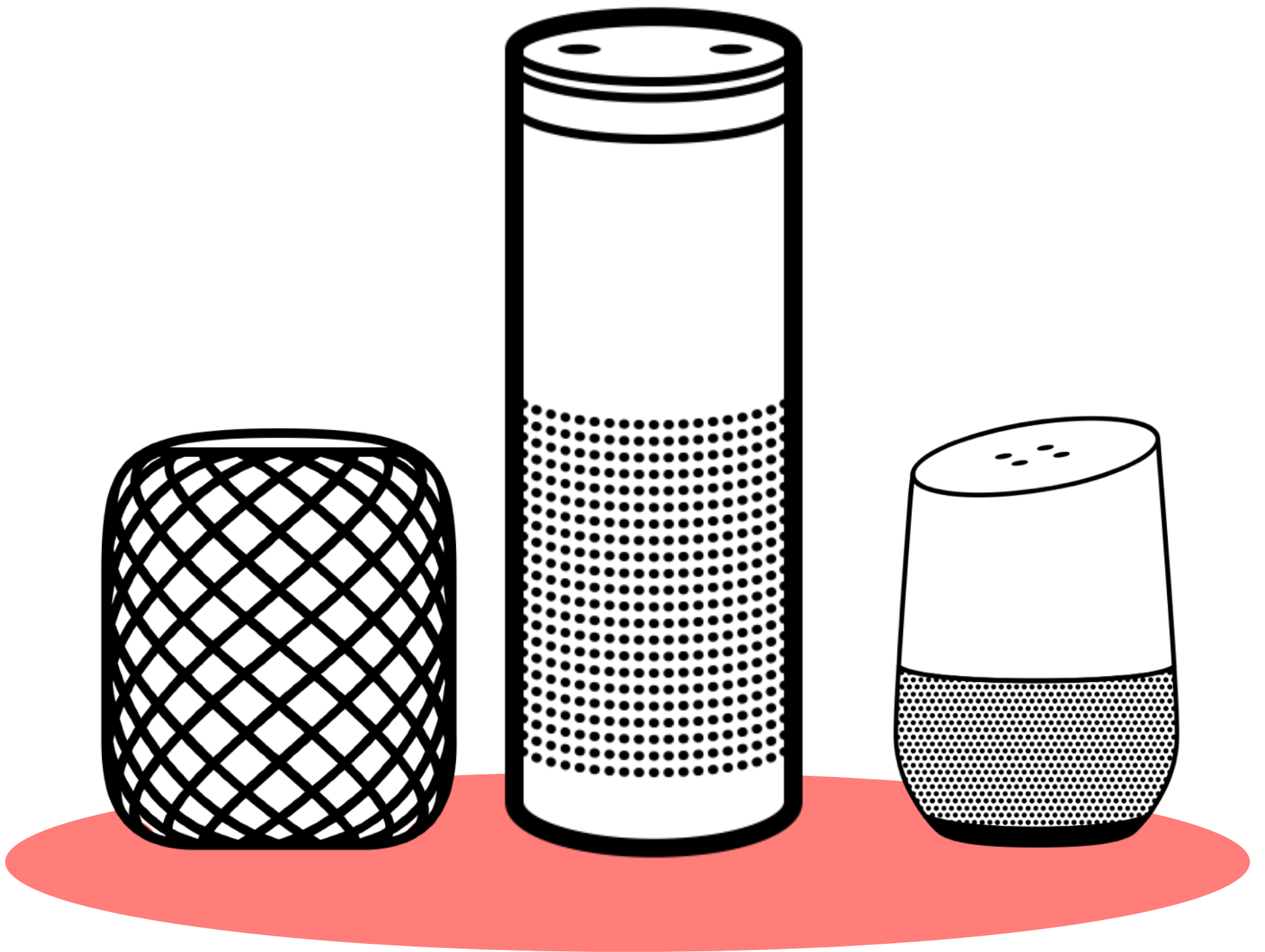


Voice First Insights 2017



A "voice-first" device is an always-on intelligent piece of hardware where the primary interface is voice, both input and output

Voice First

Table of Contents

1 What is voice-first technology?

2 The VF marketplace, now and next.

3 Device Audit

4 What is top content for Adults and Kids?

5 Insights and Considerations

6 Recommendations

01 What is voice-first technology?

A “voice-first” device is **always-listening, it shares and receives information through voice command.**

Alexa, Google Voice and Siri are all considered **artificial intelligence. The “Brain”** that devices like echo, home and homepod run on.

It is “smart” in that it runs on a system of algorithms **designed to learn behaviors and predict user needs.** It can communicate with other devices within the same wifi network.

