

FreeWheel

Video Monetization Report

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.

Ying Wang Director, Advisory Services Jeremy Scher Associate, Advisory Services Steven Rosenblum Data Scientist. **Advisory Services** 



# A LOOK BACK AT THE MILESTONES THAT MOVED THE INDUSTRY FORWARD

**TURNER** announced plans to REDUCE AD LOAD **BY OVER 50%** 

in some linear content, citing user experience concerns.(i)

FREEWHEEL DATA reported

that the average number of mid-roll ads during live streamed ad breaks declined from:

4.6 Q4 '16

6.2

Q4 '15

"THE UNRIVALED VALUE OF PREMIUM VIDEO,"

a white paper published by the FreeWheel Council, found that premium video outperforms the total video universe in terms of viewability (two-second video in view rate) by almost 15 percentage points.



IN THE 2016 UPFRONTS, Marketers and Agencies redirected money back into linear TV, showing a renewed reliance on premium sources for achieving results.(iii)



VIEWERS LIVE STREAMED

# **2.71 BILLION MINUTES OF OLYMPIC COVERAGE**

nearly double the **COMBINED** live streamed minutes of ALL prior Games.(vi)

**OLYMPICS** viewing

boosted authenticated ad views to over 70% in Q3 2016, a high that was sustained into Q4.

>70% **AD VIEWS** Q3 & Q4 2016

AT&T MAKES A DEAL

AT&T MADE A DEAL to buy Time Warner, the latest in a series of content/distribution mergers over the past few years. (viii)

IN Q4, MVPDS ACCOUNTED for nearly half of all syndicated ad views. Many traditional distributors are also

starting to build their own content offerings, including Comcast's Watchable and Verizon's go90 services.

FRAUD REMAINED A MAJOR ISSUE

outside the premium video ecosystem. A FreeWheel investigation showed that 99.99999% of traffic seen by the FreeWheel ad server did not match any of the IP addresses flagged by the WhiteOps report.



WhiteOps discovered Russian 'Methbot' fraud, costing advertisers

eMARKETER NOTED that 2016 will mark the first time that more than

WILL BE SOLD PROGRAMMATICALLY™

**50% OF ALL VIDEO ADVERTISING** 

\$3-5 MILLION PER DAY



































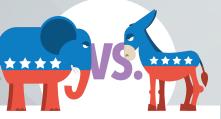


**HULU ANNOUNCED** it would be releasing a live, over-the-top TV service in 2017, joining the ranks of other virtual MVPD services including SlingTV, PlayStation<sup>™</sup> Vue, and DirecTV Now.<sup>(v)</sup>

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.



**84 MILLION VIEWERS** tuned into the FIRST PRESIDENTIAL DEBATE, the largest linear TV audience ever.(vii)

**VOLUME** 

Q4 2016

**ELECTION YEAR POLITICS** drove increases in news consumption as premium video **NEWS** news volume grew by 58% in

Q4 2016 compared to a year ago.

**27**% PREMIUM PUBLISHERS, HOWEVER, HAVE BEEN MORE SELECTIVE ABOUT PROGRAMMATIC. FAVORING PROTECTED MARKETPLACES AND

PRIVATE TRANSACTIONS. In Q4, automated sales channels represented 7% of total ad views for Programmers compared to 27% for Digital Pure-Plays.

**SUPER BOWL 50** set a live streaming record for the big game with an average of: .4 MILLION VIEWERS

per minute tuning in across all digital platforms.(ii)

The ability to **STREAM LIVE GAMES THROUGH OTT** apps has fueled digital sports viewing.

**SPORTS VOLUME ON OTT GREW 161% IN Q4 2016** 

compared to a year ago, accounting for nearly one-third of OTT ad views.

# **FACEBOOK DOUBLED DOWN ON LIVE VIDEO**

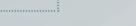
as part of a wider "video first" strategy, which has been adopted by many media platforms.(iv)

1% DIGITAL PURE-PLAYS

> for Digital Pure-Plays and 19% of ad views for Programmers in Q4.

**LIVE** represented 1% of ad views

19% PROGRAMMERS



Sources found on page 28.

2016

THE YEAR IN 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.

