Audio Alchemy

The Art and Science of Creating Engaging and Impactful Audio Ads

Sentient Decision Science
June 2024

In collaboration with:
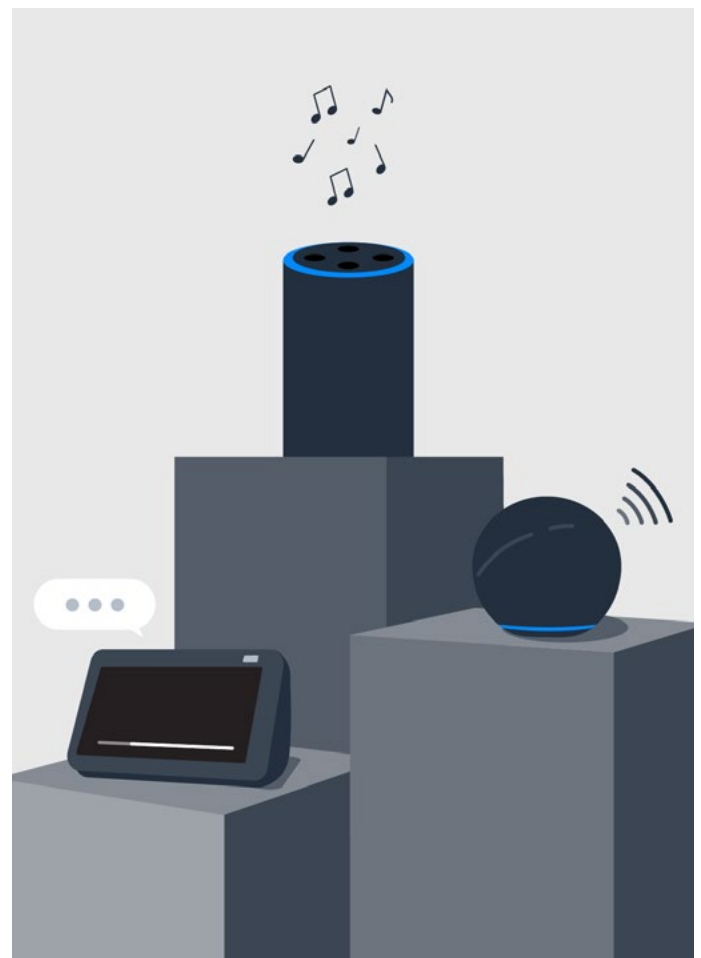
amazon ads

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Introduction

With the rise of streaming audio listening, the power of sound has become an important element when defining a brand's identity. Brands, agencies, and creative teams today are tasked with defining voice, tone, and sonic identity, in addition to a brand image. Script writers and audio ad producers face trade-off decisions on how to fill a limited short-form ad, including how many times to mention the brand, whether or not to include a call-to-action, the tone of the ad, and the amount of music or sound effects to use in the background. These sonic choices may impact how listeners perceive a brand's message, and their likelihood to respond. Streaming audio continues to grow both in size and reach. From music and news to immersive storytelling on podcasts, streaming audio advertising helps listeners engage with brands in ways that no other medium can— through the power of sound.

As a result, streaming audio advertising is a powerful way to reach audiences who are highly attentive and engaged. However, much of streaming audio listening happens while people are multitasking (like walking the dog or cooking at home), so it can be challenging for brands to build a compelling audio story that engages even the most leaned-in listeners.

Amazon Ads observed that many brands have a good understanding of why to use audio ads, but may have limited insights to guide them in how to create engaging and impactful audio messages. To help fill this gap, Amazon Ads collaborated with Sentient Decision Science on the study, "Audio Alchemy: The Art and Science of Creating Engaging and Impactful Audio Ads." With this study, we aim to provide advertisers with actionable, insights-driven recommendations on how to create audio ads that engage listeners, with the goal to improve likelihood of brand recall and purchase intent.

We will help brands answer the following questions:

- What tone(s) is/are more likely to drive engagement, recall, and purchase intent?

- How many times should I mention my brand in my audio creative?

- Should I use music or sound effects in my audio creative?

- How does adding a tagline impact the performance of my audio creative?

- How do creative recommendations change based on my campaign objectives?

Methodology

This study was conducted by Sentient Decision Science, in collaboration with Amazon Ads Measurement and Audio Creative Studios. This study used a mixed-methods design, incorporating both behavioral and survey-based research. To make this possible, we studied a sample of 50 Amazon audio ads across 8 different industries, including Consumer Packaged Goods (CPG), Hardlines/Electronics, Quick Service Restaurants (QSR), Financial Services, Professional Services, Automotive, Toys, and Hospitality. We coded each ad creative on the following variables: tone, number of brand mentions, call-to-action, sound design elements, music bed, and tagline. Each variable is defined as follows:

TONE

The conversational or presentational style in which an ad's narrative message is delivered. Examples include: casual, serious, upbeat/enthusiastic, and lifestyle.

CALL-TO-ACTION

A binary (Y/N) coding that identified whether or not the brand had an implied or direct request to the consumer to take a specific action after hearing the ad. Examples include: visit a website, go to a store, buy a specific product, search for the product.

SOUND DESIGN ELEMENTS

A binary (Y/N) coding that identified whether the message included any type of sonic design elements. Examples include: traffic sounds, wind blowing, people talking in the background, a credit card machine.

TAGLINE

A binary (Y/N) coding that identified whether the brand has a generally recognized tagline associated with the message.

MUSIC BED

A binary (Y/N) coding that identified whether the message included a music bed in the background. Examples include: rock music, relaxing music, popular music.

NUMBER OF BRAND MENTIONS

An integer indicating the number of times the brand's name was stated in the ad.

Sentient Decision Science recruited 3,500 participants from a panel of US adults ages 18+ who opted-in to participate in exchange for monetary compensation. Sentient Decision Science quantified the ability of audio advertisements to engage listeners, their ability to create a memorable brand impression (brand recall), and the ability of audio ads to lift purchase intent.

