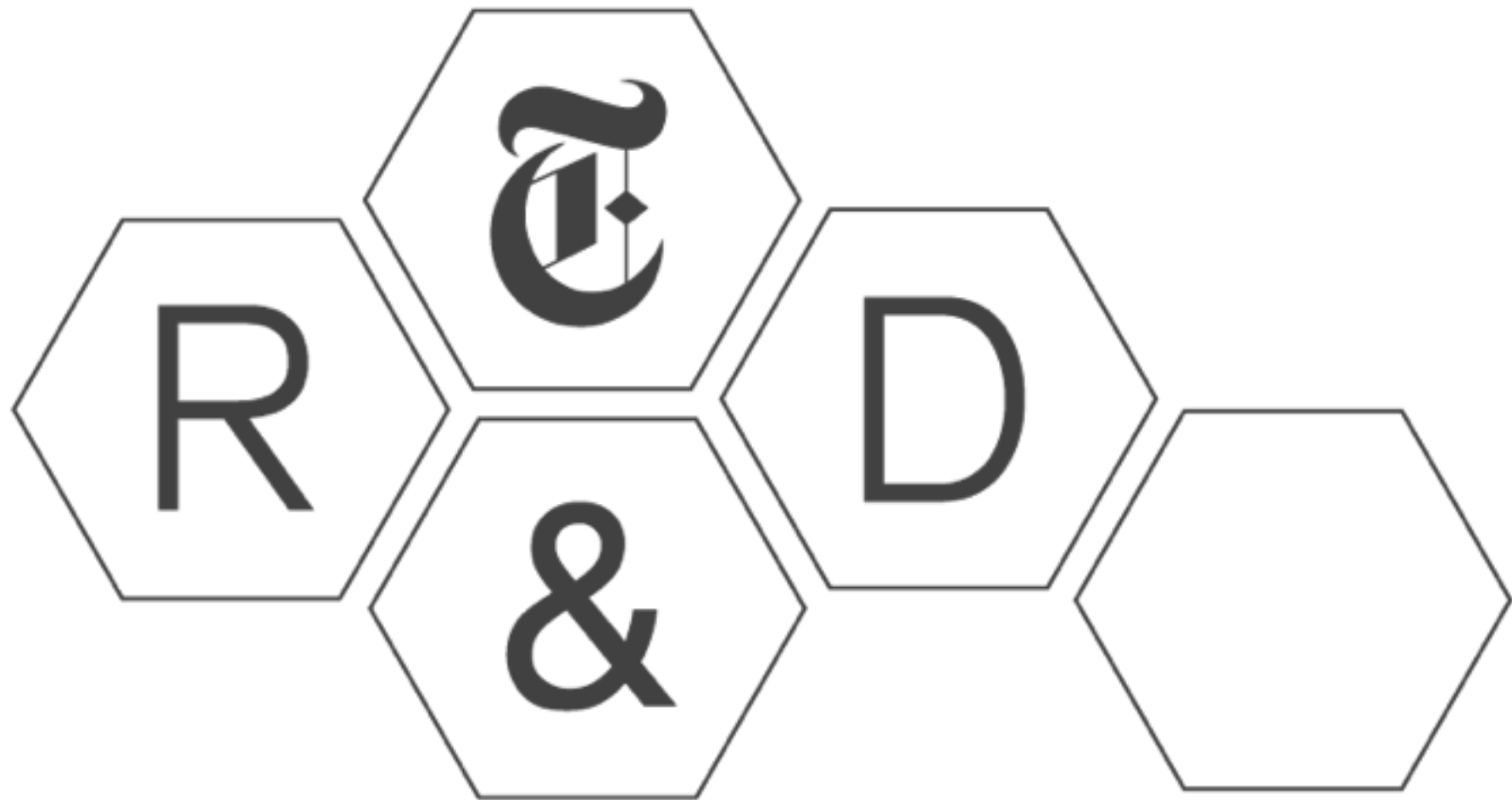


The New York Times
We help people understand the world.





Our goal is to understand how emerging technology and user behavior trends will impact the way media is consumed or created.

We are human-centered.

We make things tangible.

We look 2 to 3 years out.

We share.

We're lean.

We are constantly looking for signals.