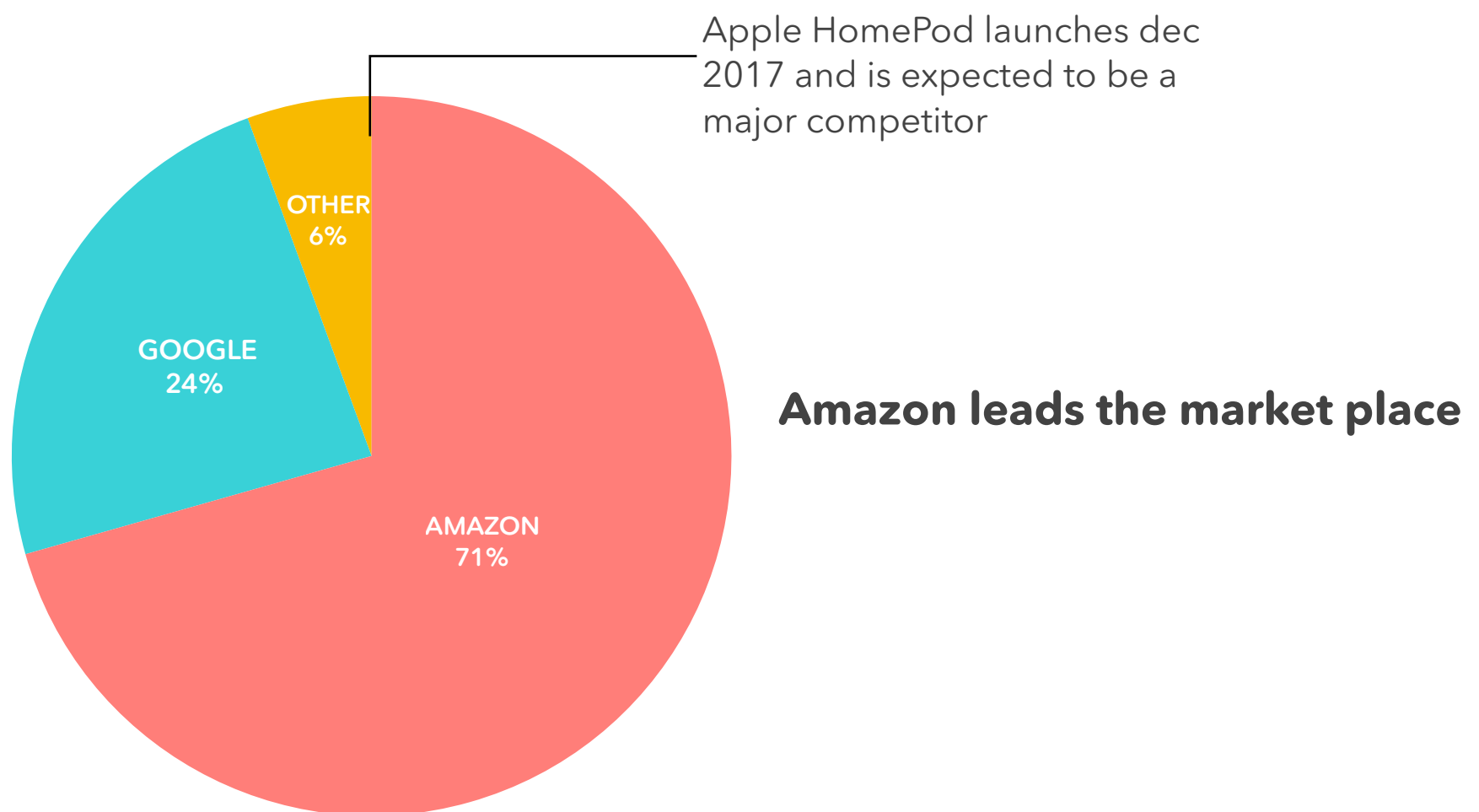
This product landscape is changing rapidly including 2-way video, tactile buttons and haptic feedback.

The primary motivation for using voice is simplicity. **Voice interactions** show lower levels of brain activity and is **less taxing cognitively than screen based interactions**

Voice-first products are part of a whole **ecosystem working together create a holistic experience.**



02 What does VF look like in the marketplace?



23% (over 18m) of these voice devices purchased for kids



Others to keep an eye on...

Smart Assistant

- Apple HomePod
- **Lenovo**
- **LG**
- Little Fish
- MSFT Cortana
- Samsung Bixby

Kid-Facing

- **Mattel Nabi**
- Jibo

Niche

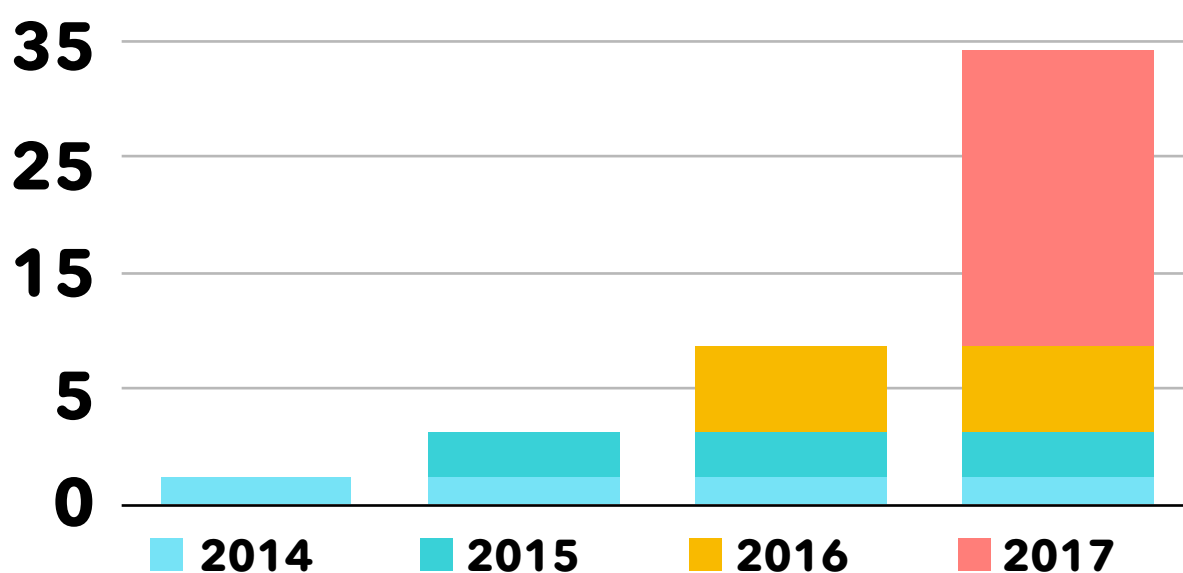
- **Harmon Kardon (sound)**
- **Sonos (sound)**
- UE Boom (outdoor)
- IKEA smart home (affordable)

*** runs on Alexa**

02The growth of voice-first technology

Voice first technology has grown exponentially since it's introduction in 2014. Device sales are expected to double by 2020.

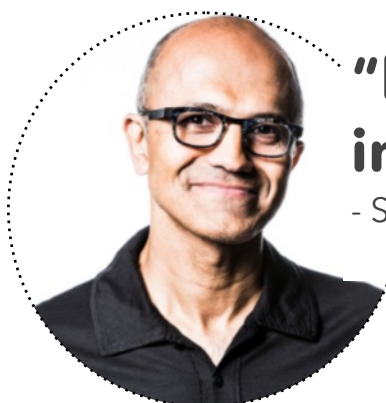
Voice-first device growth 2014 - 2017



Voice-first devices reach the mainstream in 2017

24.5M devices shipped by the end of 2017

33M devices total, in circulation.



"human language is the new user interface layer"

- Satya Nadella CFO, MSFT

02The future of voice-first technology

Voice first adoption is expected double in the next few years. Many appliance, car and children's companies are already working on ways in which they can include voice into their product experience.

