

The background features a large yellow triangle in the top-left corner. A series of thin, light-grey vertical lines runs diagonally from the bottom-left towards the center. In the upper-middle section, there are two parallel diagonal lines, one blue and one teal, with a small dark blue dot on the blue line. To the right, there's a grid of small grey dots. Further right, a yellow circle with a white center is positioned near a small pink dot. On the far right, a vertical strip contains a colorful, abstract pattern with teal, pink, and yellow swirls, overlaid with horizontal lines. At the bottom center, there's another grid of small grey dots.

WHY VOICE MATTERS:

IDENTIFYING THE LATEST OPPORTUNITIES IN VOICE SEARCH

PMG VOICE LAB WITH JOHN GREER, JONATHAN HUNT, AND KARA ECCLESTON

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THE FUTURE IS HERE

You're sitting on your couch, switching a pickaxe into your inventory, when you ask your friend Nikhil in Mumbai, "How about you construct a shelter while I mine for redstone?" Nikhil doesn't reply. You ask again, and soon discover that it's not him, it's you. Or, more specifically, your gaming headphones. You'll have to soldier on with trying to messaging your buddy and lose valuable virtual daylight.

You tell Nikhil, "Hold on — I need to see what's wrong with these headphones!" And then you get out your phone, Google around for 15 minutes, and discover that they're a defective set in need of replacing. "Let me order a new set real quick before I forget..." you tell your incredibly patient friend. 10 minutes later, you're all set, but he's all out of time (it's 8 a.m. in Mumbai). Evening ruined!

At least, that's how that scenario would have played out two years ago. Today, our options have changed dramatically. You can **"Ok, Google"** your way straight to some answers about your defective headphones, and **"Hey, Alexa"** your way into buying a new set — all without dropping your controller. Maybe you even have them delivered in a couple of hours and get back to playing (but not with Nikhil, it's still 8am — things haven't changed that much).

THE STATE OF VOICE

There are a lot of reasons people have for not using a smart speaker or other voice-enabled device—you feel uncomfortable talking to a machine, you're hesitant to learn a new piece of tech, or even that you're a conspiracy theorist who assumes the worst of these devices. Even considering all the concerns consumers might have, comScore expects voice search to make up 50% of all searches by 2020. That's two years from now. Let that sink in. So if you're not using it in your personal life or the company you work for isn't yet using it to build brand awareness, its widespread adoption is already here with or without you.

COMSCORE EXPECTS
**VOICE SEARCH
TO MAKE UP 50%
OF ALL SEARCHES
BY 2020.**

If you think back, no one believed personal computers would take off, and look where we've come from there. Not every new, flashy piece of tech will end in complete adoption into mainstream society, but there's strong evidence that voice devices are well on their way there. This is why it's important for

brands to be thinking about advertising and brand awareness opportunities now, even if the technology and access on these devices isn't totally there yet.

When we asked some of our colleagues why they may or may not use voice devices, they had some interesting takes many of us probably relate to or are guilty of without realizing it.

Macey Eamma on our B2B team felt that,

“Consumers have selective hearing when it comes to privacy concerns surrounding voice devices, because they can't live without their phones, which have similar concerns, but for right now they can live without a smart home device.”

This is a valuable point that, as each new piece of tech becomes accepted in the mainstream, people become very complacent with a lot of their initial concerns surrounding these products, and we suspect this will soon be the case for voice devices as well.

Jinwook Kim, one of our developers, said,

“Whenever I first started using voice search, it felt similar to that unnatural feeling when you video recorded yourself for the first time. That's when I realized it's something I should practice using, get used to, and train my mind on how to word questions to an inanimate object in the way I would genuinely speak to another human being.”

There are a lot of positions out there on voice devices, and they don't just concern companies making these devices — they should be a top-of-mind concern for brands as well.

Considering all of this, PMG knew that we needed to be at the forefront of this technology, not just for our own clients, but to better understand how voice search can be situated in the industry as a whole.

THE PMG VOICE LAB

The universe of voice search is every bit as expansive as traditional search, and certainly more confusing. At the time of writing, there aren't any good tools out there to help us navigate the world of voice search like we have in desktop or mobile search. There is no Keyword Planner, no SEMRush, no reliable source for volume data or universal results. The landscape is simply too new, and everyone is still getting their bearings.

At PMG, we've decided to embark on a journey to help ourselves, our clients, and the industry orient themselves in this new environment. The development of the PMG Voice Lab will be a long-term invest-

ment in research, analysis, and experimentation in the field of voice search and voice-enabled technologies and opportunities. Our belief is that the first step in knowing how to capitalize on voice is dedicating time and resources into how they fit into the consumer journey, and understanding their marketing potential and the finer details of each virtual assistant, such as the differences across devices, location, user identity, and query intent.

This initial study focused on search for a few reasons:

- Voice search is prevalent today and rapidly accelerating in usage. Marketers need to know how search marketing will change because it is a primary driver of revenue for many brands.
- Like other emerging technology, it's only a matter of time before voice ads, apps and conversational commerce are commonplace.
- It's actually pretty entertaining to ask questions to these devices. It's a bit like having a conversation with a toddler — at times it's impressively knowledgeable, other times it seems like it needs to be put down for a nap.

Our hypothesis is that fewer brands are thinking about voice than they should, and even fewer of those are actually acting. Those that are acting with a plan today are seeing benefits that we think will pay off sooner than expected. For our initial research in this paper, we sought to test our theory that many brands are being beaten to the punch in voice search, even on their own brand terms. So let's get started.

VOICE DEMOGRAPHICS – WHO'S DOING THE TALKING?

The first thing to note on voice usage demographics is the sheer size of the audience. One in two smartphone owners use its voice feature already (comScore). One in four US households now owns a smart speaker and in 2020, Gartner predicts the average person will have more conversations with a bot than their spouse (for some, that might be a welcome relief!). And by 2025, one in three spouses will be replaced with a bot (*we just made that last one up*).

