Consumer Research

Driving Viewer Attention and Brand Metrics in CTV Advertising

Understanding the Impact of AI in Contextual Targeting

Executive Summary

A consumer study to measure the impact on viewer attention and brand perception of CTV advertising revealed that ads targeted using AI-enabled contextual data outperform targeting using standard demo and publisher-declared metadata.

Viewers paid more attention to the ad, learned more about the product and were more interested in the products shown in AI-enabled contextually targeted ads.

Respondents frequently commented that ads were engaging even if the product wasn't relevant and that they would remember the product and bring it up in conversation.

The study also revealed that viewers are sensitive to irrelevant and brand unsuitable ad placements resulting in reduced attention and increased negative perception of the brands and products appearing in the ads.

AI-enabled Contextual Targeting

Attracts Viewer Attention

4X more than pub-declared metadata

3X more than demo data

More Memorable

2X higher **unaided** brand recall

4X higher **aided** brand recall

Increases Brand Interest

42% of viewers were more interested in the brand and products

Poor Brand Suitability Matters

54% of viewers were less interested in the brand

31% of viewers like the brand less

Objectives

At its current pace, CTV ad spending in the US is expected to grow to $41 billion by 2027*. As linear TV ad budgets follow viewers into CTV, buyers are mindful of the significant differences in targeting capabilities and their impact on viewers attention and brand perception.

Linear TV is delivered to millions of viewers who typically see the same ads simultaneously. Targeting is based on the network and viewership demographics, while brand suitability is determined by program restrictions at the show level.

In CTV, millions of viewers stream their favorite shows, but viewers see different ads because targeting is based on identity and demographic data sets. Due to technology and legal reasons, buyers cannot apply the same brand suitability program restrictions in CTV. Unlike a mobile device which is personalized to the viewer, a smart TV is shared in a household of several viewers. As a result, buyers are unclear who saw the ad what type of content the ad appeared within.

Contextual targeting enabled by AI is being used to increase ad relevance and therefore drive attention and brand perception. This study seeks to measure its effectiveness in driving these metrics compared to demo targeting and publisher-declared metadata.

Does AI-enabled contextual targeting outperform standard demo and pub-declared metadata in driving attention and brand KPIs in CTV?

Does brand suitability impact CTV viewers' attention and brand perception?

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*Source: eMarketer

Study Design

Panel

A nationally representative panel of 24 households that regularly watches ad-supported streaming TV was selected to watch over 1,000 ad experiences.

To simulate the CTV experience, participants watched control and test content on their smart TV at home. They were allowed to have their phones and any other items they would usually have when watching TV.

Half of the participants watched in pairs.

Upon completion of the 90 minutes of programming, the participants were interviewed and surveyed.

Methodology

Participants wore eye-tracking glasses while watching three episodes of a popular sitcom rated TV-MA. Each participant watched the same sequence of episodes. The order of exposure to the control and test ads were randomized and distributed evenly across participants.

Why Eye Tracking?

CTV viewing is most often experienced at home, in a common space, with multiple people. The glasses track exactly where the viewer focuses their attention. They are designed with unobstructed side view to ensure natural consumer behavior. A camera and microphone captures the full detail of the experience in the environment.

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Study Design: The Ad Experiences

Control and test ads were for products and services that typically appear in ad-supported streaming including:

| Alcohol | Auto | CPG | Dating App | DIY | Insurance | Legal Services | Movie Trailer | Pharma | QSR | Tourism |

Demo (Control)

CTV Advertising Status Quo

The control ad group was created by using the actual ads that appeared in each episode when streamed from the show's app on a smart TV. Without any additional contextual targeting, this group represents demo targeting.

Pub-declared Metadata

Targeting App, Genre, Rating

The pub-declared metadata ad group was created by selecting the ads that were served on the app that streams the show but curated to align to content metadata passed in the bid-stream by the publisher. For example: content genres (Comedy or Entertainment) or ratings (PG-13 or MA).

AI-enabled Context

Targeting AI-created Segments

The AI-enabled context ad group were selected to appear in episodes that were analyzed using AI and assigned Global Alliance for Responsible Media (GARM) brand suitability segments extracted from analyzing each episode's video, audio, and text.