By 2020




50% of voice searches on smartphone

30% of voice searches without a screen

\$600M + in device sales


2.1M smart speakers in homes

By 2021



There will be **7.5 billion active devices** – *more than one per person on the planet.*

By 2024

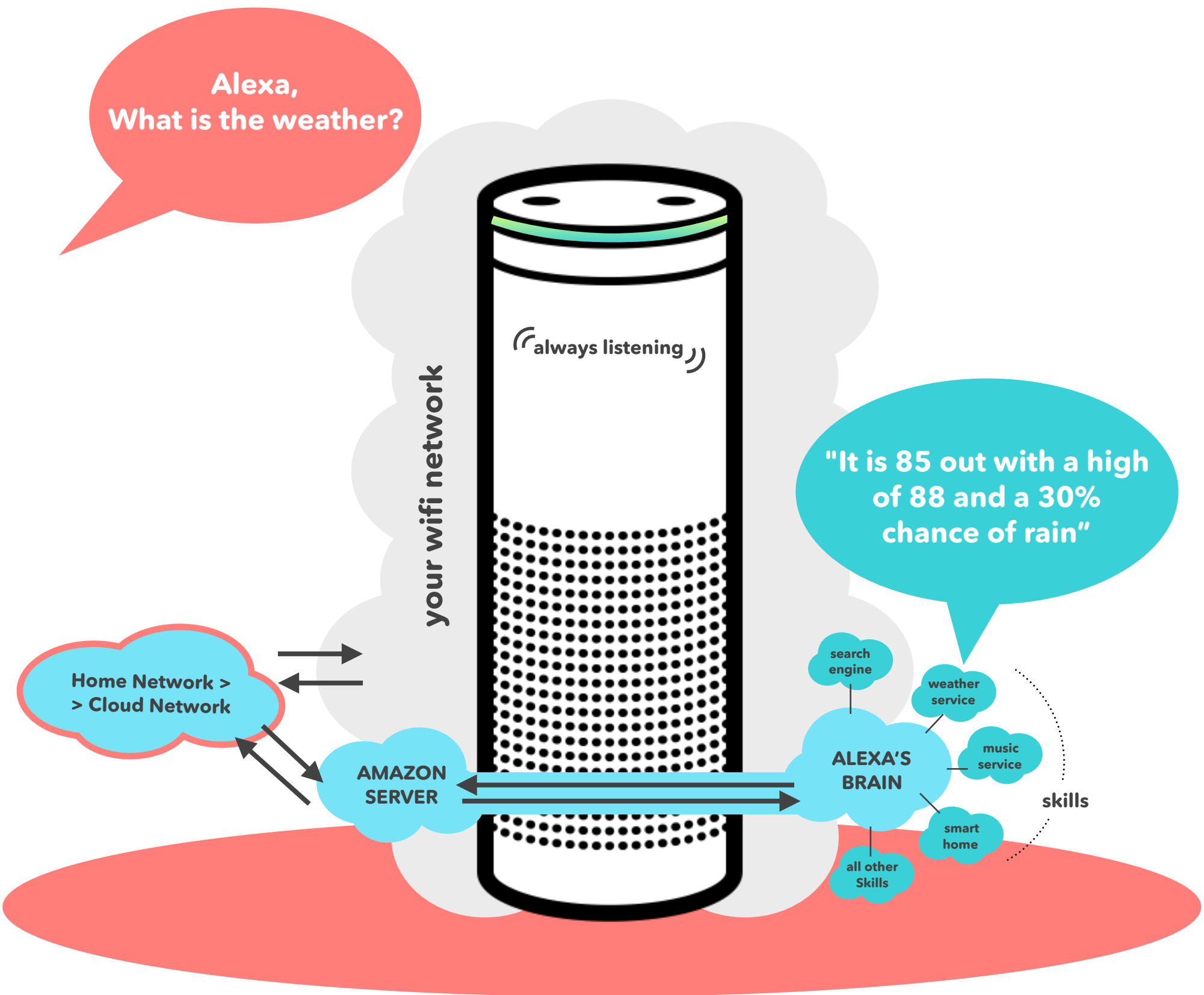


Smart Speakers are expected to more than double (**\$13B in device sales**) **by 2024**

Alexa's next big growth is the lending of it's AI to other companies to create products using Alexa's guts that can ultimately join the Amazon Alexa network. Products currently in discussion are; a smoke alarm, power strips, light switches, living room lamps, kitchen appliances and naturally.... a robot.

02Alexa; how it works

Alexa is the AI (artificial intelligence) that lives inside various amazon and non-amazon products. It hears your questions, sends them through your local network into the cloud and returns it's responses. Alexa's abilities are called "skills" and it's learning new "skills" everyday. Alexa currently has 15k skills.



02 Sesame Street and Nickelodeon join Alexa skills

The growth of voice-assistance has not just changed the user experience landscape but offer enormous opportunity for interactive entertainment for kids. Many companies are creating content for this new friction-less way of interaction.

Sesame Street



What is it?

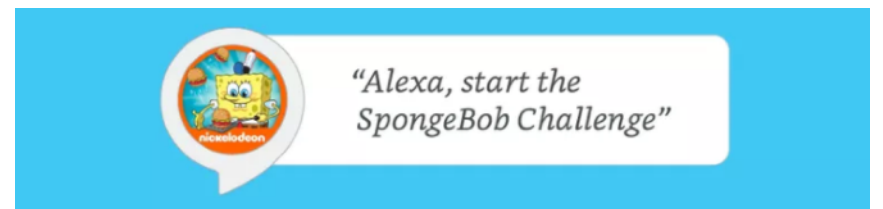
Sesame Street created a skill that allows kids to call Elmo and play hide & seek or letters learning games. Both are based on recognizing sounds and solving puzzles or finding Elmo through Q&A. Promotion is currently limited to YT, Amazon and SS.

How did they do it?

- They used distinct and recognizable sounds that aren't too similar
- They highlighted the characters most distinctive characteristics (ex. Elmo's laugh)
- They used a kid-friendly appropriate amount of repetition, grammar and language to create surprises

created by RAIN digital

Nickelodeon



What is it?

The Spongebob team created a memory game that has kids working at the Krusty Krab and taking orders. There are 80 memory challenges, over 70 character voices and the iconic music paired with SpongeBob's laugh. Promotion is currently limited to YT, Amazon and Nick.

