THE QUARTERLY BAROMETER OF THE INDUSTRY

YEAR-END INSIGHTS: 2016
LETTER FROM THE AUTHORS

2016 was a pivotal year for video. Smartphone and over-the-top (OTT) infrastructure are now at levels of critical adoption and broadband technology supports quality video experiences across platforms and throughout consumers’ lives. The year marked the announcement of several new internet TV packages while many publishers that were once print or display-only made very public efforts to focus heavily on video. As people spend more time every day with video, it is becoming an essential tool for digital publishers to build audiences and keep them engaged in an increasingly competitive landscape.

It’s more important than ever for the industry to have a comprehensive overview of the premium video universe as the volume of video content continues to scale. We publish the Video Monetization Report (VMR) each quarter as the definitive barometer of the insights and trends needed to understand the premium video ecosystem today and tomorrow. This special year-end edition of the VMR focuses on the key themes that we see as the underlying stimuli of the continued growth in premium video consumption. The five themes that you will see play out in this report are:

The Primacy of Video – As technology enables viewing across more platforms, more publishers are leveraging video content as a way to capture consumers’ attention.

User Experience – High quality video experiences on OTT platforms and Set-Top Box Video On Demand (STB VOD) are leading viewers back to the TV set. At the same time, users push back on bad ad experiences, and publishers respond.

Tent-Pole Events – Big events drive significant consumption and provide leading indicators of platform and content trends.

Accountability – Not all video is created equal. As video becomes more ubiquitous, Advertisers are paying more attention to where their ads appear and seek out brand-safe content.

Automation – As demand increases for more data-informed, automated buys, premium publishers are increasingly turning to programmatic sales channels, yet remain selective in their decisions to do so.

Throughout the following pages, you’ll see these themes come to life and elucidate the data that the industry has come to rely on. We are confident in the continued growth of premium video and we believe these trends will continue to be relevant in 2017 and beyond.
2016 TIMELINE

A LOOK BACK AT THE MILESTONES THAT MOVED THE INDUSTRY FORWARD
The year in video 2016 was a pivotal year for video. Five key forces drove the continued growth in the consumption of premium video in 2016: The Primacy of Video, User Experience, Tent-Pole Events, Accountability, and Automation. These are just some of the watershed moments that impacted the premium video economy last year.

**The Primacy of Video**

Consumers have more ways than ever to access live content, creating a big opportunity for Dynamic Ad Insertion (DAI). Ad views from live grew 36% in 2016 vs 2015, faster than short- or long-form content grew.

**User Experience**

2016 announced it would be releasing a live, over-the-top TV service in 2017, joining the ranks of other virtual MVPDs including SlingTV, PlayStation Vue, and DirecTV Now.

**Tent-Pole Events**

HULU announced it would be releasing a live, over-the-top service in 2017, joining the ranks of other virtual MVPDs including SlingTV, PlayStation Vue, and DirecTV Now.

**Accountability**

PREMIUM PUBLISHERS, HOWEVER, HAVE BEEN MORE SELECTIVE ABOUT PROGRAMMATIC, AVOIDING PROTECTED MARKETPLACES AND PRIVATE TRANSACTIONS. In Q4, automated sales channels represented 19% of total ad views for Programmers compared to 27% for Digital Pure-Plays.

**Automation**

FACEBOOK DOUBLED DOWN ON LIVEVIDEO as part of a wider “video first” strategy, which has been adopted by many media platforms. IVH announced it would be releasing a live, over-the-top service in 2017, joining the ranks of other virtual MVPDs including SlingTV, PlayStation Vue, and DirecTV Now.

**The Year in Video**

THE YEAR IN VIDEO 2016

Five key forces drove the continued growth in the consumption of premium video in 2016: The Primacy of Video, User Experience, Tent-Pole Events, Accountability, and Automation. These are just some of the watershed moments that impacted the premium video economy last year.

**2016**

2016 Sources found on page 28.
2016 CORE OBSERVATIONS
THE MOST DEFINITIVE DATA AVAILABLE ON PREMIUM VIDEO
WITH SPECIAL YEAR-END INSIGHTS
CORE OBSERVATIONS

CHART 1
TOTAL VIDEO AND AD VIEW GROWTH
FULL YEAR 2015 vs 2016

26% YEAR-OVER-YEAR VIDEO VIEWS
24% YEAR-OVER-YEAR AD VIEWS
THE PRIMACY OF VIDEO DRIVES A SIXTH CONSECUTIVE YEAR OF GROWTH

For the 24th consecutive quarter, we are reporting year-over-year growth in both ad views and content views. For the full year 2016, content views grew at 26% and ad views grew at 24%. In the fourth quarter of 2016, content views grew 20% compared to the same quarter last year while ad views grew 17%. While the year-over-year percentage growth remains consistent, the cumulative effect of these increases indicates just how much growth opportunity there is in premium video.