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Study Design: The Viewing Experience

Three versions of each episode were generated, one version for each ad experience.

The episodes were shown in the same order for each participant.

The order of exposure to the ad experiences was randomized and distributed evenly across participants to minimize order effect.

Participants were exposed to the same quantity of ads from demo, pub-declared, and AI-enabled groups.

Order of Viewing Experience

Version	1	2	3	4	5	6
Episode 1	D	P	D	P	AI	AI
Episode 2	P	D	AI	AI	D	P
Episode 3	AI	AI	P	D	P	D

Key
— D: Control (demo)
— P: Pub-declared (metadata)
— AI: AI-enabled contextual

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What is AI-enabled contextual targeting?

AI-enabled contextual intelligence analyzes a video frame-by-frame to create standard and custom contextual segments and GARM brand suitability segments for targeting and risk management.

GARM Brand Suitability Framework

- Adult & Explicit Sexual Content
- Arms & Ammunition
- Death, Injury or Military Conflict
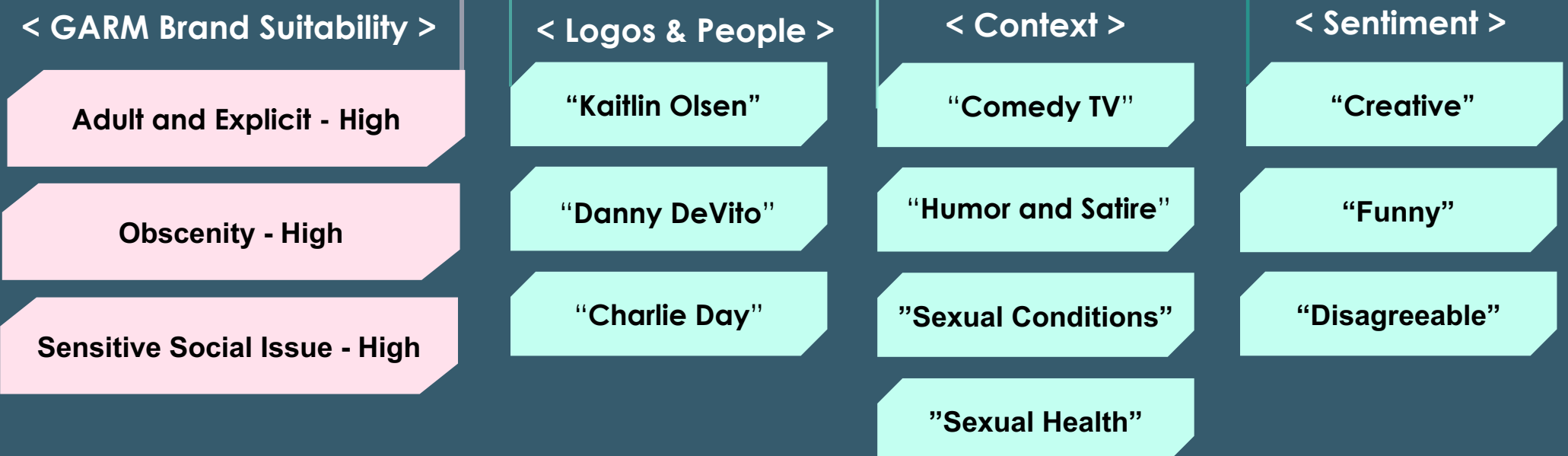- Hate speech & acts of aggression
- Online Piracy
- Obscenity and Profanity
- Illegal Drugs
- Spam or Harmful Content
- Terrorism
- Debated Sensitive Social Issue
- Crime & Harmful acts to individuals and Society, Human Rights Violations

< GARM Brand Suitability >
- Adult and Explicit - High
- Obscenity - High
- Sensitive Social Issue - High

< Logos & People >
- "Kaitlin Olsen"
- "Danny DeVito"
- "Charlie Day"

< Context >
- "Comedy TV"
- "Humor and Satire"
- "Sexual Conditions"
- "Sexual Health"

< Sentiment >
- "Creative"
- "Funny"
- "Disagreeable"

How does AI create contextual segments?

