AMAZON ALEXA RADIO REPORT
A Data-Driven Analysis About Bringing Radio Back into the Home
September 2017

GET YOUR RADIO STATION IN HERE

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Amazon Alexa Radio Report - September 2017

The Amazon Alexa voice assistant and Amazon Echo smart speaker have been breakout hits that few predicted even a year ago. Consumers by the millions have introduced voice interactive audio into their homes. Edison Research and others found audience reach was 7% of U.S. households at the end of 2016 which was far higher than any analysts predicted. Even more astounding is the Gartner forecast that 75% of households will have a smart speaker by 2020.

This means smart speakers will have grown from zero to 75% household penetration in just 5-6 years. It took eight years for smartphones to reach that level of adoption and social media still isn’t to that level after 13 years according to Pew Research Center Data. Smart speakers are a phenomenon that will have broad impact and the voice assistants behind them will be everywhere.

So what? The emergence of voice assistants and smart speakers is driving new consumer habits that are changing how audio content is accessed and consumed. This potentially represents a big opportunity for broadcast radio and a Renaissance for audio. The change definitely represents a trend that will have profound radio industry impact over the next two decades. Voice assistant access to audio may be the most important technology shift for radio since the industry’s early days.
What You Will Learn

This report reviews data from several recent studies related to voice assistants and smart speakers. The goal is to break through the hype we see in news headlines each day and take a data-driven look at the trends and how they will impact radio. We hope the report will become a resource for the industry as everyone learns to navigate the new voice era.

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2. Why Consumers are Buying Smart Speakers
3. The Demographics Aren’t What You Think
4. Devices Are Being Added Throughout the Home
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1. The Smart Speaker Market is Growing Fast

Smart speaker adoption rates have surprised all of the analysts. One analyst admitted to a client recently that he had to double his original estimates from 2016 after seeing the sales numbers. VoiceLabs estimates that about 24.5 million smart speakers will be sold in 2017, ending the year with a total installed base of 33 million devices.
These estimates were originally thought to be high, but even Morgan Stanley analysis suggests that VoiceLabs’ sales estimates for 2016 were low. The idea that 24.5 million devices would be sold in 2017 may also be too conservative given that MiDIA research reported that 3.3 million Amazon Echo and Echo Dots were sold in July on Prime Day alone.

**Smart Speakers Are in Multiple Rooms Per Household**

Part of this growth is landing smart speakers in new households and part of it is expanding into multiple rooms per household. Edison Research found in a spring 2017 survey that 42% of smart speaker owners had purchased more than one device.

**Voicebot analysis** was revised based on this data to forecast that there will be about 1.6 devices per household in 2017. That figure would put smart speakers in 20.6 million U.S. homes. It will represent 17% of households with 12 million of those having multiple devices. Edison also found that 45% of current smart speaker owners planned to purchase another device.

**Smart Speakers Serve Multiple People Per Household**

A study by Experian also highlighted that unlike mobile phones, smart speakers are used by multiple people in the household. Nearly 83% of respondents to its survey in 2016 reported two or more users per household. This is different than mobile device adoption where you could calculate total audience reach by counting smartphones in use. For smart speakers, total audience reach is households multiplied by 2.3 to arrive at 12+ population reach. That means 20.6 million homes represent a total 12+ audience reach of 47.5 million in 2017 and 290 million in 2020.
2. Why Consumers are Buying Smart Speakers

The data are clear that smart speakers are in high demand and purchases are exceeding analyst expectations. That leads to the obvious question about why consumers are buying the devices. Edison Research in collaboration with NPR conducted a detailed consumer study to answer this question along with how consumers use the devices. The number one reason consumers purchase a smart speaker is to listen to music. That was the choice of 90% of smart speaker owners. Another 71% said they wanted to control audio with their voice. But, that’s not all. Fifty-three percent wanted to discover new songs while 44% and 40% were interested in listening to “talk radio/sports talk” and podcasts respectively.