Engagement

Sentient developed a groundbreaking, scientific measure of real-time listener engagement with audio ads. This cognitive-behavioral test platform consisted of a simple but attentionally-demanding 'game,' involving guiding a ball along a procedurally-generated pathway. Each session's pathway appeared to be random, however the level of difficulty was identical in each session. Respondents were asked to keep the ball in the center of the pathway, and were penalized if the ball strayed from the path. Participants learned this game quickly, and reached steady-state performance within the first 30 seconds. A curated audio background track was used as a control stimulus. While playing the game respondents were exposed to alternating periods of the audio control stimulus and advertisements.

Brand Recall

Sentient used advanced Response Latency methods to measure the relative effectiveness of audio creative strategies in producing memorable brand impressions.

Purchase Intent

Sentient applied their highly predictive, discrete choice modeling approach that integrates both System 1 (emotional) and System 2 (rational) drivers of purchase behavior under the Proportion of Emotion Model, a straightforward extension of the standard economic model of Utility.

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Engagement
Creating Audio Ads that Engage and Inspire

Sentient Decision Science adapted well-established behavioral measures to quantify engagement with each of the tested audio creatives. Higher scores in this behavioral task indicated greater engagement with the audio creative. Our investigation uncovered four key insights, which can help develop scripts and produce audio creative that engages and inspires consumers.

💡 Key Takeaways

Engagement correlated with ad length: On average, longer ads generated higher engagement, likely due to specific creative choices made.

Audio ads with background music generated higher engagement than ads without.

Using a clear call-to-action helped drive higher engagement, on average.

Audio ads with a serious tone generated the highest level of engagement, while ads with a conversational or casual tone generated lower engagement.
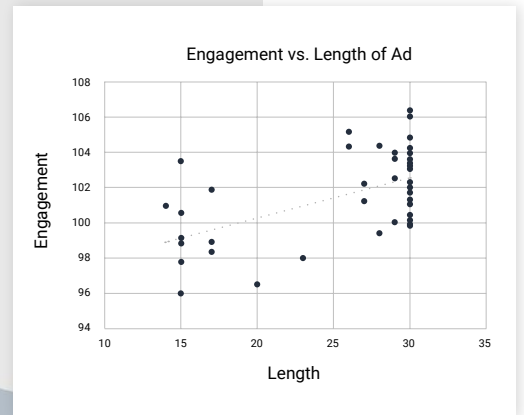
Takeaway #1

Engagement correlated with ad length: On average, longer ads generated higher engagement, likely due to specific creative choices made.

In our sample of 50 audio ads, we found that ad length had a moderately strong correlation (r = 0.6) with engagement. Our sample included ad lengths ranging from 15s to 30s, and longer ads tended to drive stronger engagement. However, the apparent effect of ad length on engagement is likely due to advertisers' efforts to abbreviate messages that deserve more airtime, instead of choosing to communicate a more elemental part of their brand story that is appropriate to a 15s–20s spot. Every brand has more than one story to tell. If time is limited, brands should choose to communicate a message that can be expressed in an engaging and compelling way in that format.
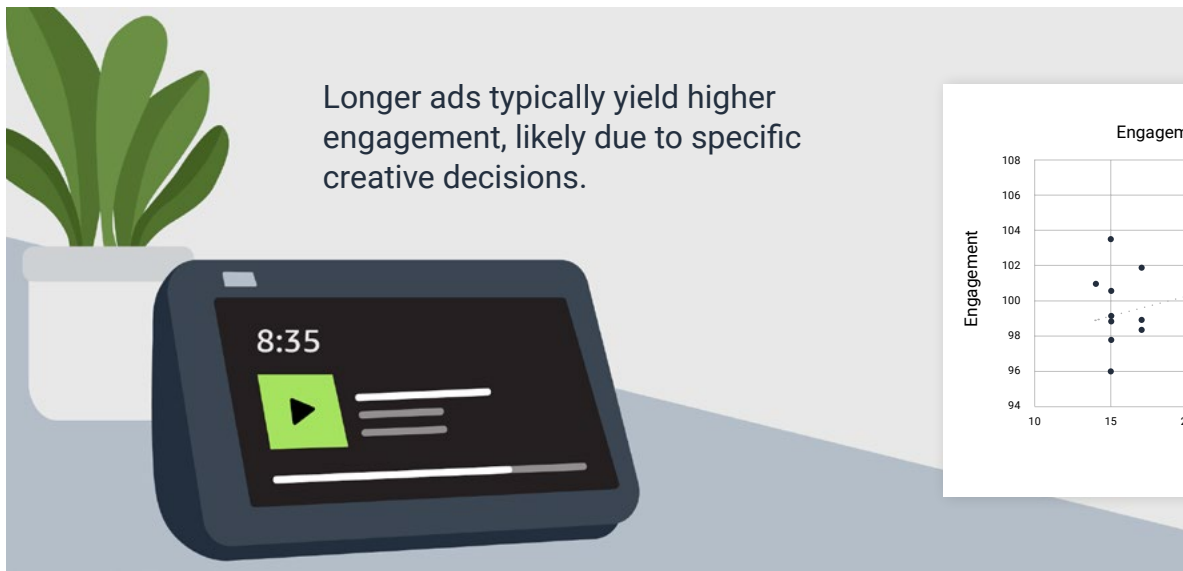
Longer ads typically yield higher engagement, likely due to specific creative decisions.
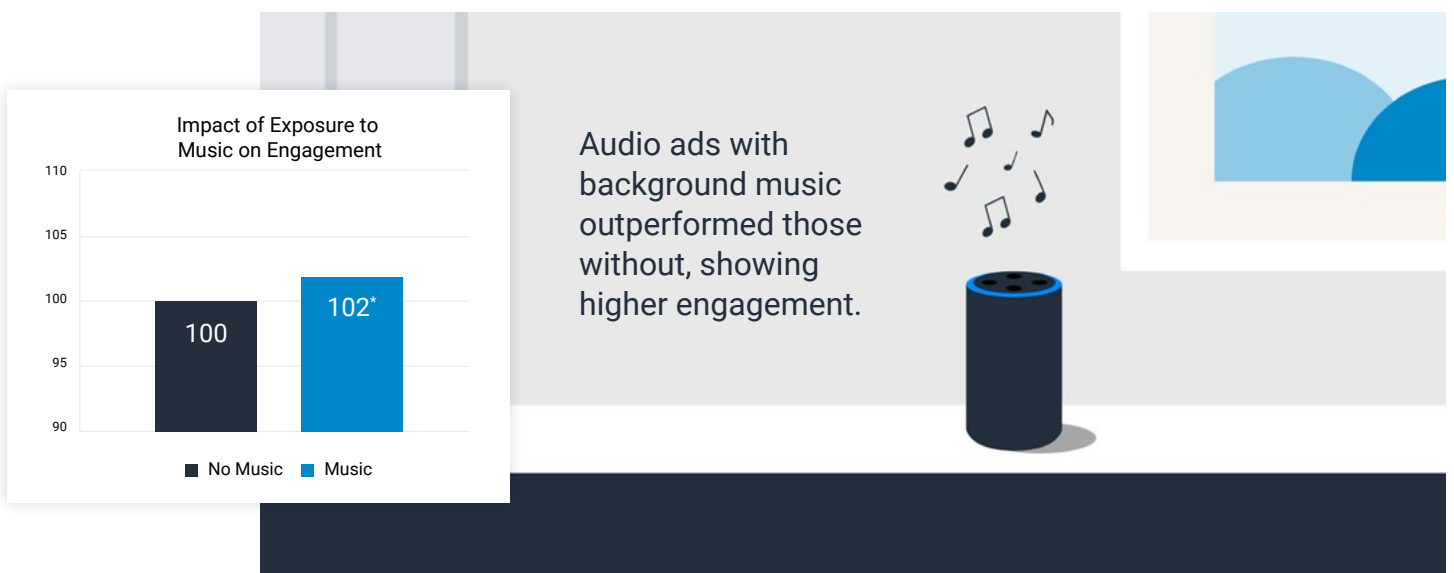
Engagement vs. Length of Ad

