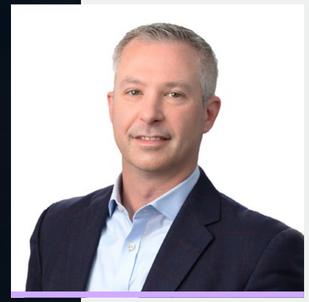


FREEWHEEL
A COMCAST COMPANY

THE STATE OF TV ADVERTISING

VIEWER EXPERIENCE



Dear Friends and Partners,

We are living in the golden age of TV content. No matter what screen we choose to view on, there are hours and hours of premium content to be watched, all from the comfort of our own home. But for viewers watching ad-supported TV content, the advertising is also crucial to making a viewing experience feel "premium."

So how are we doing?

There is great innovation happening in the TV advertising space. There is no question, however, that the added complexity in dynamically serving ads outside of the traditional linear ad environment has made it more difficult for both brands and publishers to ensure a consistent, high-quality experience across all of the TV and video platforms into which they now serve advertising. Too many ads, too many of the same ad, too much downtime between ads – it all disrupts the emotional connection of watching great television.

Viewer experience matters. For advertisers, delivering a message in a less disruptive, quality environment forges a stronger connection to their audience. For publishers, it can mean less churn in subscription services, more engagement with content on those services, and better return on investment for advertisers.

That's why FreeWheel, in partnership with MediaScience, is launching the FreeWheel Viewer Experience Lab at Cannes Lions this year, a new initiative to help media companies ensure a quality experience for viewers across the growing array of traditional and emerging advertising channels that support their premium content. As a first step, we have developed this *State of TV Advertising Viewer Experience* report, a comprehensive analysis of viewer experience today, which we've created with an eye toward how our industry should define - and approach - this important issue.

As both advertisers and programmers focus on extracting the greatest return on investment possible from streaming audiences, we must prioritize the person seeing the final ad. We must focus on the viewer.

We at FreeWheel look forward to updating you on our future research, best practices, and product launches to help our clients and partners optimize viewer experience in a multi-platform, ad-supported world of streams. Stay tuned.

Mark McKee
General Manager, FreeWheel

© 2023 FreeWheel, A Comcast Company. All rights reserved.

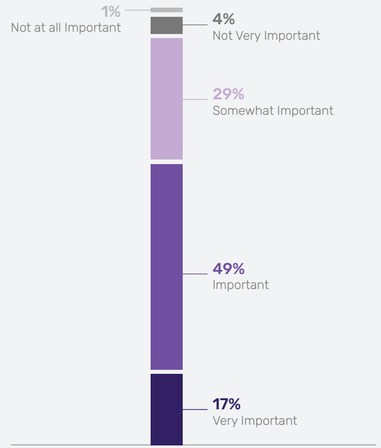


How Important is Viewer Experience to Advertisers?

2/3 of advertisers say viewer experience is either “important” or “very important” when planning TV and video ad campaigns.[1]

1. *FreeWheel Survey of Marketers (Advertiser Perceptions, March 2023)*

Importance of Viewing Environment and User Experience When Planning TV / Video Campaigns



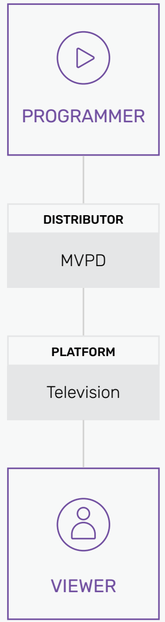
© 2023 FreeWheel, A Comcast Company. All rights reserved.

Fragmentation of TV content can create a viewer experience problem.