Along with the overall number of voice users in the world, they break down along these certain demographics:

- The usage of voice assistants on mobile devices skews higher for females. (eMarketer)
- 39% of speaker owners have household income above \$100k. (Voicebot)
- Among age groups, Millennials have the highest penetration of smart speaker usage, followed by Generation X. (eMarketer)
- Baby Boomers utilizing smart speakers are more likely to want to hear deals and promotions from brands. (Think with Google)

- The trend is happening globally. By 2022, more than five billion voice assistants will be in use on smartphones worldwide. (Juniper Research)
- Adoption is especially strong in the Asia-Pacific region, where utilizing voice is often much quicker than typing. (eMarketer)

Don't expect that this is a passing fad either. Voice is a highly efficient way of inputting information, according to usability studies done by the NN Group. One change to watch for though will be the proliferation of more voice-enabled devices with screens. While voice is more efficient than keyboards for many input types, screens are often more efficient as an output. Long-term, we project consumers will look for voice-devices that have a screen option.

VOICE DEVICES – WHAT ARE WE TALKING TO?

There are now 61 million owners of smart speakers in the U.S. alone (eMarketer). And according to an Edison/NPR survey, 42% of smart speaker owners say the device is “essential” to their everyday lives.

While speakers are getting their deserved attention, other connected home devices are gaining importance as well. Amazon, for example, bought Ring and Blink, two companies focused on the connected home market, as a way to further move into homes. As long as you have their other smart home gadgets, you can tell your smart speakers to turn off your lights, play music, or turn up the heater.

Three main companies dominate the market, **Apple, Google, and Amazon.**

AMAZON

Artificial Intelligence: Amazon's voice commands are powered by Alexa, which trails Google in its ability to answer questions, according to our own study as well as other research. What Alexa does have though is your Amazon account data ready to order products.

Smart Speakers: Amazon was the early leader with the Echo and the smaller Echo Dot, and is still the largest market share holder. When an answer calls for a visual response as well as an audio one, Echo relies on a person's phone to be nearby. To address this problem, the Echo Show will include a screen with it.

Other Devices: As mentioned, Amazon bought Ring and Blink in order to get people to further adopt Alexa into their homes. Amazon's Fire Stick TV streaming device includes remotes that utilize Alexa as well. Lastly, Amazon also has the Echo Look, a (creepy?) camera which gives you style advice.

GOOGLE

Artificial Intelligence: Google's AI, Google Assistant (no quirky names here!), is its main advantage because it has the Google search algorithm available. Google is also working with partners like Walmart and Target to bring ordering capabilities to Google's devices. Even more impressive is the number of languages Google Assistant can understand (30 languages by the end of 2018 — enough to cover 95% of the Android market); positioning Google Assistant as the clear favorite in global markets and for multilingual consumers.

Smart Speakers: To keep from falling behind in the space, Google has invested significant financial and human capital in the production of Google's Home and smaller mini devices. In fact, Google Home outsold Amazon Echo in Q1 2018.

Other Devices: Google's Nest division started with a smart thermostat, but has expanded to cameras, doorbells, and other smart home gadgets. Google also has the Chromecast TV streaming device, which is now fully compatible with the Google Assistant intelligence platform.

APPLE

Artificial Intelligence: Apple's Siri, which has been on every iPhone since the 4s, is being plugged into all of Apple's devices. Unlike Alexa and Google Assistant, Siri trails in the ability to recognize different voices. Apple seems to know that Siri needs a major upgrade, having just recruited Google's former head of search and AI.

Smart Speakers: Apple's new Homepod is a late entry, and has sold two million devices so far. It's positioned as a higher-end speaker.

Other Devices: Apple has its own TV streaming device, Apple TV, as well as its own Siri-powered thermostat and a line of "iDevices."

There are several other large companies diving into the market that you should be aware of:

- Traditional speaker companies such as Bose and Sonos are selling higher end speakers, which also can include Google Assistant or Alexa.
- Facebook is building a smart speaker called Portal, which will have video calls as the main selling point.
- Alibaba, the Chinese e-commerce giant, released their smart speaker and sold over a million units in just four months.

- The most popular search engine in China, Baidu, also has developed a voice assistant and a set of smart speaker products (the Verge).

UNDERSTANDING THE VOICE SEARCH ECOSYSTEM

Voice AI creators, content producers, and brands are defining the voice ecosystem, but some pieces of the puzzle are in place already. Each aspect of voice interaction has unique implications for brands to be aware of.

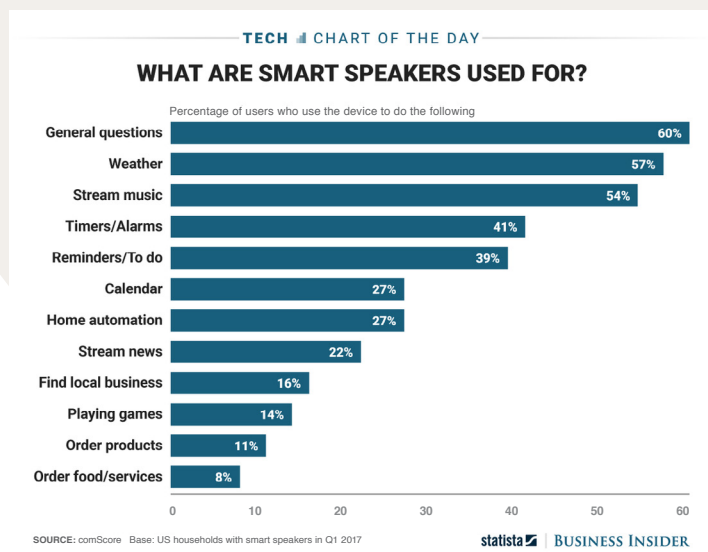
VOICE SEARCH

Searches are how people have used Google for years (“Where is a pizza place near me?”) done by voice. It can be used on a number of devices, such as talking to Google Assistant on an Android phone, or by asking Alexa a question on an Amazon Echo.

VOICE COMMANDS

Voice commands are prompts users give the device such as “set an alarm,” or “turn on the lights.” With any phone with a voice-enabled assistant, there are plenty of commands available, and an enormous number of people that can use them. Additionally, connected homes that include lights, thermostats, and televisions add another new set of voice commands. In fact, voice commands are among the most popular uses for smart speakers overall:

For our research in this paper, we excluded voice commands and used only searches as commands perform an action rather than represent a potential customer searching for information. As of today, there’s not a lot of marketing opportunity outside of developing apps that act based on commands.