In an era of data over-saturation, the consistency in these two key indicators over time might lead observers to ignore some very large underlying forces in the industry. As viewing continues to increase, structural changes are needed to keep up with that change. Technology, user experience, and monetization strategies all must evolve to support this continued growth.

The upward trends in premium video continue for 24 consecutive quarters with no sign of slowing down
LIVE VIDEO CONTINUES TO DRAW LARGER AUDIENCES

For the full year 2016, live viewing grew 36% year-over-year, while short-form and long-form content both grew 22%. The year brought huge tent-pole events and massive live video audiences, breaking record after record. From Super Bowl 50 to Game 7 of the World Series, from the Summer Olympics to a history-making U.S. Election night, Programmers offered — and video viewers discovered — new ways to watch their favorite content live.

Live digital content will continue to grow, as many traditional distributors and digital aggregators have announced plans for live TV skinny bundles, and livestreamed amateur content continues to dominate conversation in the social media space. Hulu promised to bring live TV to its subscribers in 2017, while AT&T launched DirecTV Now, an internet TV service competing with the likes of Dish’s SlingTV and Sony’s Playstation TM Vue. As MVPDs and Digital Pure-Plays continue to battle for viewers, especially younger “cord-nevers,” live video is playing out as a competitive advantage.

In the social realm, Facebook launched a large ad campaign for their livestream capabilities to compete with Twitter and Snapchat, particularly as the latter ramped up for a 2017 IPO.

2016 was a watershed year in live viewing, driven by a number of large scale televised events.
CHART 3
AD VIEW COMPOSITION BY CONTENT DURATION, U.S. & EUROPE
Q4 2016

- **U.S. PROGRAMMERS**
  - Short-form (0-5 min.): 32%
  - Live: 19%
  - Long-form (20+ min.): 45%
  - Mid-form (5-20 min.): 4%

- **EUROPEAN PROGRAMMERS**
  - Short-form (0-5 min.): 7%
  - Live: 3%
  - Long-form (20+ min.): 87%
  - Mid-form (5-20 min.): 3%

- **U.S. DIGITAL PURE-PLAYS**
  - Short-form (0-5 min.): 72%
  - Live: 1%
  - Long-form (20+ min.): 19%
  - Mid-form (5-20 min.): 8%

---


Major tent-pole events and short-form content helped propel sports and news growth rates to over 50%
CHART 4
AD VIEW COMPOSITION AND GROWTH BY CONTENT VERTICAL, U.S. & EUROPE
Q4 2016

U.S.

NEWS: 13%
+58% YOY

SPORTS: 28%
+60% YOY

MUSIC: 10%
-11% YOY

KIDS: 3%
+21% YOY

ENTERTAINMENT: 46%
+2% YOY

EUROPE

NEWS: 2%

SPORTS: 4%

MUSIC: 1%

ENTERTAINMENT: 93%
THE DYNAMIC LIVING ROOM BRINGS VIEWING BACK TO THE TV

While premium video providers have worked hard to surface content in places viewers traditionally couldn’t access it, consumer behavior points to the continued importance of the television set. In 2016, Vice Media, which has prioritized online video for years, bucked the trend of TV networks becoming digital media companies by launching a linear network (Lynch, 2016).

Our data supports the strategy of putting video content on the big screen, whether it’s through developing a linear TV network or launching an OTT app. When we look at how viewers are choosing to consume their content, the device of choice for premium video is increasingly the television set. In a three-year trend of device consumption in the U.S., our data shows that STB VOD and OTT devices have been the largest disruptors in the market, evolving from just 9% combined share in the fourth quarter of 2014 to 41% in the fourth quarter of 2016.

Just two years ago, the vast majority of premium video consumption consisted of users watching on their desktop and laptop computers. While desktop/laptop accounted for 69% of ad views in Q4 2014, it has steadily lost market share as new endpoints have been introduced and Programmers have increased investment in both content and the overall user experience for video apps. Over these two years, the share of consumption on mobile and tablet has remained relatively stable. The growth in OTT and STB VOD has come from a shift away from desktop/laptop, a trend that has been echoed across the industry.

