

# SEARCH WITHOUT SCREENS:

TRACKING THE RISE OF VOICE SEARCH



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## SURVEY METHODOLOGY & BIAS

Our Google Survey polled a total of 7,250 respondents among the general U.S. population. We’ve provided a demographic breakdown below:

RESPONDENTS		AGE		REGION	
Male	2,887	18-24	513	Midwest	2,016
Female	2,652	25-34	922	Northeast	1,105
Unknown	1,711	35-44	1,008	South	2,567
		45-54	1,070	West	1,552
		55-64	1,057	Unknown	10
		65+	844		
		Unknown	1,836		

Users who responded “Yes - I currently use” to our initial screening question (“Do you use a voice-activated assistant like Siri, Alexa, Google Home, or Cortana?”) proceeded to the remaining nine questions. Questions 3, 5, 7, 9, and 10 allowed users to select more than one response.

See [How Google Surveys Work](#) for more information on how Google Surveys are conducted, including bias.

# ARE CONSUMERS' VOICE SEARCH HABITS EVOLVING?

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NetElixir is excited to present the results of our third annual voice search survey. Conducting this survey over the last three years has allowed us to analyze a pivotal formative period for voice search and virtual assistants. Users can search by voice on a growing number of platforms, from the smartphone in their pocket to increasingly popular in-home devices like Amazon Echo and Google Home. As more consumers experience this emerging technology for the first time, it remains to be seen whether they incorporate voice search into their everyday lifestyles or dismiss it as a novelty.

To take the current pulse of voice search users, we administered a Google Survey to U.S. consumers. This survey posed a range of questions aimed at investigating consumers' voice search usage. These included the specific devices they use, how often they use voice search, their most frequent voice commands, and more. The same questions are presented year-to-year, so we can easily compare results and draw conclusions.

When compared to last year's report, did our 2019 survey tell mostly the same story or reveal new shifts in how consumers are using voice search? Let's dive into the results.



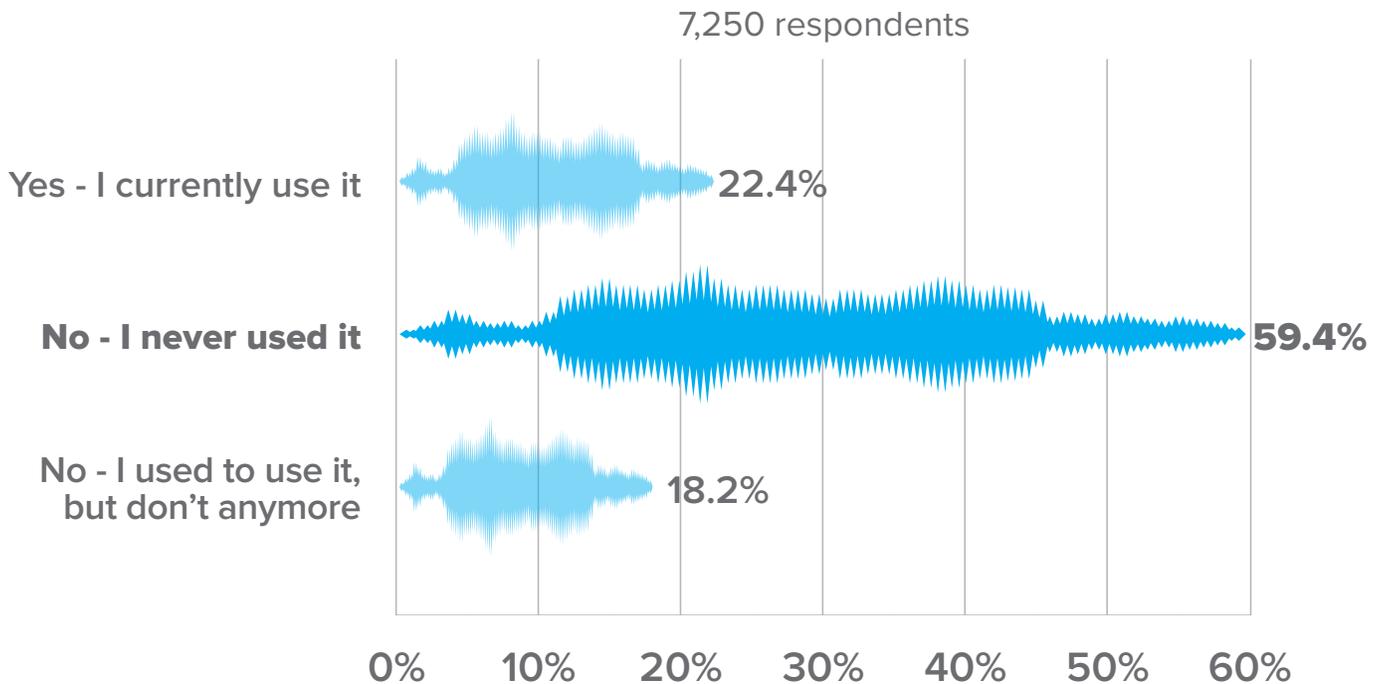
**As more consumers experience this emerging technology for the first time, it remains to be seen whether they incorporate voice search into their everyday lifestyles or dismiss it as a novelty.**



## QUESTION 1

# DO YOU USE A VOICE-ACTIVATED VIRTUAL ASSISTANT, LIKE SIRI, ALEXA, GOOGLE HOME, OR CORTANA?

## RESULTS:



## OBSERVATIONS:

Of more than 7,000 respondents, 22.4% are currently using a voice-activated assistant. That represents a modest increase over our 2018 results, in which 20.5% of those polled answered yes to the same question.