<table>
<thead>
<tr>
<th>Reason for Wanting a Smart Speaker</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to Music</td>
<td>90%</td>
</tr>
<tr>
<td>Ask questions without needing to type</td>
<td>87%</td>
</tr>
<tr>
<td>It seemed like a fun new gadget</td>
<td>86%</td>
</tr>
<tr>
<td>Listen to news and information</td>
<td>77%</td>
</tr>
<tr>
<td>Control audio with your voice</td>
<td>71%</td>
</tr>
<tr>
<td>To make it easier to do things</td>
<td>69%</td>
</tr>
<tr>
<td>Quality of sound</td>
<td>65%</td>
</tr>
<tr>
<td>Set alarms</td>
<td>63%</td>
</tr>
<tr>
<td>Hear better music than on AM/FM radio</td>
<td>62%</td>
</tr>
<tr>
<td>Discover new songs</td>
<td>53%</td>
</tr>
<tr>
<td>Control smart home devices</td>
<td>48%</td>
</tr>
<tr>
<td>Listen to talk radio/sports talk</td>
<td>44%</td>
</tr>
<tr>
<td>Listen to podcasts</td>
<td>40%</td>
</tr>
<tr>
<td>Replace an old stereo</td>
<td>39%</td>
</tr>
<tr>
<td>Entertain children</td>
<td>36%</td>
</tr>
<tr>
<td>Help disability</td>
<td>16%</td>
</tr>
<tr>
<td>Help elderly</td>
<td>12%</td>
</tr>
</tbody>
</table>

There are also other prominent decision criteria motivating purchase. Users wanted to be able to ask general questions, access news, control smart home devices and entertain their children. However, you can see clearly that consumers purchase the devices expecting to listen to audio content. The question for radio is which audio content will capture consumer attention. Many broadcasters are making moves today to ensure radio has a seat at the head of the table.
3. The Demographics Aren’t What You Think

Now that we know why people buy smart speakers, it is logical to ask who is buying them. A Morning Consult survey in August 2017 showed that about two-thirds of smart speaker owners were 18-44 compared to about one-third in the over 45 age group. The younger cohorts are two times more likely to own a smart speaker compared to the old demographics. The 44 and under group accounted for 68% of all device owners with 32% for the 45 and old group. However, the adoption is surprisingly broad based. Every age group segment is in double digit percentages for ownership.

Smart Speaker Ownership by Age Group
(Morning Consult - August 2017)

Radiocentre in the UK also has an in-depth survey and ethnographic study that found an identical adoption pattern as in the U.S. The under 45 age group accounted for 68% of smart speaker owners and the 45-plus age group 32%.

Smart Speaker Ownership by Age Group
(Radiocentre, UK - April 2017)
One key difference you can see is that the over 65 cohort does not have significant adoption yet in the UK. Another difference between the U.S. and UK studies is that the male to female ownership is 54% to 46% respectively in the US but it is more heavily skewed male in the UK, 61% to 39%. Both of these statistics may reflect the fact that the device has been in the U.S. market two years longer than the UK. The clear conclusion is that smart speaker adoption today skews young, but the devices have found favor across age and gender cohorts.

Radiocentre confirms this deduction when considering households with multiple residents. When a smart speaker is introduced into a home, everyone uses it. This means, for example, that older consumers may be less likely to purchase a smart speaker, but once a device is in the home, everyone uses it. Even 74% of children 10 and younger use the devices when they are introduced into a household.

**Users of Amazon Echo in the Household**

![Bar chart showing usage by household members](source: Radiocentre)

**4. Devices Are Being Added Throughout the Home**

Where consumers place smart speakers after purchase is nicely summed up in the term, “shared spaces”. There are several studies on this and many of the earlier results suggested kitchens were the most popular location. More recent studies show living rooms as the primary place for the smart speaker that gets the most use.

The Radiocentre study showed 58% of Amazon Echos placed in the living room, 17% in the kitchen, 14% in the dining room and 14% in the bedroom. However, they also have lower levels of usage, in the 1-3% range, in hallways, bathrooms, utility rooms and studies.
Edison reports very similar findings with family room coming in at 52%, kitchen at 24% and master bedroom at 12%. This report also showed that 5% of owners have a device in a second bedroom and 7% in other rooms. The biggest finding here may be that smart speakers are invading every nook in the household, even bathrooms.

5. How People are Using Smart Speakers

This brings us to how consumers are using smart speakers. Experian did a nice study in 2016 that showed what features users had tried at least once. For example, 82% had played a song on the device. Edison Research took that study further to determine how consumers used smart speakers most often. In a 2017 study for NPR, Edison found that 68% of smart speaker owners reported listening to music on the devices regularly. The study went on to report that 38% used them for listening to AM/FM radio, 32% for AM/FM news talk, and 22% for AM/FM sports radio.