Real-Time Machine Learning

Machine Reading

Comprehension

Natural Language

Understanding

Natural Language

Generation

Generative Algorithms For Voice,

Sound, and Video

Image Completion Predictive

Machine Vision

Algorithm Marketplaces

Consolidation in AI

Uncovering Hidden Bias in AI

Computational Journalism

I-Teams For Algorithms and Data

Crowdlearning

Adversarial Machine Learning

Computational Photography

Bots

The Botness Scale

Voice Interfaces

Ambient Interfaces

Deep Linking

Productivity Bots

Adaptive Learning

Nanodegrees

Proximity News

Personality Recognition and Analytics

Attention

Digital Frailty

39 Radical Transparency

Limited-Edition News Products

One-To-Few Publishing

Notification Layer

Journalism as a Service

Transparency in Metrics

Real-Time Fact Checking

Offline Is The New Online

Audio Search Engines

CubeSats

Connected TVs

WebRTC

Streaming Social Video

New Video and Audio Story Formats

Splinternets

Blocking the Ad Blockers

57 Natural Language

Generation for Reading Levels

Leaking

Personal Networks

Holograms

Virtual Reality

360-Degree Video

Augmented Reality

Differential Privacy

Trolls

Authenticity

Data Retention Policies

Backdoors

Prize Hacks

Weaponizing Wikileaks

Glitches

Ownership

Organizational Doxing

Blockchain For Journalism

Sense And Avoid Technology

Drone Swarms

Drone Lanes

Clandestine, Disappearing Drones

Autonomous Underwater Vehicles

Microdrones

Drone Delivery

Autonomous Vehicles/Mobility

Head Mounted Displays

Smartwatches

Earables

Thinkables

Internet of X

5G

— short-term — long-term

source: future today institute

Understanding the Voice Space



We started with an initial goal:

Understand the role smart speakers play in people's lives, and whether there is a place for content in this space

From our research, we arrived at a new goal:

Leverage voice platforms to
engage emerging and existing
audiences in innovative ways.

RESEARCH APPROACH & METHODS

A human-centered research process allowed us to gain insight into people's smart speaker needs, pain points, and behaviors. We interviewed and observed over 20 people in their homes as they went about their daily routines using smart speakers.



Seattle as a leading behavioral market, where people are exposed to the rapid pace of consumer technology shifts



Miami as challenge market, where the existing capabilities of voice platforms are likely challenged due to a more bilingual population



Detroit to explore how in an environment that has fewer on-demand services people use or might use smart speakers

EMPATHY & INSPIRATION INTERVIEWS

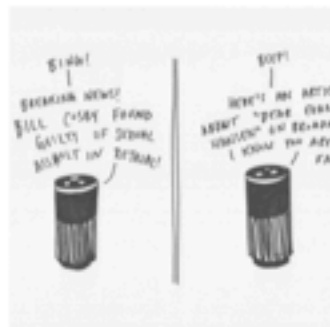
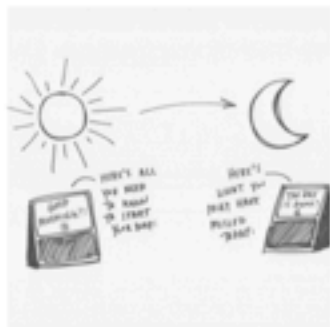
We learned directly from users,

conducting 22 two-hour in-context interviews with strategically chosen participants within our emerging audience (younger, skewing female, more diverse), including subscribers, readers and non-readers who have interesting perspectives.



PROVOCATIONS

A range of sacrificial concepts was shared with our research recruits to understand the smart speaker's role in their lives and appetite for content on it.





Insights: What We Learned

ATTITUDES IN ENGAGEMENT

People's expectations of how they want to engage with smart speakers shift depending on mode.

Ambient

Background content to enhance an activity experience

View as a radio

Assistive

Interstitially invoked content to support an activity or experience

View as a service

Captive

Immersive content that is an activity or experience

View as a destination

Tensions exist as boundaries are still being established.

Adoption vs. Intrusion

Curiosity about what smart speakers can do for people and their homes is being weighed against nervousness about potential privacy concerns.

Futuristic vs. Nostalgic

An interactive voice assistant feels beamed from the future, but a speaker itself and its uses to listen to material you love feels like a harkening back to the early days of radio.

Communal vs. Individual

The device can provide individual support, but by its very nature is communal and intended to be shared.

Functional vs. Novelty

The relationship with the device changes depending on whether someone views it as a device they own to complete tasks versus a device that accompanies them through a range of content experiences.

