CTAM Connected Consumer 2018: Exploring how to Best Serve Connected Consumers, Today and in the Future
The smart home category is exciting!

"The Jetsons was right."
-Forbes, 2018
Understand how the proliferation of seamless Internet connectivity is changing the way consumers engage with content, information and the world around them, and what they may want in the future

Delve into how the media and entertainment industry can best serve the connected consumer today and in the future

Online survey conducted in May/June 2018 with a total sample 2,401 consumers ages 18+, matched to US Census and representative of the U.S. adult population of Internet users
The Connected Consumer Market is Large and Multi-faceted.
Consumers see this tech becoming “the new normal”, but not there yet

CONSUMERS CONSIDER IT POPULAR ...

52% say it’s already the new “normal”, or makes sense for most people

...YET IT’S RARE AMONG THEIR PEERS

58% say none or only a few of their peers are using it

(...EXCEPT HALF OF CONNECTED EARLY ADOPTERS DO SEE “ALL” OR “MOST” IN THEIR SOCIAL CIRCLE USING SMART HOME DEVICES)
The target market exceeds 100 M U.S. adults
So far, response to connected technologies fits overall tech adoption patterns

Connected Early Adopters, 9%
Connected Mainstreamers, 29%
Connection Prospects, 8%
Non-Committals, 14%
Resistors, 40%

PROJECTED MILLIONS OF CONNECTED CONSUMERS

Connected Early Adopters
20 M
Connected Mainstreamers
65 M
Connection Prospects
18 M
Non-Committals
32 M
Resistors
90 M

The target market exceeds 100 M U.S. adults
So far, response to connected technologies fits overall tech adoption patterns

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32 M
Resistors
90 M
Younger adults, especially homeowners and parents, are a key focus.
THE CONNECTED EARLY ADOPTERS

Much more male
Younger
Parents
Homeowners
Heavy Tech + Video

9% OF THE MARKET

HOUSEHOLD INCOME

\[ 75K+ \]
\[ (43\% \text{ vs. } 26\% \text{ avg}) \]
\[ (\text{Less so } <40K, \ 22\% \text{ vs. } 40\% \text{ avg}) \]

ESP. AGES

\[ 18-34 \]
\[ (52\%, \text{ vs. } 31\% \text{ avg}) \]

ESP. KIDS IN HOUSEHOLD

\[ (61\%, \text{ vs. } 31\% \text{ avg}) \]

ESP. HOMEOWNER

\[ (77\%, \text{ vs. } 57\% \text{ avg}) \]

PAY TV

\[ 89\% \]
\[ (\text{vs. } 74\% \text{ avg}) \]

TECH STATUS:

- Smart speakers 67%
- Game Console 82% vs 38%
- Pay TV customers 89% vs 74%
- Satellite 27% vs 20% telco 18% vs 12%
- Home security 69% vs 25%
- 3+ streaming services
- Live TV Weekly+ 91% vs 76%
- OnDemand 76% vs 38%
THE CONNECTION PROSPECTS

More Gen X Middle Income Tablets Streaming Oriented

8% OF THE MARKET

HOUSEHOLD INCOME

52% FEMALE
48% MALE

ESP. AGES
35-54
(46%, vs. 36% avg)

ESP. KIDS IN HOUSEHOLD
(35%, vs. 31% avg)

ESP. HOMEOWNER
(52%, vs. 57% avg)

PAY TV 73%
(vs. 74% avg)

TECH STATUS:
- No smart home tech, but intend to buy it within 6 months (esp. speakers)
- Tablet users 65% (vs. 49% avg)
- Video game console 49% (vs. 38% avg)
- Less home phone 44% (vs. 54% avg)
- Less home security 14% (vs. 25% avg)
27% intend to buy (more) connected tech. SOON.

**INTEND TO PURCHASE IN THE NEXT 6 MONTHS:**

- **16%** Any Smart Speaker
- **17%** Any Connected Smart Home Security device
- **23%** Any Connected Smart Home Solution/Device

44% of Caregivers intend to purchase connected home devices in the next 6 months (vs. 25% of non-Caregivers)
Smart speakers are likely to drive demand and future intent; partnerships and voice-activation integration will be vital.

Qualitative 2017:

Significant promise in voice controlled digital assistants
Speakers are big & growing, but aren’t the whole story.