How Smart Speaker Owners Use Their Devices

Source: Edison Research / NPR 2017
GfK had a similar finding in a study earlier in 2017. The company found that two-thirds of users play music on their Amazon Echo or Google Home. Many others access news, sports and other audio content that are core offerings of radio.

The data show not only are people already using smart speakers for radio, there is significant room to grow and capture more of the music listening time. That is a big part of the opportunity for radio as consumers are in the process of establishing new listening habits.

Other interesting findings from Radio Centre include that in the UK the most widely accessed form of audio entertainment on Amazon Echo is listening to the radio. In addition, Alexa is now rivaling smartphone usage in the bedroom on weekend mornings.
Finally, Edison found that 70% of smart speaker owners agree or strongly agree with the statement: “You are listening to more audio since you got your smart speaker.” Sixty-five percent said they were listening to more music and 28% to more news and talk. That increase in listening is adding up to 4 hours and 15 minutes of weekly listening to music and 1 hour and 15 minutes to news. When it comes to smart speakers, radio is well positioned to take advantage of a very favorable consumer trend.

6. What do People Think About Smart Speakers

We also have some useful information from one of the Edison Research studies on what people think about their smart speakers. Some electronic gadgets ride a wave of popularity but do not work into long-term daily consumer routines. Smart speakers have already shown signs of staying power. Forty percent say that “Smart Speakers have had an impact on their lives,” and 69% have “encouraged” a friend to purchase a device.

More telling is that 65% of owners “wouldn’t want to go back to life without smart speakers” and 42% say the devices “are essential to their everyday lives.” These comments are backed up by action. Edison says 7.5 of the common use cases on smart speakers are used “regularly.” IFTTT quantifies usage data and reports that 60% of smart speaker owners used their device four or more times per day and 29% seven or more times per day.

The Radiocentre study found that 81% of smart speaker owners used their devices at least once per day and 50% use their Amazon Echo “several times a day.”

How Often Do You Use Your Amazon Echo?

Source: Radiocentre 2017
7. Bringing Radio Back Into the Home

Smart speakers like Amazon Echo and Google Home are creating an opportunity for audio in general and radio in particular. Radio has seen time spent listening (TSL) decline over the past two decades despite maintaining impressive audience reach consistently above 90%. The advent of music file sharing, iTunes and then music streaming all displaced owned music listening, but increasingly compete with time that previously was spent with radio. In particular, mobile devices started chasing radios out of kitchens and living rooms after the 2007 introduction of the iPhone.

Radios Per Household

![Radios Per Household Chart]

Between 2008 and 2016, the number of radios per household dropped 34% and the number of homes with zero radios grew by over 5 times to 21%. For the 18-34 demographic the impact was even greater. Radios per household for this age cohort fell by 48% and the number of radio-less homes grew to 32%.

18-34 Years Old, Radios Per Household

![18-34 Years Old, Radios Per Household Chart]

The upside of this data was that almost 80% of homes and 68% in the prime 18-34 demographic had at least one radio. And, radio still maintained impressive audience reach of over 90% of Americans each month. The downside was clearly the concerning trend line. Many people that owned radios at home weren’t using them much and the TSL decline was a growing concern.
Amazon Echo has almost single-handedly started to reverse that trend. It put an internet connected speaker in the homes of millions of Americans in just two years. Those speakers can have direct access to radio streams. Since the beginning of 2017, that growth has accelerated with another 3.3 million devices sold in a single day in July. And, unlike the rise of mobile, music streaming services do not have an advantage over broadcast radio in this new medium. In fact, radio outperforms streaming services significantly.

### Percent of Time Listening to Different Forms of Audio Content

![Diagram showing percent of time listening to different audio content](source: RAJAR 2017)

The RAJAR Midas Audio Summary from summer 2017 reinforced earlier findings that on-demand streaming services are the most popular listening option on mobile devices. Streaming commanded 32% of listening time compared to only 23% for live radio. That is a 9% difference. However, on Amazon Echo the listener preferences are reversed. Live radio accounted for 67% of audio listening while on-demand streaming services were only 27%. That is a 40% difference. On-demand streaming may have developed some advantages on mobile, but today broadcast radio has a substantial advantage on smart speakers.