Given the rapid growth of smart speaker sales in the United States last year, one might have expected a greater increase in voice search adoption. Per [Techcrunch](#), approximately 41% of U.S. consumers owned a smart speaker like Amazon Echo or Google Home by the end of 2018. It's worth noting, however, that this figure is nearly identical to the 40.6% of respondents in our survey who are either a current or previous user of voice search. While not everyone

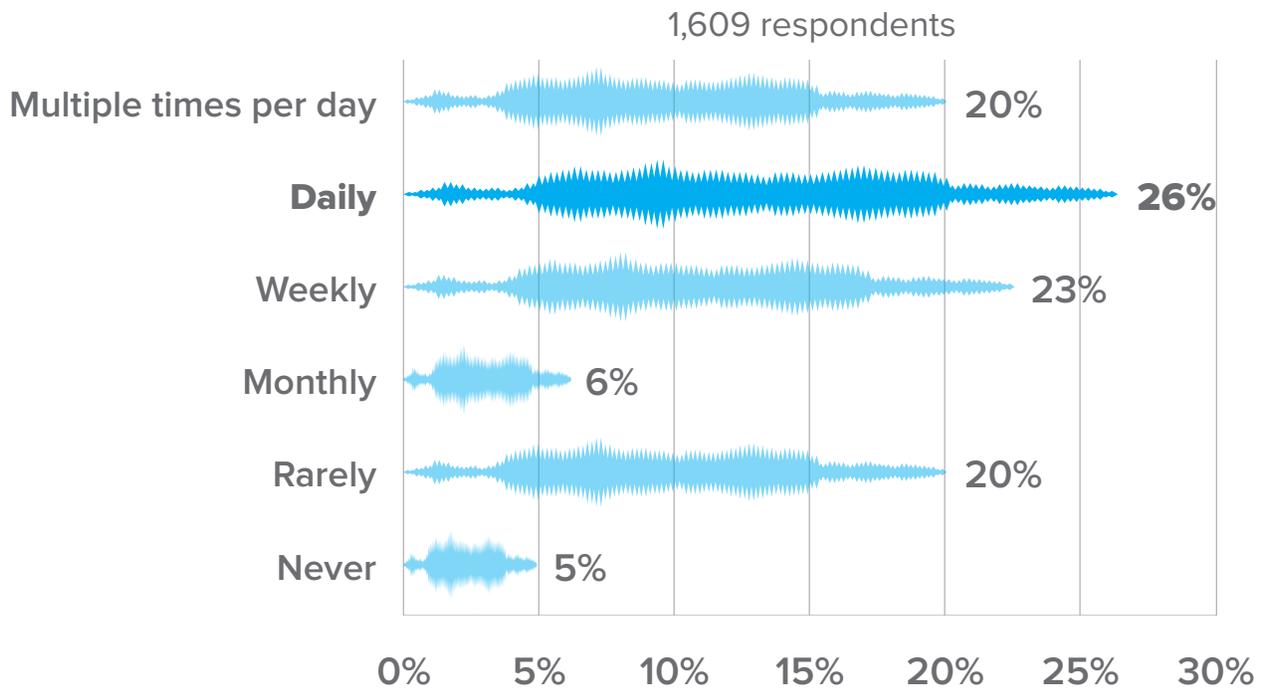
will describe themselves as an active user, a robust section of U.S. consumers have at least some experience with a voice-activated assistant.

On the other hand, the 59.4% of consumers who have never used voice search represents a largely untapped audience and significant opportunity for future growth. Privacy concerns and dissatisfaction with the performance of voice technology are among the reasons many consumers may be slow to adopt. We're interested in seeing whether smart speaker ownership continues to accelerate or hits somewhat of a plateau in 2019 and how this affects the results in next year's survey.

## QUESTION 2

# HOW OFTEN DO YOU USE VOICE SEARCH?

### RESULTS:



### OBSERVATIONS:

Using voice search on a daily basis is still the most common practice, leading the way at 26% of respondents. 20% of those polled use it multiple times per day, up from 17.2% in 2018. This increase of just under three percentage points nearly mirrors the year-over-year decline in daily users, which fell from 29.1% to its current level.

We suspect many of those who employed voice search only once a day grew into more avid users over the last year. So while the total percentage of