VOICE COMMERCE

Part search and part command, purchases can be made directly through voice-enabled devices via what we like to call voice commerce. In fact, according to eMarketer, **28% of voice users will make at least one purchase** in 2018.

Eventually, “conversational commerce” will let shoppers narrow down order specifics, like so:

User: “Book me a hotel in Atlanta near the airport.”

AI: “OK. how much do you want to spend?”

User: “Under \$200.”

AI: “For what date?”

User: “Tomorrow.”

AI: “OK, I booked a room for tomorrow night in Atlanta with 2 beds.”

User: “2 beds?”

AI: “One for me, I’m not sleeping in your suitcase again, Mary.”

Alexa is tied to your Amazon account, so your payment is already set, while Google has its own payment system it's trying to grow. In fact, to purchase on Alexa, we had to use an account with Amazon Prime, not just an active account.

When we conducted transactional searches, Alexa’s response would include the product name and seller name, and ask “would you like to buy it?” Clearly, many purchases will need more info, but if you are on your iPad or other device tied to your Echo, the Alexa app can also return product details visually through the app.

Amazon also has an advantage in re-ordering previous items. For example, it’s much easier to ask Amazon to “order more paper towels” when you’ve already made that purchase. New purchases come with more questions, chances for mistakes, and thus a lower conversion rate. Google is trying to solve this problem by partnering with brands like Target and Walmart to gain access to their customer order history.

VOICE ADS: Ads on voice-enabled devices are not heard much today, but this would be one natural way for AI vendors to monetize their products. A few ads have been spotted “in the wild” on Google Home, but these appear to have been tests or errors. Google is reported, though, to already be in talks with some brands about developing [“how to” snippets](#) for voice, which could easily become ads.

According to [The Drum](#), voice advertising could look to “concepts and best practices from radio advertising” to keep from feeling intrusive. Additionally, better and more relevant ads can be made as advertisers get access to more data around voice usage. Advertisers will need to update search campaigns to account for the increase in natural language search, and rely less on keyword-based search.

VOICE APPS: Voice apps are a lot like mobile apps. The phone may be Apple’s OS, but the app belongs to Facebook. Voice apps can be added to your device and called on by the app’s unique invocation.

Voice Apps can be returned by search, but brands shouldn't rely on Amazon or Google to organically promote your app. In our query set, Google recommended an app (Action) 3% of the time it answered, and Amazon never recommended one.

First, app store optimization is now relevant for voice apps with the [Amazon Skills directory](#) and the [Google Actions directory](#). Overall, promoting a voice app will rely on similar traditional and digital marketing techniques like mobile apps have for years.

AUDIO CONTENT: Audio content is likely to grow in importance with the growth in smart speaker usage. This is likely to increase the audience size and marketing opportunities for podcasts and other audio broadcasts.

New formats may become popular with smart speakers as well, such as interactive audio content. Marketing campaigns for Jurassic Park and HBO's Westworld featured interactive stories made for voice-enabled devices.

Note to brands:

Even if you don't have your brand app built, you still want to claim your invocation today before someone else does.

In our research, we've found that Google is already automatically creating certain apps even when the brand doesn't build one themselves. As of now, when this happens Google finds recipes and a couple of other content types marked up with schema tags from relevant sites.

VOICE LAB RESEARCH METHODOLOGY

For this initial paper, we've started with a collection of 1,000 unique voice searches (we left out "voice commands" as mentioned earlier). Our theory was that many brands are failing to capitalize on voice search, even on their own brand terms. We felt focusing on a specific vertical would be the best method to test our theory, and, circling back to the poor gamer, we chose headphones as our starting point.

THE HARDWARE

In terms of hardware and virtual assistants, we aimed to include three in our initial testing phase. These devices included:

- Google Home Mini
- Amazon Echo Dot
- Apple HomePod

Early on in our testing, though, it became clear that the Apple HomePod was having greater difficulty than the rest of the devices in responding to our query list of questions and commands. After taking a

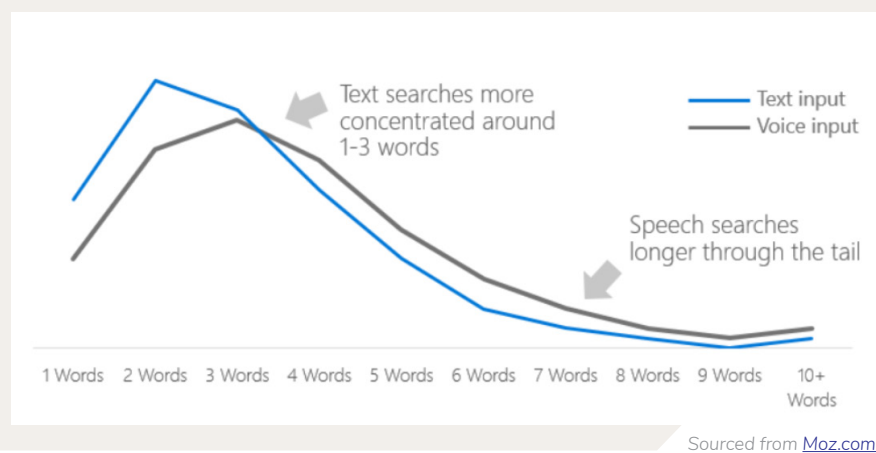
step back and recognizing that Google and Amazon dominate the voice device market, our team opted to remove the Apple HomePod from this test.

We also intentionally selected smart speakers with no visual interface in order to eliminate that added dimension of results from the initial batch. However, PMG plans to integrate visual results as an added dimension to our analysis in future testing batches.

THE QUERIES: THERE IS NO SHORT-TRAIL, ONLY ZUUL

Our set of voice searches centered around a single product vertical (“headphones”), broken out by brands and non-brand search types. We started by collecting a larger amount of general queries and gradually trimmed that list down to roughly 200 queries per brand and 200 non-brand queries. The final 1,000 queries were all considered ‘likely’ to generate responses from the various smart speakers we aimed to test.