“Own & Regularly Use”

17% Connected home Security
- Surveillance cameras: 11%
- Door locks: 9%
- Window sensors: 6%

27% Connected home solutions/ appliances
- Thermostat: 13%
- Lighting: 12%
- Garage door openers: 10%
- Kitchen appliances: 9%
- Cleaning: 9%
- Electrical outlets: 8%
- Centralized hubs: 4%

17% Voice-activated Speakers
- Voice-activated speakers: 17%

CTAM Connected Consumer 2018
Smart speaker growth mirrors recent tech

Growth Curves of US Technology Adoption

Initial U.S. Release Dates
Amazon Echo: Jun 2015
Google Home: Nov 2016
Apple HomePod: Feb 2017
Amazon dominates current smart speaker ownership

Specific Smart Speakers Owned
(among smart speaker owners)

<table>
<thead>
<tr>
<th>Product</th>
<th>Among Speaker Owners</th>
<th>Among Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon Echo/Echo Plus</td>
<td>80%</td>
<td>16%</td>
</tr>
<tr>
<td>Amazon Echo Dot/Echo Kids Dot</td>
<td>33%</td>
<td>6%</td>
</tr>
<tr>
<td>Google Home Smart Speaker</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>Google Home Mini Echo</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Amazon Show</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Apple HomePod speaker</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Amazon Echo Spot</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Google Home Maxi Smart Speaker</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Amazon Echo Buttons</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>None of these</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

Initial U.S. Release Dates
Amazon Echo: Jun 2015
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Apple HomePod: Feb 2017
# Speaker functions for TV need improving

## Top-Used Smart Speaker Functions

(\% use among smart speaker owners)

<table>
<thead>
<tr>
<th>Function</th>
<th>% Use</th>
<th>&quot;Very Satisfied&quot; %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to music</td>
<td>87%</td>
<td>63%</td>
</tr>
<tr>
<td>Get weather information</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Set a timer or alarm</td>
<td>74%</td>
<td>64%</td>
</tr>
<tr>
<td>Look up things on the Internet</td>
<td>74%</td>
<td></td>
</tr>
<tr>
<td>Get news headlines</td>
<td>71%</td>
<td></td>
</tr>
<tr>
<td>Hear a joke</td>
<td>65%</td>
<td>50%</td>
</tr>
<tr>
<td>Get sports scores and schedules</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>Make to-do lists</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>Get a recipe or help with measurements of ingredients</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>Make shopping lists</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>Check my calendar</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>Play trivia</td>
<td>57%</td>
<td>51%</td>
</tr>
<tr>
<td>Control an Internet TV/video device</td>
<td>57%</td>
<td>52%</td>
</tr>
</tbody>
</table>

*Top 13 “used” features, in rank order*

CTAM Connected Consumer 2018
Smart Speaker owners use or are interested in many TV functions

20% to 28% Are Using Smart Speaker “TV or Movie Content” Functions, If not using, most are Sampling or are Interested in using each:
(among smart speaker owners, ranked by % using or sampling)

• Launch streaming apps
• Learn info on a movie or TV show
• Control basic TV functions
• Set TV reminders or alerts
• Pause, play, rewind, and fast forward
• Tune to a specific TV show, movie, or service
• Get recommendations
• Find out when a movie or TV episode will be available
• Pause on one TV or device, resume on another
• Find out new TV shows or movies added to On Demand
• Find out which On Demand shows or movies are the most popular
• Record a TV show or movie
• Play trivia games related to TV or movies
• Provide reviews or summaries
• Skip ahead through the commercials
• Create personalized lists of TV shows or movies
• Play specific scenes on your TV
• Play short clips or bonus content
• Let TV shows/movies customize your home atmosphere
• Jump back 8 seconds to re-watch something
Connecting to Connected Consumers can mean Enhanced Business.
Purchase intent is strong with Pay TV, esp. for Telco TV customers

**ACQUISITION**

**Connected Tech status among Pay TV customers**

- Connected Early Adopters: 38%
- Connected Mainstreamers: 31%
- Connection Prospects: 8%
- Non-Committals: 12%
- Resistors: 10%