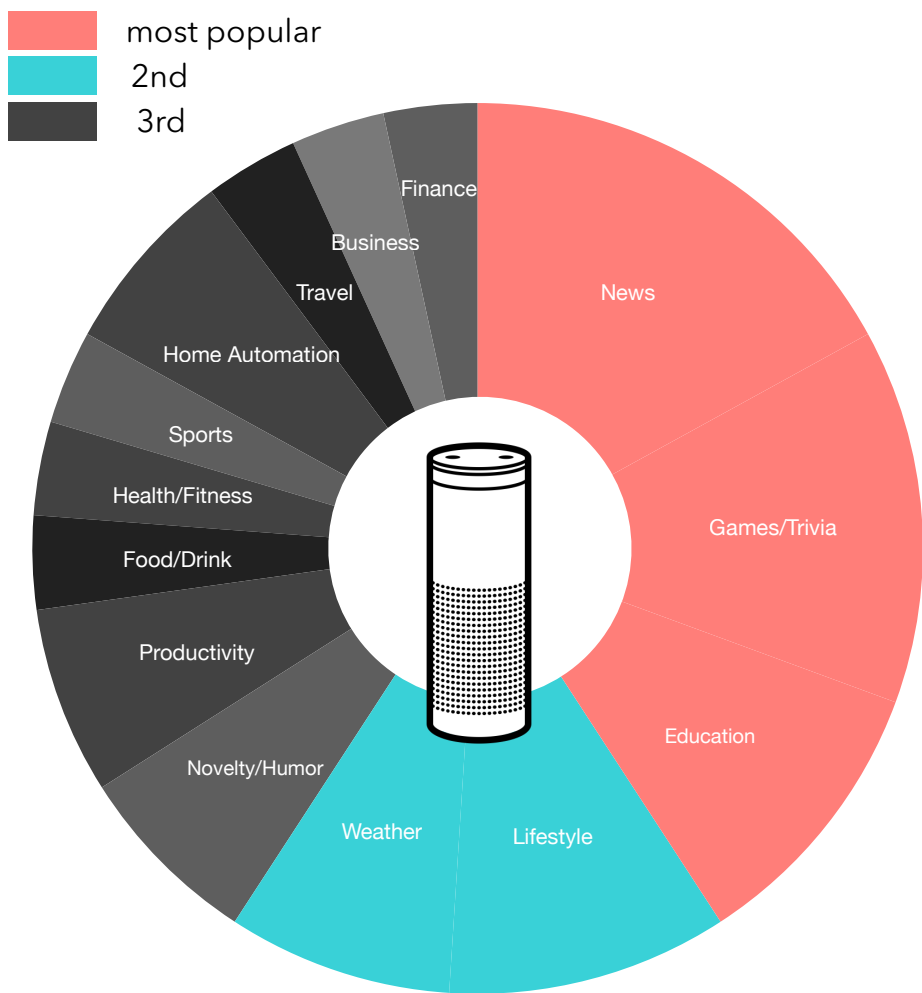
How did they do it?

- They built from existing play patterns
- They highlighted the characters most distinctive characteristics (ex. SpongeBob's music)
- They built in discoverable easter eggs