In traditional SEO, “medium-tail” searches usually consist of any query longer than three words. In fact, some SEOs start “medium-tail” at two words, and anything longer than three is “long-tail.” At PMG, we’re pretty strongly in the former camp, holding with the idea that any query that will likely show up in a keyword research tool is not really a “long-tail” search.



Voice searches, as expected, are quite different.

By their very nature, voice search queries are more conversational and that translates to higher word counts.

Using [Cortana's data](#), the graph above from Microsoft's Purna Virji shows the growth in longer search queries in

voice search, which come at the expense of short, “head” terms. And according to [Google's data](#), 70% of voice queries use natural language.

In our test, queries ranged in length from two to nine words with most falling into the four to five word range. The overall average query length for our initial experiment came out to be 4.96 words, already substantially longer than the standard length of SEO short- or medium-tail queries.

THE PROCESS

At this point, we have our devices to test, our queries to run, and that left only the time and place. We were able to dedicate an upstairs booth to the voice lab, where a group of PMGers worked through the task of asking questions to each device, tracking our results, and recording the sessions for further review. The long-term roadmap includes automating this process as it does take some time.

After a few weeks of testing, we identified several significant learnings that brands can keep in mind when optimizing their site, content, or products for voice search devices.

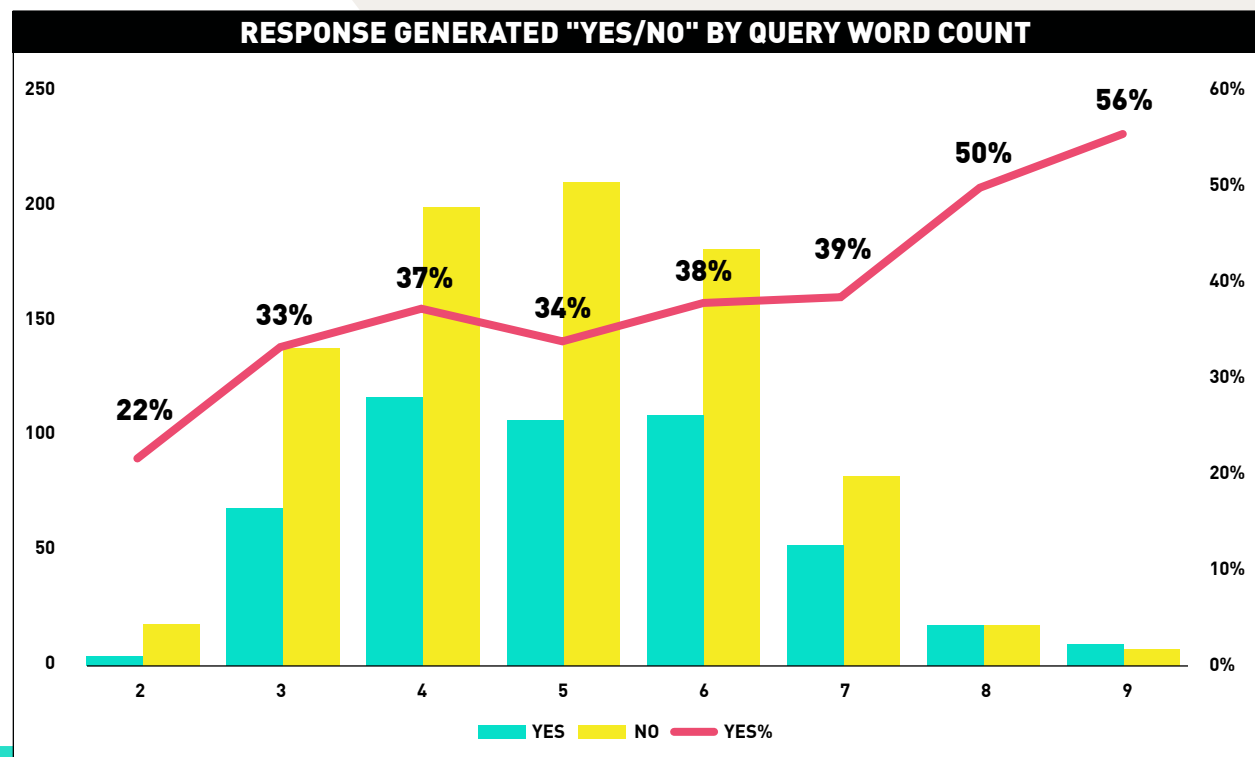
SNAPSHOT: WHAT WE FOUND

- Alexa is far more shopping-focused than Google, to the point of being a nuisance and unhelpful with informational queries.
- Both Google and Alexa still return a higher than desired number of unhelpful results. Google devices are much better at finding information, while Alexa-powered devices are easier to order products from.
- Gaining visibility in Amazon's marketplace, especially the top 3 listings and the "Amazon's Choice" section, is vital for gaining visibility with Alexa. See actionable steps in our "Alexa-Specific Marketing Opportunities" section a little later.
- Google is more complex where authoritative, informational content is key. See actionable steps in our "How to Develop and Write Content for Voice Search" section below.
- On Google, brands only answered questions about their products 16% of the time.
- Google cited a huge diversity of sources in answering questions.
- Alexa never recommended an app ("skill"), while Google occasionally did.
- Google's voice team has clearly determined that people speak naturally in voice search. Because of this, Google is much better at answering conversational queries in voice search than queries like "headphones blue." This indicates that Google has a different system for interpreting voice queries than their traditional system.
- Alexa is just as good at answering both conversational and non-conversational queries; however, it's really more a case of being "equally bad" at both.
- Google easily returned relevant local listings for queries with local intent. Appearing in the Google Local pack for relevant results is key.

THE SCIENCE BEHIND OUR METHODOLOGY AND RESULTS

From this first batch of queries, our smart speakers were able to return some form of actual result — excluding the many ways each speaker has learned to say “Sorry,” or “I don’t understand,” or “I’m not sure how to help,” — which occurred 36% of the time. The overall response rate was certainly lower than we had hoped, but considering this was a small sample set, across a limited product vertical, and utilizing a relatively new technology, we weren’t entirely surprised.

