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## Amazon Wants to be the Operating System for your Home

Review: Amazon wants a key to your house. I did it. I regretted it.

Chicago Tribune – Thursday Dec. 28 2017

By Geoffrey A. Fowler

The Washington Post

http://www.chicagotribune.com/bluesky/technology/ct-review-amazon-key-20171207-story.html

Who owns your door?

When you add Amazon Key to your door, something more sneaky also happens: Amazon takes over.

You can leave your keys at home and unlock your door with the Amazon Key app—but it's really built for Amazon deliveries. To share online access with family and friends, you have to give them a special code to SMS (yes, text) to unlock the door.

The Key-compatible locks are made by Yale and Kwikset, yet don't work with those brands' own apps. They also can't connect with a home-security system or smarthome gadgets that work with Apple and Google software.

And, of course, the lock can't be accessed by businesses other than Amazon. No Walmart, no UPS, no local dog-walking company.

Keeping tight control over Key might help Amazon guarantee security or a better experience. "Our focus with smart home is on making things simpler for customers — things like providing easy control of connected devices with your voice using Alexa, simplifying tasks like reordering household goods and receiving packages," the Amazon spokeswoman said.

But Amazon is barely hiding its goal: It wants to be the operating system for your home.

# Don't call it "Siri": Why the wake word should be "computer"

We grant tremendous power to tech companies when we let them dictate to us what to call the things we own

**Stephen Harrison** 11.26.2017•10:00 AM

https://www.salon.com/2017/11/26/dont-call-it-siri-why-the-wake-word-should-be-computer/

The more we say "Amazon" or "Alexa," the more we are allowing one company to functionally and emotionally permeate our lives. It's the equivalent of paying regular tribute to one corporate dictator. We might as well say, "Big Brother, do I need a jacket?" or "Big Brother, order soy milk."

"Computer" is not specific to a single company. It does not force us to verbalize our brand loyalty. It's completely neutral. And that's its saving grace...

The immense benefit of standardization

Imagine you fly halfway across the country on a business trip, arrive late in the evening, and stumble into your dark hotel room. You're desperate to brush your teeth and go to sleep. Only you're unfamiliar with the hotel layout and can't for the life of you find the light switch.

Luckily, it's a few years in the future, and hotels are equipped with voice-controlled systems. Only, what words are you supposed to yell out? "Echo, turn on the lights! Okay Google, turn on the lights! Siri, please turn on the lights! Marriott International,

turn on the lights! Hilton Rewards Artificial Intelligence Customer Satisfaction Protocol, TURN ON THE F---IN' LIGHTS!!!"

We should remember that the goal in inventing sophisticated voice-controlled technology was to make things easier on ourselves. We're trying to reduce typing, fumbling around, and overall frustration. The best way to make things easier is to choose one standard word that applies across the board to all devices.

# Why Do So Many Digital Assistants Have Feminine Names?

Adrienne LaFrance The Atlantic Mar 30, 2016

https://www.theatlantic.com/technology/archive/2016/03/why-do-so-many-digital-assistants-have-feminine-names/475884/

This may also be part of a larger tendency for the makers of anthropomorphic technologies, like robots, to play up cute and non-threatening qualities as a vehicle toward social acceptance.

Even without teasing apart all the possible reasons for the tendency to assign gendered names to machines, it's reasonable to suggest traditional power structures have a lot to do with it.

# Rise of the Fembots: Why Artificial Intelligence Is Often Female

By Tanya Lewis, Staff Writer | February 19, 2015 07:15am ET https://www.livescience.com/49882-why-robots-female.html

"I think there is a pattern here," said Karl Fredric MacDorman, a computer scientist and expert in human-computer interaction at Indiana University-Purdue University Indianapolis. But "I don't know that there's one easy answer," MacDorman told Live Science.

One reason for the glut of female artificial intelligences (AIs) and androids (robots designed to look or act like humans) may be that these machines tend to perform jobs that have traditionally been associated with women. For example, many robots are designed to function as maids, personal assistants or museum guides, MacDorman said. [The 6 Strangest Robots Ever Created]

In addition, many of the engineers who design these machines are men, and "I think men find women attractive, and women are also OK dealing with women," he added.

"When it comes to a disembodied voice, the chances of it being female are probably slightly higher than of it being male," said Kathleen Richardson, a social anthropologist at University College London, in England, and author of the book "An Anthropology of Robots and AI: Annihilation Anxiety and Machines" (Routledge, 2015). "But when it comes to making something fully humanoid, it's almost always male."