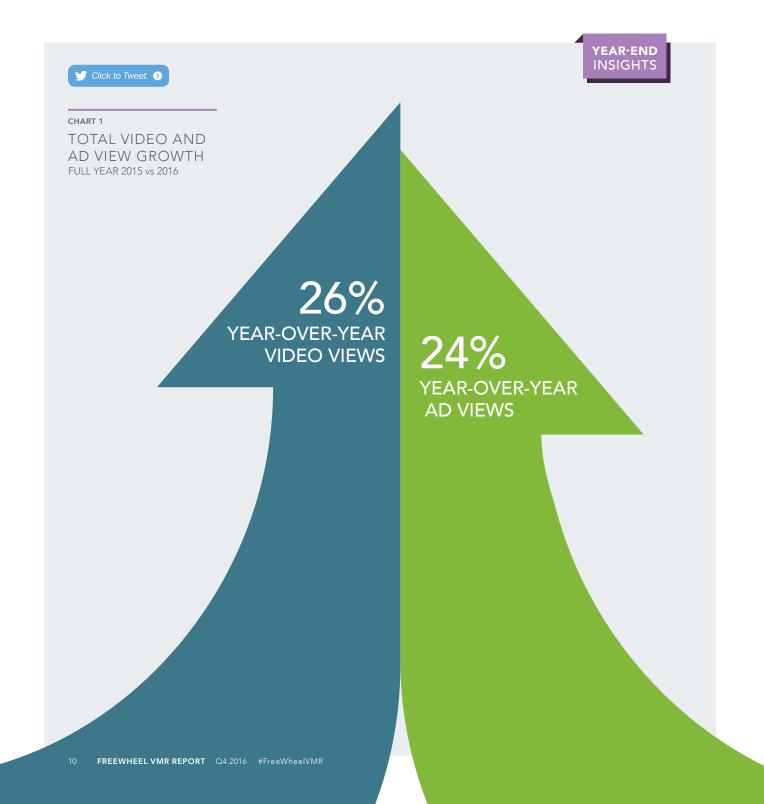
FreeWheel Video
Monetization
Report





# 2016 CORE OBSERVATIONS THE MOST DEFINITIVE DATA AVAILABLE ON PREMIUM VIDEO

WITH SPECIAL YEAR-END INSIGHTS



# THE PRIMACY OF VIDEO DRIVES A SIXTH CONSECUTIVE YEAR OF GROWTH

or 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.

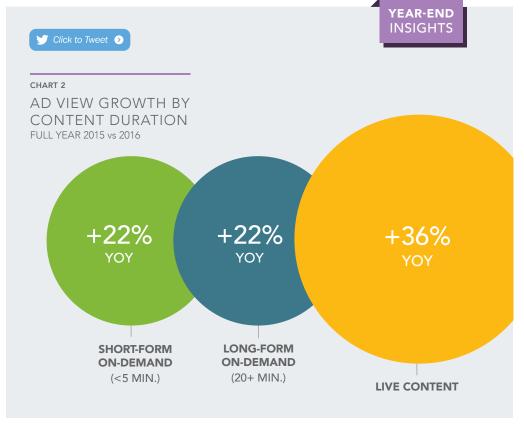
The upward trends in premium video continue for 24 consecutive quarters with no sign of slowing down



# LIVE VIDEO CONTINUES TO DRAW LARGER AUDIENCES

or 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 historymaking 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<sup>(xi)</sup>, an internet TV service competing with the likes of Dish's SlingTV and Sony's Playstation™ 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<sup>(xii)</sup> 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

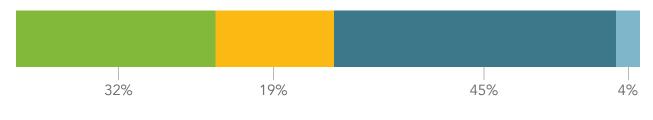
Short-form (0-5 min.)

Live

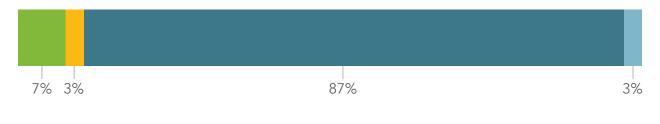
Long-form (20+ min.)

Mid-form (5-20 min.)

