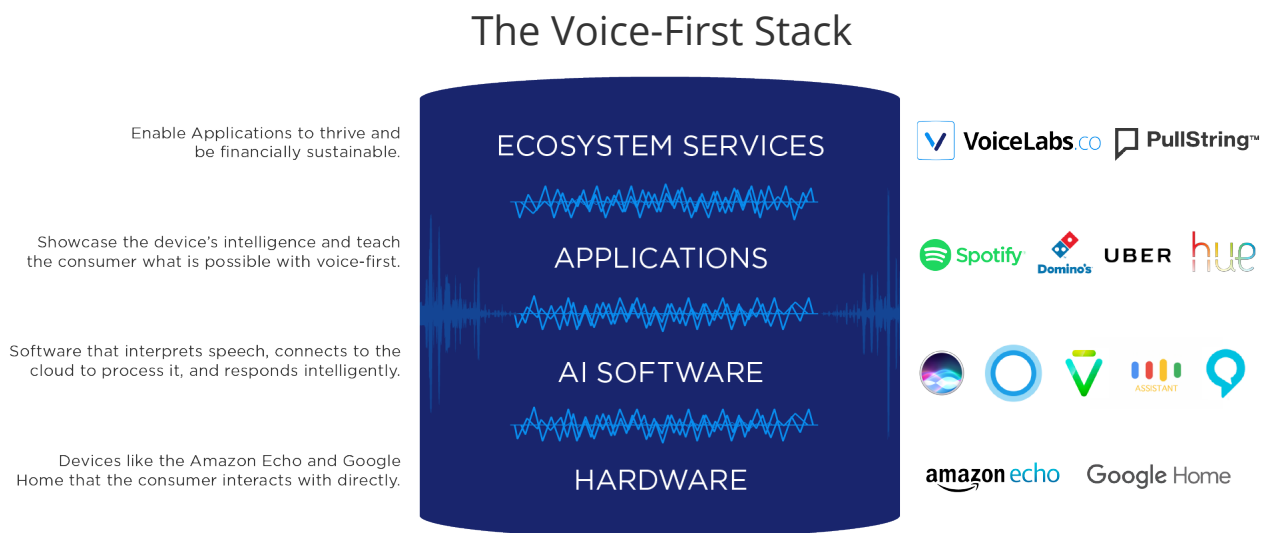
*A **voice-first device** is an always-on, intelligent piece of hardware where the primary interface is voice, both input and output.*

VoiceLabs provides Voice Experience Analytics, and is the most widely used Analytics service for Amazon Alexa and Google Home developers. In the past year, we have been fortunate to work with hundreds of voice developers and partner with both Amazon

and Google in this exciting space. VoiceLabs created The Voice Report to help define this emerging market, provide data insights on key attributes of the ecosystem, and highlight both the impressive growth and areas for improvement.

This is the Executive Summary of VoiceLabs' 36-page 2017 Voice Report, highlighting key analysis and predictions. For granular methodology, more information and additional insights, email info@voicelabs.co.

Outline of The Voice Report:
Hardware, AI Software, Applications, Ecosystem

The Voice-First Stack

Enable Applications to thrive and be financially sustainable.

ECOSYSTEM SERVICES

Showcase the device's intelligence and teach the consumer what is possible with voice-first.

APPLICATIONS

Software that interprets speech, connects to the cloud to process it, and responds intelligently.

AI SOFTWARE

Devices like the Amazon Echo and Google Home that the consumer interacts with directly.

HARDWARE

The Voice Report follows the same progression as the voice-first stack, starting with the underlying hardware devices and working its way up.

The hardware encapsulates the consumer experience, but is nothing without intelligent software. The artificial intelligence assistants guide consumers on what is possible and how to interact, provide a core set of capabilities, then hand-off experiences to third-party applications to extend the experience. The third-party applications take care of consumers and enable them to interact with the brands and services they know and love. Finally, the ecosystem services bolster the applications, and make the ecosystem flywheel turn to provide additional value to all.

We will cover each section discretely, and show how they all come together to bolster this ecosystem.

Below are some of the takeaways from the 2017 Voice Report. For more information on the voice-first market, email info@voicelabs.co.