And when humanoid robots are female, they tend to be modeled after attractive, subservient young women, Richardson told Live Science.

"I think that probably reflects what some men think about women — that they're not fully human beings," Richardson said. "What's necessary about them can be replicated, but when it comes to more sophisticated robots, they have to be male."

Sources of their names
Siri in Norse means "a beautiful woman who leads you to victory,"
Cortana – Halo
Amazon tells me that Alexa is short for Alexandria, an homage to the ancient library.

### **Apple Homepod Release Missed Christmas 2017**

Early indicators of Amazon Echo and Google Home holiday sales highlight cost of Apple's HomePod delay

Chris O'Brien@obrien December 27, 2017 5:43 AM <a href="https://venturebeat.com/2017/12/27/early-indicators-of-amazon-echo-and-google-home-holiday-sales-highlight-cost-of-apples-homepod-delay/">https://venturebeat.com/2017/12/27/early-indicators-of-amazon-echo-and-google-home-holiday-sales-highlight-cost-of-apples-homepod-delay/</a>

- Apple Homepod release missed Christmas 2017
- eMarketer forecast that smart speakers would outsell wearables

## **Digital Voice Assistants Prove They Are Not Just Gimmicks**

Widespread use bodes well for sales of other smart devices Author: Andria Cheng December 3, 2017

https://retail.emarketer.com/article/digital-voice-assistants-prove-they-not-just-gimmicks/5a25ced4ebd4000570c897f4

According to comScore's US Connected Home data for October and released this month, the smart speaker category has hit a "critical adoption threshold." Among US households with Wi-Fi connections, comScore said, 11% had smart speakers in October, up each month since at least June, when the measure was 8.1%.

The comScore data appears to be in line with eMarketer's most recent estimate for smart speaker use. In April, eMarketer estimated there will be 35.6 million smart speaker users in the US this year, representing 13% of internet users.

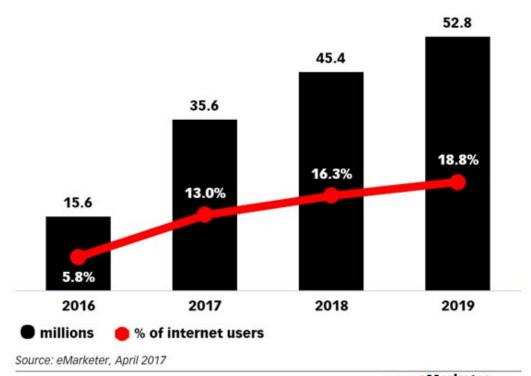
As smart speakers became a key deal offering over Black Friday and Cyber Monday, comScore expects the category could hit a 15% adoption rate by early next year.

Smart speaker households are several times more likely than other households to use smart devices, anything from smart thermostats to smart light systems, it said.

Amazon, which already saw a surge in demand after it cut prices on Echo devices on its Prime Day, said Echo Dot was its bestselling item on Cyber Monday, its biggest sales day in company history. Echo Dot and Amazon Fire Stick with Alexa Voice Remote also ranked as its best-selling devices over the Thanksgiving and Black Friday holiday weekend. And Amazon said its new \$129 Echo Spot, which has a small circular screen for weather updates and other uses, is sold out for the holiday season.

# **Voice-Enabled Speaker Users**

US, 2016-2019



www.eMarketer.com

Retailers and brands are testing concepts using smart speakers. Beauty giant Estee Lauder this month introduced voice-enabled, personalized, nighttime skincare regimes for customers using Google Home.

"Adding voice experiences will unlock the next level of personalization and help us reach a new generation of consumers," said Tricia Nichols, Estee Lauder's vice president of global consumer engagement, in a statement. "Through our collaboration with Google, we are expanding our Omnichannel efforts to go beyond stores and online to in-home."

Calvin Klein, working with Amazon Fashion, features Echo devices in pop-up shops this holiday season in New York and Los Angeles. Amazon Echo Shows, which feature seven-inch touchscreens, are featured in the lounge areas of the shops, while in the fitting rooms, shoppers can ask Amazon's Alexa various questions about Calvin Klein products, control lighting features, and play music of their choice.