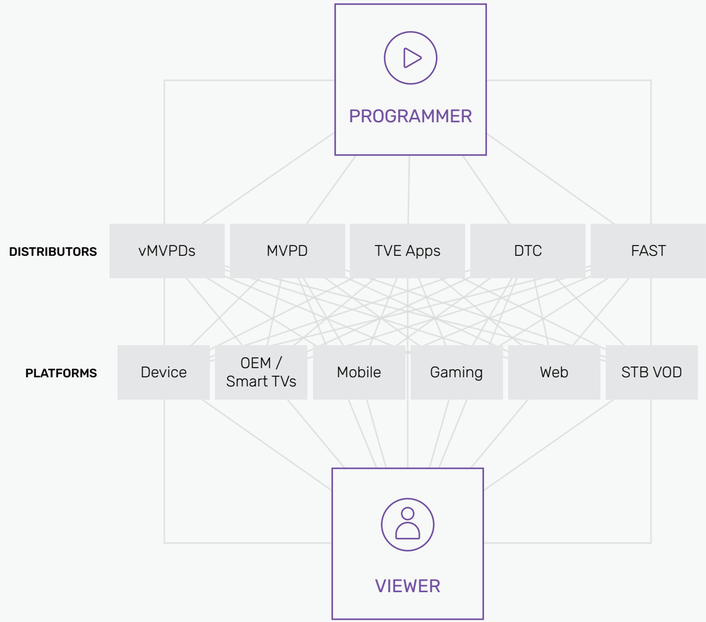
As streaming becomes the destination for some of the most popular and talked-about content, consumers are flocking to their favorite apps and viewing platforms to watch. Meanwhile, to be sure their message is seen by their audiences, advertisers are working with new technologies, new systems, new partners, and new platforms — and often finding that the path to their audience isn't as smooth as it was when linear TV was the only platform in town.

Viewer experience has long been a focus for advertisers when it comes to their creative – they spend millions of dollars on commercials that look, sound, and feel great. But a viewer's ad experience on streaming extends to how the media is placed and executed. This is where issues can surface.

The traditional path from programmer to viewer.



Exponential fragmentation has led to exponential complication.



© 2023 FreeWheel, A Comcast Company. All rights reserved.

Complexity is the main culprit.

For years, viewers have watched traditional TV for hours at a time without ever seeing the same ad twice or experiencing downtime between those ads. Why isn't this the case for streaming?

There are a few factors at play.

1 **Hypertargeting:** Advertisers are looking to more narrowly target their audiences with relevant messaging. As a result, audiences can sometimes be whittled down too far; this in turn can result in the same small group of people seeing the same ad(s) over and over again.

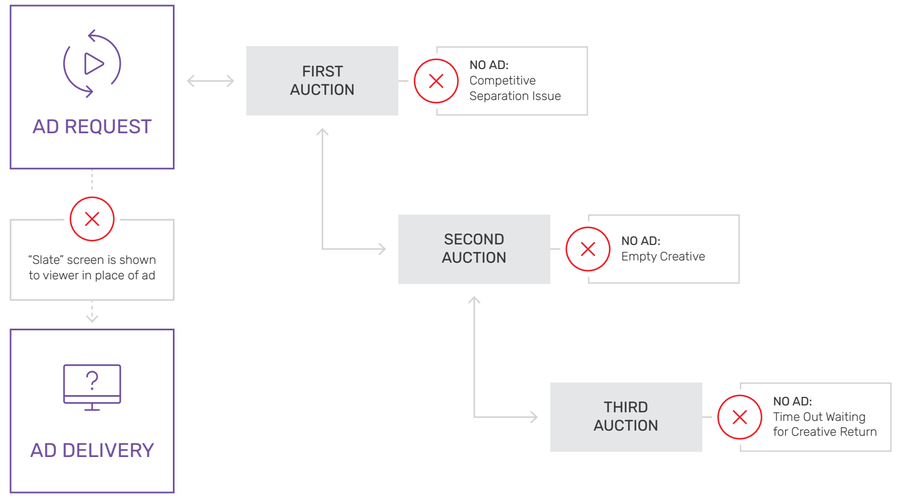
2 **Accessibility:** The economics and minimal barriers to entry of connected TV (CTV) have made it possible for advertisers of all sizes to participate and share their message. This can lead to an inconsistent viewer experience as lesser known and less experienced sellers work to monetize this inventory.

3 **Walled Gardens:** In an ecosystem where many major inventory suppliers operate as "walled gardens" of data, building smooth, consistent connections from buyer to seller and managing frequency becomes more difficult.

4 **Sales Channel Conflicts:** Buyers may not realize they are bidding on duplicative supply coming from multiple exchanges leading to the same ad appearing in the same pod.