Despite the low overall response rate, we did see a definite correlation between query length and response rate. Rates started low on two to three word queries, as most conversational questions require more than two to three words to clearly make out intent. Through four to seven word queries, response rates hovered around 35-40% and then took off once we hit eight to nine word queries at over 50%.



The upward sloping pink line above shows how longer queries resulted in better responses from the devices, which makes sense. As engineers build these devices to be better ingrained into people’s lives with a more conversational nature, queries like “why headphones break?” are more difficult for devices to answer than “why are my Bose headphones not working?”. This translates to brands because it emphasizes the importance of having easy-to-understand content, help guides, and product descriptions on their site.

SEMANTICS AND NATURAL LANGUAGE QUESTIONS

To help better educate our analyses after the testing phase, we labeled each query as one of four query types.

- Traditional
- Non-Conversational
- Prepositional
- Comparisons

TRADITIONAL — used to describe full-length, conversational questions that use one of 11 key action query words listed below.

- | | | |
|-------|---------|--------|
| • Are | • What | • Who |
| • Can | • When | • Why |
| • Do | • Where | • Will |
| • How | • Which | |

Such as “can headphones damage your ears?” or “can headphones go through the wash?”. Because we knew these devices are destined to be a part of our everyday lives, traditional queries made up just under 50% of our query list.

NON-CONVERSATIONAL — defines ‘broken English’ questions or commands; often missing articles, prepositions, or other non-essential words. These queries amounted to approximately 35% of the queries we tested the devices with — examples being, “headphones you can wear all day” or “headphones with long cord.”

PREPOSITIONAL — describes preposition-based queries such as “Headphones to watch TV” or “wire-less headphones near me.”

COMPARISONS — describes queries that compare one thing to another like “headphones and driving” or “headphones versus earbuds sound quality.”

Below is a look at how our query set broke down by percentage.

	TRADITIONAL	PREPOSTIONAL	COMPARISONS	NON-CONVERSATIONAL
QUERIES	49.8%	12.6%	2.6%	35.1%

During our analysis, it was clear that the language used in the queries impacted how each virtual assistant performed. Google struggled on non-conversational questions (“headphones for kids”), offering responses less often than with natural language queries. On the rest of the question types, Google fluctuated between a 19% and 29% response rate.

Amazon, on the other hand, performed much better on all prepositional and comparisons questions, with response rates of 38% and 36%, respectively. However, on traditional and non-conversational, Amazon performed at a much lower rate, offering responses to only 26% of non-conversational queries, and only 24% of traditional.

It could be that prepositional and comparison question types are much easier for Amazon to make the leap to a transactional response, which significantly increases the likelihood that Amazon will provide a response. We’ll talk more about Amazon’s strong tendency to turn any query into a transactional request a little later.

EXAMPLES OF HEADPHONE-RELATED QUERIES

“ARE HEADPHONES BAD FOR YOUR EARS?”

“On the website kidshealth.org, they say: Headphones that go over your ears can also damage your hearing if you use them too long or play music too loudly. They’re just not as much of a risk as earbuds are — having the source of the sound in your ear canal can increase a sound’s volume by six to nine decibels — enough to cause some serious problems.” – **Google Device**

“Sorry, I don’t know that one.” – **Amazon Device**

“HOW ARE HEADPHONES MADE?”

“On the website explainthatstuff.com, they say: The plastic they’re made from is light enough not to press on your head, but strong and durable enough to withstand wear and tear. Another cool feature is the removable lead: there’s a jack plug where the wire joins onto the body of the headphones, which you can easily remove and replace.” – **Google Device**

“Sorry, I don’t know that one.” – **Amazon Device**

“ARE BOSE HEADPHONES SWEAT-PROOF?”

“On the website theverge.com, they say: Bose made its sweat-proof headphones more sweat-proof after sweat issues. Last month, Bose released a new set of earbuds called the SoundSport Wireless, which the company touted as being sweat-resistant.” – **Google Device**

“The top search result for bose headphones sweatproof is Earbuds In the Ear Emubody Magnetic Wireless Earbuds Bluetooth Headphones Sport In-Ear Supper Bass Metal 3.5mm Sweatproof Headset for Smartphones, Tablets and Bluetooth-enabled Devices (Rosegold). It's \$4.28 total including tax. Would you like to add it to your cart?” – **Amazon Device**

“ARE BEATS BY DRE HEADPHONES SWEAT-PROOF?”

“On the website beatsbydre.com, they say: Powerbeats² Wireless are sweat and water resistant, making them perfect for rigorous indoor and outdoor workout conditions, including exposure to rain. Remember: They are not waterproof—don't submerge or expose to a constant flow of high pressure water.” – **Google Device**

“[No response.]” – **Amazon Device**

In addition to the correlation found between response rate and query length, we also noticed definite trends based on query intent. Our initial batch of queries were frequently “informational,” most often looking for specific information or answers to relatively simple questions related to headphones in general or a specific brand of headphones.

WHAT ARE THE SOURCES FOR GOOGLE’S ANSWERS?

For search queries, Google gives a source to tell you where it found its answers. For example, we asked Google “are headphones safe for toddlers,” and it began its answer with “on the website nytimes.com...” This gives us a chance to understand how it gets its answers, and it’s a way for brands to be included in voice search.