A moderately strong correlation between ad length and engagement indicates that brands who want to drive stronger engagement with their audio creative may benefit from ads that are 25s or more.

Takeaway #2

Audio ads with background music generated higher engagement than ads without.

Our research found that audio ads with background music generated statistically higher levels of engagement than audio ads without background music. The effect size is fairly small, but the statistical testing is significant at 95% confidence. This indicates that brands can use background music in their audio ads to earn incremental opportunities for engagement, and this effect size is likely to occur at least 95% of the time.

Impact of Exposure to Music on Engagement

No Music: 100
Music: 102*

Audio ads with background music outperformed those without, showing higher engagement.

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Takeaway #3

Using a clear call-to-action helped drive higher engagement, on average.

A call-to-action (CTA) is a statement made in an ad that the brand uses to encourage consumers to take a specific action as a result of the ad. A call-to-action may include inviting consumers to visit a website, search for the brand on the Amazon store, and more. The results showed that ads that included a clear CTA in their ad messaging generated higher engagement levels than ads that did not, on average. The growth was minimal, but the number was statistically significant. This indicates that brands searching for incremental opportunities to improve engagement may benefit from including a clear and concise CTA.

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Incorporating a clear call-to-action can improve engagement levels.

Impact of CTAs on Engagement

No CTA: 100.7
CTA: 101.7*
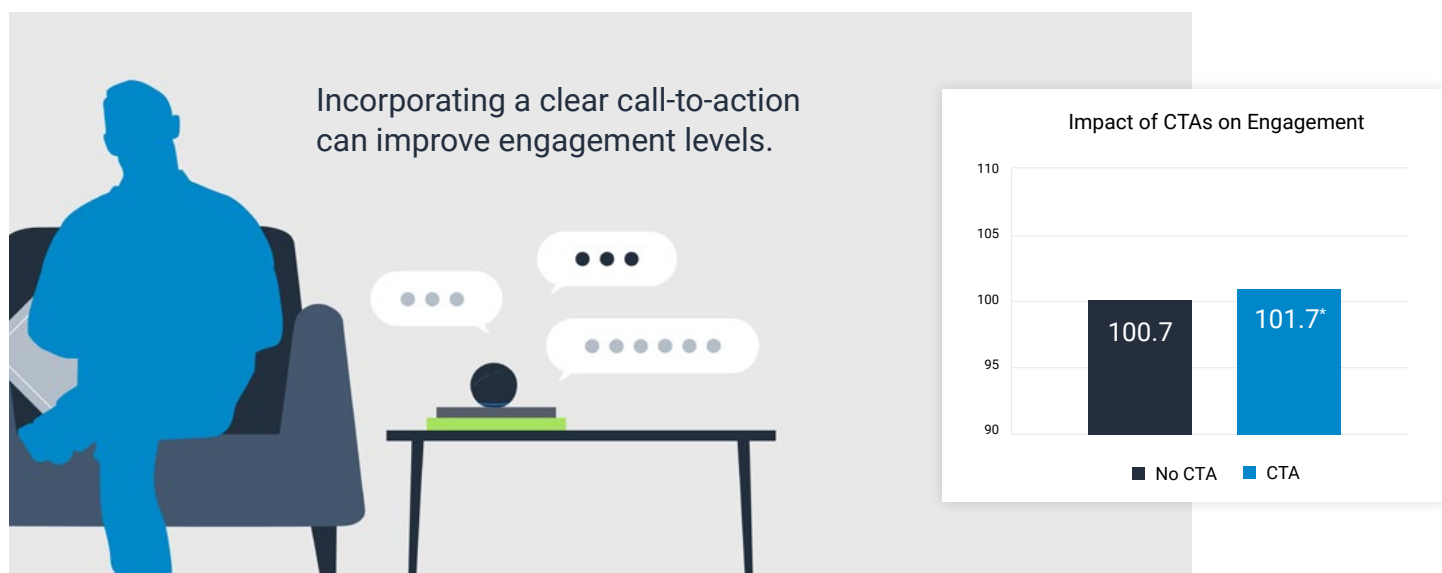
Takeaway #4

Audio ads with a serious tone generated the highest level of engagement, while ads with a conversational or casual tone generated lower engagement.