5 **Too Many "Hops":** Perhaps the biggest issue is the increase in "stops" on the way from ad call to ad delivery in many programmatic scenarios. While a traditional TV ad pod usually follows a direct path from advertiser to programmer, a programmatic ad pod is subject to many complex "speed bumps" along the way in the forms of auctions, exchanges, and ad calls, creating more opportunities for viewer experience issues.

More "hops" in the ad delivery process means more chances for a disrupted ad experience.



© 2023 FreeWheel, A Comcast Company. All rights reserved.

What consumers have to say.

We asked nearly 300 consumers what helps make a TV viewing experience “premium.” Here’s what they said:[4]

“Not a lot of commercials”

“Not a lot of intrusive ads”

“Limited commercial breaks”

“Limited ads to interrupt the programming”

“On demand, was high quality, and featured only limited commercials”

“Not a lot of ads during the episode”



1. *Comcast Advertising, Third-Party Research Study using Happydemics (2021). N=2162.*
2. *Christy, K.R., Mi, R.Z., Tao, R., Lu, L. “Disruptive versus Nondisruptive Advertising in Online Streaming Video Services.” Journal of Advertising Research, March 2023.*
3. *Clark, K.R., Leslie, K.R., and Garcia-Garcia, M., “How Advertisers Can Keep Mobile Users Engaged and Reduce Video-Ad Blocking.” Journal of Advertising Research, September 2018.*
4. *Comcast Advertising, MediaScience study, May 2023, survey responses, n=284.*

Viewer experience matters.

A study commissioned by Comcast Advertising found that 75% of consumers cited they were okay with ads if the content was free.[1] In fact, research has shown that advertising can actually improve the viewing experience, because as people become acclimated to the content they are viewing (the stimulus), there tends to be decreased enjoyment of the content that a commercial can help reset.[2]

Ads are not unwelcomed by consumers, but the experience of viewing those ads matters. Audience receptivity to video content correlates with minimal disruption during consumption,[3] and disruption can come in the form of repeated ads, overly long ad breaks, downtime between those ads, and ads inserted into content, irrespective of natural breaks.

> There needs to be a win-win scenario both for audiences and advertisers. The audience needs an experience they can enjoy and the marketer needs to effectively market. That should be our paramount objective.
>
> – Dr. Duane Veran, CEO, Media Science

© 2023 FreeWheel, A Comcast Company. All rights reserved.

Three factors that make up advertising viewer experience.

FreeWheel identified three categories that make up viewer experience for TV and premium video ads:

1 | **Quantity of Ads:**
Frequency, pod size, number of pods

2 | **Quality of Experience:**
Slates, downtime, latency, quality of the ad itself (fits the screen, HD, etc.)

3 | **Relevance of Ads:**
Extent of targeting and contextual relevance



© 2023 FreeWheel, A Comcast Company. All rights reserved.

The State of Viewer Experience:

