Methodology

• National telephone survey of 1002 adults age 18 and older
  • Conducted 12/26/2018 – 12/30/2018
  • Tracking from previous telephone study in Winter 2017

• National online survey of adults age 18 and older
  • Conducted 5/6/2019 – 5/14/2019
  • 812 respondents own a smart speaker; 829 respondents do not own a smart speaker
  • Tracking from previous online studies from Spring 2017 and Spring 2018

• Ethnographic interviews in Los Angeles, St Louis, and Richmond, VA
  • Conducted in May – June, 2019
21% of Americans 18+ own a Smart Speaker, or around 53 million people

14 million new smart speaker owners in 2018
How many smart speakers do you own?

<table>
<thead>
<tr>
<th></th>
<th>One</th>
<th>Two</th>
<th>Three or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2017</td>
<td>62%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>December 2018</td>
<td>48%</td>
<td>22%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Base: Own a smart speaker and expressing an opinion
Number of Smart Speakers in U.S. households grows by 78% in one year

- December 2017: 66.7 Million
- December 2018: 118.5 Million

Number of smart speakers in U.S. households
Type of smart speaker owned (with screens vs. without screens):

- Own smart speaker with screen only: 4%
- Own smart speaker without screen only: 69%
- Own smart speakers with and without screen: 27%

Spring 2019
Base: Smart speaker owners
% who expressed interest in owning a video smart speaker such as the Amazon Echo Show or Google Home Hub:

- Own only a smart speaker without a video screen: 29
- Do not own a smart speaker: 13

Spring 2019
% agreeing with statements about smart speakers

(Own a video smart speaker)

<table>
<thead>
<tr>
<th>Statement</th>
<th>% Agreeing</th>
</tr>
</thead>
<tbody>
<tr>
<td>The screen on your smart speaker has made it easier to discover new content</td>
<td>66</td>
</tr>
<tr>
<td>Having a screen on your smart speaker makes it easier to use</td>
<td>66</td>
</tr>
</tbody>
</table>

Spring 2019
Base: Own a smart speaker with a video screen
How do you discover new skills or actions for your smart speaker?

- Recommendations from friends or family: 45%
- Emails from the smart speaker brand, such as Amazon, Google, or Apple: 34%
- Searching your smart speaker app: 29%
- Recommendations from your smart speaker: 24%
- Companies advertising that they have a smart speaker skill: 18%
- News/tech sites: 18%
- Recommendations from the NPR Flash Briefing: 7%
- Other: 7%

Spring 2019
Base: Smart speaker owners
69% agree that they don’t know enough about their smart speaker to use all of its features

Spring 2019
Base: Smart speaker owners
Smart Speaker Usage
In a typical week, do you ever use your smart speaker while…

- Doing household chores: 74%
- Cooking: 66%
- Getting ready for your day: 59%
- Entertaining: 56%
- Browsing the internet: 44%
- Working out: 42%
- Getting ready for bed: 32%
- Watching TV: 31%

Base: Smart speaker owners

Spring 2019
Top ten weekly smart speaker requests:

1. Play music (77%)
2. Get the weather (75%)
3. Answer a general question (74%)
4. Set a timer/alarm (53%)
5. Check the time (53%)
6. Get the news (42%)
7. Listen to an AM/FM radio station (37%)
8. Tell a joke (36%)
9. Get a sports score or update (35%)
10. Receive reminders (34%)

Spring 2019
Base: Smart speaker owners
% who agree: “You are listening to more audio since getting a smart speaker”

Agree: 55%
Disagree: 45%

Spring 2019
Base: Smart speaker owners
% who use smart speaker to control household devices in past week:

- Yes: 27%
- No: 73%
Those who used smart speaker to control household devices in the past week use an average of 16 types of skills per week.
55% expressed interest in having a feature that would allow their smart speaker to call 911 if multiple smoke alarms went off in the home.

Spring 2019
Base: Smart speaker owners
24% expressed interest in having a smart speaker feature that would recommend mental health resources if it detects they are feeling depressed or suicidal.

Spring 2019
Base: Smart speaker owners
58% worry that hackers could be using their smart speaker to get access to their home or personal information.