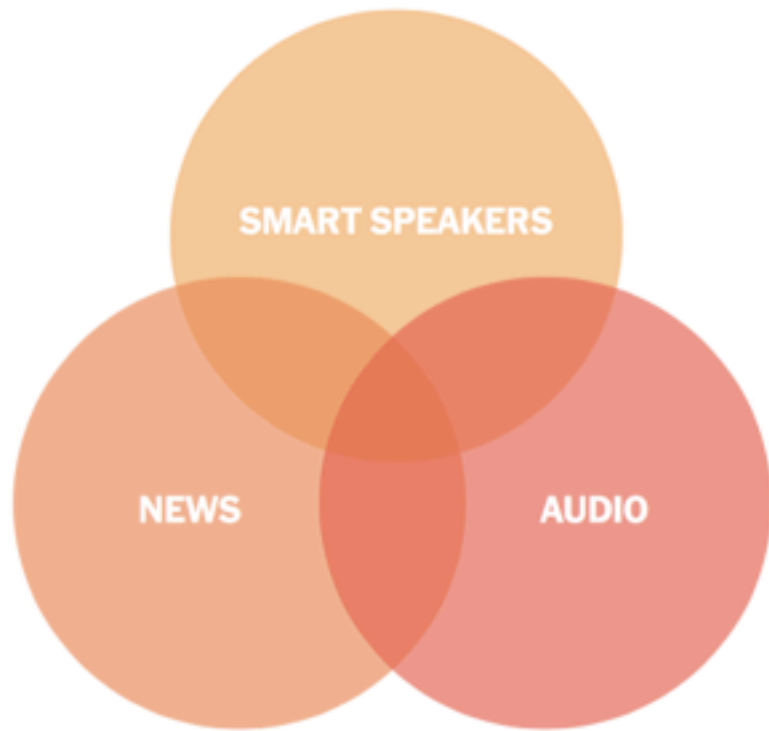
Casual vs. Committed

People speak of smart speakers in a casual way that shows the consumer value proposition isn't fully clear, but they have dedicated, committed uses for it.

Man vs. Machine

People attempt to humanize voice assistants by adding accents or responding emotionally, but they don't want them to have an unprompted or imposing presence.

As we looked to better understand the smart speaker space the potential for New York Times content within it, we uncovered insights spanning and overlapping people's behaviors with technology, news, and audio.





What We Learned

About Smart Speakers

INSIGHTS SUMMARY

In a time when people are reevaluating their relationship with technology, and screens in particular, they are looking to smart speakers to mediate the control technology has in their lives.



LANDSCAPE SIGNALS

Concerns about the negative impact of smartphone technology are real.

Phone Addiction Is Real -- And So Are Its Mental Health Risks



EDITOR'S PICK
Alice C. Walton Contributor
 Dec 11, 2017, 10:53am • 105,827 views • #PublicHealth

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By **Holly S. Shakya** and **Nicholas A. Christakis**
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9:37

December 11, 2017 - 8:05 AM ET

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By **Mark Gurman**
 June 4, 2018, 2:26 PM EDT