Contextual intelligence engines utilize AI including computer vision and natural language understanding to watch, listen, and read video content frame-by-frame to create contextual and GARM brand suitability segments that can be targeted by advertisers.
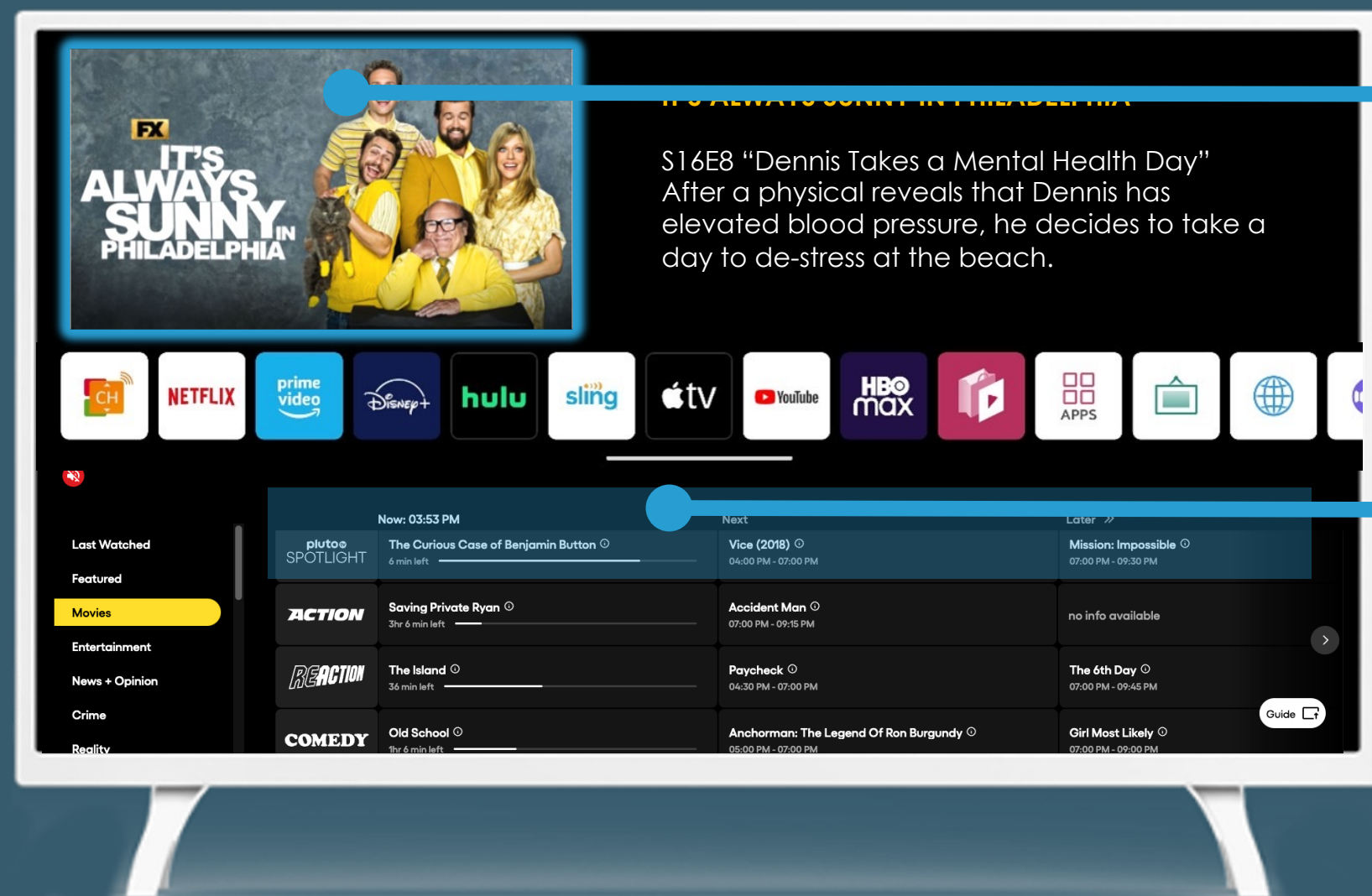
VIDEO ASSET
- Video URL
- Captions
- Transcript
- Custom