# **U.S. PROGRAMMERS**



# **EUROPEAN PROGRAMMERS**



# **U.S. DIGITAL PURE-PLAYS**



<sup>(</sup>ai) Homonoff, Howard. "Hulu, DISH And Company: The Latest 'Skinny' On Video Bundles," Forbes (August 12, 2016). Retrieved at https://www.forbes.com/sites/howardhomonoff/2016/08/12/hulu-dish-and-company-the-latest-skinny-on-video-bundles/#12e885193c2c

<sup>(</sup>aii) Stern, Joanna. "What to Know About Live Video, Social Media's Latest Craze," Wall Street Journal (April 26, 2016). Retrieved at https://www.wsj.com/articles/live-video-what-to-know-about-social-medias-latest-craze-1461691861



# **NEWS AND SPORTS SPUR** SHORT-FORM CONSUMPTION

he events of the fourth quarter, in particular, drove shifts in consumption that played out in our data. While the aforementioned tent-pole events drove big one-off audiences and identified live as an important viewing trend, the same sports and news content had a significant effect on short-form viewing. In fact, for this quarter, short-form saw the largest growth in ad views at 33%, the highest growth rate seen in any quarter this year. In comparison, live grew at 27% and long-form at 5% in the fourth

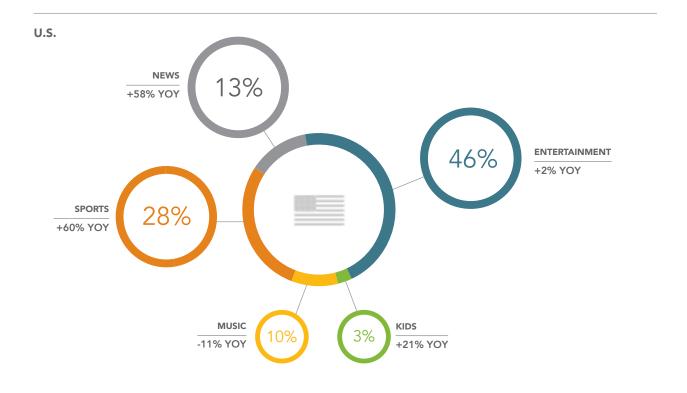
quarter. The confluence of the four major sports leagues' seasons during the quarter, along with the U.S. Election, contributed to higher clip consumption. Compared to the fourth quarter of 2015, sports was up 60% and news increased 58%. While short-form has traditionally been more of a focus for Digital Pure-Plays, Programmers are increasingly utilizing clips as a way to build audience scale and affinity for their longer-form content.

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



# **EUROPE**



# THE DYNAMIC LIVING ROOM BRINGS VIEWING BACK TO THE TV

hile 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(xiii).

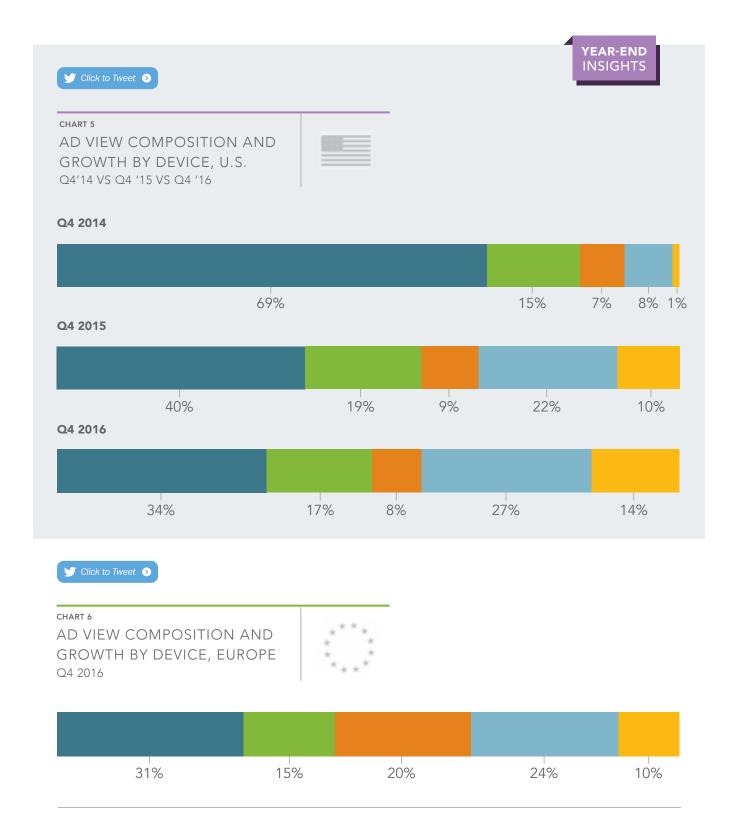
Our data supports the strategy of putting video content on the big screen, whether it's through developing a linear TV network or launching an OTT app. When we look at how viewers are choosing to consume their content, the device of choice for premium video is increasingly the television set. In a three-year 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.