Being a source is an opportunity for brand exposure in the voice search ecosystem. After all, no one is going to click or tap on a screen to go to your website, so being the source for a relevant question may

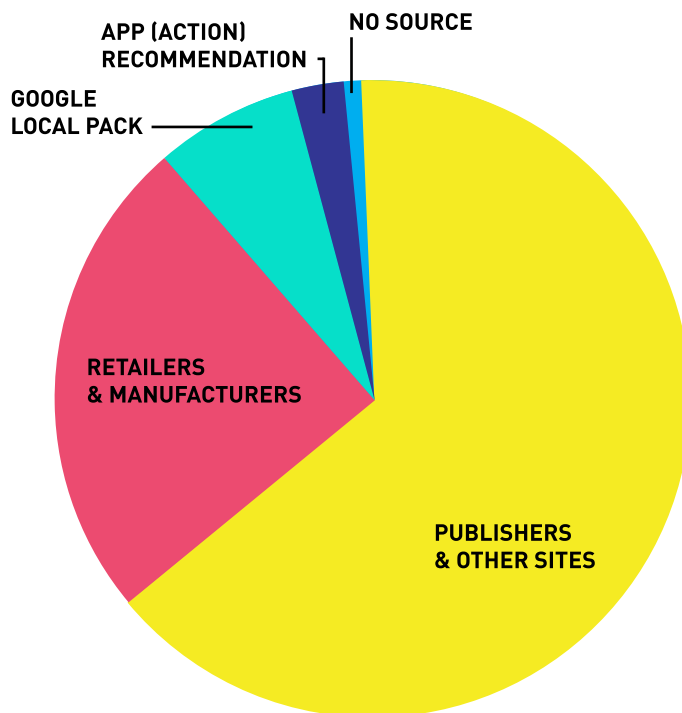
be one of the key touchpoints for customers in the buying process. This can be true for brand and non-brand queries.

For brand queries, broadening your exposure is especially important. When a brand doesn't own answer questions about themselves, third parties like Quora, and even competitors, will take those spots. What's especially damaging is when the answers returned by these sites are inaccurate.

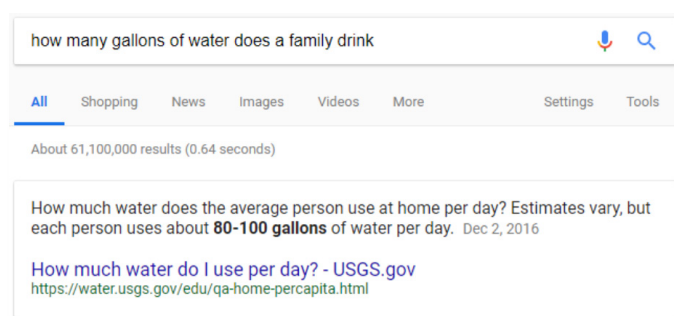
We found that the majority of our searches (64%) were answered by publishers and other informational sites such as Consumer Reports, BBC, and Lifehacker. Two of the sources we were especially interested in were Quora, the Q & A open forum, and Wikipedia.

While they were both among the top sources, they were only 6% of the total. In fact, a total of 123 different sources were used for these answers. That tells us there is a great opportunity to get into these spots, especially as a subject expert answering niche questions. For example, our focus on headphones saw niche sites such as Batteries Plus, Kids Health, and Headphone Addict cited as sources.

Retail and manufacturer sites appeared a good amount of the time as well at 25%. However, when we looked at how often brands answered their own brand questions, it was only 16% of the time. A number of times, a site like Amazon or eBay swooped in to answer those.



GOOGLE VOICE ANSWER SOURCES



There's also a link between Google's Featured Snippets (or "Answer Boxes") and these answers. As many search results include a highlighted answer above the standard results, multiple studies have shown that Google often uses those results for voice search answers as well. According to research by Dr.

Pete Meyers at Moz, "there's an increasingly clear connection between Featured Snippets in search and voice answers."

ANSWERS WITH NO SOURCES

We found that Google supplied a source 89% of the time it answered (all of the “sorry” attempts weren’t counted, or times it thought we were making a voice command). Searches with a precise answer (1%), e.g. “who invented headphones?” (Nathaniel Baldwin, in case you were wondering) or “what’s [brand]’s customer service number?” didn’t include a source. The “source” for these questions is the Google Knowledge Graph, Google’s database of facts about topics (“entities”) that it has determined through crawling vast amounts of webpages.

Google also didn’t provide a “source” when it perceived a local intent and returned a local business result (7%), or when it recommended an app (3%). For example, for a query like “How much are [brand] headphones?” Google replied “Okay, you might like talking to eBay. Does that sound good?” Having Google push your action is the voice equivalent of getting users to install your mobile app. It’s an opportunity to talk to users in a fully branded environment.

Note that we are focusing on Google as Amazon only returned a source on 2 of our queries; in both cases, the source was Wikipedia. Part of the reason for this is our finding that Amazon only answered 14.7% of informational queries, and when it does answer, it rarely names the source.

RESPONSE RATES BY QUERY TYPE

In this data set, informational queries made up approximately 84% of our questions, while 13% were transactional and 2.5% were navigational. Considering this makeup, we saw a substantial separation in response rates between the different smart speakers.

	INFORMATIONAL	TRANSACTIONAL	NAVIGATIONAL
GOOGLE	34.6%	20.9%	72.7%
ALEXA	22.9%	42.9%	65.0%

Both speakers had their strongest response rates for navigational queries, though we cannot entirely rule out the small sample size as a factor in the outlier response rates. Once we look past navigational queries, however, we clearly see a pattern of each virtual assistant playing to the core strength of its parent company. **Google shows a considerably higher rate of response among informational queries, while Amazon excels at transactional ones.**

RESPONSES BY TYPE

This habit of smart speaker software to “play to its strengths” is more prevalent when comparing query intent to response intent.

It’s not always a given that informational queries elicit an informational response. In traditional search, Google can hedge its bets, offering some informational and some transactional (even some navigational) results on queries where intent is not crystal clear. For voice search, we often only receive a single search result, so the virtual assistant is put into a position of having to choose a single intent and offer that result.

In this experiment, we found that Google correctly identified informational queries, and usually responded with an informational result (over-indexing on informational results by less than 2%). Google also over-indexed on navigational results, offering them on 6.9% of responses, despite only 2.3% of queries having a navigational intent. Transactional responses were the only area where Google under-indexed, offering these results types on 6.6% of responses, even though 13.4% of queries were transactional in nature.

Amazon Alexa was even more exaggerated in this breakdown. For navigational queries, Amazon was nearly perfect, with 2.2% of responses offering navigational information against the 2.3% of queries. However, once we get into informational vs. transactional, Alexa removed any doubt on what its true directive as a product is. Against 84.3% of queries being clearly informational in nature, only 14.7% of responses matched that intent.

At the same time, 83.1% of responses from Alexa were clearly transactional, usually listing off products for sale and offering users a chance to add a product to their Amazon cart. Those responses stood against only 13.4% of queries indicating a clear transactional intent.