**Intend any Connected home device purchase by MVPD TV Subscription Status**

- TOTAL: 27%
- Cable MSO TV: 29%
- Satellite TV: 30%
- Telco TV: 44%
- Overbuilder TV: 33%
- No Pay TV: 21%

(%. intending any additional device Solutions or Security types not yet owned, or Smart speaker whether owned or not)

CTAM Connected Consumer 2018
Connected consumers are happy TV customers

<table>
<thead>
<tr>
<th>TV NPS:</th>
<th>+32</th>
<th>+2</th>
<th>+27</th>
<th>-25</th>
<th>-20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>35</td>
<td>24</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>29</td>
<td>25</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>36</td>
<td>51</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

- **Detractor (0-6)**
- **Neutral (7+8)**
- **Promoter (9+10)**

**Connected Early Adopters**
**Connected Mainstreamers**
**Connection Prospects**
**Non-Committals**
**Resistors**
Connected consumers are highly video-active

Sources of Video Consumed Weekly

- Live as it airs on broadcast, cable or satellite TV networks: 80% (Connection Targets), 73% (Non-Targets)
- Streamed from the Internet on a TV screen: 66% (Connection Targets), 33% (Non-Targets)
- On Demand from cable or satellite: 53% (Connection Targets), 25% (Non-Targets)
- Streamed from the Internet on a portable device: 57% (Connection Targets), 19% (Non-Targets)
Finding and controlling TV are common desires and functions

### Smart Speaker “Control” Functions Used
( among smart speaker owners)

<table>
<thead>
<tr>
<th>Function</th>
<th>Connected Early Adopters</th>
<th>Connected Mainstreamers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Internet-connected TV/video device(s)</td>
<td>40% Use Occasionally 42% Use Regularly</td>
<td>29% Use Occasionally 17% Use Regularly</td>
</tr>
<tr>
<td>Control Internet-connected lighting</td>
<td>31% Use Occasionally 44% Use Regularly</td>
<td>17% Use Occasionally 22% Use Regularly</td>
</tr>
<tr>
<td>Control or monitor an Internet-connected security system</td>
<td>34% Use Occasionally 45% Use Regularly</td>
<td>19% Use Occasionally 17% Use Regularly</td>
</tr>
<tr>
<td>Control an Internet-connected thermostat</td>
<td>34% Use Occasionally 44% Use Regularly</td>
<td>17% Use Occasionally 17% Use Regularly</td>
</tr>
</tbody>
</table>
TV programmers have an enthusiastic audience in connected consumers

<table>
<thead>
<tr>
<th>TOP NETWORK DIFFERENCES</th>
<th>Difference in &quot;regularly watch&quot; vs. all others</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBO</td>
<td>+ 17%</td>
</tr>
<tr>
<td>ESPN2</td>
<td>+ 13%</td>
</tr>
<tr>
<td>Nickelodeon</td>
<td>+ 13%</td>
</tr>
<tr>
<td>Disney Channel</td>
<td>+ 13%</td>
</tr>
<tr>
<td>Comedy Central</td>
<td>+ 12%</td>
</tr>
<tr>
<td>Showtime</td>
<td>+ 12%</td>
</tr>
<tr>
<td>Cartoon Network</td>
<td>+ 12%</td>
</tr>
</tbody>
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Connected Early Adopters difference in “regularly watch” vs. all others
Providers can still drive value with customers who have experienced pirated content

Qualitative 2017:

Password sharing and impermissible content access will continue
Video piracy is high among connected consumers

Video Piracy Services Used
(any of the 4 types)

- Total: 72%
- Connected Early Adopters: 44%
- Connected Mainstreamers: 34%
- Connection Prospects: 21%
- Non-Committals: 11%
- Resistors: 29%

The 4 types described were:
- Devices that come with software
- IPTV subscriptions
- Deals with free programming
- Subscriptions thru SmartTV
Simplicity is opportunity.