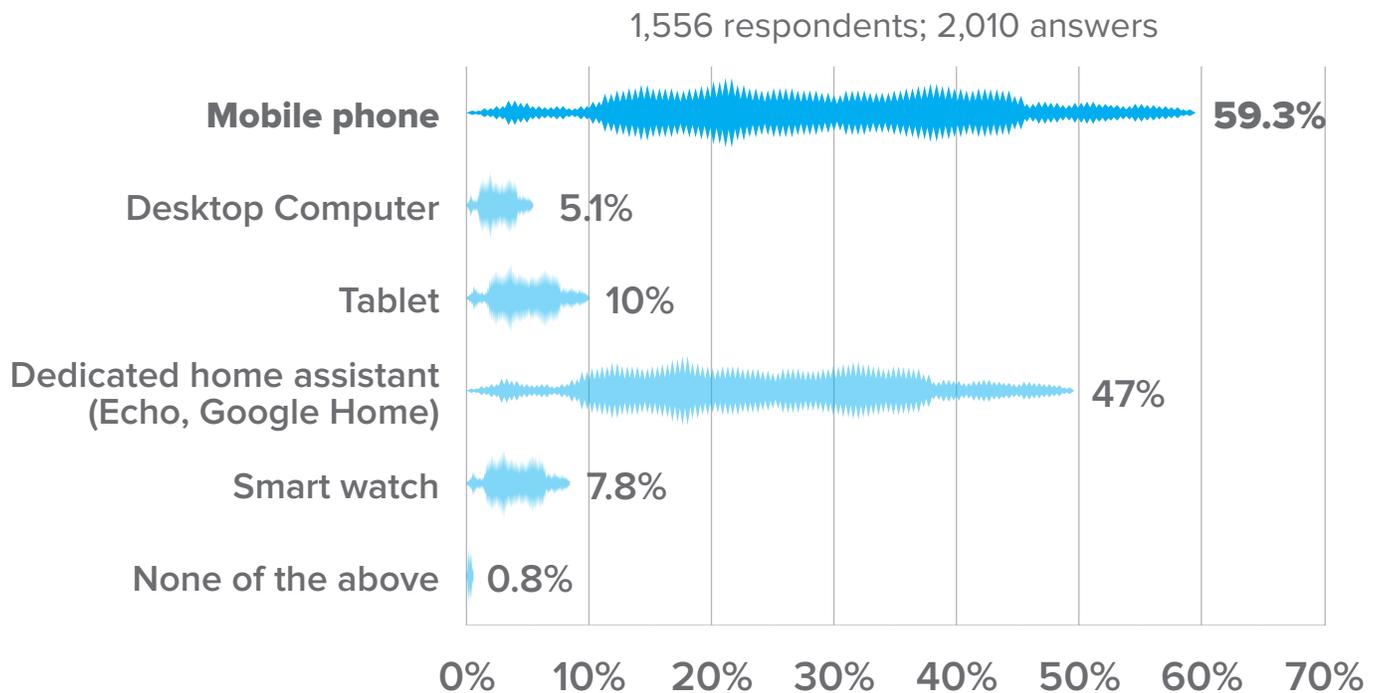
users who turn to voice search one or more times per day didn't change much (46%), there was a notable shift within that segment toward more frequent use.

General improvements in voice technology, particularly advancements in natural language processing, are likely factors fueling this trend. As we noted last year, once consumers recognize the utility and convenience of voice search, they tend to become more active users. We'll discuss the primary reasons users are drawn to voice search later in the report.

## QUESTION 3

# HOW ARE YOU USING VOICE ASSISTANTS?

### RESULTS:



### OBSERVATIONS:

As they did in 2018, mobile phones comfortably lead the pack with most respondents selecting them as their go-to device for voice search. However, the big story here is the sizable leap taken by dedicated home assistants or smart speakers. Users of these devices grew nearly 12 percentage points since our last report, rising from 35.1% to 47% of all respondents. That was one of the largest year-to-year shifts we saw anywhere in the 2019 survey.

Smartphones have a literal built-in advantage with voice assistants like Siri coming preloaded on the iPhone and other popular models, but the growing prominence of in-home smart speakers is making an impact. [Canalys](#)

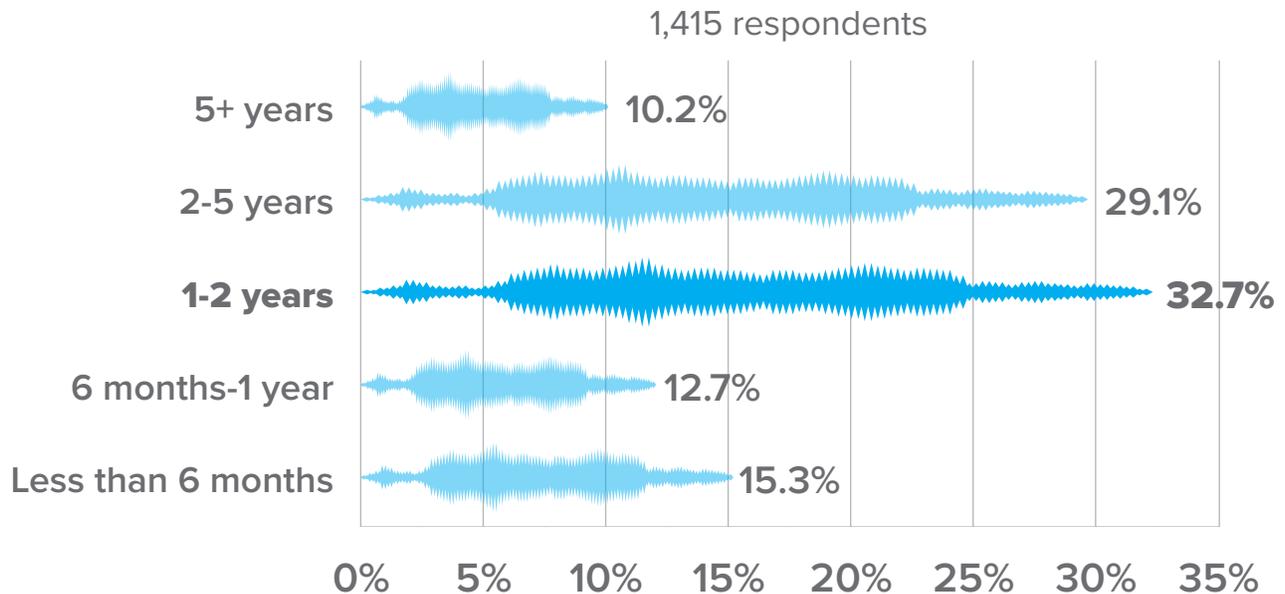
predicts the smart speaker installed base to double in size by 2020, reaching 225 million units. As more Google Home and Amazon Echo devices find their way into U.S. households, we expect the percentage of consumers preferring to use voice search on these platforms to follow suit, further narrowing the gap with mobile phones.

From a demographic standpoint, our data showed an even smaller disparity between mobile phones and in-home assistants among older age groups. In fact, respondents aged 55-64 used these devices at an identical rate. See the Additional Retail Insights section of this report for more information and analysis.