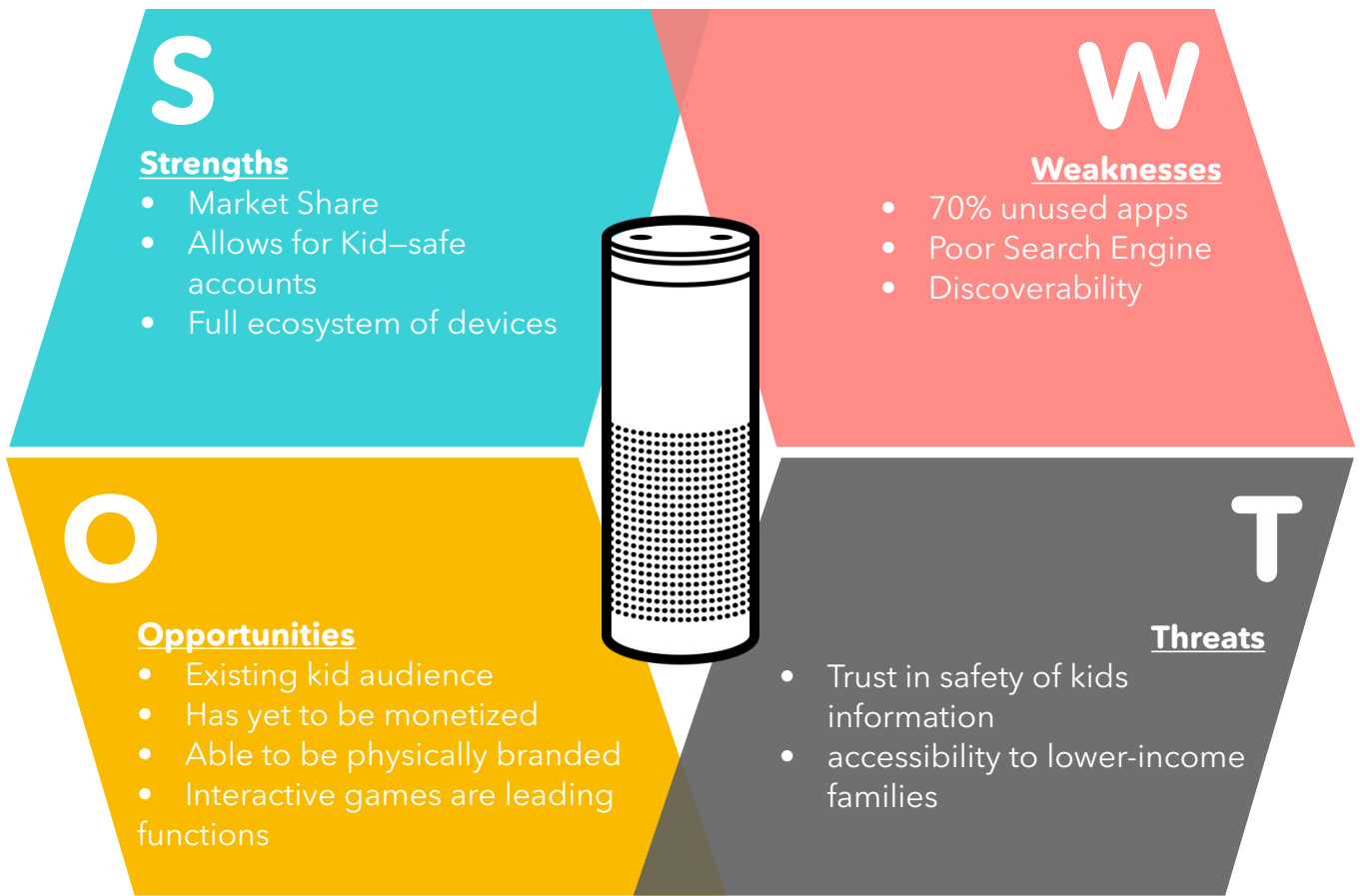
created by Pullstring

03Amazon Alexa

Price
\$44.99 - 249.99

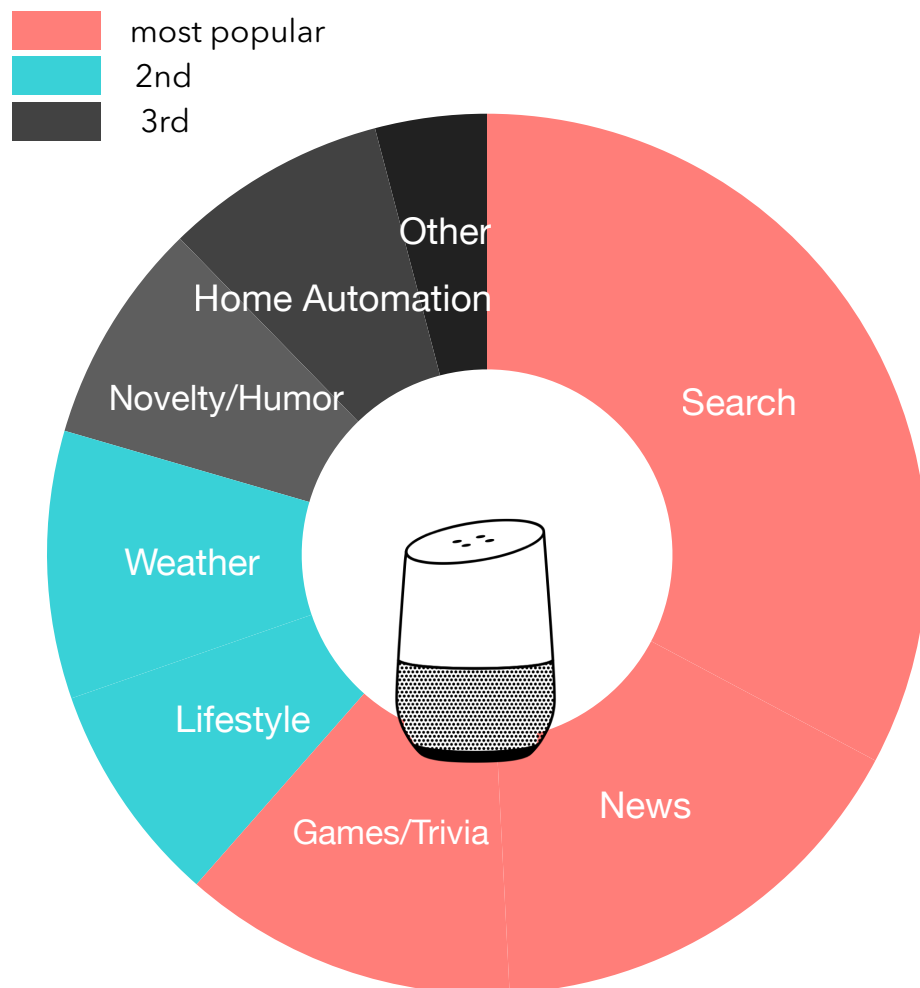


- The Facts:**
- Sold over 5.1M units since 2014
 - 15,000+ Skills
 - 1.63M devices sold in 2017 so far
 - Echo ownership has increased spending on amazon by 10%
 - Most popular skill: Setting a timer
 - 2nd most popular : Music/News
 - Ecosystem of devices; echo, dot, look, spot, show, tap and fire stick/fire TV