We've always believed that including a clear CTA in an ad's messaging plays an important role in engagement, but we wanted to go a step further and better understand what type of tone(s) brands could use to help improve engagement and impact of their ads. It's important to identify and use a narrative tone that is appropriate to the product or service being advertised. Audio ads addressing a serious or personal need state that used a serious narrative tone generated higher average engagement, while audio ads with a conversational or casual tone generated lower average engagement. This suggests that casual or conversational tones are being applied in many cases where they don't enhance features and benefits valued by consumers.

This research indicates that, when appropriate to the product or service being advertised, a serious tone can help brands drive engagement in their audio ad messaging. In this study, we define serious as a deliberate, straightforward way of communicating brand or product benefits without puffery.

Ads employing a conversational or casual tone experienced diminished engagement levels.
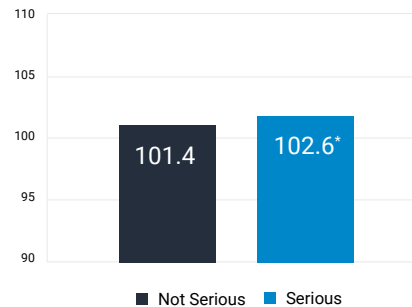
Audio ads adopting an informational tone saw increased engagement rates.

Impact of Exposure to Conversational/Casual on Engagement

102 — Not Conversational/Casual
100* — Conversational/Casual

■ Not Conversational/Casual
■ Conversational/Casual
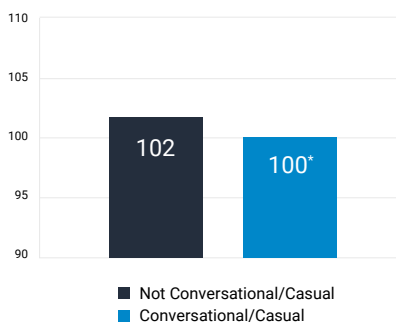
Impact of Exposure to Seriousness on Engagement

101.4 — Not Serious
102.6* — Serious

■ Not Serious   ■ Serious

Brand Recall

Creative Recommendations for Encoding Memory and Recall

💡 Key Takeaways

@ More mentions led to higher recall on average: Ads with at least 2x brand mentions in the messaging generated stronger recall compared to ads with only 1x brand mention.

★ Messages that included a brand tagline improved brand recall, on average.

♪ While adding unbranded music to the background of an ad helped improve engagement, it had a negative effect on brand recall overall.

... An upbeat or enthusiastic tone did not strengthen brand recall for the advertised brand.

Takeaway #1

More mentions led to higher recall on average: Ads with at least 2x brand mentions in the messaging generated stronger recall compared to ads with only 1x brand mention.

Perhaps unsurprisingly, our research found that more brand mentions can lead to higher brand recall on average. For this, we studied ads that were 15s to 30s in length, and included up to 7 brand mentions. Our results indicate that audio messages 15s to 30s in length may strengthen brand recall if 3 to 6 brand messages were included. The study also found a potential point of diminishing returns at 7 mentions per 30s commercial, but the sample size was too small to be considered significant.

Ads featuring at least two brand mentions achieved higher recall compared to those with just one mention.
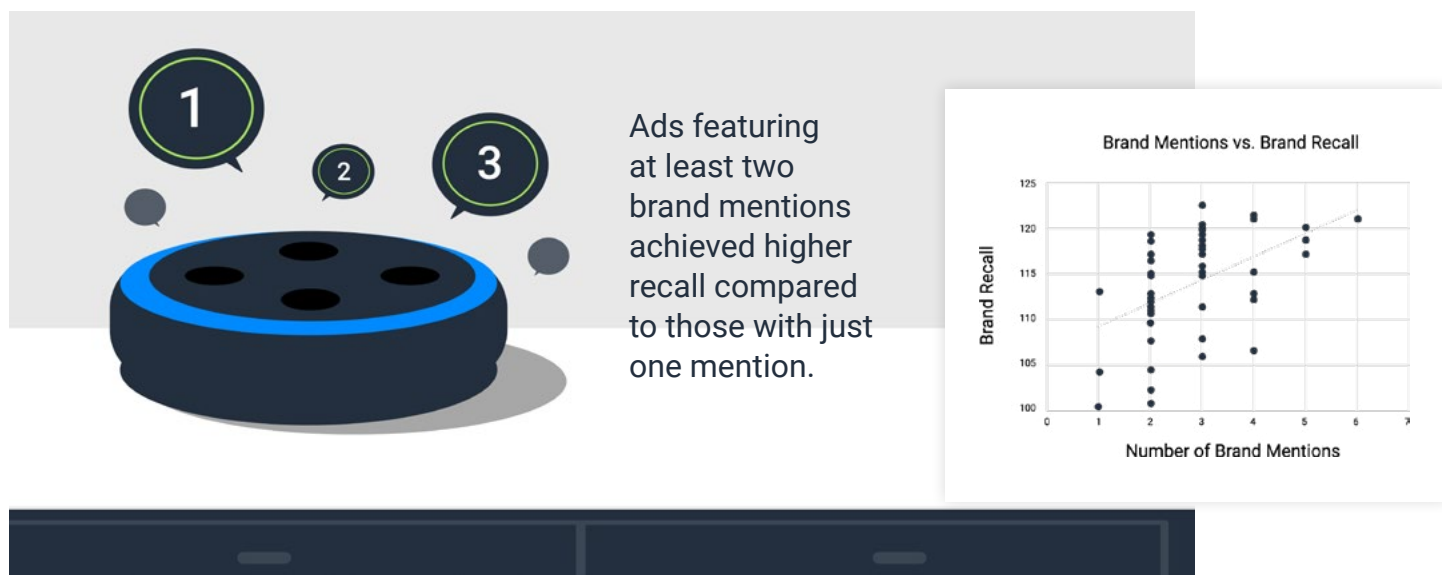
Brands with 3 to 6 brand mentions drove stronger brand recall than audio messages with less than 3 brand mentions.
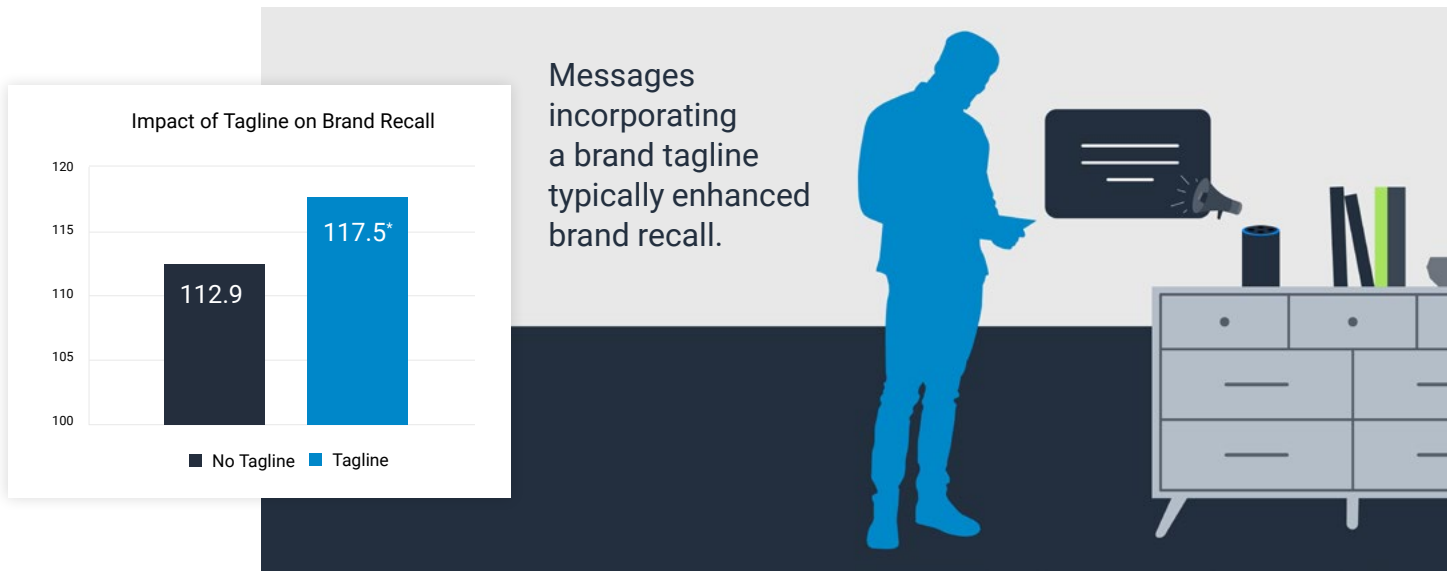
Takeaway #2