Quantity of Ads

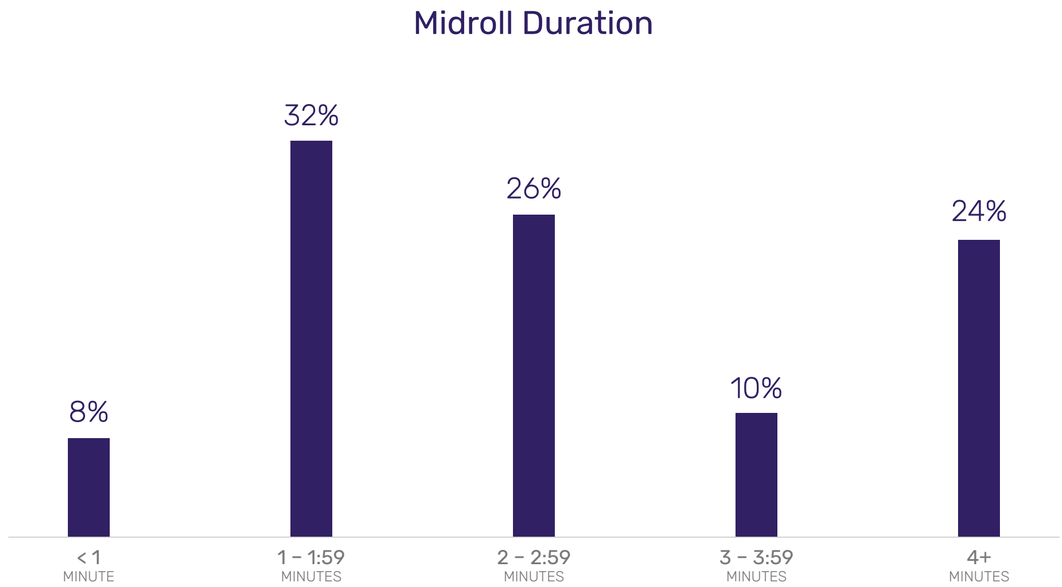
Pod Length

An analysis on the FreeWheel platform shows that about two-thirds (66%) of streaming ad durations shown mid-content are typically less than three minutes[1] – similar or lower to a linear TV viewing experience.[2]

However, **nearly one quarter of all streaming ad breaks (24%) last four minutes or longer**[1] – arguably a long time to be watching ads at once. Additionally, the research revealed that live streams carry longer breaks than on demand content (one cause of the longer breaks would be the preset breaks to match the linear TV distribution.)

How long should an ad break be? 72% of respondents feel TV ads should be "in line with the content length."[3] While more research is needed to determine the optimal balance between advertiser monetization of content and audience viewer experience, those of us who watch streaming programming may agree that less is more.

1. *FreeWheel aggregate analysis of length of mid-roll breaks (Q1 2023)*
2. *Vivvix TV Schedule Analysis, Average of 30 Ad-insertable Cable networks from Apr'23, M-Su 6a-12m.*
3. *Comcast Advertising Third-Party Research Study using Happydemics (2021). N=2162.*



34% of midroll ad breaks last longer than three minutes.

© 2023 FreeWheel, A Comcast Company. All rights reserved.



Ad Repetition: A known pain point for viewers is excessive ad repetition. A recent study found that two-thirds (67%) of viewers are annoyed by seeing the same ad more than once within the same ad pod. Visual attention to ads drops when viewers are exposed to the same ad within two minutes.[1]

Advertisers can address repetition with frequency capping to control how often an ad is seen. It can be set for the length of the content or for a set amount of time such as one impression per 30 minutes. However, not all advertisers take advantage of frequency capping: **In Q1 2023, nearly half of all streaming ad placements had no frequency capping applied.**

1. *Yahoo & Publicis Media Study, March 2023, "Attracting Attention: Capture It and Keep It on CTV."*
2. *FreeWheel aggregate analysis of ad repetition (Q1 2023)*

Ad repetition can vary widely by publisher and program and can be influenced by a number of factors...

Over and Over Again

An analysis of premium video content reveals the same ad is repeated only about 10% of the time[2] when watching an ad-supported program on a premium streaming provider. But, the amount of ad repetition can vary widely by publisher and program and can be influenced by a number of factors including hypertargeting, walled gardens, and sales channel conflicts. As a result, viewers in some cases may see the same ad three, four, or more times per program if they aren't using ad technologies to mitigate these factors.

© 2023 FreeWheel, A Comcast Company. All rights reserved.

The State of Viewer Experience:

Quality of Experience

Downtime / Timeouts

When a programmatic call is made and an exchange doesn't reply in time, or provides an empty VAST response, this leads to an ad "timeout" and a slate – or essentially a blank screen or screensaver – being shown to the viewer. From a viewer's perspective, a "slate" is a gap in the live stream ad break that is not filled with a dynamically served ad. In addition to disrupting the viewer's experience, this is less than ideal for the publisher who could have capitalized on revenue by airing an ad in the slot.



Up to 25% of ad avails are not filled on FAST channels, adding a lot of downtime for viewers and underutilized inventory for FAST programmers.

Environment

A Comcast Advertising study found that 67% of respondents felt that ads running on the TV screen are generally less disruptive than ads on mobile devices. This may be because ads seen on a TV screen are more memorable and engaging: Another study found that unaided recall was 2.2x higher and purchase intent was 1.3x higher for the ads viewed in the big screen "TV" environment compared to the "mobile digital" environment.[1]

The Extra Challenge with Live Streaming

Providing a positive viewer experience in live TV is particularly important, especially since it makes up over half (56%) of ad views.1 However, live provides added complexities including inconsistent breaks, variable audience levels, and decisioning across different demand channels. Decisioning must happen often and fast or there is risk for latency and slate; as the viewing of live premium content on digital channels continues to increase, it's important to partner with providers that can address these challenges.