**Chart 5**
**Ad View Composition and Growth by Device, U.S.**
Q4’14 vs Q4 ’15 vs Q4 ’16

- **Q4 2014**
  - Desktop/Laptop: 69%
  - Smartphone: 15%
  - Tablet: 7%
  - STB VOD*: 8%
  - OTT Device: 1%

- **Q4 2015**
  - Desktop/Laptop: 40%
  - Smartphone: 19%
  - Tablet: 9%
  - STB VOD*: 22%
  - OTT Device: 10%

- **Q4 2016**
  - Desktop/Laptop: 34%
  - Smartphone: 17%
  - Tablet: 8%
  - STB VOD*: 27%
  - OTT Device: 14%

**Chart 6**
**Ad View Composition and Growth by Device, Europe**
Q4 2016

- Desktop/Laptop: 31%
- Smartphone: 15%
- Tablet: 20%
- STB VOD*: 24%
- OTT Device: 10%

*FourFronts STB VOD and Canoe Phase III Integrations.*
EVOLVING THE USER EXPERIENCE

The disruption that on-demand viewing has had on consumers’ expectations of when and where they can watch content has highlighted commercial ad loads as a central issue in user experience. Ad-blocking was one of the top issues faced by digital media publishers in 2016, having spilled over from 2015, and has caught the attention of the entire video industry. Even linear TV executives are reacting to user complaints about ad fatigue and are more critically examining their ad experience in the context of overall user experience.

Big news in this area came from Turner, who announced\(^{(xiv)}\) at the beginning of 2016 that they would be making significant cuts in the ad loads of some of their original series. Our data suggest that this may be a broader phenomenon as ads per mid-roll break in live have also declined year-over-year. In fact, live and on-demand mid-roll break lengths are the closest we’ve seen, both in number of ad units and length. As more platforms experiment with ad formats and lengths, we expect to see this metric continue to evolve in 2017.

In any discussion of premium video user experience, it is important to address authentication. While there was some initial concern that the need to log-in with a password might deter viewers, we’re now at the other end of the spectrum after steady increases in the authentication rate over the past three years. These increases have been driven in large part by tent-pole events like the Olympics and the World Cup. But the sustained growth we’ve seen this year suggests that viewers have overcome the main hurdles that might have kept them from authenticating. The real question is whether we’ve reached a new plateau for authenticated viewing. But as we’ve seen with other user experience considerations, Programmers and technologists continue to find ways to make the process more seamless for users. We’ll look to the next tent-pole event to give us insight into what’s to come.
ACCOUNTABILITY: WHERE IS YOUR AD RUNNING?

As well as optimizing the content/ad ratio, Programmers continue to explore the many channels through which they can monetize their content. In the past, syndication has been an avenue to reach new audiences for premium video publishers. For the fourth quarter of 2016, the share of views coming from syndication decreased from 15% in the same quarter the previous year to 12% as growth on owned & operated properties outpaced that of syndicated ones. This decline in the share of views being delivered via sources outside of Programmers’ walls echoes another theme that continues to be important in the premium video space: accountability.

Despite efforts by the industry to manage viewability and fraud, 2016 saw issues related to fraud and questionable content come to the forefront. As such, Advertisers have been paying more attention to where their ads are running and Programmers are reining in their content from long-tail sites where user experience, brand safety, and accountability may be lacking.

The two big stories around fraud and accountability in 2016 were the ‘fake news’ websites that made waves during the election and the identification of the Methbot bot farm at the end of last year. As with any fraud, both of these stories are rooted in bad actors — individuals or groups — taking advantage of the system of digital media monetization for their own enrichment. White Ops\(^{\text{xv}}\) estimated that the Methbot group was siphoning off $3-5 million dollars a day at its peak by creating false content or sending false users to real content.

Publishers are scaling back on syndication from long-tail sites as they try to manage viewability and fraud by exercising more control over their inventory.
PREMIUM PROGRAMMERS ARE WARMING UP TO AUTOMATED TRANSACTION MODELS, BUT ON THEIR TERMS

In “Reconstructing Programmatic for Premium Video,” a position paper published in June 2016, the FreeWheel Council for Premium Video (FWC) called for an evolved framework of the term programmatic to create “a path forward that aligns to the unique characteristics of premium video, while benefiting all stakeholders (Advertisers, Agencies, publishers and ultimately the end user).” In the paper, the FWC calls for enabling data and automation to remove the frictions around transacting for premium video inventory. This evolution of programmatic buying is integral to the future of premium video as the industry advances.