Messages that included a brand tagline improved brand recall, on average.

For many brands, a tagline is an integral component of their brand identity. Much like a sonic logo, taglines can be as closely associated with the brand as the products or services they sell. In our research, we found that adding a tagline to an audio message helped improve memory encoding of that brand. In fact, brand recall increased when the audio message included a brand tagline compared to audio messages that did not include a tagline, a result that was significant at 95% confidence.

Through years of analyzing advertisements Sentient's team has determined that when brand impressions occur during emotional peaks, the ad is more likely to be remembered. Brands should leverage their engagement peaks to improve how memorable their asset is.

Impact of Tagline on Brand Recall

112.9 — No Tagline
117.5* — Tagline

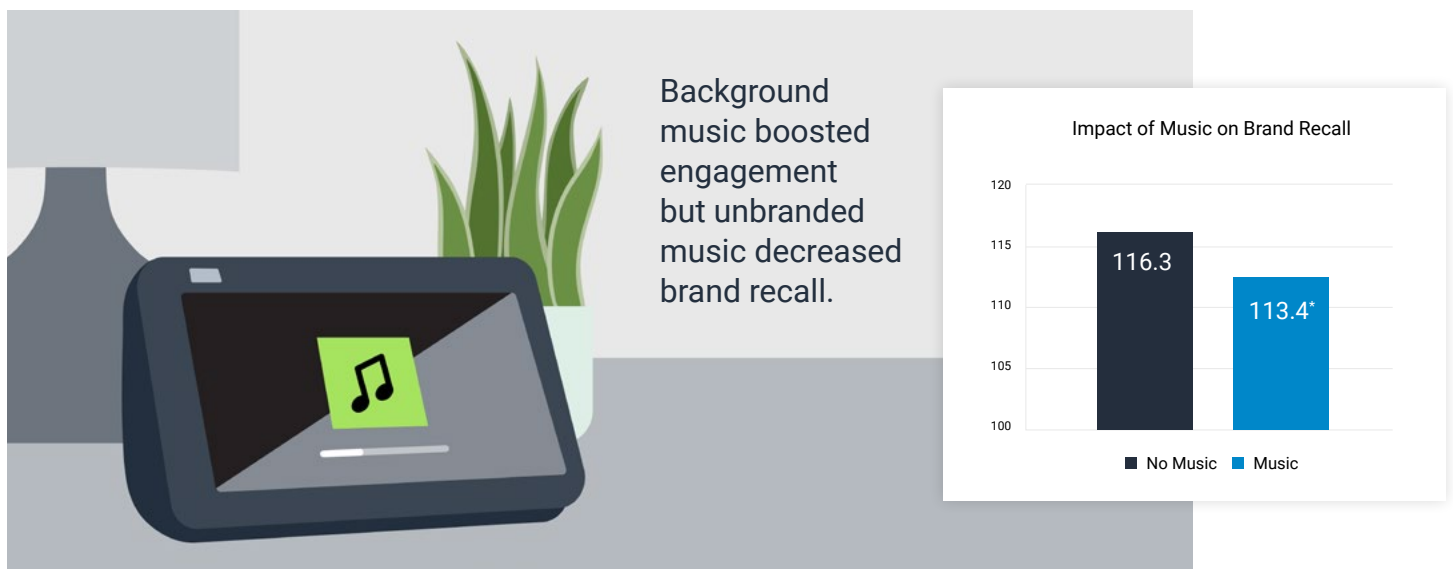Messages incorporating a brand tagline typically enhanced brand recall.