## QUESTION 4

# HOW LONG HAVE YOU BEEN ACTIVELY USING VOICE ASSISTANTS?

### RESULTS:



### OBSERVATIONS:

The percentage of newcomers to voice search declined, as those with less than six months of experience fell from 21.3% to 15.3%. On the other hand, consumers who began using voice assistants more than a year ago seem to be remaining loyal. A combined 72% of those polled say they've used a voice assistant for at least one full year, up from 65.2% in last year's survey.

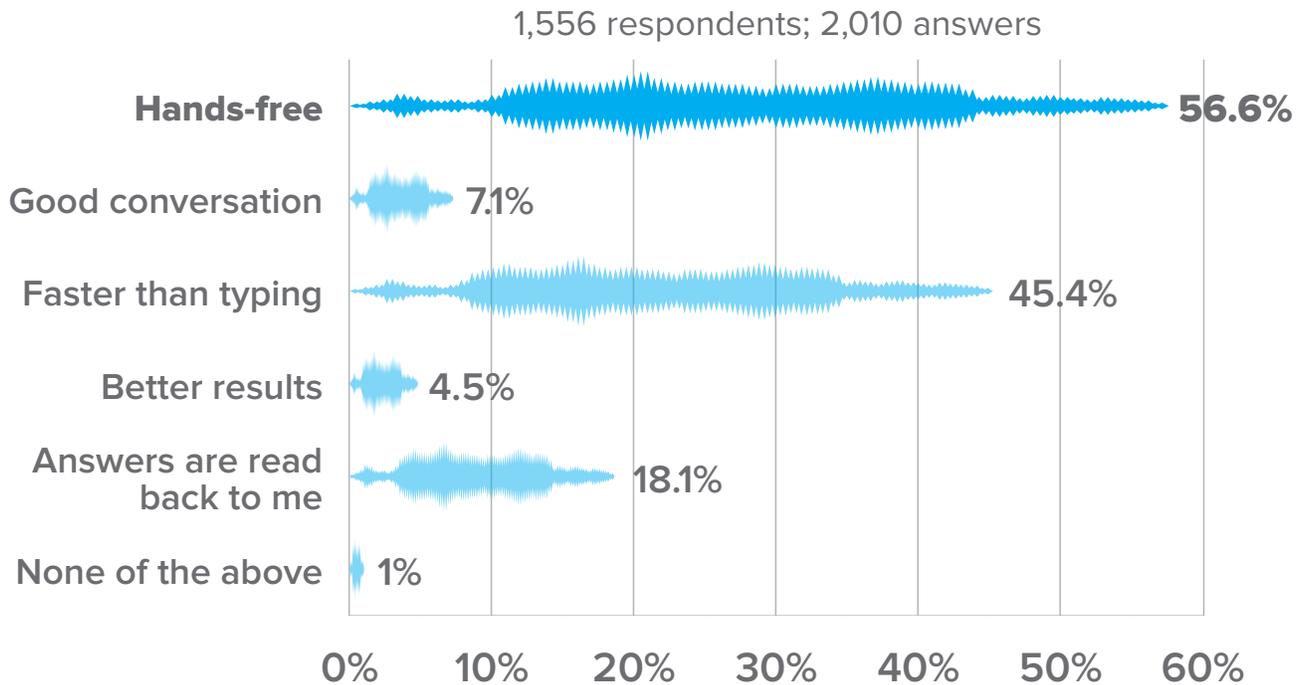
Consumers may be skeptical of voice search for a variety of reasons: unfamiliarity with the technology, entrenchment of traditional search, among others. But when they experience it for themselves and see the potential applications, they're more likely to become consistent users.

In 2018's report, we questioned how many early adopters would prove voice search devotees over time. A year later, it appears few have jumped ship. This supports our theory that initial adoption is perhaps the biggest hurdle for voice assistants.

## QUESTION 5

# WHY DO YOU USE VOICE SEARCH?

### RESULTS:



### OBSERVATIONS:

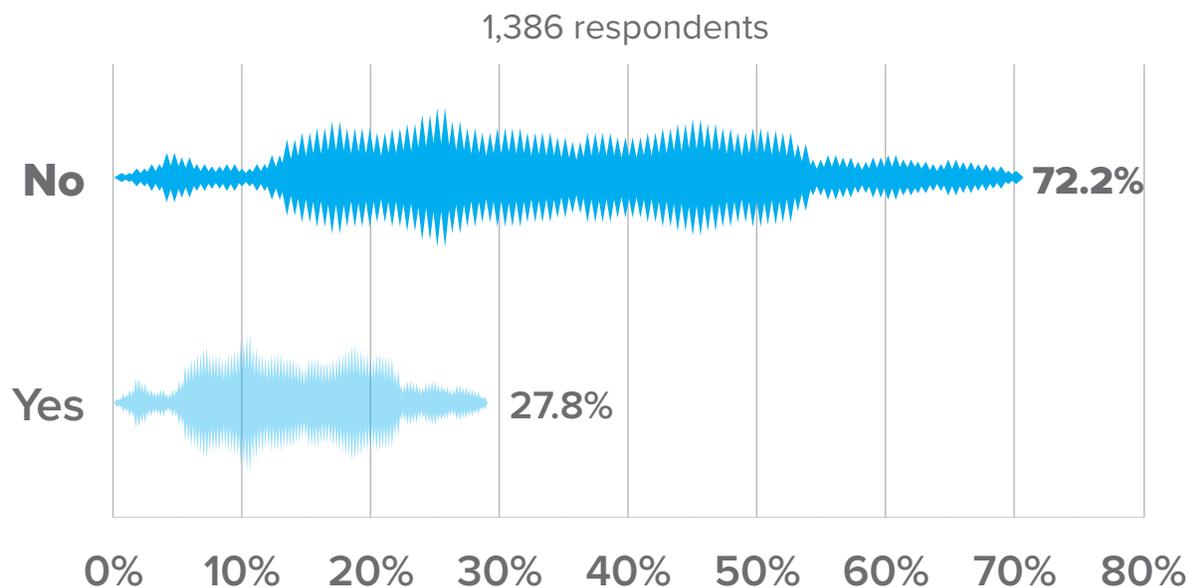
Convenience is still the dominant factor drawing consumers to voice search. More than half of those polled (56.6%) chose hands-free functionality as a reason they search by voice, climbing over six percentage points from last year's results. "Faster than typing" and "answers are read back to me" are also popular convenience-related responses that show positive year-over-year growth. Consumers appreciate that voice assistants make their lives easier by providing instant search results without the need to peck away at a touchscreen or keyboard. That appreciation continues to shine through in our data.