Hardware:
Voice-first devices get closer to mainstream in 2017

In 2015, there were 1.7 million voice-first devices shipped[1]. In 2016, there were 6.5 million devices shipped[2].

In 2017, there will be 24.5 million devices shipped, leading to a total footprint of 33 million voice-first devices in circulation.

Voice-First Device Footprint
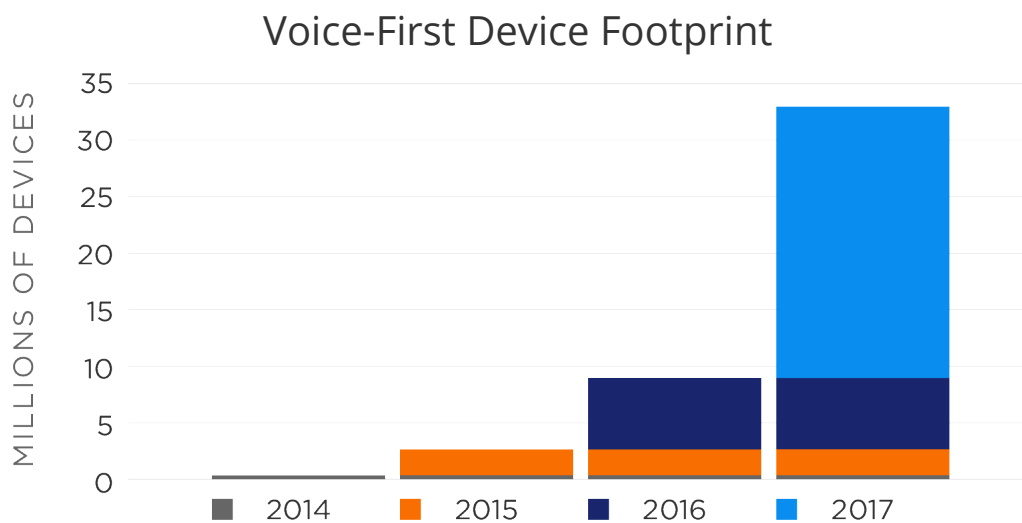
VoiceLabs analysis combined with research from CIRP, KPCB and InfoScout

This is a large and growing market, and both Google Home and Amazon Echo will be huge business successes. However, VoiceLabs surveyed consumers who already own a Google Home or Amazon Echo, and **only 11% of respondents will also buy a competing device**. Therefore, while not a winner-take-all market, **in 2017 VoiceLabs predicts it will be a winner-take-entire-household market**. This puts pressure on the hardware providers to distribute devices quickly. Amazon excels at selling third-party hardware and consumer electronics, giving it an advantage in this distribution race.

[1] Analysis from Consumer Intelligence Research Partners (CIRP).
[2] VoiceLabs analysis utilizing consumer purchase data from InfoScout combined with research from CIRP and KPCB.

The caveat is that today, consumers see all devices the same. In reality, these devices are quickly specializing - see section below. When the specialization becomes differentiated enough, more households will purchase multiple platforms.

AI Software:
The Intelligence Inside

Jeff Dunn of Business Insider did [a great comparison](#) and showcased where certain AI Assistants differentiate, but right now these small differences are not pronounced enough to sway the consumer[3].

AI Assistants have started to specialize, and this will become more pronounced in 2017.

- **Google** is going to excel at mining the web and providing intelligent responses to general knowledge questions.

- **Amazon** is going to excel at commerce.

- **Google and Microsoft** should excel at email, contacts and calendar.

- **Microsoft** has a huge opportunity to excel at gaming, but needs to upgrade the Cortana experience on the Xbox.

- **Google and Amazon** are going to battle for hands-free TV and home automation.

- **Apple** is betting on Airpods for on-the-go use cases.

All players will battle to become the go to controller of the kitchen, living room and bedroom.

Specialization is important **because consumers do not buy hardware, they buy delightful experiences**.

As we watch Amazon specialize in commerce, it opens up opportunities for third-parties to build commerce-related applications, like predictive and on-demand meal delivery.

Likewise, as Google specializes in search, it allows third-parties to build new knowledge applications, like extending search capabilities into relevant specialized verticals. Watch for third-parties to gravitate to the platform that best supports their bold ideas.

While each AI Assistant will have unique capabilities, the third-party ecosystem greatly accelerates innovation. In essence, third-party applications are the innovation arm for these platforms.