PROGRAM-LEVEL DATA
- Title
- Series
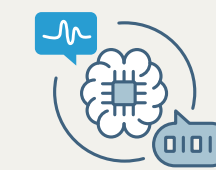- Episode
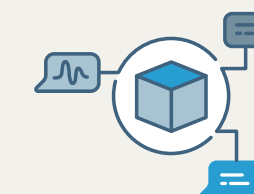- Descriptions
- Keywords
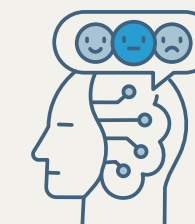- Categories
- Custom

VIDEO-LEVEL DATA

COMPUTER VISION

LANGUAGE UNDERSTANDING

SPEECH RECOGNITION

SENTIMENT ANALYSIS

AI-ENRICHED SEGMENTS

Contextual
- Tier 1 Categories
- Tier 2 Categories
- Custom
- Celebrities
- Objects/Logos/Places
- Sentiment
- More…

Brand Suitability

Global Alliance for Responsible Media

GARM

High, Medium, Low Risk brand suitability categories

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Results

Objective 1

Does AI-enabled contextual targeting outperform standard demo and generic pub-declared metadata in in driving attention and brand KPIs in CTV?

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AI-enabled contextual targeting
attracts and holds attention.

4X Fewer Ads Missed*
AI-enabled contextual ads were seen, while ads in the demo and pub-declared groups were more likely to be missed entirely.
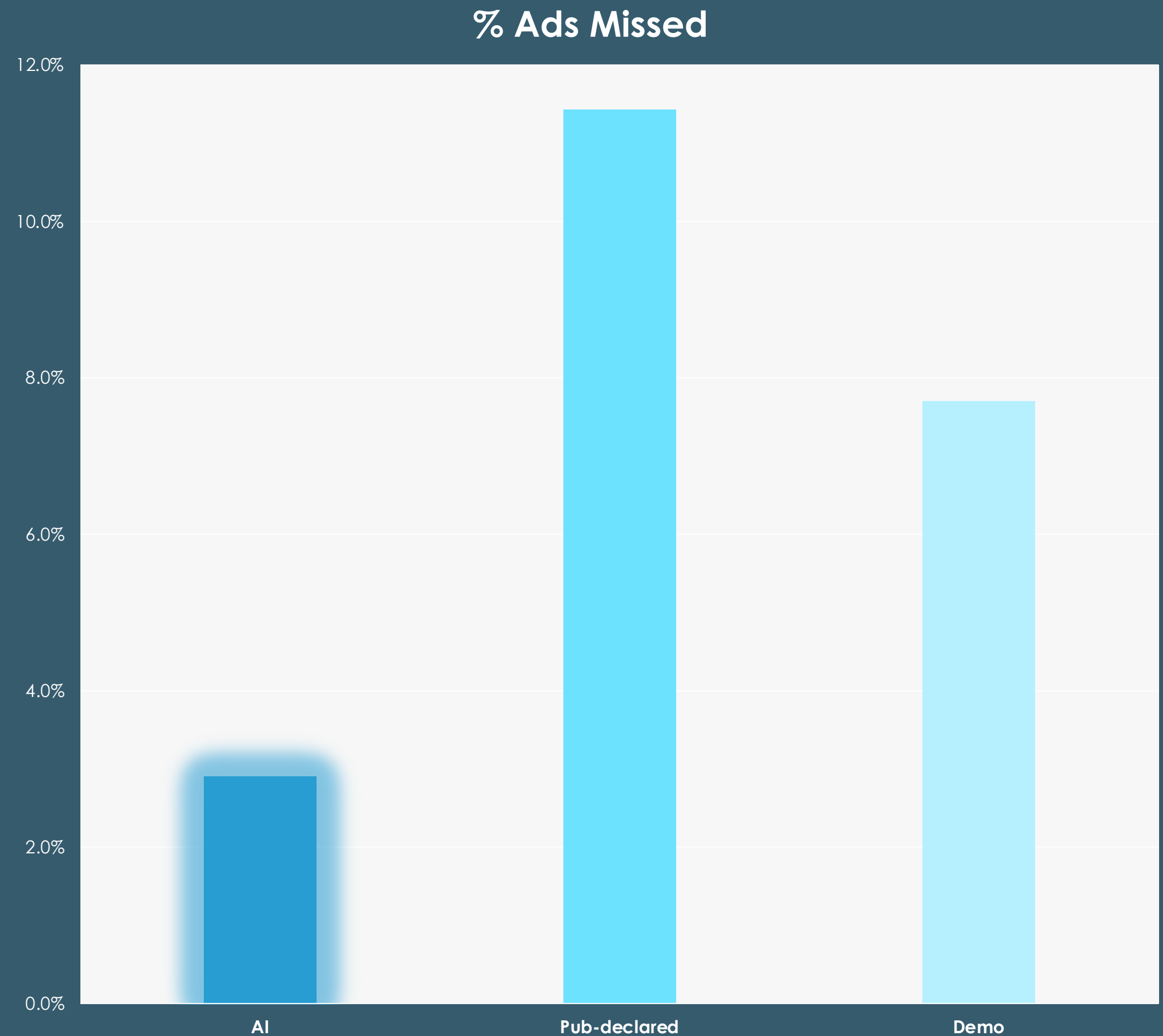
22% More Ads Seen from Beginning
When the show transitioned into an ad break, viewers were less likely to look away from AI-enabled contextual ads.