Intriguingly, the percentage of users who enjoy voice assistants as conversation partners rose from 4.1% to 7.1%. While this may seem an odd notion to some, it further reflects the improvements in natural language comprehension by AI platforms. Per [Mary Meeker's 2018 Internet Trends Report](#), Google's speech recognition reached 95% accuracy in 2017, the same threshold for human accuracy. As error rates continue to fall, user experience and satisfaction will rise.

## QUESTION 6

# HAVE YOU EVER USED VOICE SEARCH TO FIND INFORMATION RELATED TO A PURCHASE?

### RESULTS:



### OBSERVATIONS:

The overwhelming majority of consumers haven't used voice search to help them shop, and that's changed little from a year ago. 72.2% of those polled said they have never used voice search to find information related to a purchase, up from 71.5% in 2018. In our previous report, we speculated that users may undertake shopping-related activities as they become more familiar and comfortable with voice assistants, but there appears to have been little movement in that regard over the last year.

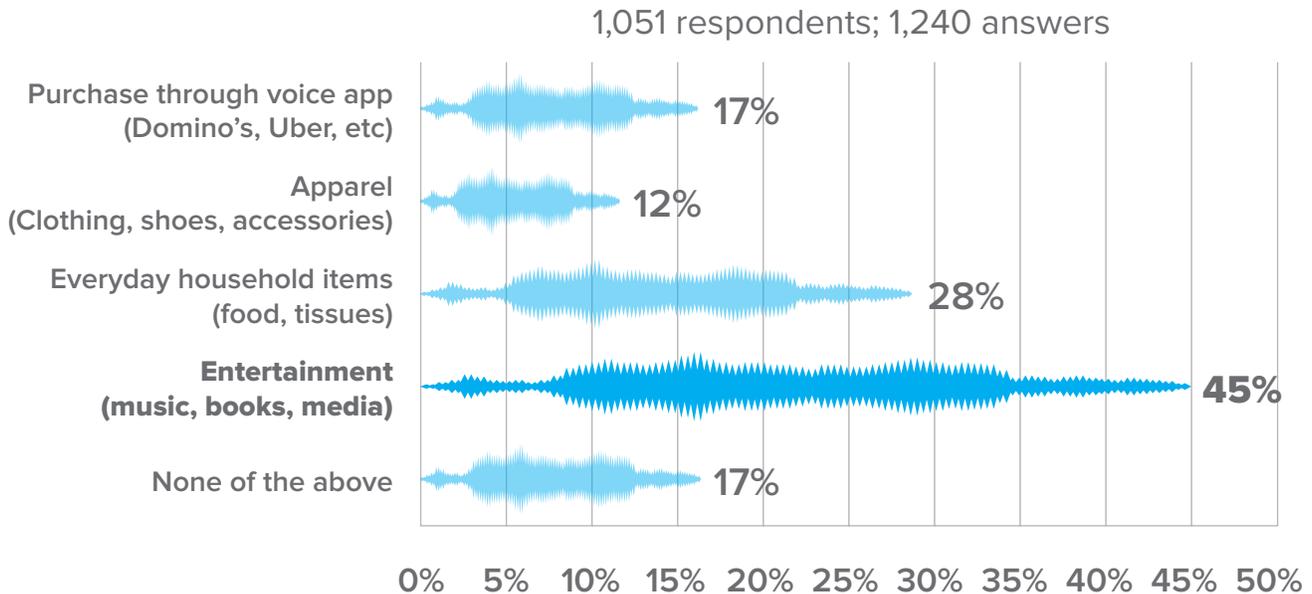
We suspect the growing popularity of in-home voice devices may actually be hindering potential shopping

applications. These devices don't lend themselves particularly well to product research. Unless you have a smart display with an accompanying screen (see Additional Retail Insights for more), you can't view images or read details regarding the items you ask about. When consumers look to make a purchase, they may prefer using a mobile device like a smartphone or tablet so they can visually navigate the process. With their hands-free convenience, voice assistants are likely the favored option for quick informational queries, playing entertainment media, and similar tasks. We'll dive further into the most common uses of voice search in a later section.

## QUESTION 7

# WHAT TYPES OF PURCHASES HAVE YOU MADE USING VOICE SEARCH/VIRTUAL ASSISTANTS?

### RESULTS:



### OBSERVATIONS:

For those using voice search or virtual assistants to shop, the preferred types of purchases haven't changed much since our last survey. Entertainment products like music, movies, books, and other media are still the most common purchase by a comfortable margin, increasing from 43% to 45% year-over-year. Everyday household items also saw a modest gain, growing from 26.2% to 28%.