### 8. Federated Media Cracks the Ice

It may be a fair criticism that radio broadcasters were too slow to recognize and take action to address the rise of mobile audio listening. Smart speaker and voice assistant initiatives by broadcasters tell a very different story. There were some radio options on Amazon Echo fairly early. Amazon worked with iHeart Radio and Tunein to provide access through these radio integrators. That helped introduce some early Amazon Echo owners to using radio on the devices and was good for radio in general. It wasn’t necessarily good for individual radio stations that were often hard to find through the aggregators and looked a lot like undifferentiated commodities.
This situation changed in March 2017 when Federated Media launched its own custom Alexa skill for the B100 country station in northern Indiana (video). Listeners no longer needed to ask Tunein to play the station and hope another B100 wouldn’t be served up. The custom Alexa skill enabled listeners to say, “Alexa, open B100,” and they would be welcomed by a personal message from whatever show host was running the live broadcast at that time. And, the station was no longer limited to just serving up the live stream like it was with Tunein. Listeners could also navigate the station’s six podcasts and five on-demand listening options by simply speaking. Most importantly, Federated was in control of the listener experience, could add their own personality to the content options and they had access to all of the listener data.

The response was tremendous. Not only could B100 listeners immediately access the station by voice, but industry insiders immediately saw the potential that smart speakers offered broadcast radio in terms of listener growth and engagement.

“The B100 skill unlocks an Alexa-specific experience of the radio station that is startling in scope and implication,” Brad Hill, Editor of RAIN.

“Indeed, Alexa and its competitors have returned radio to kitchens, bedrooms and offices, and audio programmers are buzzing about listening opportunities for live radio, on-demand and podcasts...Federated’s customized skill for Alexa is an early example of a small broadcast group cutting out the middleman and integrating directly with the speakers. By developing their own custom integrations, stations like WBYT can offer listeners access to live and on-demand programming, as well as promotions and custom advertising opportunities,” Allison Romano of Inside Radio.

“The B100 Alexa Skill gets high marks for its cool factor. But this isn’t why Federated Media was attracted to the application. The smart speaker market is exploding in 2017 through sales of Amazon Echo, Google Home and Microsoft’s expected Cortana smart speaker units...With the B100 Alexa Skill up and running, Federated Media has a direct route to its own smart speaker listeners, plus anyone else who might listen to another B100-branded worldwide,” James Careless of Radio World.

“The B100 Alexa Skill gives Federated Media a similar edge over the competition, if not more so. The fact that there are 50,000 radio streams online is confusing to listeners. But being able to say, ‘Alexa, enable B100’? That’s so, so easy,” said XAPPmedia CEO Pat Higbie in a Radio World interview.
9. Radio Broadcasters Respond to the Trend

The combination of radio access in the home growing once again and Federated Media providing an example of how to take advantage of smart speakers led to a quick response by radio broadcasters. XAPPmedia worked with Federated to launch B100 on Amazon Alexa in March and then their K105 station in April. In the following four months, XAPP then helped another 117 stations across 26 states and Washington, DC to establish their own Alexa presence. XAPP forecasts that over 1,000 radio stations will have custom Alexa skills by the end of 2017, up from zero at the year's start.

Scripps signed up for 34 stations to be brought online to Alexa in July. Steve Wexler, Vice President of Radio summed up the company’s commitment to Alexa by simply saying,

“It’s important that we go where our audience goes, and this new partnership [with XAPPmedia] makes the Scripps radio stations easily accessible to our listeners across multiple platforms.”

However, it isn’t just larger radio groups like Scripps, Bonneville and Radio One / Urban One answering Alexa's call. Smaller regional players like Brooke Communications, All Pro Broadcasting and Gabriele Broadcasting are also heading to voice. Gabriele Broadcasting owns two Christian stations Arizona. Company CEO Jaob Barker
commented, “Millions of people have bought an Amazon Echo over the past two years and we want them to have access to high quality Christian broadcasting. We also want to continue to serve our Phoenix community and be available on all the devices that people use everyday.”

10. Not Limited to the Home. It’s About the Car Too.

While the immediate focus has been about voice assistants helping connect radio with listeners through smart speakers in the home, the phenomenon may be equally important in the car. Voice assistants like Amazon Alexa and Google Assistant are not limited to smart speakers. They are also being embedded in more than a dozen car brands. Ford alone plans to have over 10 million autos with Alexa capabilities on the road in 2017 and more than 20 million by 2020.