15% More Total Ad Attention
Viewers of AI-enabled contextual targeting were the least distracted.

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% Ads Missed

Bar chart showing % Ads Missed. Y-axis from 0.0% to 12.0%. AI ≈ 2.9%, Pub-declared ≈ 11.4%, Demo ≈ 7.6%.

*Ads missed: Out of all ad opportunities what proportion of ads were not seen entirely by participants across the three ad experiences. When not watching ads, participants were engaging with their phone or other members of the household.
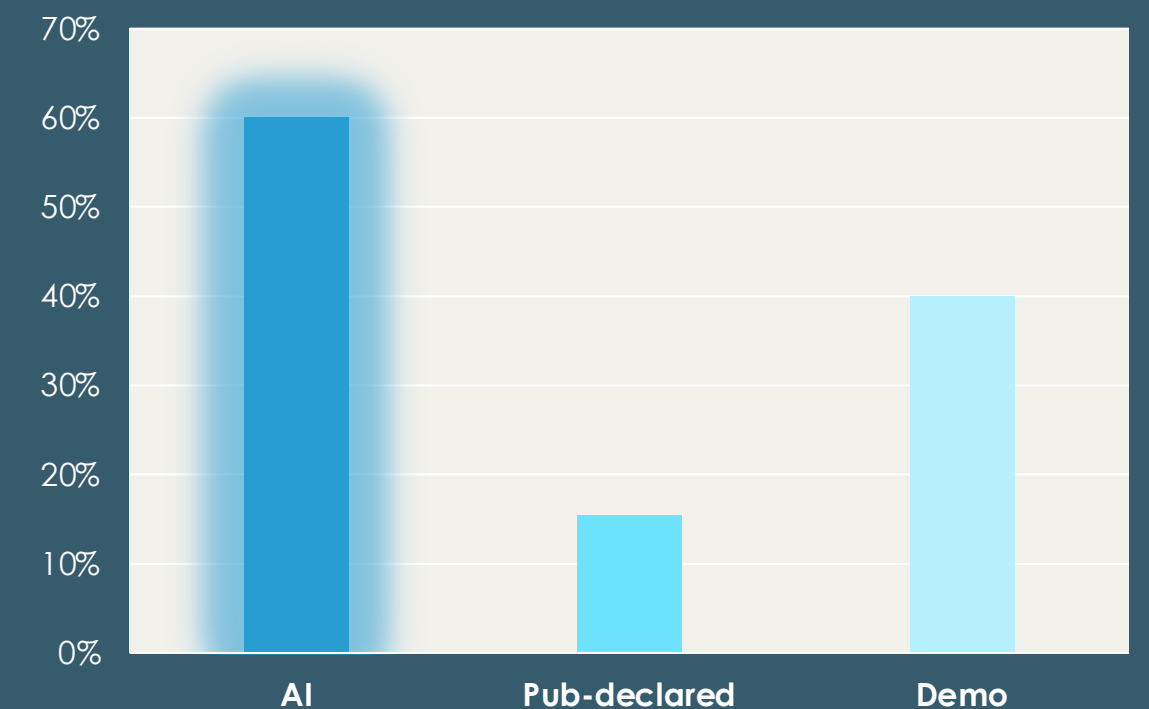
AI-enabled contextual targeting
increases brand interest.