Voice Applications:
The Driver of Consumer Demand

2016 was a year of experimentation for voice applications, and the hunger to experiment was profound. Large brands and independent developers tested the waters, all while lobbying the platforms to build out critical capabilities (discussed in the **Voice Application Ecosystem Needs** section below).
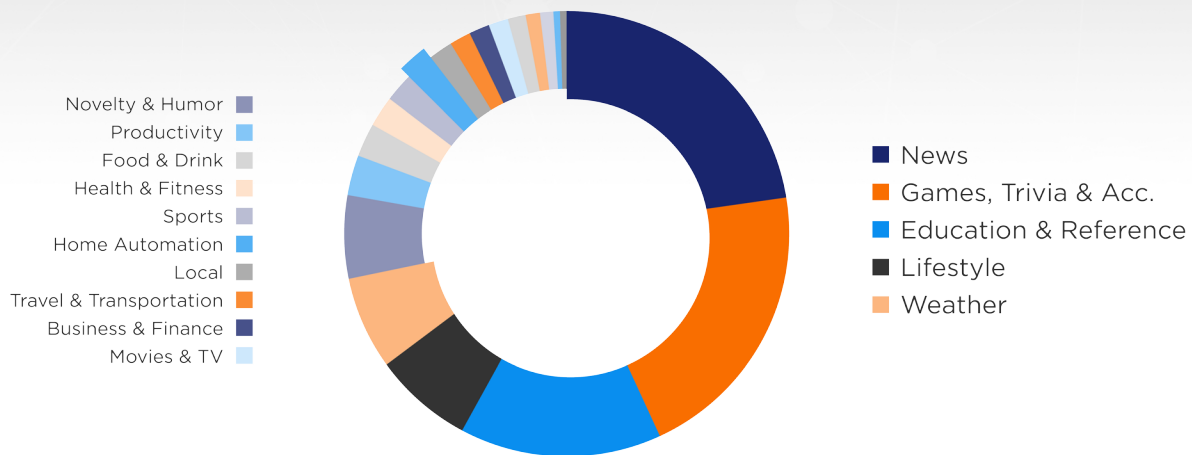
Amazon is the only platform at scale with applications, and application growth has been impressive:

Available Alexa Skills: June 2016 to January 2017
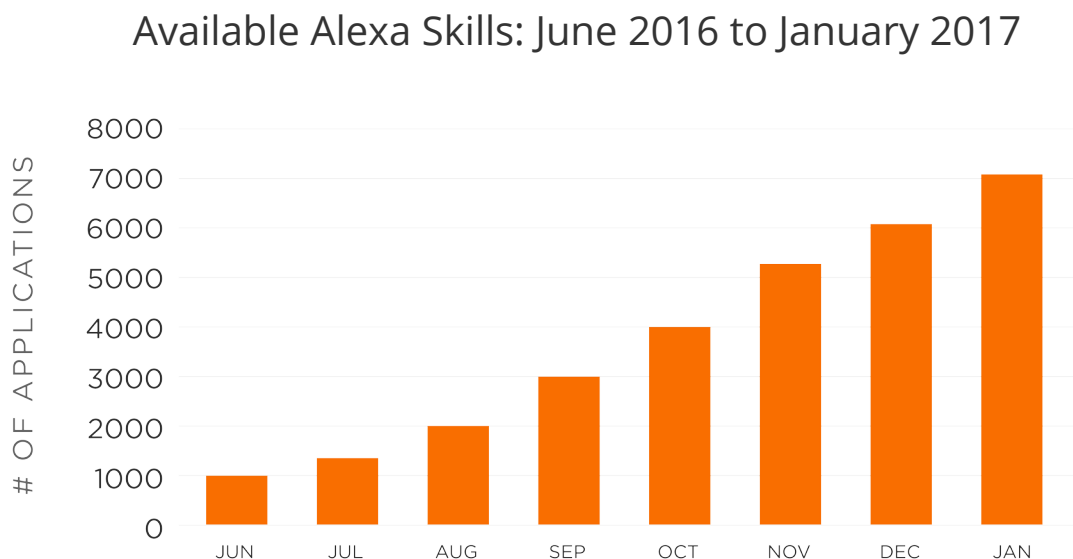
Credit: Voicebot.ai