Spring 2019
Base: Smart speaker owners
54% trust the companies that make smart speakers to keep their personal information secure.
75% of smart speaker owners with children in the household use the device daily

Spring 2019
Base: Smart speaker owners
Interest in owning Smart Speakers
How interested would you be in owning a smart speaker?

(Do not own a smart speaker)

1 - Not at all interested: 43%
2 - Somewhat interested: 13%
3 - Moderately interested: 24%
4 - Somewhat not interested: 9%
5 - Very interested: 11%

Spring 2019
Base: Do not own a smart speaker
% expressing interest in owning a smart speaker:

26% Among those that do not own a smart speaker (age 18-34)
29% Among those that do not own a smart speaker (age 35-54)
9% Among those that do not own a smart speaker (age 55+)

Spring 2019
Base: Do not own a smart speaker
Do you ever use the voice-operated personal assistant on your smartphone?

Smart speaker owners: 80%

Do not own a smart speaker: 54%

Base: Own a smartphone (97% of smart speaker owners; 90% of non-owners)

Spring 2019
% expressing interest in owning a smart speaker:

20%  Among those that do not own a smart speaker

31%  Among those that do not own a smart speaker and use voice commands on phone

Spring 2019
Base: Do not own a smart speaker
Reasons for not owning a smart speaker
60% of those who do not own a smart speaker agree they don’t need that type of technology in their lives.

Spring 2019
Base: Do not own a smart speaker
<table>
<thead>
<tr>
<th>Reason</th>
<th>2019</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>You worry that hackers could use smart speakers to get access to your home or personal information</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>It bothers you that smart speakers are always listening</td>
<td>55</td>
<td>36</td>
</tr>
<tr>
<td>Voice-enabled speakers are too expensive</td>
<td>60</td>
<td>53</td>
</tr>
<tr>
<td>You worry that smart speakers could allow the government to listen to your private conversations</td>
<td>40</td>
<td>34</td>
</tr>
<tr>
<td>You don’t think you need that type of technology in your life</td>
<td>37</td>
<td>27</td>
</tr>
<tr>
<td>You just don’t understand what a voice-enabled smart speaker is</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

% saying item is a reason

Base: Do not own a smart speaker and interested in owning a smart speaker
You worry that hackers could use your smart speaker to get access to your home or personal information: 58%

It bothers you that your smart speaker is always listening: 51%

You worry that your smart speaker could allow the government to listen to your private conversations: 49%

Spring 2019

Smart speaker owners: % agreeing with statements about smart speakers

Do not own a smart speaker: % saying this is a reason they do not own a smart speaker

You worry that hackers could use your smart speaker to get access to your home or personal information: 57%

It bothers you that your smart speaker is always listening: 58%

You worry that your smart speaker could allow the government to listen to your private conversations: 38%
69% of smart speaker owners use the device daily

Spring 2019
Base: Smart speaker owners
Think back to the first month you owned a smart speaker. Compared to that first month, are you now using it…?

- More often: 44%
- About the same: 35%
- Less often: 21%

Spring 2019
Base: Had a smart speaker more than one month and gave a response
How long have you had a smart speaker in your home?

- Three months or less: 13%
- Three to less than six months: 17%
- Six months to less than one year: 21%
- One to less than two years: 31%
- Two years or more: 18%
Average number of skills used on smart speaker in the past week:

- Owned a smart speaker for three months or less: 11.7
- Owned a smart speaker for three months to less than six months: 10.2
- Owned a smart speaker for six months to less than one year: 9.5
- Owned a smart speaker for one year to less than two years: 9.5
- Owned a smart speaker for two years or more: 7.0

Spring 2019
Base: Smart speaker owners
% who agree: “You wouldn’t want to go back to life without your smart speaker”

- Owned a smart speaker for 3 months or less: 11%
- Owned a smart speaker for 3 - less than 6 months: 16%
- Owned a smart speaker for 6 months - less than 1 year: 20%
- Owned a smart speaker for 1 - less than 2 years: 32%
- Owned a smart speaker for 2 years or more: 30%

Spring 2019
Base: Smart speaker owners