" *They were way more engaging and I would probably pay attention to them a lot more. Even if they didn't actively relate to me. If someone's asking me for advice, maybe I'll recommend it.*
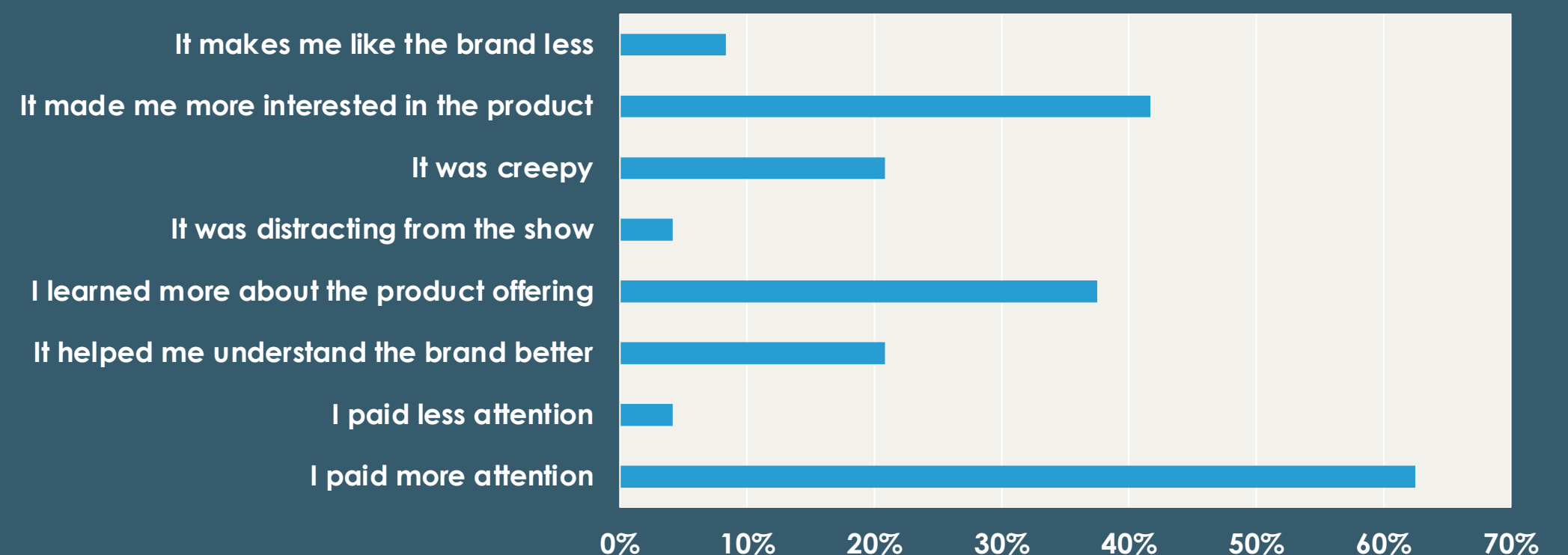*-Panelist* "

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42% More interested in the product

Viewers **paid more attention** to the ad, **learned more** about the product, and were **more interested** in the products shown in AI-enabled contextually targeted ads.

Respondents frequently commented that ads were engaging even if the product wasn't relevant and that they would remember the product and bring it up in conversation.

Viewer Feedback to AI-enabled Contextual Targeting

Horizontal bar chart with categories (top to bottom):
- It makes me like the brand less
- It made me more interested in the product
- It was creepy
- It was distracting from the show
- I learned more about the product offering
- It helped me understand the brand better
- I paid less attention
- I paid more attention

X-axis: 0% 10% 20% 30% 40% 50% 60% 70%

AI-enabled contextual targeted ads are as engaging as the show.