Strategically, Amazon made it very easy to build Alexa voice applications, and heavily invested in tools for application creation. This helped lead to the large volume of new applications, with News, Trivia and Educational categories dominating in terms of the number of applications.
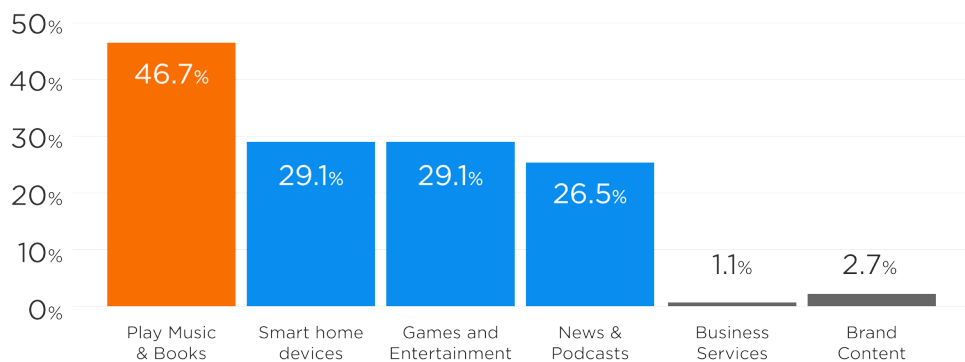
Amazon Alexa App Store by Volume of Apps

Legend:
- Novelty & Humor
- Productivity
- Food & Drink
- Health & Fitness
- Sports
- Home Automation
- Local
- Travel & Transportation
- Business & Finance
- Movies & TV

- News
- Games, Trivia & Acc.
- Education & Reference
- Lifestyle
- Weather

VoiceLabs Analysis of Amazon's Alexa App Store (December 2016)

Consumers gravitated to a few key use cases, given they are still learning what these devices can do. Music Streaming & Books, Home Automation, Games & Entertainment and News & Podcasts dominate. As seen in the chart above, Home Automation stands out as a category with relatively few applications, but remains top-of-mind as a core use case (such as Hue lights, WeMo, Nest, and Garage.io). Games and Trivia stood out as a category with a high number of applications, but relatively few big winners.

Why do you like your Amazon Echo or Google Home

Play Music & Books	46.7%
Smart home devices	29.1%
Games and Entertainment	29.1%
News & Podcasts	26.5%
Business Services	1.1%
Brand Content	2.7%

VoiceLabs consumer survey (December 2016)

In 2017, expect innovation in Games and Entertainment, and new, delightful Smart Home use cases. Also, there is an untapped opportunity for major brands to engage with the voice-first consumer.

Quantity vs. Quality

A closer look at the Amazon application directory shows we are still in developer experimentation phase. While there are now more than 7,000 Skills to choose from on the Alexa platform, **only 31% have more than one consumer review**[4]. This indicates that many of Alexa voice applications are 'Zombie Skills': they are accessible but are not heavily used or appreciated. While this issue is not unique to the Alexa app store (present in iOS and Android ecosystems), it is an issue that must be addressed.

A big reason for the quantity vs. quality discrepancy lies in the capabilities that platforms currently offer to third-party developers. In any high growth platform, we see common requirements around identity and communication that application developers utilize to create killer apps. **Missing platform capabilities like social awareness and direct communication are must-haves in 2017**. This is an area where Facebook, Snap, Twitter and others could innovate and become a market leader quickly. Identity is insufficient for both the consumer and the developer, and this should evolve in 2017. Example issues include inability to identify a consumer across applications, and devices cannot distinguish between family members.

In addition to required platform capabilities, a robust ecosystem needs application discovery, monetization and retention. Below we discuss the current state of these ecosystem tenets, and where the puck is going.

Voice Application Ecosystem Needs

The first question is whether the platforms are committed to supporting a third-party ecosystem. Handing off voice experiences to independent developers can lead to inconsistent quality, abuse of the platforms, and requires a lot of effort to manage.

However, the benefits of thousands of developers innovating on your behalf greatly outway the costs. Imagine if the iOS platform only supported Apple-built mobile apps.

VoiceLabs believes that a vibrant, open ecosystem is required to be a winner in this market, but in this early phase both Google and Apple are being cautious.