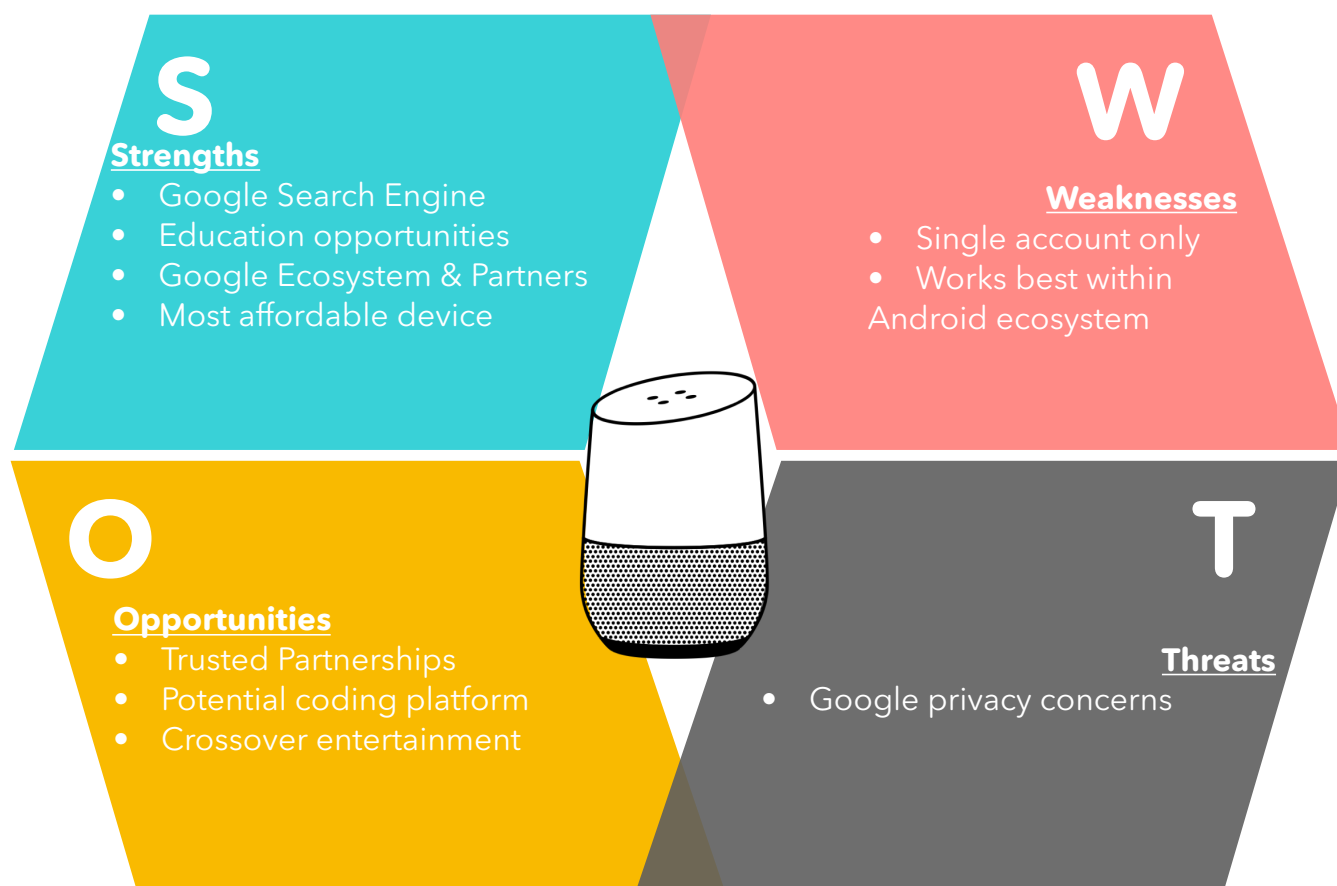
03Google Home

Price
\$129.99

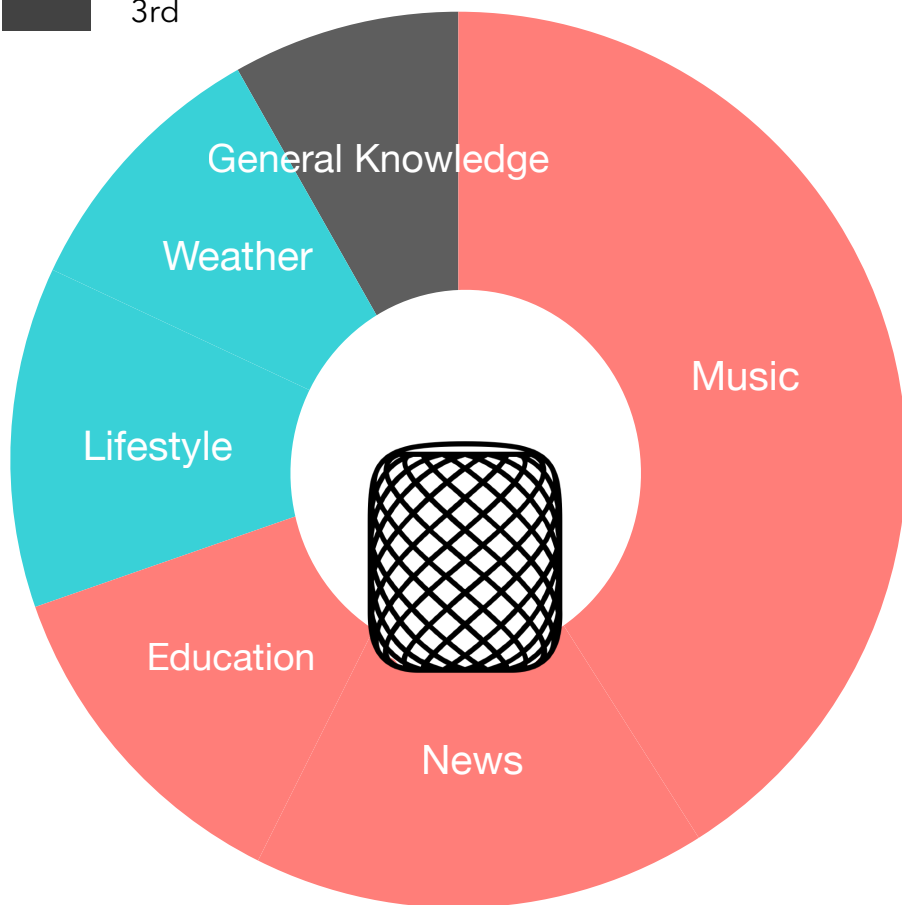


The Facts:

- 1 million devices in homes
- Google Home has 80 "skills"
- Google voice will reach over 200 million devices by the end of 2017
- Search, News and Fun Google Games dominate it's current service