# **Consumers Willing to Hear Ads on Their Voice Enabled Device**

https://www.emarketer.com/content/what-makes-consumers-more-willling-to-hear-ads-on-their-voice-assistants

Article by Rahul Chadha Dec 26, 2017

What Makes Consumers More Willing to Hear Ads on Their Voice Assistants? They want control

New data from <u>Invoca</u> might provide some insight into the answer.

The call tracking and analytics firm surveyed US voice-enabled speaker owners, asking them what factors would make them willing to listen to ads delivered through their devices.

Three in 10 said they would entertain ads via voice assistants if they were simply asked if they wanted to hear one before it played. In addition, 28% were open to ads if they got to choose the brands doing the advertising.

# Conditions Under Which US Voice-Enabled Speaker Owners Would Be Willing to Listen to Ads via Voice-Enabled Speakers, Oct 2017

% of respondents

## Asked whether they want to hear the ad before it plays

30%

Get to choose the brands from which they hear ads

28%

Ads are personalized based on commands or questions they ask often

25%

Ads are connected to brands they "like" on social networks

23%

Ads embedded into answers from the assistant

18%

Note: ages 18+

Source: Invoca, "The Rise of Voice," Nov 16, 2017

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www.eMarketer.com

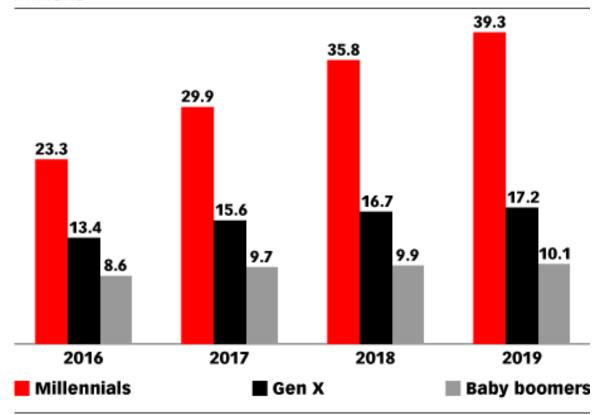
The traditional search/display landscape certainly stands to be disrupted by voice. eMarketer predicts that the number of voice-enabled digital assistant users in the US will grow from 60.5 million this year to 75.5 million by 2019.

# **Voice Users Skew Younger**

(Same article as above)

# US Voice-Enabled Digital Assistant Users, by Generation, 2016-2019

millions



Note: individuals who use voice-enabled digital assistants at least once a month on any device; millennials are individuals born between 1981-2000, Gen X are individuals born between 1965-1980 and baby boomers are individuals born between 1945-1964 Source: eMarketer, April 2017

226458 www.eMarketer.com

Invoca's survey also underscored how much voice assistants have become a part of users' daily routines. It found that nearly nine in 10 people who had a voice assistant talked to it every day, while one-third said they used it more than five times per day.

One reason for the sudden rise of voice assistants might lie in the fact that they are now often available on smartphones. In fact, a poll of US internet users conducted by Pew Research Center earlier this year found that 42% of respondents used a virtual assistant on their smartphone—more than any other device, including smart speakers like Google Home and Amazon Echo.

### These Products and Services Work With Google Home

https://www.androidcentral.com/these-products-and-services-work-google-home

### **Roundup of Google Assistant**

https://www.pocket-lint.com/apps/news/google/137722-what-is-google-assistant-how-does-it-work-and-which-devices-offer-it

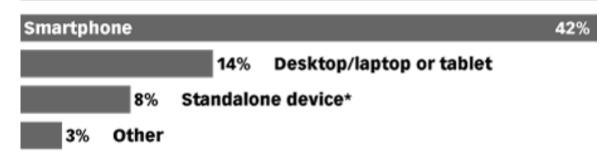
### **US Voice Assistant Users Favor Their Smartphones**

A study finds computers, tablets and standalone devices lag far behind Article by Rahul Chadha Dec 18, 2017

https://www.emarketer.com/content/us-voice-assistant-users-favor-their-smartphones

# Devices on Which US Internet Users Use Virtual Assistants, May 2017

% of respondents



Note: ages 18+; \*e.g., Amazon Echo, Google Home Source: Pew Research Center as cited in company blog, Dec 12, 2017

233726 www.eMarketer.com

Turns out more than 80% of those polled liked the fact they could use voice assistants without having to touch a device. Another 62% just thought they were fun to use, while 60% found using spoken language a more natural way to interact with services than physical typing.