" *"This one [AI contextual] was like smart. You have the people in the show in these ads, you have lighthearted, noncontroversial, nonpolitical, you know, just like you said, not jarring. All these things, like almost to the point where like you want to pause to keep watching the commercials."*
– Panelist

Viewers reject the status quo of CTV advertising

The **demo targeting group** comprising of actual CTV ad experiences was the least engaging and inspiring. Participants commented on the generic nature of the ads and pharmaceutical products as particularly likely to trigger disengagement.

Viewers commented on several positive aspects of the AI-enabled contextual ad experience.

✓ Actors from the show appear in the ads
✓ Same comedy style as the show
✓ Subtle connections with themes and topics adding to the humor

The impact on viewers was overwhelmingly positive.

✓ Viewers described themselves as happy, surprised and interested because of the ad experience
✓ The ad content felt relatable and personable
✓ Several indicated they liked the brand and offerings more as a result

ads are as engaging as the show.

While ad breaks are typically when users disengage, there are ad qualities that can increase engagement and many were not only present for the AI platform, but significantly enhanced.

Ad Qualities that Engage	Qualities of AI-enabled Contextual Ads	Impact
Relevant	Favorite actors	High relevance to show resulted in high relevance to viewer because of the connection to the show.
Relatable	Actors like in the show	
Familiar	Same comedy style as the show	The ad experience felt far more curated and relevant than the other ad experiences.
Funny, skit like	Same location as the show	
Talking directly to viewer	Same style as the show	Several commented on a feeling that 'they know me', and that 'they're talking to me', thus 'breaking down the 4th wall'.
Prompts curiosity	Subtle connections with themes and topics adding to the humor of the ad	
Familiar characters		
Favorite actors, celebrities		Viewers described the overall AI ad experience as surprising, seamless, and entertaining.
Compelling, ear-catching sounds		
New and unknown, or new and familiar from social media		Respondents commented frequently that ads were engaging even if the product wasn't relevant, that they would remember the product and bring it up in conversation.

Results

Objective 2

Does brand suitability impact CTV viewers' attention and brand perception?

Poor Brand Suitability

makes CTV viewers tune out ads and reduces brand favorability.

"I feel like I almost go in my shell, pretend like it didn't happen. I think that it would have more of a negative effect on how I would perceive the brand just because I don't like feeling uncomfortable.
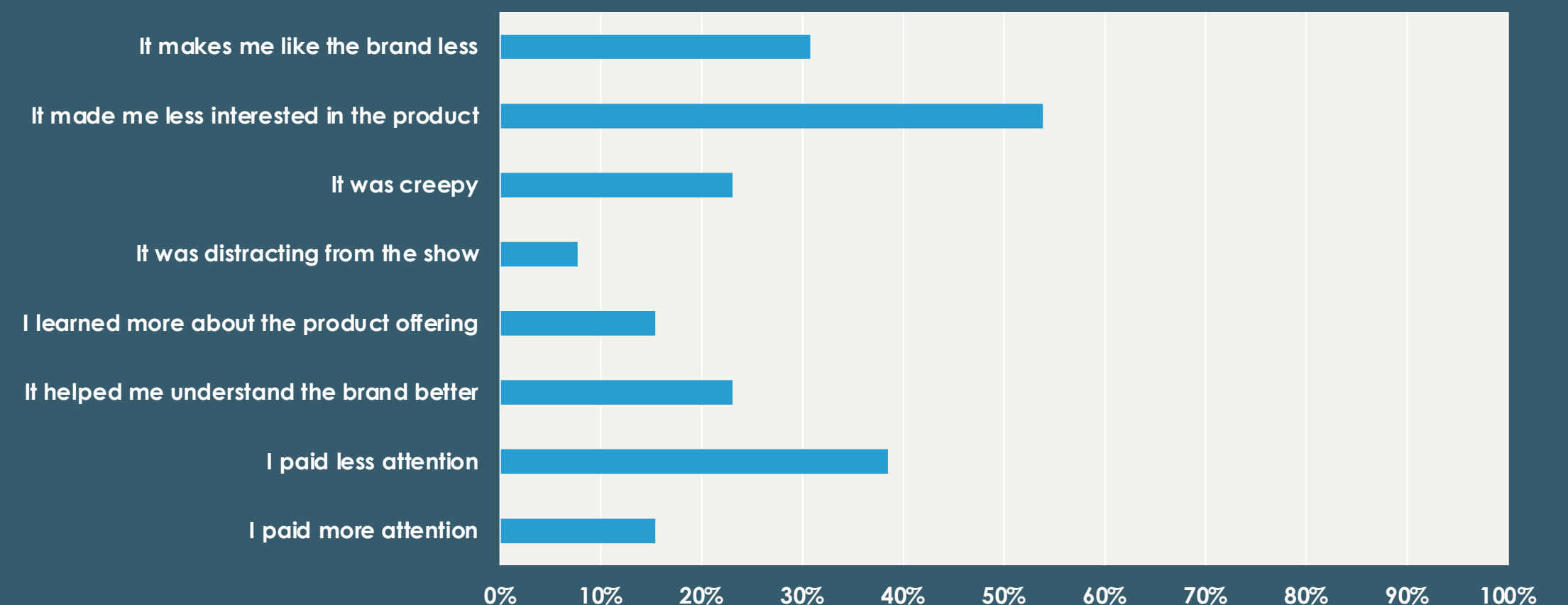
-Panelist