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Takeaway #3

While adding unbranded music to the background of an ad helped improve engagement, it had a negative effect on brand recall overall.

So far, we learned that including background music in an audio ad could help improve engagement. However, our research indicated that unbranded background music may have an adverse effect on brand recall. This is an interesting finding because many brands use music to set the tone for their message and/or to help make their message more memorable. While music itself does drive engagement, music that is not uniquely associated with the brand does not help strengthen brand recall. Our insights found that brands who strive to improve brand recall may benefit from excluding unbranded background music in their ad, and instead focus on the use of branded sonic assets, possibly in combination with a catchy tagline, as noted in Takeaway #2 above.
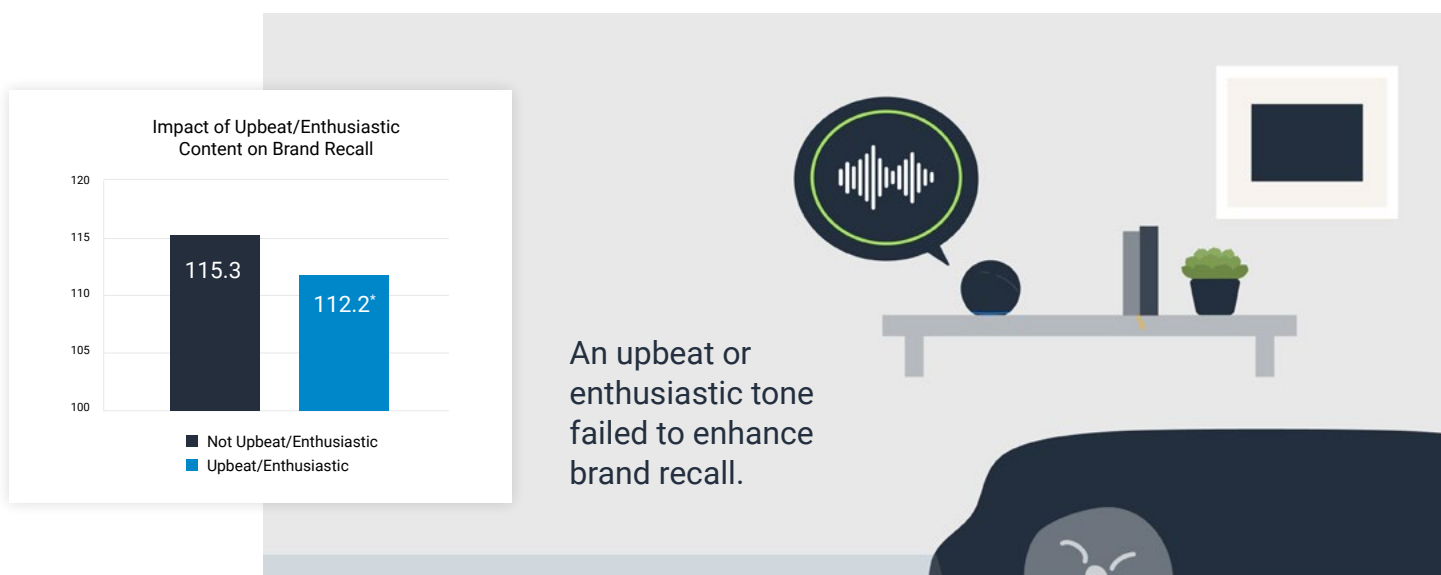
*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Background music boosted engagement but unbranded music decreased brand recall.

Impact of Music on Brand Recall

116.3 — No Music
113.4* — Music

Takeaway #4

An upbeat or enthusiastic tone did not strengthen brand recall for the advertised brand.

Like taglines, tone can be an integral part of a brand's identity. In these cases, it is important for brands to remain consistent in their tone across marketing channels. However, our research suggests that brands who want to drive higher recall may want to steer clear of having a tone that is too upbeat or enthusiastic. Tones that are not well-suited to the product or service being advertised will not help to strengthen brand recall. We observed a significant decline in brand recall among audio brands with an enthusiastic tone compared to those without an upbeat or enthusiastic tone. This indicates that while a positive or upbeat tone may entertain listeners, a mismatched or inappropriate tone can undermine memory encoding of the core brand message.

Impact of Upbeat/Enthusiastic Content on Brand Recall

- ■ Not Upbeat/Enthusiastic — 115.3
- ■ Upbeat/Enthusiastic — 112.2*

An upbeat or enthusiastic tone failed to enhance brand recall.

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Purchase Intent

Building Audio Creative That Helps Drive Purchase Intent

So far, we have covered insights-driven recommendations to help drive upper funnel branding metrics, such as engagement and recall. In this section, we will uncover insights to help drive lower-funnel metrics, such as purchase intent. Sentient applied their highly predictive, discrete choice modeling approach that integrates both System 1 (emotional) and System 2 (rational) drivers of purchase behavior under the Proportion of Emotion Model, a straightforward extension of the standard economic model of Utility.

Our findings show three key insights into how brands create audio ads that can help drive strong purchase intent.

💡 Key Takeaways

Consumers want to hear from other consumers: Ads with testimonials drove stronger purchase intent than ads without.

In all seriousness... seriousness works: Ads with a serious tone drove stronger purchase intent than ads without.

Calls-to-action may not always drive results: Among the ads tested, the inclusion of CTAs didn't drive stronger purchase intent.
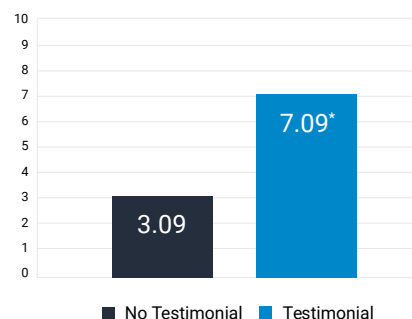
Takeaway #1

Consumers want to hear from other consumers: Ads with testimonials drove stronger purchase intent than ads without.