As discussed in last year's report, it makes sense that these products would be most frequently purchased through voice search. Shoppers generally don't need to rely on visual information to buy them with confidence. Entertainment media typically offers little to

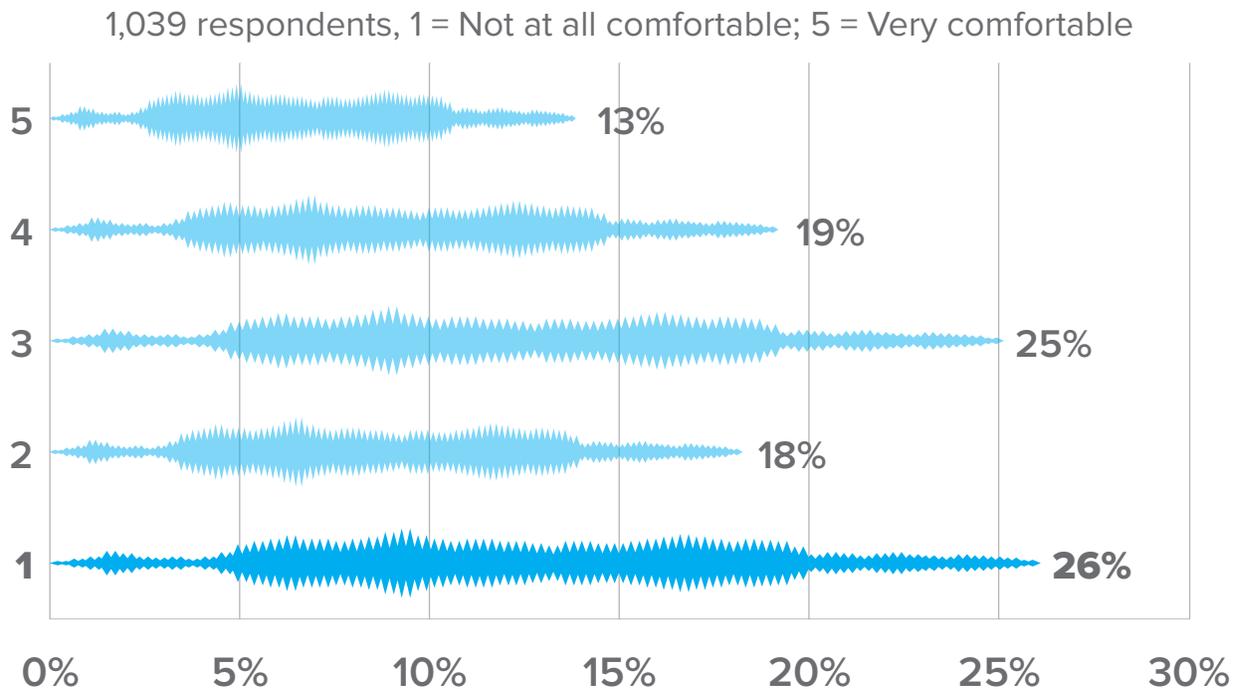
no variation between items, so you don't need to worry about color, sizing, or similar concerns. Household essentials like food and tissues are simply re-stocked when needed, and features like [Alexa Skills](#) have made this much easier for consumers using certain devices.

An inconsistent ability to provide users with a seamless experience throughout the entire purchase journey will hamper voice platforms in the commercial arena outside of low-value, commoditized products, per [Digiday](#). Our results appear to support this assessment. Retailers outside these industries will need to figure out how to most effectively reach customers without the benefit of visual marketing.

## QUESTION 8

# HOW COMFORTABLE DO YOU FEEL COMPLETING A PURCHASE USING VOICE SEARCH/VIRTUAL ASSISTANTS?

### RESULTS:



### OBSERVATIONS:

Consumers remain uncomfortable using voice search or a virtual assistant to complete a purchase. Given their continued reluctance to perform shopping research with a voice-activated assistant, this isn't terribly surprising. In fact, our respondents appear less confident finishing a transaction with a voice device than they did a year ago. 26% of those polled gave their confidence level the lowest possible rating, making it the most popular selection. Last year a rating of 3/5 led the way at 26.8% of respondents.

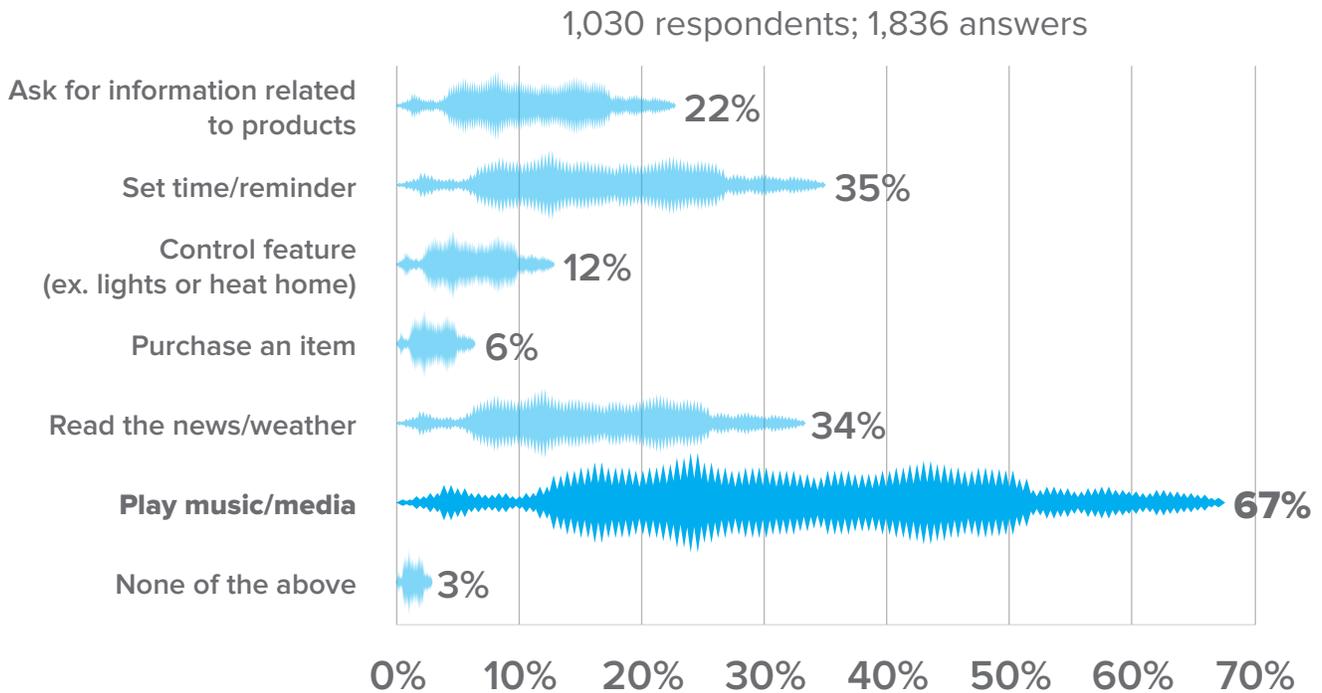
Shopping experiences have yet to fully optimize for voice devices, and this likely deters consumers