Qualitative 2017:

The best enabler will win
Instinct is to stay with a single company

“Use one company for as many different devices/services as possible, so things will easily work together”

Preferred Approach for Smart Home Devices (among the 3 key Target groups)

- 44%: "Use one company for as many different devices/services as possible, so things will easily work together"
- 24%: "Choose different companies for your various devices/services, as long as you can get things working together"
- 26%: No preference
- 5%: Don’t know

CTAM Connected Consumer 2018
Connected Early Adopters want hubs; Connected Mainstreamers are less focused

Connected Home Device Purchase Intent vs. Ownership

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Intend to buy (8-10)</th>
<th>Own</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized hubs</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>Window sensors</td>
<td>32%</td>
<td>37%</td>
</tr>
<tr>
<td>Electrical outlets</td>
<td>30%</td>
<td>48%</td>
</tr>
<tr>
<td>Door locks</td>
<td>27%</td>
<td>49%</td>
</tr>
<tr>
<td>Cleaning</td>
<td>26%</td>
<td>50%</td>
</tr>
<tr>
<td>Surveillance cameras</td>
<td>25%</td>
<td>58%</td>
</tr>
<tr>
<td>Kitchen appliances</td>
<td>24%</td>
<td>50%</td>
</tr>
<tr>
<td>Garage door openers</td>
<td>23%</td>
<td>50%</td>
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<td>Thermostats</td>
<td>22%</td>
<td>59%</td>
</tr>
<tr>
<td>Lighting</td>
<td>22%</td>
<td>60%</td>
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<tr>
<td>Voice-activated speakers</td>
<td>19%</td>
<td>67%</td>
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CTAM Connected Consumer 2018:

Connected Early Adopters (84% intend)
- Centralized hubs: 36% intend, 29% own
- Window sensors: 32% intend, 37% own
- Electrical outlets: 30% intend, 48% own
- Door locks: 27% intend, 49% own
- Cleaning: 26% intend, 50% own
- Surveillance cameras: 25% intend, 58% own
- Kitchen appliances: 24% intend, 50% own
- Garage door openers: 23% intend, 50% own
- Thermostats: 22% intend, 59% own
- Lighting: 22% intend, 60% own
- Voice-activated speakers: 19% intend, 67% own

Connected Mainstreamers (47% intend)
- Centralized hubs: 17% intend, 10% own
- Window sensors: 17% intend, 15% own
- Electrical outlets: 18% intend, 18% own
- Door locks: 17% intend, 21% own
- Cleaning: 17% intend, 23% own
- Surveillance cameras: 18% intend, 29% own
- Kitchen appliances: 17% intend, 21% own
- Garage door openers: 17% intend, 27% own
- Thermostats: 17% intend, 32% own
- Lighting: 18% intend, 26% own
- Voice-activated speakers: 13% intend, 47% own
### Smart Home Device Purchase Intent

(among Connection Prospects, %8-10/Likely to Purchase)

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<td>22%</td>
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</table>
Strong emotional benefits help market connected solutions - but do vary by device category.
Connected device appeal shifts by type

Top Important Factors/Appeals of Connected Home Devices
(among those who own or are likely to purchase a smart home device)

Smart Speakers = Part Practical, Part Fun
- Make tasks easier, enjoy looking up facts
- Fun to play with
- Enjoy the feeling of control

Smart Security = Strong Feelings
- Peace of mind, enjoy the feeling of control, freedom to check in from anywhere

Smart Solutions/Appliances = Highly Practical
- Make tasks easier, make me more efficient, save me money
- Also freedom to check in from anywhere

Overall Brand Choice
- Easy set-up
- Reliability
- Reputation
- Overall savings
Most smart home consumer targets embrace future “Internet of Intelligence” features

- 67% Remotely program and control displays, lighting, etc. to automatically adjust to my preferences
- 66% Making my devices, platforms, brands work seamlessly together
- 62% Put together info from multiple sources I use, to anticipate my needs

- 58% Holographic images and information that float in the air
- 57% Intelligent lists that seek and make recommendations to me
- 55% Devices that get to know and adapt to me

%4+5/Interested, among the 3 key Target groups
IMPLICATIONS

1. The Connected Consumer Market is Large and Multi-faceted

2. The recent rapid growth curve should be expected to continue

3. Caregivers remain a great target group for connected solutions

4. Pay TV and connected consumers go hand in hand

5. Natural convergence of the connected solutions vertical and heavy video consumption

6. Smart speakers are likely to drive demand...and voice has definite promise for TV content discovery

7. Simplicity is a core opportunity

8. Strong emotional benefits help market connected solutions - but do vary by device category

9. Providers can still drive value with customers who have experienced pirated content