Our own data points to this future. Since the fourth quarter of 2014, the proportion of ad views coming from automated transaction models has more than doubled for Programmers, from 3% to 7%, and tripled for Digital Pure-Plays, increasing from 9% to 27%. Nonetheless, there remains a disparity in how much premium Programmers are transacting through automated channels relative to Digital Pure-Plays, whose content is dominated by clips. While there is an appetite from Programmers to execute more data-informed, automated deals, many are still wary of exposing their most valuable inventory to the brand safety and compliance risks that are more common with open exchanges. However, as protected marketplaces grow and build new capabilities in the coming year, we expect the trend of more Programmer deals flowing through automated channels via private marketplace transactions to continue.


With more long-form content, premium Programmers remain selective about what inventory they make available through automated channels.
CHART 10
AUTOMATED TRANSACTION MODELS, AD VIEW GROWTH
Q4 2015 VS. Q4 2016

2015

2016

+50%
YEAR-OVER-YEAR

CHART 11
AUTOMATED TRANSACTION MODELS, AD VIEW SHARE
Q4'14 VS Q4 '15 VS Q4 '16

Q4 '14
3%
9%

Q4 '15
5%
17%

Q4 '16
7%
27%

PROGRAMMER
DIGITAL PURE-PLAY
Premium video over-indexes in CPG, a category where brand safety is highly important, relative to broader digital advertising investment.
VIDEO INVESTMENT Q4 2016:
ADVERTISER INDUSTRY FOCUS

The fourth quarter is consistently a high-spend quarter for advertising. As we regularly see, several industry categories constitute the largest share of ad views in the premium video space. Retail and CPG companies accounted for more than one third of all ad views in the last quarter of 2016. However, the most rapid growth in ad views occurred within the smaller categories. In particular, premium video ad views from healthcare & pharma grew 70% year over year.

This year, we also compared FreeWheel data to data published in the Internet Advertising Bureau (IAB) Revenue Report, which revealed some interesting differences in spend patterns. In the IAB’s assessment(xvii), which covered digital advertising spend in 1H’16 across multiple ad formats on desktop and mobile, retail is a similarly large spender across digital, as are financial and auto. CPG, however, stands out as a category where investment patterns differ. 17% of premium video ad views came from CPG (xviii) compared to only 7% of all digital advertising spend. For CPG companies, many of which are family-oriented and interested in brand safety, premium video tends to be the preferred choice. Computing products advertisers also over-indexed on premium video while leisure/travel marketers under-indexed in the space. At the end of the day, marketers want to tell their stories in environments that best reach and engage their intended audiences, which is why premium video continues to be a compelling choice for many brands.

---


(xviii) FreeWheel reported CPG at 18% of ad views in Q1 2016
Q4 2016 CONCLUSION

2016 signaled great things for the future of premium video. The importance of video as a compelling tool to engage audiences was highlighted as companies across the media ecosystem made it a top priority. At the same time, there was increased acknowledgment that the ad experience is equally as important to consumers as the content, especially as video consumption shifts from desktop/laptop back to the TV. Large events boosted viewership and pointed us to the future of video consumption where we’re seeing more live viewing occur over an internet connection across all genres. And automation of the sales process continued to grow, even as there was greater scrutiny of where ads ran due to high profile exposés of fraudulent activity in the ecosystem.

We will continue to report on these trends in the VMR and other FreeWheel publications. As linear and digital video ecosystems continue to converge, so too will industry trends. Look to FreeWheel for continued insights into what the future of the New TV Ecosystem has in store.
AUTHOR BIOS

YING WANG
As Director of Advisory Services at FreeWheel, Ying Wang leads the company’s Business Advisory Practice. In this role, she partners with enterprise and emerging media companies to develop and execute strategies for digital video that improve viewer experience, maximize yield, and grow revenue. Prior to FreeWheel, Ying advised media and retail companies as part of Oliver Wyman, a global management consultancy, and worked in Digital Distribution for the international division of Warner Bros. Home Entertainment.

JEREMY SCHER
Jeremy Scher is an Associate in FreeWheel’s Business Advisory practice. In this role he collaborates with media clients to grow and evolve their digital businesses through consulting engagements. His portfolio includes projects such as competitor benchmarking analysis, yield management, process optimization, and workshop development. Previously he launched his career in Accenture’s Management Consulting practice, working primarily for a Fortune 150 Telecommunications client in operations analysis.