from taking the leap toward using their voice-activated assistants to make purchases. We thought another year of experience might embolden some shoppers, but this doesn't seem to have made much difference. According to a [2018 PWC study](#), 46% of consumers don't trust voice assistants to correctly interpret and process their order, while 45% don't feel comfortable sending payment information through such a device. Until voice assistants can reliably provide a secure, seamless shopping experience - from initial query to final purchase confirmation - consumers will keep completing their transactions elsewhere.

## QUESTION 9

# WHICH OF THE FOLLOWING ARE THE VOICE COMMANDS YOU USE MOST FREQUENTLY?

### RESULTS:



### OBSERVATIONS:

Consumers still love using their voice devices as entertainment hubs. Playing music or other media expanded its lead as the most frequent voice command, growing nearly 12 percentage points year-over-year to 67%. Smart speakers are almost certainly playing a key role here. It's no coincidence that users of dedicated home assistants experienced a similarly large increase in this year's survey results (see Question 3).

As their name implies, smart speakers generally offer a superior audio experience compared to smaller devices like smartphones. When listening to music, why resign yourself to tiny phone speakers if an Amazon Echo is available? The majority of smart

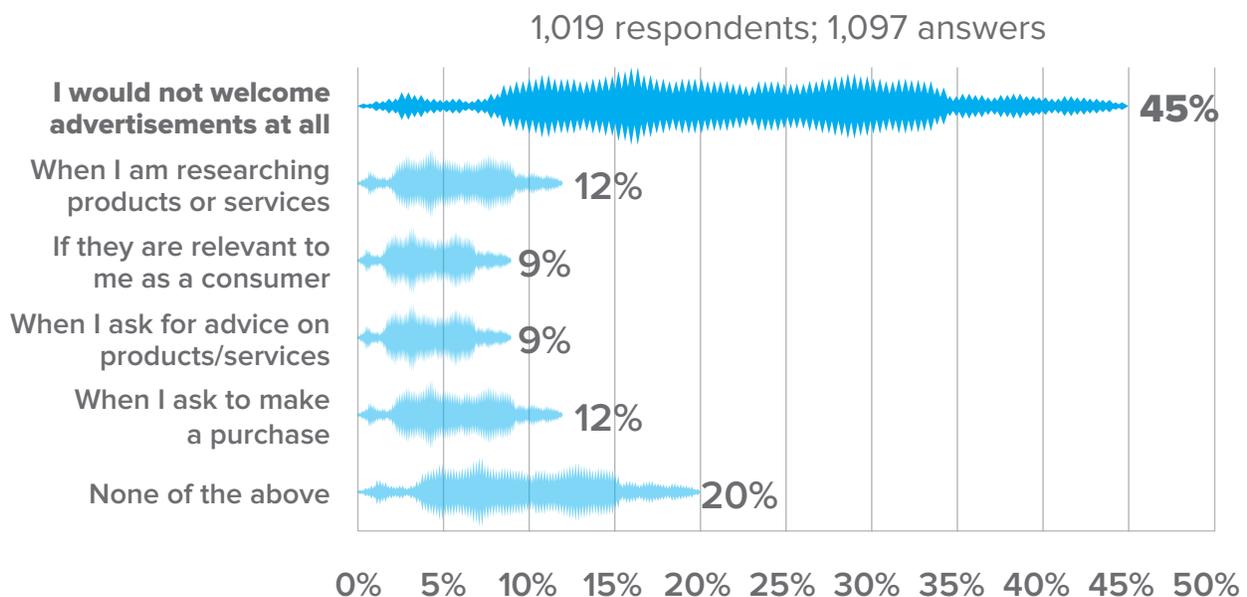
speaker users seem to agree: According to [Recode](#), 70-90% of them have used their devices to stream music. Add integration with music streaming apps like Spotify into the mix, along with the growing popularity of podcasts and audiobooks, and it's no surprise smart speakers are capitalizing on this opportunity to become the preferred devices for audio content.

Setting a timer or reminder and asking about the news or weather also remain notable tasks for voice assistants, growing 1.1 and 2.7 percentage points, respectively. It appears users favor voice search for carrying out simple, straightforward commands that deliver instant results - at least for the moment.