OTT and STB VOD have been the largest disruptors in the market over the last three years

Lynch, Jason. "Here's How Viceland Plans to Lure Millennials Back to TV," Adweek (January 6, 2016). Retrieved at http://www.adweek.com/tv-video/heres-how-viceland-plans-lure-millennials-back-tv-168873/



SMARTPHONE

STB VOD\*

DESKTOP/LAPTOP

OTT DEVICE

TABLET

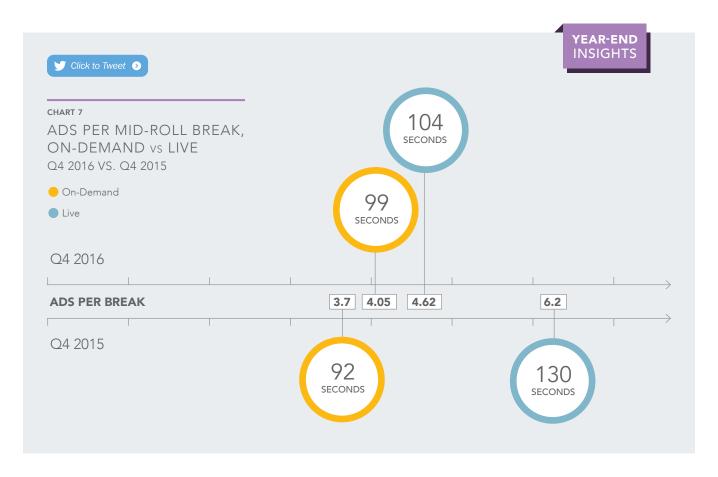
\*FourFronts STB VOD and Canoe Phase III Integrations.

# **EVOLVING THE USER EXPERIENCE**

he 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<sup>(xiv)</sup> 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 midroll 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.

<sup>(</sup>www.Lynch, Jason. "In Dramatic Overhaul, TNT to Cut Ad Load by 50%," Adweek (January 7, 2016). Retrieved at http://www.adweek.com/tv-video/turners-chief-creative-cutting-tnt-ad-loads-50-percent-dramatic-overhaul-168893/



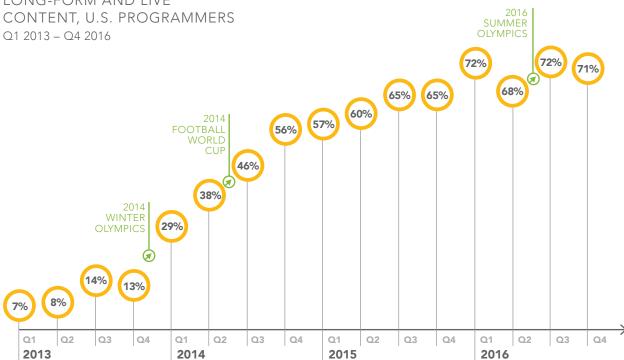
In any discussion of premium video user experience, it is important to address authentication. While there was some initial concern that the need to log-in with a password might deter viewers, we're now at the other end of the spectrum after steady increases in the authentication rate over the past three 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.