Pew Research Center's survey found that the majority of those who did not use voice assistants were simply indifferent to the technology. More than six in 10 of non-users cited that as a reason.

But a little more than one-quarter also said they avoided voice assistants out of security concerns, while nearly one in five said they were too complicated.

eMarketer estimates the number of US voice assistant users—those who use a voice-enabled digital assistant on any device—will reach 60.5 million in 2017, representing 18.5% of the overall population.

But eMarketer expects those figures will grow steadily, if not dramatically, over the next few years, hitting 75.5 million users by 2019.

## **China's Response to Smart Speakers? Meh**

Sales of the devices are not expected to cross the 1 million mark until next year October 27, 2017  $\mid$  Advertising & Marketing

https://www.emarketer.com/Article/Chinas-Response-Smart-Speakers-Meh/1016678

New research from GfK shows just how many smart speakers are expected to sell in China this year. The answer? Not a lot.

According to the firm, smart speaker sales will hit just 350,000 units in the Middle Kingdom in 2017, a low figure when considering that the population in China is around 1.4 billion.

GfK expects to see a significant spike next year, however, estimating smart speaker sales in the country at 1.2 million units.

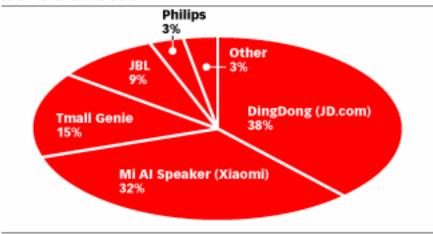
Still, that's a far behind US levels. According to VoiceLabs, shipments of smart speakers in the US are expected to total 24.5 million in 2017. And, according to eMarketer, the number of residents who use voice-enabled speakers will reach 35.6 million.

So why haven't they caught on in China, a market where the complexity of Chinese characters seems a natural driver of voice-activated technology?

One reason is that the pioneering product in the space, Amazon Alexa, doesn't interact in Chinese. Neither does Google Home. So the US market has had some lead time with a native language product.

# Voice-Enabled Speaker Retail Sales Share in China, by Brand, Jan-Aug 2017

% of total units sold



Note: excludes sales data through brands' official websites Source: GfK, "China Smart Speaker Market Analysis Report," Oct 19, 2017

231873 www.eMarketer.com

# Platform Wars! Google vs. Amazon

Welcome to the Voice Wars

A petty spat between Amazon and Google could be the opening skirmish of tech's next big conflict.

By Will Oremus

http://www.slate.com/articles/technology/technology/2017/12/google\_and\_amaz on\_s\_spat\_is\_the\_first\_skirmish\_in\_a\_platform\_war.html

Google moved to <u>block users of Amazon's Fire TV and Echo Show devices from</u> watching YouTube.

#### Google's statement:

We've been trying to reach agreement with Amazon to give consumers access to each other's products and services. But Amazon doesn't carry Google products like Chromecast and Google Home, doesn't make Prime Video available for Google Cast users, and last month stopped selling some of Nest's latest products. Given this lack of reciprocity, we are no longer supporting YouTube on Echo Show and FireTV. We hope we can reach an agreement to resolve these issues soon.

So why are they doing it? ..

The answer is that we're on the precipice of a new platform war, and both companies know it. It's a war between voice interfaces: Amazon's Alexa and Google Assistant.

To capitalize on its first-mover advantage, Amazon is using the power of its e-commerce platform to heavily promote Alexa-powered devices, including the Echo and Fire TV streaming media players. Refusing to sell the Chromecast or Home appears to be part of that strategy.

In response, Google has allied itself with Amazon's biggest rival, Walmart, which now sells the Home but not the Echo. That makes a lot of sense for Walmart, too: Amazon's devices are designed to sell people products from Amazon, not Walmart. So the nation's largest retailer has its own vested interest in hindering Amazon's voice ambitions. In return, Google will sell Walmart products on the Home.

# How people actually use their Amazon Echos after the novelty wears off

When Alexa Becomes Part of the Family Future Tense
The citizen's guide to the future.
Dec. 26 2017 5:55 AM

The first phase of Echo ownership, especially when you've received one as a gift, is skepticism. When John Hebert, a car-dealer manager in Rosenberg, Texas, got his, "It didn't even come out of the box for the first two months,"

Now Hebert owns two, plus a Google Home, and he uses them primarily for home automation

Reconciling how you really use Alexa versus how you thought you would is another common stage of Echo ownership. When Sturgeon got hers, she assumed she'd mostly listen to music on it. She never quite got around to figuring out how to connect the Echo to Amazon Music, though she enjoys the device anyway. "The No. 1 thing that we've ended up using it for is to tell us when our packages are coming from what we've ordered from Amazon."