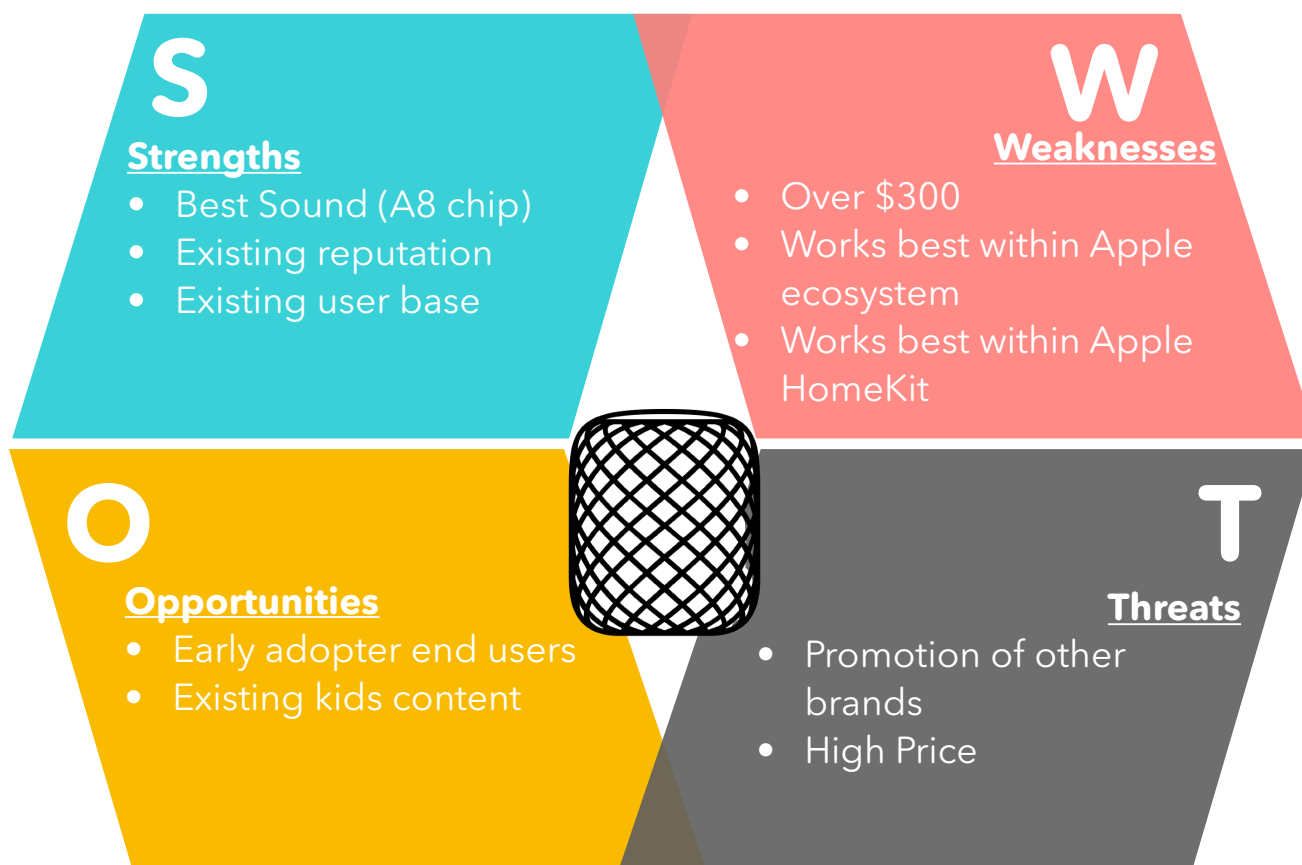
03Apple HomePod



Price
\$349.99
***LAUNCHES**
Dec 2017

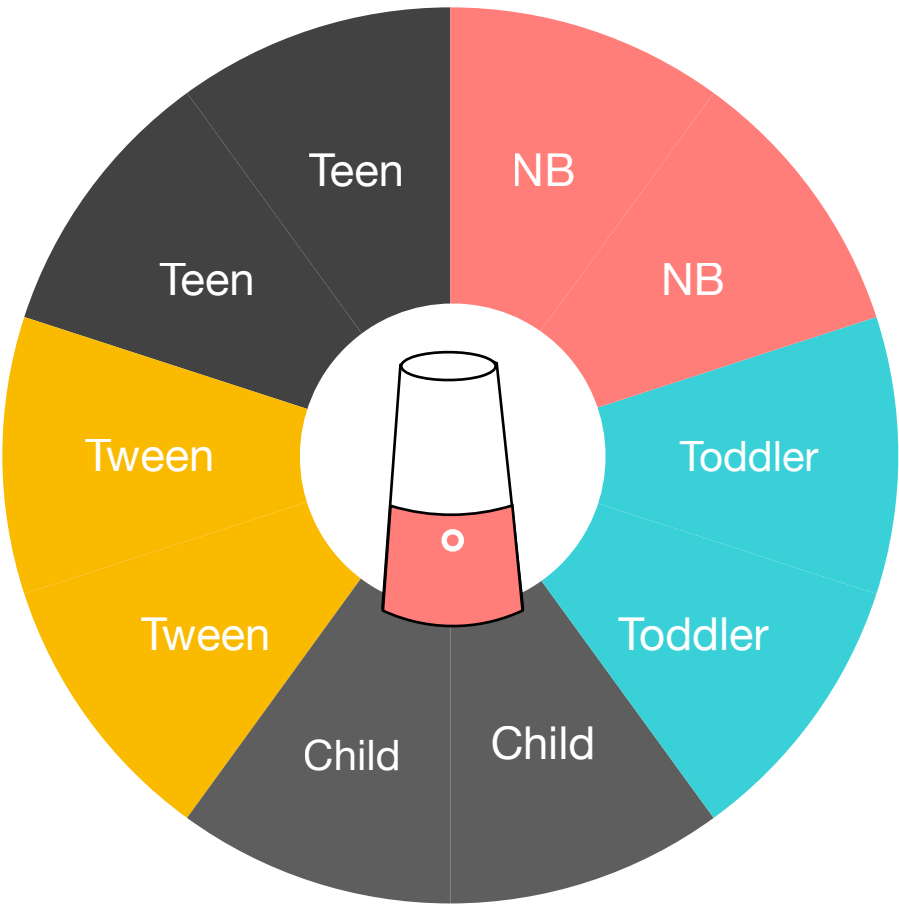
The Facts:

- A8 Chip making it the most powerful smart speaker available
- Built with spatial awareness to adjust sound accordingly
- Over the past 5 years Apple has been entering the "smart home" market via apple TV, Home kit and now HomePod