Are the platforms Committed to an Ecosystem?

|		
Yes	Just started	Not yet

The Tenets of every Ecosystem:
Distribution, Retention and Monetization

### Distribution: Currently driven by Amazon and Google promotion

Right now, Amazon and Google hold tremendous power in acquiring new users for these applications. A few applications have strong organic discovery, but platform promotion is the lion-share. Amazon and Google, at the time of this report, are the 'kingmakers' for apps. Platform promotion comes in a handful of flavors, primarily via in-mobile app feature, and via other platform-owned applications (like News Briefing on Alexa).

As of January 1, 2016, featured Amazon skills can expect a 200% increase in new users during the promotion cycle. While we have seen a pretty consistent new user growth percentage, the total magnitude has varied widely. On a per application basis, we have seen **ranges between 500 and 250,000 new users**.

New vs Returning Users
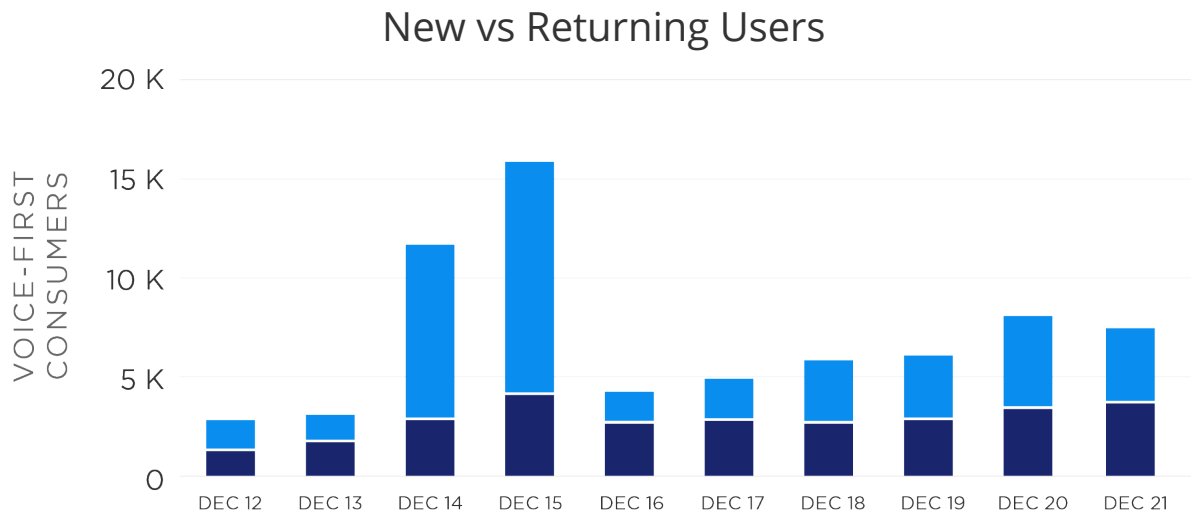
An Alexa Skill featured in early December. Distribution is now being aided by Amazon-funded Facebook advertising and other digital advertising. (VoiceLabs data)

Similarly, featured Actions by Google can expect a 290% increase in new users during the promotion cycle. It is still very early in Google's lifecycle, and this promotional bump varied and will undergo significant change in 2017. On a per application basis, we have seen **ranges between 1,600 and 3,100 new users**.