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Twenty percent of ad experiences were categorized as contextually misaligned. Participants expressed discomfort with 'unsuitable' ad placements and generally 'tuned out' due to the disruptive experience resulting in reduced brand favorability. One ad experience from the AI group was described as unsuitable, while the rest were from the demo and pub-declared groups.

54% less interested in the product

31% likes the brand less

Viewer Feedback on Poor Brand Suitability

Feedback	
It makes me like the brand less	~31%
It made me less interested in the product	~54%
It was creepy	~23%
It was distracting from the show	~8%
I learned more about the product offering	~16%
It helped me understand the brand better	~23%
I paid less attention	~38%
I paid more attention	~16%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

confuses and frustrates viewers.

Even though the participants knew the content was a comedy intended for mature audiences and often satirized serious situations, participants expressed confusion and frustration for ad placements they perceived as misaligned to the content resulting in negative brand favorability.

"It confuses the viewers who are just trying to watch a funny show. I do not remember the brand and tuned them out."
-Panelist

Content	Ad (Product)	Ad Creative
Scene depicting characters joking about a serious disease	Pharma	Fact-driven narration of drug that treats serious diseases
Scene depicting characters engaged in aggressive and violent behavior	PSA	Values-driven dramatization to show the dangers of road rage

Summary

Content Relevance Drives Attention

CTV viewers tend to tune out ads if they are not immediately engaging.

Ad relevance is the most significant driver of engagement, but only when it is relevant to the specific content being watched.

Targeting by publisher-declared metadata like genre and rating is less effective at capturing viewer attention compared to AI-enabled contextual targeting.

AI-enabled Context Drives Brand Metrics

CTV viewers are more likely to remember and recommend brands that advertise in hyper contextually relevant content.

When ads include actors from the show, are of similar tone, and promote products relevant to the show's plot, viewers remember the products and services even if they are not in-market.

Brand Suitability Matters

CTV viewers pay less attention, are less interested, and have a lower opinion of brands if advertised in unsuitable context.

Unsuitable placements have an immediate negative impact on recall and long-term brand perception.

Thank You!

Webinar

Insights and Takeaways

Tobii Director of Insights Research Sylvia Knust walks through the study design, metrics, and key takeaways for marketers and publishers looking to take advantage of AI-enabled contextual targeting.

Watch on the web here

About the Researchers

About the Alliance for Video-level Contextual Advertising (AVCA)
Alliance for Video-level Contextual Advertising (AVCA) is an organization of advertising technology peers whose mission is to advance the knowledge and understanding of video-level contextual intelligence. The organization is dedicated to funding research into the use of AI for contextual advertising in streaming. Consisting of experts in advertising technology, artificial intelligence, and data connectivity, members strive to ensure that ad-supported streaming provides the best user experience for viewers and the highest value for publishers and brands. Learn more at www.avca-tv.org

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Founded in 2001, Tobii is the global leader in eye tracking and pioneer of attention computing. We serve partners and customers from our headquarters in Stockholm and 13 offices spread across Asia, Europe, North America, and South America. Listed on Nasdaq Stockholm (TOBII) in 2015, we currently employ over 600 people and hold around 700 patents. Learn more at www.tobii.com