	GOOGLE			ALEXA		
	QUERY %	RESPONSE %	+/- INDEX	QUERY %	RESPONSE %	+/- INDEX
INFORMATIONAL	84.30%	86.20%	1.9%	84.30%	14.70%	-69.6%
TRANSACTIONAL	13.40%	6.60%	-6.8%	13.40%	83.10%	69.7%
NAVIGATIONAL	2.30%	6.90%	4.6%	2.30%	2.20%	-0.1%

These numbers also only showcase initial responses. Often, on transactional responses from Alexa, we found ourselves having to fend off two to four rounds of responses before Alexa would accept the conclusion that we did not want to buy anything. Simply replying “no” to an add-to-cart offer on Alexa’s initial responses would not end a query session.

Instead, it would only prompt a second round of product listings and a fresh offer. This process would usually repeat two to three times before Alexa would resign, reminding us that even more options could be found within the Alexa mobile app.

We get a lot more insight from breaking out each smart speaker and analyzing its various response intents by each type of query intent. In the Amazon breakout, we can clearly see transactional responses over-indexing across all types of queries. At the same time, Google really only struggles with transactional queries.

ALEXIS		RESPONSE INTENT		
		INFORMATIONAL	TRANSACTIONAL	NAVIGATIONAL
QUERY INTENT	INFORMATIONAL	17.7%	81.1%	1.2%
	TRANSACTIONAL	6.3%	93.8%	0.0%
	NAVIGATIONAL	7.7%	69.2%	23.1%
	TOTAL	14.7%	83.1%	2.2%

GOOGLE		RESPONSE INTENT		
		INFORMATIONAL	TRANSACTIONAL	NAVIGATIONAL
QUERY INTENT	INFORMATIONAL	94.8%	4.5%	0.3%
	TRANSACTIONAL	48.3%	31.0%	20.7%
	NAVIGATIONAL	0.0%	0.0%	100.0%
	TOTAL	86.2%	6.6%	6.9%

ACTIONABLE STEPS BRANDS CAN TAKE TO DOMINATE VOICE SEARCH

HOW TO DEVELOP AND WRITE CONTENT FOR VOICE SEARCH

Developing your website's content to be "voice-friendly" is an important skill for copy editors and marketers to add. Today, these strategies are primarily for Google given our findings around Alexa's limitations with informational queries. In the long-run, we anticipate similar principles will apply to Alexa, Siri, and others in the space.

Remember that all copy is ultimately written for people. Retain your brand voice, read your copy aloud, and edit anything that sounds unnatural. PMG approaches changes to copy for SEO purposes, whether for web-based searching for voice-based, as an activity that should bring potential improvements to

the copy to light, such as discovering that copy uses too much jargon, doesn't explain the context well enough, or would be improved by highlighting common questions.

CONCISE ANSWERS. Being able to provide a concise answer is especially important for the result that will be chosen for voice search. While query relevance and authority are important for traditional SEO, voice search answers place a new emphasis on conciseness as well. Amazon summarizes this idea in their Skill Developer Guide as the “one-breath test” — an idea should take only one breath to say.

Through our query set, we took a look at how many characters the average query returned to get an idea of exactly how “concise” a typical answer is. A couple of caveats to this data are, “short” isn't exactly the same as concisely explaining a topic, and Google and Amazon are looking at syllables and the actual time to speak a phrase rather than count. However, this can be a good guideline for copywriters to keep in mind.

We found that copy written to be returned as a Google informational result should aim for 200-250 characters. Google's informational responses were an average of 222 characters, with a range of 64 to 316 characters. This average only includes responses with sources, and does include local results, app recommendations, and questions that were not answered. We have also removed the citation which comes before each answer, such as “On the website consumerreports.org...”.

Amazon's informational responses were between 20 and 90 characters. However, anytime Amazon returned one of their products (as shown, 83% of the time), they seem to simply read the entire product name, up to 200 characters from our study. This makes for some very long, difficult to understand responses.

Of course, most of our content on the web is much longer than required here. Answering a question concisely isn't the only purpose of most pages — we want to entertain, inform, inspire action, and more. The way to handle this is not to cut out all of your content, but keep the long, detailed answers, and instead ensure that a concise, summarized answer can easily be found leading into your content.

CLARITY. Clarity of writing is always a goal, but it becomes even more important when aiming to be voice-friendly. One of the tenets of writing for search applies here — be clear about the main topic you are discussing. If the copy is about a hat, it shouldn't just say “headwear.”

Furthermore, clarity requires differentiating between items. Is this page about simply “hotels,” or is it more accurate to say the page is about “boutique hotels” or maybe “motels”? Keep in mind that the site branding, images, and other context is missing for a voice-only interaction.

Amazon's Alexa skill guide advises marketers to "make sure that Alexa speaks like a person, for example, using contractions and avoiding jargon."

QUESTION AND ANSWER STYLE CONTENT. Directly providing common questions about a product or your brand makes it simpler for search engines to associate an answer to a question. All of the context and phrases needed are provided.

FAQ pages are legacies of the the "AOL discs in the mail" era Internet, but they're still valuable for content. Answering customer questions is a fundamental function of content. The improved method of Q & A content is to diffuse these content modules throughout your site and content. Provide timely answers to customer questions, rather than burying them in a single, under-promoted page.

SPEAKABLE SCHEMA. SEOs and many developers will be familiar with schema markup, which is used by search engines for better understanding content. Marking up the most voice-friendly content on a site with the "speakable" schema is likely a future signal voice search AIs will utilize in determining their answers.

UTILIZE DATA TO INFORM CONTENT. Understanding what users are asking is a great place to start with voice search. Utilize keyword and social listening research tools, especially question-focused tools, to gather a set of questions. Supplement this data with internal findings such as customer service inquiries and your own AdWords data. Narrow down the questions into themes and begin developing answers for them. Bake this content into your site and your Amazon product copy.

Below is an example set of findings we had recently when digging into data for a travel company. Aggregating the types of phrases most used by their customers helped us narrow down what types of content would be relevant to every destination.