New vs Returning Users
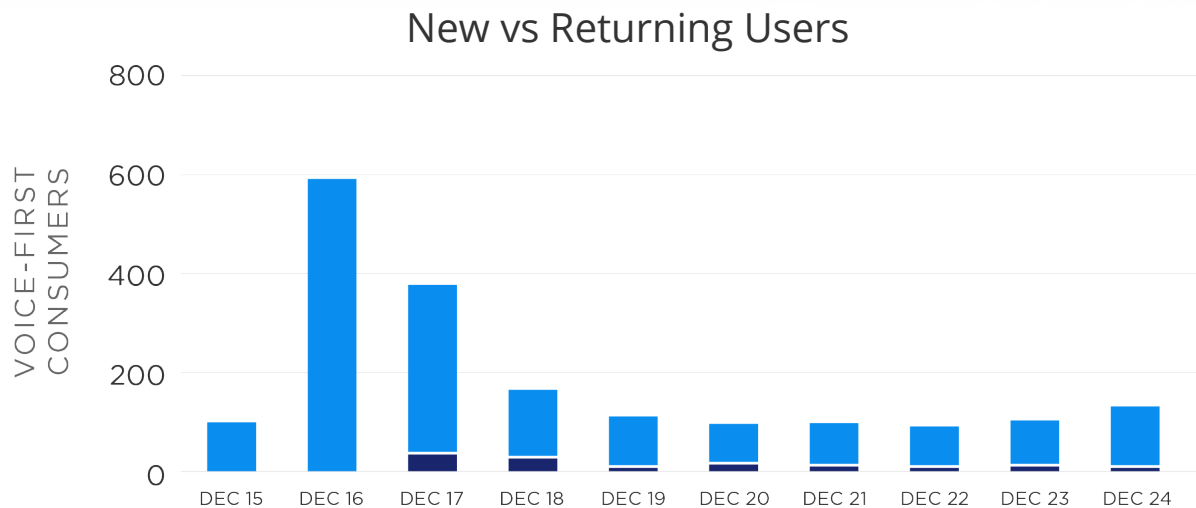
A Google Action featured in early December. (VoiceLabs data)

Retention: A major issue for Voice Applications. When a voice application acquires a user, there is only a **3% chance that user will be active in the second week**. There are outliers yielding greater than 20% second-week retention. VoiceLabs is actively learning from these successes and building actionable tools to help the developer community. Expect native platform solutions to come out in 2017 to address the major issue of retention.

Monetization: Currently does not exist in the voice-first ecosystem. This is a major hole for the success of these ecosystems. As of this report, no application has successfully monetized. By Q2, 2017, we predict one of the major platforms will deploy a compelling monetization method.

The ecosystem has major needs, and Amazon and Google realize this. It is almost more exciting that we have seen such growth with such limited capabilities. We expect 2017 to be a year of major platform releases, as discussed below and in more detail in the full report.

What's in store for 2017:
Voice-first Adoption Accelerates

The 2017 Voice Report discusses how every layer of the stack will make major strides this year.

For **Hardware** devices, VoiceLabs predicts between Apple, Samsung and Microsoft, two of the three will ship compelling voice-first devices in 2017.

This will lead to at least four major players shipping voice-first devices, and at least 24.5 million voice-first devices shipped in 2017.

For the **AI Software** in 2017, there will be further specialization between platforms. Amazon is going to excel at voice-driven commerce. Google and Microsoft should excel at personal productivity. Microsoft has a huge opportunity to excel at gaming. Google and Amazon are going to battle for hands-free TV and home automation, and to become the operating system of the living room. Facebook, Snap and other social platforms have an opportunity to re-think social connection through voice-first.

For **Applications**, what's impressive is that despite the early maturity level of voice applications, we are still talking about billion dollar markets in Music Streaming and Home Automation, and Hands-free TV coming up fast. If this is the experimentation phase, imagine how big the collective market will be when the platforms mature.

The rapid growth of Alexa applications in 2016 highlights how excited developers are to build voice-first applications.

In 2017, there will be new features in the app stores to aid in discovery of high quality applications and filtering out of zombie apps. In addition, there will be a new wave of applications that take advantage of the expected platform innovations.

Platform Innovation Predictions in 2017:

- One or more of the platforms will enable direct person-to-person communication.

- Both Google and Amazon will release push notifications to proactively alert consumers of new updates.

- Google will introduce a compelling personal productivity offering, based on G Suite (Gmail, Google Calendar).

- The platforms will enable at least two monetization capabilities. Expect 2017 to be a year of small wins for monetization, as momentum builds for a big 2018.

For **Ecosystem Services**, expect more entrants into the analytics discipline as voice-first programming continues to mature. We will also see the introduction of distribution services, advertising technology, and marketing automation products.

There is a need for performance monitoring and crash reporting, but it is still unclear whether the platforms themselves will offer compelling solutions, or if third-parties will provide the best solutions.

The above highlights key excerpts of the 2017 Voice Report. Email info@voicelabs.co for more information on the voice-first market.

VoiceLabs.CO

Contact Us! info@voicelabs.co

We look forward to working with you in this accelerating voice-first market, whether you are just getting started or scaling your voice-first business.