- ▶ These Limits will switch some apps off, based on user settings
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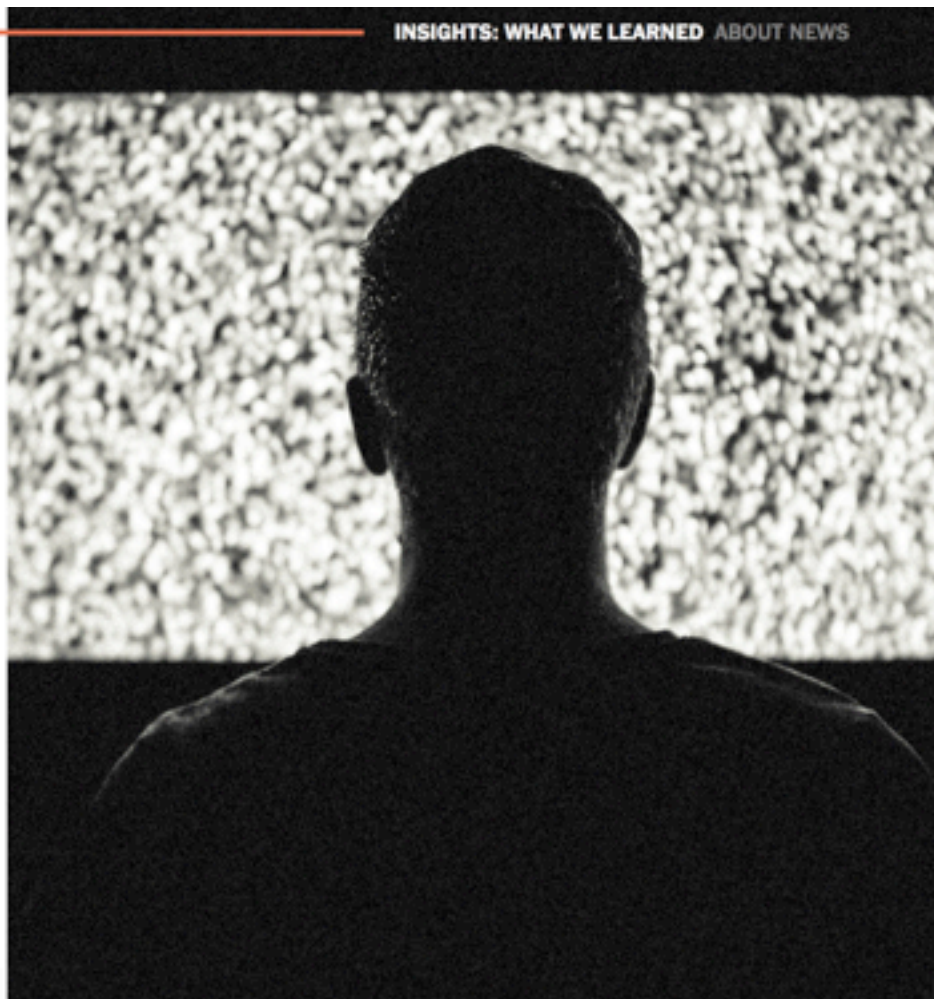


What We Learned About News

INSIGHTS SUMMARY

Currently, native content on smart speakers is limited. Specific use cases and content types haven't yet been established by publishers or the platforms.

While discovery is a challenge for publishers and brands, it's a benefit to people who are looking to throttle the influx and influence of content.



LANDSCAPE SIGNALS

People are battling news fatigue.



In an August 2017 American Psychologists Association survey, while money (62 percent) and work (61 percent) remain common stressors for Americans, **slightly more Americans report significant stress about the future of our nation (63 percent).**

When Enterprise Rent-a-Car surveyed more than 1,100 Americans about their summer travel plans, **the top three reasons given for traveling were stress, the news and the political climate.**





What We Learned About Audio

INSIGHTS SUMMARY

Audio allows people to break free from the baggage they have with the news because its simplicity and focus feel like an escape and a solution.

While the home lacks the contained captive moments (car, commute) that drive engagement with audio, it suggests new audio formats are possible for smart speakers.



LANDSCAPE SIGNALS

Audio is a bright spot in the news.



68 million Americans listen to podcasts on a monthly basis—nearly one in four people across the country. Of the 68 million listeners, 44 percent are between 18 and 34 years old. They also tend to hold a bachelor's or graduate degree (57 percent).



Fifty-two percent of people listen to podcasts while driving, 46 percent while traveling and 40 percent while walking, running or riding a bike.



In the past four years, podcast listeners have nearly doubled, from 12 percent of the U.S. population in 2013 to 24 percent in 2017. In the past two years, podcasting revenue has jumped from \$69 million in 2015 to an estimated \$220 million in 2017.

Considerations

Acknowledge shared consumption

Design with a recognition of voice as an inherently multi-user medium, with kids in particular being power users.

Engage with specific audiences

Be intentional and reflective of who you are speaking to.

Embed in existing routines

Clearly identify the mode and moment of engaged; voice requires not only creating content, but designing user experiences.

Spark discovery

Recognize that discovery of skills or actions typically happens off-platform; people infrequently stumble into content on smart speakers.

Match the voice to the moment

Identify the strongest voice to deliver content: people view Alexa, Google Assistant, and Siri more as voices to moderate content experiences. They crave human narrators for stories.

What We Built



We launched 6 new experiences



The Daily from The New York Times



The Pop Music Roundup from The New York Times



The Book Review from The New York Times



The New York Times Briefings



The New York Times News Quiz



The 52 Places Traveler from The New York Times

What We're Prototyping



NiemanLab

PREDICTIONS FOR JOURNALISM 2019

SPANISH-LANGUAGE AUDIO BLOWS UP

"In some ways, digital audio was made for the Spanish-language audience."

Thank you!