Our research revealed that ads that included customer testimonials outperformed ads that did not use customer testimonials. We define customer testimonials as individuals speaking about the utility or effectiveness of a product or service. The effect size was one of the largest observed in the study, with a significant increase in purchase intent scores between brands who used a testimonial vs. those who did not. While many of the recommendations outlined in this study offer brands the opportunity to earn incremental gains in their messaging impact, our results indicate that using a testimonial may help brands have an exponential impact on purchase intent.

Consumers value peer perspectives: ads featuring testimonials spurred greater purchase intent compared to those without.
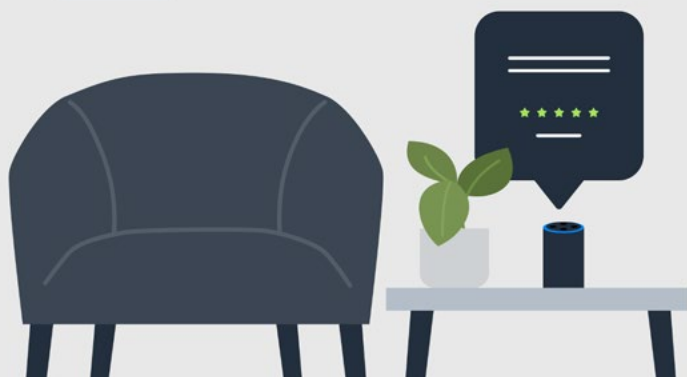
Impact of Testimonial on Purchase Intent

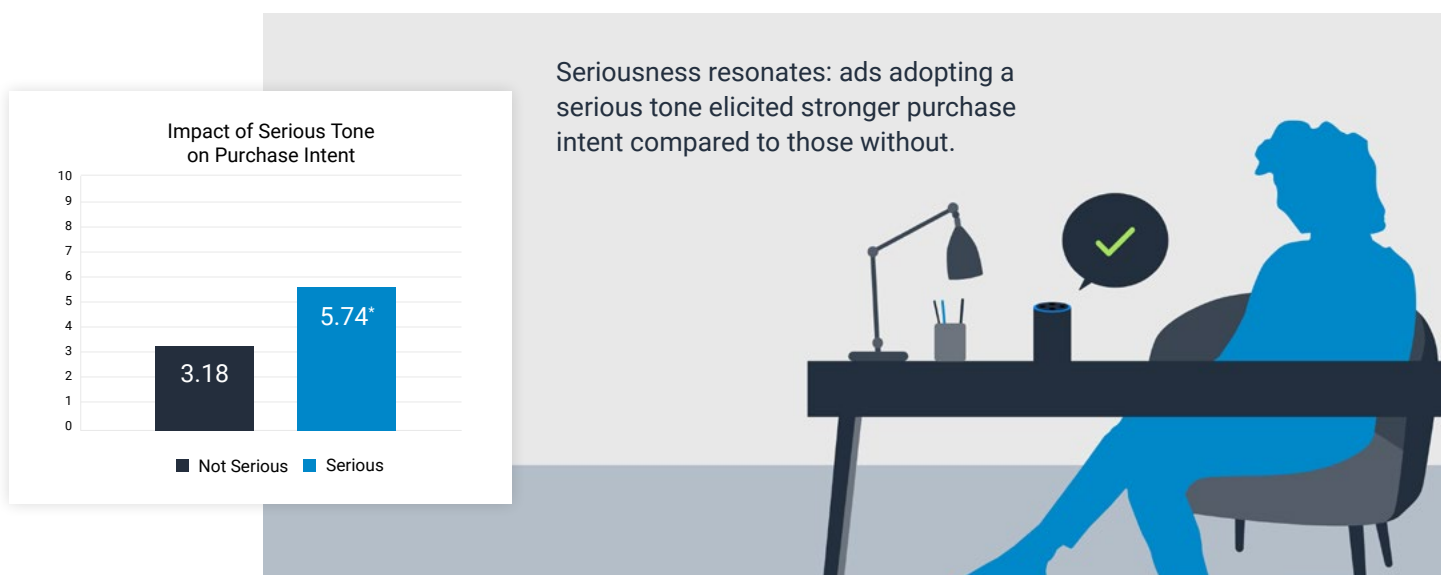|	
No Testimonial	3.09
Testimonial	7.09*

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Takeaway #2

In all seriousness…seriousness works: Ads with a serious tone drove stronger purchase intent than ads without.

Using a serious tone in your ad can help drive purchase consideration as well. Our research highlighted that ads with a serious tone generated higher purchase intent compared to ads without a serious tone. It's important to note that the ads we tested with a serious tone included industries such as financial services, medical, and personal services brands. These types of services may be more well-suited for a serious tone, where the ad speaks to the product features and benefits in a way that is clear, concise, and direct.

Seriousness resonates: ads adopting a serious tone elicited stronger purchase intent compared to those without.

Impact of Serious Tone on Purchase Intent

Not Serious	3.18
Serious	5.74*

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.
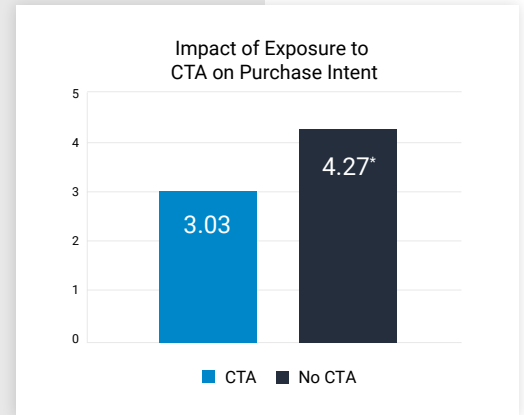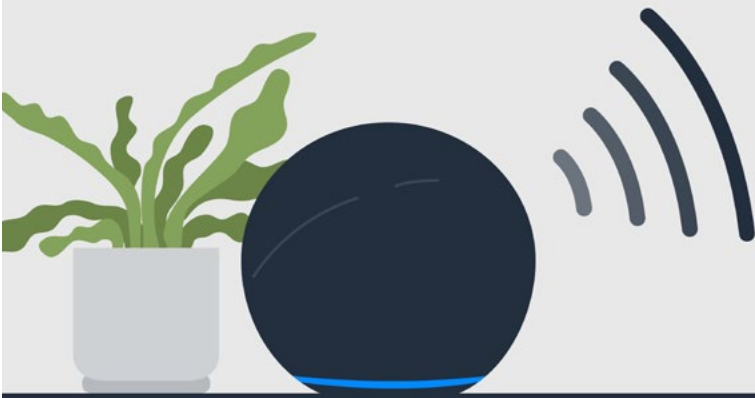
Takeaway #3

Calls-to-action may not always drive results: Among the ads tested, the inclusion of CTAs didn't drive stronger purchase intent.