"I thought that I would be continuously testing the new features that came out of it, that it would always be a source of something novel," Primiano said of her Echo. "But in reality what happened was that I settled down upon certain Alexa features that I use with great regularity, and then I really don't even explore so much of the other stuff that she can do."

"There's just something about 2 o'clock in the morning, talking to this machine and ordering something. It feels different," she said.

The most paranoid among us would probably never try one in the first place, so many Echo users shrug off security concerns. "In a very typical 21<sup>st</sup>-century way, I'm like, 'Whatever, she does all of my timers very seamlessly and she turns on my lights,' " Ferro said. "I'm OK with [Amazon] spying on me for that convenience."

Kids may take a special shine to shopping with Alexa. When some young relatives were visiting Sturgeon over the summer, "They filled up our Amazon cart using Alexa with some of the stupidest things you could think of," she said. "The next time I went to my Amazon account and I looked in the cart, there was *a fart* and there was *nothing*. These were listed as items, and Amazon was trying to get a price on what a fart would cost." Actually, there may be no age limit to this; it's happened to La Sala too. "I made sure the actual ability to order things was turned off pretty quickly after getting it," he said, "when I realized that my friends were the sort that were going to add crazy things to my shopping list, like 400 pounds of lube and powdered goat [milk]." (Powered goat milk, too, is apparently a thing that exists.)

"It's almost like I've become spoiled with the ease with which I can do things," Primiano said. "It's so interesting because five years ago, the idea of playing music off of your cellphone was like, 'This is so great, this is so cool.' Now it's like, 'Oh God, do I have to get my phone out and enter the lock screen and open Spotify and actually find music I want? That's so laborious.' It just shows how quickly we acclimate to instant gratification."

## **Intel-Amazon Partnership**

Intel and Amazon Give Voice to Smart Homes of the Future New Intel Voice Enabling Developer Kit Makes It Easier Than Ever to Create Products Integrated with the Amazon Alexa Voice Service October 19, 2017 Miles Kingston

https://newsroom.intel.com/editorials/intel-amazon-give-voice-smart-homes-future/

The Intel® Speech Enabling Developer Kit will be available for pre-order now. Among the developer kit's technology components:

High-performance algorithms for acoustic echo cancellation, noise reduction, beamforming and custom wake word engine tuned to "Alexa"

Intel's dual DSP with inference engine
Intel 8-mic circular array

# 4 creative ways brands use Alexa skills in content marketing

Cosette JarrettDecember 27, 2017 12:10 PM

https://venturebeat.com/2017/12/27/4-creative-ways-brands-use-alexa-skills-in-content-marketing/

#### 1. AskPurina

 offers up detailed information on various dog breeds. The brand's goal for the skill is to help aspiring dog owners find the right breeds to fit their needs based on the criteria they provide

#### 2. Tide

• provides users with detailed, step-by-step, voice instructions on removing over 200 types of stains. The skill currently has a 3.5-star rating from 25 consumers. The bulk of the negative reviews say the skill plays commercials that make them lose interest.

#### 3. Johnnie Walker

• offers the options to choose a label based on personal preferences, buy a bottle, learn a little more about whiskey, or partake in a guided tasting. Users must confirm they are at least 21 years old to access the skill.

#### 4. Zyrtec

• help allergy sufferers evaluate weather, pollen count, and prominent allergens in their area before they leave the house.

As you prepare your voice strategy in 2018, it will be important to note the wins and fails of the skills currently on the market. This will help you gain a deeper understanding of how a skill can either help or hinder your brand's reputation when you set it loose in the Amazon Marketplace.

For example, Zyrtec's city recognition bug earned their skill a low rating and turned multiple users away. Perhaps more thorough QA testing could have helped prevent this?

On the flip side, commenters on Purina's skill seem jazzed about its ability to integrate with the Echo Show to display photos of different dog breeds. Maybe similar visual integration would be helpful for your users?

And how about all the comments on Tide's skill that complained about the long and overly promotional CTA? It might be worth analyzing its approach to determine how you can make yours more concise and less annoying.