Mercedes-Benz, Volkswagen, BMW, Hyundai, Genesis, Kia and others also publicly committed to Alexa integration. This is important for radio. The automobile has continued to be a stronghold for the industry but has started to see some erosion due to competition from “online radio” streaming services.

**Audio Sources Used in Primary Car**

<table>
<thead>
<tr>
<th>Audio Source Used Most Often in Primary Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base: Use any audio source in primary car</td>
</tr>
<tr>
<td>AM/FM Radio</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2017</td>
</tr>
</tbody>
</table>

*Listen to the online stream of AM/FM radio station(s), internet-only radio from a cell phone or other mobile device that you connect to the car audio system.*
Edison Research’s Infinite Dial report shows that the use of “online radio” in the car nearly doubled between 2014-2017. In 2017, AM/FM radio was cited as the primary source of in-car listening by 57%, down 3% from 2015. These numbers support a broader concern that this trend will pick up as the likes of Pandora, Spotify and Apple Music gain more prominent positions in automobile infotainment systems.

In the past, radio was the only “native” audio option in the car. Pandora claims to now have in-dash access in nearly 200 car models. Spotify has more recently been added to cars from BMW, MINI, Volvo, Ford, Jaguar and Land Rover and offers instant access through Bluetooth connectivity in as much as 90% of new cars. As these radio competitors have joined the infotainment dashboard, they are getting equal footing with radio and are often given prime visual positioning.

11. Alexa in the Home Comes with Alexa In the Car

Alexa and Google Assistant voice assistants will change the in-vehicle audio selection dynamics. It won’t be about whose logo is pre-set and which radio stations need to be programmed in by the user to be added to the visual display. This was starting to look like a repeat of the mobile device ecosystem where the big streaming brands became favored visual icons that had an edge in capturing the consumer’s attention when they were looking for audio entertainment. Voice blows up that visual model for selecting audio content and enables the historical radio differentiators to shine through.

Listeners will simply ask their voice assistant to play what they want. That may be owned music, a streaming service or radio. However, radio will be on an equal footing and always just a couple of words away. This enables radio’s personality, talent and local branding to once again assert its listener relationship advantage to maintain and even grow its place in the car.

The great news for radio is that this in-car Alexa presence comes automatically with the in-home solution. Once on Alexa, you are on Alexa everywhere. The same will be true for Google Assistant when it launches a comparable service for audio content distribution. That means that a voice strategy for radio broadcasters can address both the car and home listening use cases simultaneously.
12. The Return of the Radio Preset Buttons, Everywhere

The rapid adoption of smart speakers and voice assistants means that consumers will no longer be constrained by mechanical inputs or icons on screens. Whatever audio content they want will be only a spoken phrase away. If your brand becomes one of those remembered phrases, then it will be the equivalent of being one of the preset radio buttons we used to have for our car radios.

Smart speakers are invading homes across the U.S. and soon will be seen as a permanent household fixture similar to an oven, bedside lamp or television. They will be something everyone expects to have wherever they are. That extends beyond the home to the car and even to mobile devices. However, to become one of the “preset” buttons of the voice era, radio stations must do two things.

1. They must have a voice presence where consumers can access their audio content directly and the station can control the listener experience.

2. They must create and promote that presence while consumers are forming habits around the new devices and new listening experiences. It will be easier to establish that “preset” memory while consumers are forming habits than attempting to change their habits later.

If you would like to learn more about how to get your radio station on Amazon Alexa or Google Home, we recommend you reach out to XAPP through the “Contact Us” button below or check out our report: 10 Best Practices for Putting Radio on Amazon Echo. We hope this analysis has helped you better understand the radical change going on around us and provided you with a data-driven perspective on how the voice era will impact radio.

Other Resources

» Download 10 Best Practices for Putting Radio on Amazon Echo
» View Voice Interactive Radio Video Demo
» Learn More About Amazon Echo and Radio
» Learn More About Amazon Alexa Voice Assistant
About XAPPmedia

XAPPmedia™ is the leader in delivering interactive voice experiences for brands and media and is the first company to Give Brands a Voice™ enabling instant, voice-activated connections with consumers through voice assistants and mobile audio apps. XAPP’s software solutions are applied to voice experience development, distribution and management and to mobile content delivery and advertising. XAPPmedia was founded in 2012 and is headquartered in Washington, DC.

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