Earlier in this study, we learned that including a CTA in an audio ad may help improve engagement incrementally. However, our research indicates that ads without a CTA performed higher on purchase intent than ads with a CTA. The ads we tested with no CTA spanned a variety of industries including personal services, financial services, CPG, and hardlines/electronics. The sample size was not large enough to segment into CTA features such as CTA type, CTA length, or number of times the CTA is mentioned—all of which may contribute to these findings. Future research may dive deeper into CTA features to shed additional insight into our research finding.

Our findings indicate that brands who want to drive purchase intent with their audio ad may opt not to include a CTA.

Among the ads tested, the inclusion of calls-to-action did not consistently drive stronger purchase intent.

Impact of Exposure to CTA on Purchase Intent

CTA: 3.03
No CTA: 4.27*

■ CTA ■ No CTA

*indicates a statistically significant difference at a 95% confidence level. Sentient Decision Science conducted a study with 3,500 participants selected from a panel of US adults ages 18+.

Key Takeaways and Conclusion

There is both an art and science to building engaging and effective audio ads. With this study, we aimed to provide actionable, insights-driven recommendations on the tactics brands can use to help drive engagement, recall, and purchase intent with their audio ads creative. We summarize key takeaways below.

Using a serious tone can help drive engagement and purchase intent, while ads with a casual/conversational tone may lead to lower engagement. If tone is not a key part of your brand identity, consider revising or experimenting with your tone based on specific campaign objectives.

Using a CTA can help improve engagement, but may have an adverse effect on purchase intent. If your goal is to improve purchase intent, avoid excessive use of CTAs. Instead use the time to deliver a tagline and/or provide clear customer benefits and product features.

The number of brand mentions had a moderately strong correlation with strength of brand recall. We recommend using 3 to 6 brand mentions in 15s–30s ads in length to help generate strong brand recall.

Using background music can help drive engagement but may lower brand recall in some instances. Consider experimenting with using a music bed if the campaign objective is to help drive engagement or skip the unbranded music bed if the campaign objective is memory or recall.

Ads that included a tagline had stronger average brand recall compared to ads that did not. If the objective is to strengthen memory or recall, consider increasing number of mentions and include your brand's tagline.

Use testimonials to help make your product or service more relatable to consumers and help drive purchase intent. Adding a testimonial had the largest impact of all variables tested, meaning that advertisers may help exponentially improve purchase intent by including a testimonial.

While this study provides data-driven insights that can help creatives and brands make the most of their "sound" creative strategy, the art lies in the hands (and ears) of the creatives that use these insights to craft audio messages that break through and resonate. Amazon Ads offers a full service creative studio, with specialists in script writing, voice-over, talent selection, and production, that delivers end-to-end audio creative development. Amazon Ads engaged Sentient Decision Science to develop innovative scientific testing methods, produce objective quantitative measures of audio advertising's impacts, and document evidence-based best practices in narrative construction, sonic design, and brand communication. Learnings from this study not only guide brands through creative best practices, but also improves our understanding of audience attention in a growing streaming landscape, enabling more informed decision-making.

Sentient Decision Science's groundbreaking study of audio advertising's ability to capture attention, drive brand impressions, and motivate listeners is now available to brands working with Amazon Ads, whose partners benefit from the combination of both the art and the science of audio creative development.

To learn more about Amazon audio ads, please reach out to your Amazon Ads Account Executive. To learn more about Sentient Decision Science, visit our webpage here at sentientdecisionscience.com.

About Sentient Decision Science

For nearly two decades, Sentient Decision Science has combined advanced research capabilities and methods from the behavioral sciences with true implicit technology and Emotion AI to predict behavioral outcomes and economic impacts of marketing activities with the highest possible accuracy. Our scientifically sound methodologies and Emotion AI technology helps brands optimize their creative assets and achieve their messaging goals—offering insight into real-time audience response to media. This insight is foundational to how we evaluate and remember experiences, including audio streaming.

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Since 1995, Dr. McCandless has specialized in Neuroethology—the study of brain function during natural behavior and stimulation—with a focus on motivation, goal-directed behavior, navigation and spatial orientation, gaining extensive experience in the direct investigation and analysis of the neurophysiological systems underlying the structure and causes of behavior, as well as non-invasive brain imaging methods such as fMRI and advanced computational modeling and statistical analysis of dynamic systems. Dr. McCandless created the Machine Learning and Deep Learning models at the heart of Sentient Expression® which powers the industry-leading ad testing product, Sentient Subtext®.

Dr. McCandless is the recipient of four competitive federal awards to support his research into the neurophysiology of behavior and cognition. He has published in major peer-reviewed journals, and presented his work at national and international conferences.

Dr. McCandless earned his M.S. in Neuroscience and his Ph.D. in Neurobiology from the University of Pittsburgh. He also holds a Certification in Cognitive Neuroscience from the National Science Foundation's Center for the Neural Basis of Cognition.

Dr. Aaron Reid is the Founder and CEO of Sentient Decision Science, Inc., the world's leading behavioral science based insights business.

A published expert in how emotion influences choice, Dr. Reid's mathematical models of human decision making are the new standard for forecasting the success of new product launches, ad virality, and marketing communication impact.

Dr. Reid founded Sentient to make the visionary advances from the behavioral sciences practical for business. Sentient has created globally scaled technologies that capture the automatic, emotional response to stimuli. Sentient Prime® Implicit Research Technology has won awards for business impact, has been translated into 40+ languages, and has measured over 350 million consumer subconscious associations in the past 2 years alone.

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A special thank you to our Amazon Ads authors and their collaboration during this project.

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