1. FreeWheel Video Marketplace Report, 2H 2022. FAST Channels Redefine Distribution

© 2023 FreeWheel, A Comcast Company. All rights reserved.

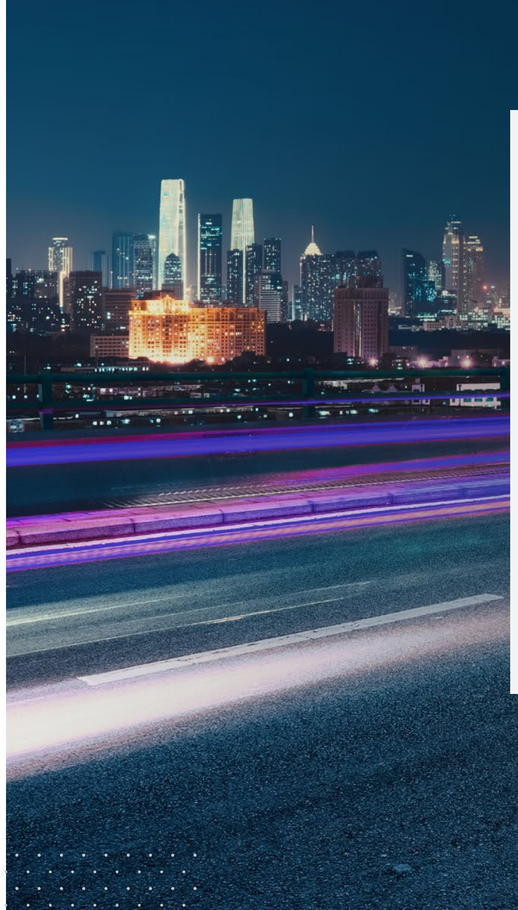
The State of Viewer Experience:

Relevance of Ads

While it's widely known that advertisers benefit from targeting ads to consumers more likely to buy their product, studies suggest viewers benefit as well. In a recent study, 73% of respondents said they prefer ads that are related to personal interests.[1] To align better with consumers' personal interests, behavioral targeting can be employed.

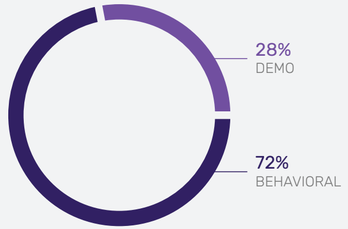
Relevance is a positive for viewers, but there is a downside: with more targeting sometimes comes more ad frequency, as there is a smaller pool of relevant consumers to reach with any particular ad. This is why audience-targeted ads work best as a complement to traditional TV advertising.

1. *Comcast Advertising Third-Party Research Study using Happydemics (2021). N=2162.*



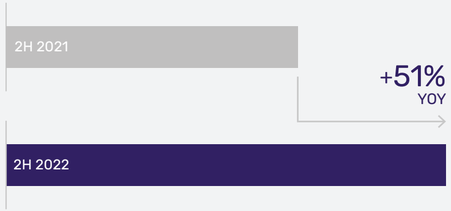
Audience Share of Targeted Campaigns

2H 2022, US[2]



Audience Targeting Growth YOY

2H 2022 vs. 2H 2021, US[2]



2. *FreeWheel Video Marketplace Report, 2H 2022. FAST Channels Redefine Distribution.*

© 2023 FreeWheel, A Comcast Company. All rights reserved.

FreeWheel is putting the viewer back into the viewing experience.

As a leader in premium video advertising and an agency connector, FreeWheel is launching the **Viewer Experience Lab**, in partnership with Media Science.

This initiative is designed to help media companies ensure a quality experience for viewers across the growing array of traditional and emerging advertising channels that support their premium content with:

- Quantifiable research to help advertising buyers and sellers understand the impact of different ad experiences on viewer experience and performance.
- Solutions and interoperable technologies that allow video content providers to implement best practices and provide seamless ad viewing experiences in a multi-platform, premium video ecosystem.

For additional insights and updates, keep up with this initiative at freewheel.com/insights.



© 2023 FreeWheel, A Comcast Company. All rights reserved.

FREEWHEEL

A COMCAST COMPANY

freewheel.com