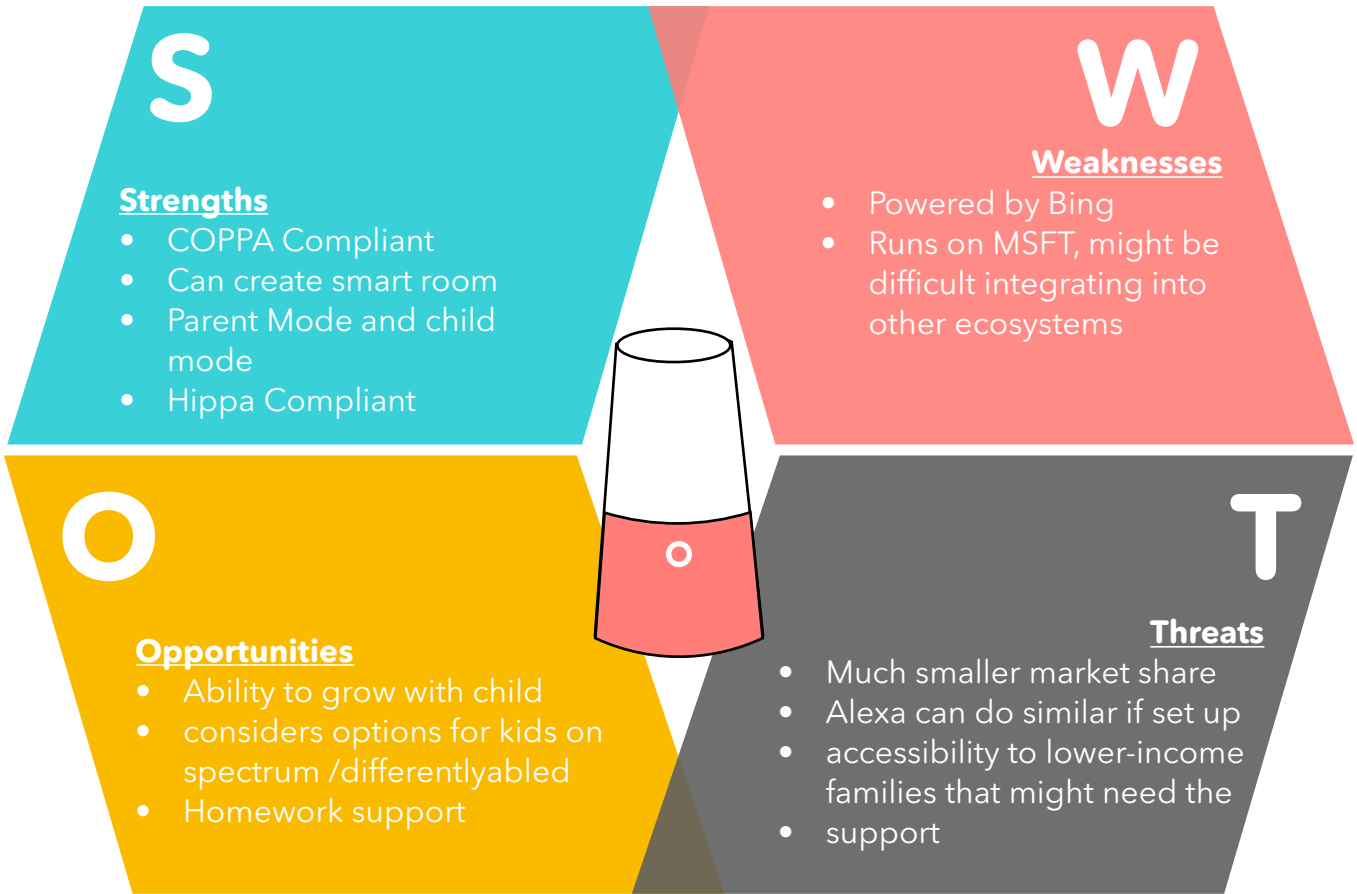
03Mattel Aristotle

Price
\$299.99
LAUNCH TBD



- The Facts:**
- First device designed with AI for children
 - Aristotle is a room hub and camera bundle
 - Children’s IoT built around security, privacy and intuitive ease of use through play pattern
 - Partnership with Tandem cognitive learning
 - Replaced IFTTT with “Do this when” protocol

ON HOLD

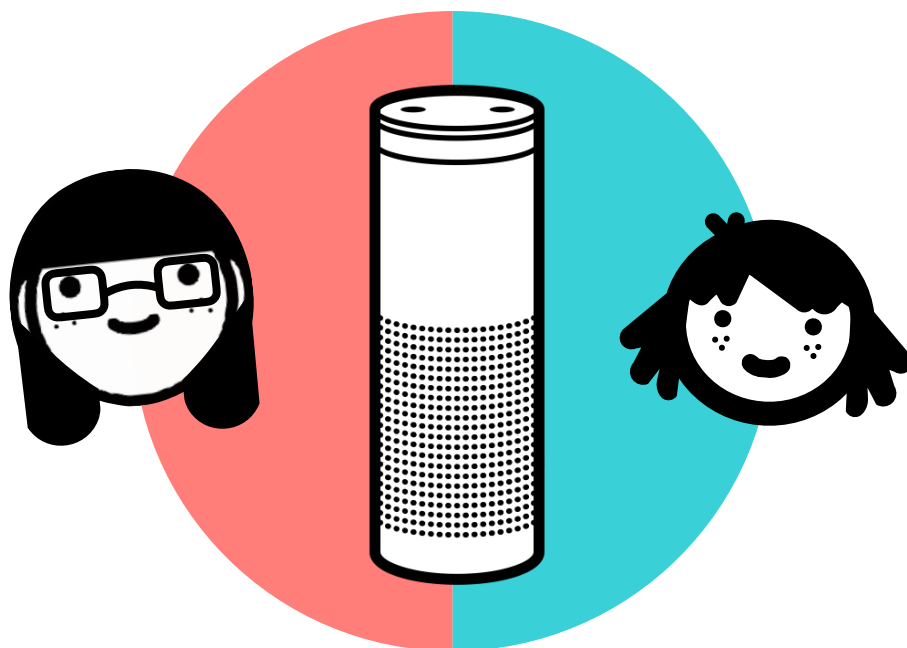


03Overview of each device



	Differentiator	Kid-Facing	Concerns
Amazon Alexa	<ul style="list-style-type: none">• Largest market share• Existing Ecosystem• Monetization Plans in process for games + subscriptions	Kid safe account provides opportunity for branded CN space	COPPA compliancy does not assure safety and trust for parents
Google Home	<ul style="list-style-type: none">• Google search capabilities• Existing android never network	Can decipher multiple kid voices in home	Many parents are concerned about “the affects of AI on our children”
Apple HomePod (Launch Dec 17)	<ul style="list-style-type: none">• Apple products appeal to early adopters who are willing to be more experimental with tech	Existing kids gaming platform through app store	High price point might exclude much of our audience.
Mattel Aristotle (launch TBD)	<ul style="list-style-type: none">• COPPA Compliant• Designed BY children’s experts• Nabi Ecosystem• runs on Alexa + Cortana	<ul style="list-style-type: none">• Designed for ages NB - Tween• Designed with trusted childrens SME’s	VF products designed specially FOR children undergo far more scrutiny and testing (mattel aristotle vs. alexa)

04 What is top content for Adults and Kids



Basic behaviors are leading Alexa skills.

Top Behaviors (Skills) for Adults

- Set a Timer
- Play Music
- News Updates
- Control Smart Lights
- Add item to shopping lists
- Set a Reminder

Top Behaviors (Skills) For Kids

- Set a Timer
- Asking it questions (trying to stump Alexa)
- Play Music
- Trivia
- Choose your own adventure stories

Both Kids and Adults love playing Jeopardy together.

Future Content Opportunities (voice only)

- Linear Tie-Ins
- Digital Tie-Ins
- ACR Device Tie-Ins
- Voice Changing
(Alexa make me sound like gumball)

Future Content Opportunities (with screen)

- Interactive Video
- Exclusive Content
- Partnership Tie-ins (music.ally etc)
- ACR for Content
- Body movement replication

05Insights

- Growing rapidly with kids and adults
 - Discoverability is key. If we don't capture our users immediately we'll lose them.
 - These ecosystems will become the fabric of the home allowing CN to be part of conversation
 - Language is a low barrier to entry for kids to communicate
 - A great technology to create engagement around the intersection of creativity and technology
 - Still learning if/how socio-economic status plays a role in use
-

Considerations

- This space is moving so rapidly it requires agility
- In this experimental space, we need to take time to figure out the right way to build an audience and monetize it.
- Identify success metrics and KPI's in this space
- Need to learn how to engage with this space
- Trust issues with COPPA compliancy

06 **Recommendations**

- Utilize existing kid behaviors
- Look for opportunities to be first in
- Partner with an agency with knowledge in the space
- Keep our creative process agile and experimental