## QUESTION 10

# UNDER WHICH CIRCUMSTANCES WOULD YOU WELCOME ADVERTISEMENTS OR SPONSORED CONTENT WHILE USING VOICE SEARCH ON YOUR VIRTUAL ASSISTANTS?

## RESULTS:



## OBSERVATIONS:

A convincing 45% of respondents say they would never be open to advertising while using voice search under any circumstances. This is quite a reversal from last year's survey, where just 7.2% of those polled were completely opposed to advertising or paid content. While this may alarm retailers hoping to eventually advertise on voice platforms, there is some reason for optimism. A combined 42% of users would accept advertising when researching products or services, asking for advice on products/services, asking to make a purchase, or if the ads are relevant to them as consumers.

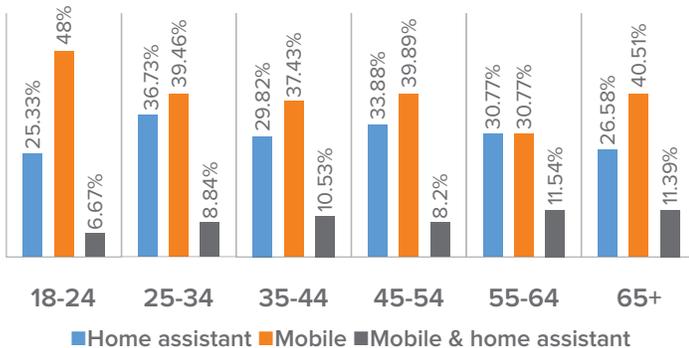
When users turn to voice search with purchase intent, they're more receptive to advertisements. Imagine asking your voice assistant about ordering toothpaste and it responds with an ad for a specific brand currently on sale. In this scenario, the ad is more likely to be viewed as helpful than obtrusive. Of course, as our survey indicates, consumers are rarely using voice search looking to make a purchase. If/when paid advertising opportunities become widely available on voice platforms, retailers will need to think about the specific situations and devices where it makes sense to promote their brand.

# ADDITIONAL RETAIL INSIGHTS

Further analysis of our survey revealed more insights that may prove useful to retailers. Here we've provided additional data points to consider, along with retail-centric perspectives on industry developments related to voice search.

## OLDER DEMOGRAPHICS EMBRACE SMART SPEAKERS

Older consumers are traditionally characterized as resistant to new technology, but voice-activated home assistants could defy that stereotype. As we touched upon in Question 3, there is a smaller difference between mobile and home assistant voice search users for older age groups (see below). Among 55- to 64-year-olds, there is an equal percentage of users for mobile phones and home assistants. This age group also boasts the highest percentage of members who use both types of devices for voice search (11.54%), followed closely by those ages 65 and above (11.39%).



If you're a retailer whose customer base skews older, investigate their search habits and see whether a significant portion of them are using smart speakers. This may be an increasingly vital avenue for reaching these customers. Given the various conveniences offered by home assistants - no typing or reading small text, and answers spoken aloud - it makes sense that older consumers might find them appealing.

## VOICE-TO-SCREEN DEVICES

Smart speakers' growing influence has been a prominent theme in this report, but screens aren't necessarily headed for extinction in the world of search. A new class of device combining voice functionality with traditional screens has given consumers and retailers even more to think about. These "smart displays" include devices like [Google Home Hub](#), [Amazon Echo Show](#), and [Facebook Portal](#).

Considering smartphones are currently the dominant platform for voice search, it should be interesting to see whether smart displays catch on as a "best of both worlds" option for those who want the convenience of a voice assistant with the added benefit of a touchscreen. These devices may also help smooth the path toward shopping applications for voice search. Many consumers are uncomfortable providing payment information to a virtual assistant or being unable to visually confirm their purchase, but a smart display addresses these concerns with its accompanying screen.

Retailers must make their website content flexible enough to be presented intelligibly on both a screen and through a voice assistant. You want customers to have a frictionless experience whether they're reading your content, hearing it spoken to them, or switching back and forth. For more information on smart displays and how retailers can optimize for them, see the related [article](#) in our Future of Search blog series.

## GOOGLE'S SPEAKABLE SCHEMA MARKUP

Last year's report recommended that retailers implement structured data and schema markup to make their sites more readable for search engines and, by extension, voice assistants. Now Google is allowing you to apply markup specifically for voice search with [Speakable structured data](#). Currently in



**Retailers must make their website content flexible enough to be presented intelligibly on both a screen and through a voice assistant.**



beta, Speakable annotations let you highlight parts of your website content for potential audio playback through Google Assistant. Using text-to-speech (TTS) technology, Google Assistant may read your content aloud as a response to a relevant search query. It will also credit the source and send a link to the user's Google Assistant app.

Speakable presents an opportunity for retailers to reach a wider audience on Google Assistant-enabled devices like Google Home. If your site contains informational content like how-to guides, glossaries, or other references, Speakable markup can more easily put you in front of users conducting research through their voice assistants.

### THE PATH FORWARD

We hope you've enjoyed reading this report and have come away with actionable insights to help your brand adapt to the latest developments in voice search. We look forward to next year's survey and seeing what kind of story it tells about the ways consumers are searching by voice.

Until then, we encourage you to continue following our analysis of voice search and other new search and retail technologies at NetElixir University ([netelixir.com/university](https://netelixir.com/university)) and our blog ([netelixir.com/blog](https://netelixir.com/blog)).

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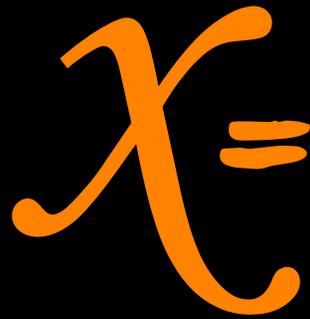
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