MOBILE AUDIENCE		DESKTOP AUDIENCE	
QUESTION PHRASE TYPE	% OF QUESTIONS	QUESTION PHRASE TYPE	% OF QUESTIONS
WHERE IS	58%	WHERE IS	59%
HOW FAR IS	21%	HOW FAR IS	11%
WHERE TO STAY	6%	HOW IS/ARE/DOES/DO	11%
WHAT ARE/IS	4%	WHAT IS	6%
HOW MUCH ARE/DOES/IS	3%	WHERE TO STAY	5%
WHAT TO DO	2%	WHAT HOTELS/MOTELS	2%
HOW DO/DID	1%	HOW DID/DO	1%

Developing interactive voice content exclusively for voice apps (Google Actions and Alexa Skills) is a separate marketing activity. Because the content is exclusive to voice, it can be tailored to fit the devices. It does have some overlap with writing for voice search, such as clarity and conciseness, but writing for apps must also take into account the interactive element of responding to different types of user responses.

Also keep in mind that the output from a voice search is not limited to voice answers. If you ask Google “what’s the weather today?” on your phone, you get both an audio response as well as a screen displaying the weather.

The Amazon Echo Show is made with this in mind — Amazon realizes that while audio answers are fine in some situations, often it requires something visual. Connected TVs are another device that are a mix of voice and visual. Alexa is already linked to TV services like [DirectTV and Verizon](#).

While these optimizations are more generalized and can be used for just about every brand, for retailers looking to optimize for voice commerce specifically, we have a few additional recommendations for how your brand can take their Amazon presence to the next level.

ALEXA-SPECIFIC MARKETING OPPORTUNITIES

As mentioned, Alexa rarely cites an answer for a source (just twice in our entire query set), meaning there’s almost no current opportunity for brand exposure as a source. And since Alexa’s responses are transactional in nature (over 83% of the time), being one of Amazon’s top products is the best opportunity for brand exposure.

Alexa tends to return a few different types of product results on a regular basis:

- Products labeled as “Amazon’s Choice”
- Amazon’s top ranking organic result
- Amazon’s Deals for the Day

Optimizing for Amazon’s Choice and the organic results is a specialized type of search engine optimization just for Amazon. We won’t get into the full details here, but at a high-level, some of the factors for appearing highly include:

- Being a top selling item
- Relevance in product name
- Accurate and complete product details
- Relevance of product copy

- Rates of returned products
- High-quality images
- Fast shipping
- Averaging 3.5 stars or better in reviews
- Large amounts of reviews
- Including enhanced (A+) product content

The relevance in product naming is one that we found being abused by spammers during our testing. Ranking highly in Amazon search, and Alexa results, is so important that less reputable sellers are stuffing keywords into their product names and copy. In many ways, it is similar to how Google's results used to be many years ago. Our projection is Amazon will follow the same path in learning how to get this under control.

Amazon Deals is one that is useful to appear in today, but maybe more so as the algorithm is improved. Right now, asking for "headphone deals" will often return general deals, like "I have dog treats on sale." Once it's actually reflecting the relevant product, these will be better for users and sellers.

AMAZON INFORMATIONAL SEARCH RESULTS

Amazon's main issue is Alexa's difficulty with search and answering questions. Undoubtedly, as much as Amazon wants people to buy, they understand that if Alexa can't answer questions, and other voice-enabled devices can, their product is limited in a significant way.

Amazon may look to partner further with Microsoft. Currently, Amazon and Cortana, Microsoft's voice AI, have apps on each other's platforms. But that feels like a first step rather than a solution. According to Stanford machine learning professor Reza Zadeh, Amazon wants "more access to the web search engine's internals, not just the basic API." This could mean long overlooked Bing becomes important for marketers, unless Amazon chooses another route for search. However, with Microsoft announcing its deal with Walmart to provide the retailer with cloud and AI services in their fight against Amazon, the future portends less, not more, cooperation between the two Puget Sound heavyweights.

FINAL THOUGHTS

In the end, our hypothesis proved true. Only 16% of our branded voice queries were answered by the brand themselves; enabling a great opportunity for retailers to better optimize their content for voice search queries using the techniques listed above.

In the headphone industry, one brand that shined above the rest was Bose. With their extensive online library of support and device-help resources and guides, it's no surprise that Bose is leading the pack in voice; especially with their latest integration of Google Assistant built into their [QuietComfort 35 Wireless Headphones](#).

Voice-enabled devices have broken through from the novelty of Siri to the point of offering real utility to consumers. We've hit a threshold where AIs understand and reply to voice input at a high-level, and the devices they are embedded in are becoming commonplace at a global level.

This new medium will have implications for brands as people change their behaviors around search, content consumption, and shopping. Research shows these changes are happening today, and brands need to react now.

The voice search ecosystem is one that does not rely on screens for functionality, and is increasingly independent of websites as a whole. Proper organization of content, access to experience that content through a variety of means, and alignment with customer intent will be paramount for success in this type of environment.

Marketers need to get their organizations on board with building processes that account for voice, the way they did for mobile and the web before (and hopefully those organizations learned their lessons from dawdling through the mobile evolution.) This means collecting internal and external data to discover how audiences are using voice, working with merchandisers and branding on how to update copy, selling products through new channels, and collaborating with developers on emerging technologies. ■

VOICE INTERACTION GLOSSARY

VOICE SEARCH:

Searches are how people have used Google for years ("Where is a pizza place near me?") done by voice.

VOICE COMMANDS:

Voice commands are prompts users give such as "set an alarm," or "turn on the lights."

VOICE COMMERCE:

Part search and part command, these are purchases made directly through voice-enabled device.

VOICE ADS:

Ads on voice-enabled devices are not heard much today, but adding a sponsored ad into certain responses would be one way for AI vendors to monetize their products.

VOICE APPS:

Branded voice apps, like mobile apps, can be added to your device, and called on by (the app's unique invocation).

The phone may be Apple's OS, but the app belongs to Facebook.

AUDIO CONTENT:

Podcasts, radio and music streams, and interactive audio content have an expanded audience with smart speakers.

NATURAL LANGUAGE PROCESSING:

The ability of an AI system to understand spoken human speech.



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