STEVEN ROSENBLUM
Steven Rosenblum is a data scientist in FreeWheel’s Business Advisory Practice. In this role, he works with clients to find the balance between monetization strategies, user experiences and market needs. Steven has deep expertise in A/B testing, benchmarking analysis, and analytics automation. He is always passionate about using big data to arrive at impactful and actionable decisions that optimize the client’s business.

With special thanks to Michael Lawlor, Justin Fromm, Alexa Atamanchuk, Xu Yao and Zhuoli Xu
Ad Load
Average number of ads in a content stream

Ad Networks
Aggregate inventory across many Publishers and sells that inventory as a bulk package

Ad View
An impression that is accrued after the first frame of an ad is displayed

Authenticated Viewing
Viewing that occurs after entering MVPD subscription credentials to access content aired on Broadcast, Cable, or Satellite TV

Content Vertical
Content genre

Demand-Side Platform (DSP)
Technology used to connect Advertisers (buyers) into exchanges

Digital Pure-Plays
Publishers that generate the majority of their revenue from digital environments. Aggregate third-party content and/or develop original content

Direct-sold
Advertising deals made directly between a publisher and an advertiser

Direct Traffic
Users who reach content through a bookmark, app, or direct entry of a URL

Dynamic Ad Insertion (DAI)
Process of dynamically inserting ads into a content stream, such that different ads can be inserted into the same ad break

Exchanges
Open and private markets for buyers and sellers to trade across with varying degrees of automation

Interactive Advertising Bureau (IAB)
Sets commercial standards and accreditations for the industry

Impression
Occurs each time an ad is displayed

Inventory
An ad opportunity. A piece of inventory is filled by an ad impression

Linear
Traditional Broadcast, Cable, or Satellite TV

Mid-roll
An ad break that occurs in the middle of content

Multichannel Video Programming Distributor (MVPD)
Provides pay TV services delivered either through Broadcast Satellite or Cable TV. Examples include Comcast and DirecTv

New Living Room
The same high-quality TV content that was traditionally consumed in the living room is experienced today by the same audience through a multitude of screens and locations

Over-the-top (OTT)
Viewing content delivered over an internet connection. Typically seen as OTT Device, which includes devices like Roku, Apple TV, etc.

Portals
High-traffic content aggregators, ex: AOL and HuffPo

Pre-roll
An ad break that occurs before content starts

Premium Video
Video content that is professionally produced, rights managed, limited in supply, and with partially direct-sold inventory

Pre-stitching
Occurs when ads are pre-selected and inserted into the content beforehand

Programmer
Publishers that generate the majority of their advertising revenue from linear TV services. Offers diverse content mix in digital environments as well

Publisher
Producers or syndicators of content. Can be Programmers or Digital Pure-Plays

Set-top-box (STB)
Accompanies a Cable/Broadcast/Satellite setup. Contains a cable input and outputs to a TV

Simulcast
A digital stream of a live event also broadcast on linear TV simultaneously

Supply-Side Platform (SSP)
Technology used to connect Publishers (sellers) into exchanges

Syndication
Viewing that occurs outside of a Publisher’s Owned and Operated properties or primary platforms

Syndication Networks/Long-Tail
Small scale/niche content aggregators

TV Everywhere (TVE)
Apps that allow viewers to access content over the internet by logging in with their subscription credentials

Video View
Accrued after the first frame of video content is displayed

Timeline Sources

Programmer
Publishers that generate the majority of their advertising revenue from linear TV services. Offers diverse content mix in digital environments as well

Publisher
Producers or syndicators of content. Can be Programmers or Digital Pure-Plays

Set-top-box (STB)
Accompanies a Cable/Broadcast/Satellite setup. Contains a cable input and outputs to a TV

Simulcast
A digital stream of a live event also broadcast on linear TV simultaneously

Supply-Side Platform (SSP)
Technology used to connect Publishers (sellers) into exchanges

Syndication
Viewing that occurs outside of a Publisher’s Owned and Operated properties or primary platforms

Syndication Networks/Long-Tail
Small scale/niche content aggregators

TV Everywhere (TVE)
Apps that allow viewers to access content over the internet by logging in with their subscription credentials

Video View
Accrued after the first frame of video content is displayed
The FreeWheel Video Monetization Report is released quarterly and highlights the changing dynamics of how enterprise-class content owners and distributors are monetizing premium digital video content.

The data set used for this report is one of the largest available on the usage and monetization of professional, rights-managed video content, and is comprised of over 200 billion video views in 2016 and 54 billion video views for Q4 2016.

#FreeWheelVMR