# CHART 8

SHARE OF AD VIEWS FROM AUTHENTICATED VIEWING, LONG-FORM AND LIVE CONTENT, U.S. PROGRAMMERS 01 2013 - 04 2016





# ACCOUNTABILITY: WHERE IS YOUR AD RUNNING?

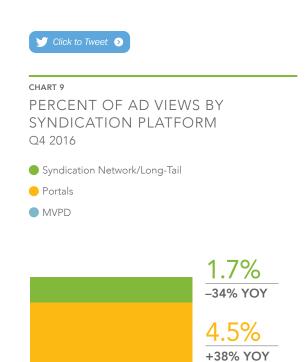
s well as optimizing the content/ad ratio, Programmers continue to explore the many channels through which they can monetize their content. In the past, syndication has been an avenue to reach new audiences for premium video publishers. For the fourth quarter of 2016, the share of views coming from syndication 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,

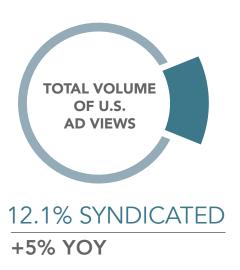
Advertisers have been paying more attention to where their ads are running and Programmers are reining in their content from long-tail sites where user experience, brand safety, and accountability may be lacking.

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<sup>(xv)</sup> 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.

<sup>[20]</sup> Torode, Jennifer (Media Contact). "White Ops Exposes Largest and Most Profitable Ad Fraud Bot Operation," Market Wired (December 20, 2016). Retrieved at http://www.marketwired.com/press-release/white-ops-exposes-largest-and-most-profitable-ad-fraud-bot-operation-2184586.htm



6.0% +3% YOY



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

n "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).(xvi)" 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.

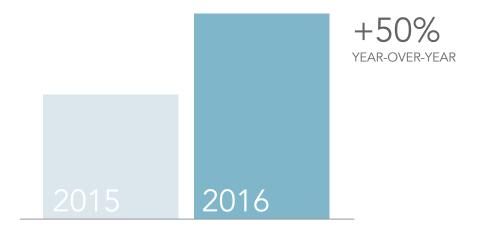
With more long-form content, premium Programmers remain selective about what inventory they make available through automated channels

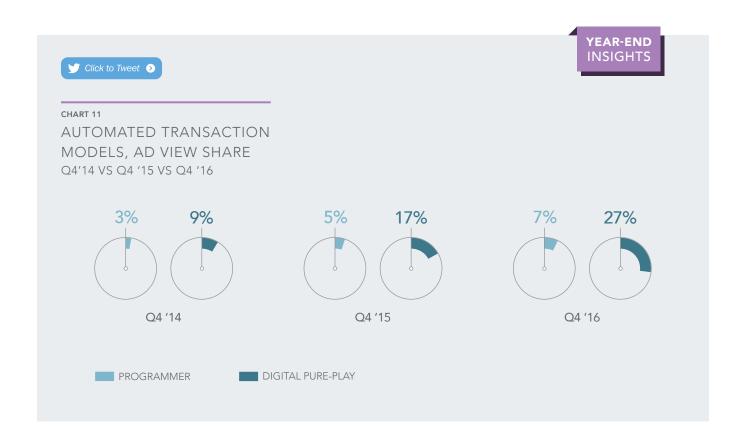
<sup>(</sup>XVI) "Reconstructing Programmatic for Premium Video," FreeWheel Council for Premium Video (June 2016).



CHART 10

AUTOMATED TRANSACTION MODELS, AD VIEW GROWTH Q4 2015 VS. Q4 2016



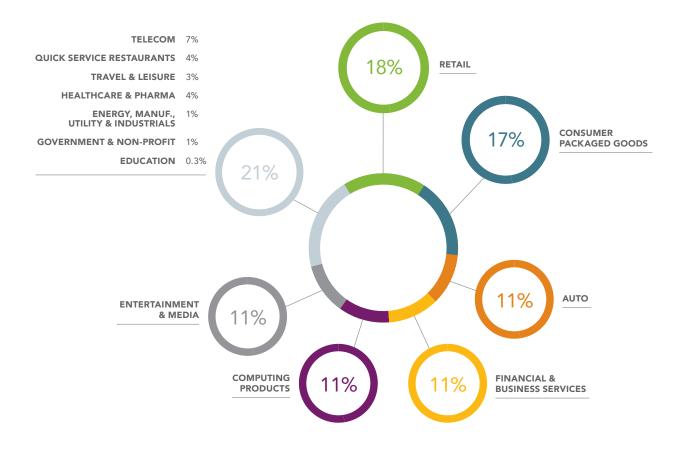


# **CORE OBSERVATIONS**



CHART 12

AD VIEW SHARE BY INDUSTRY, U.S. PROGRAMMERS Q4 2016



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

he 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<sup>(xvii)</sup>, 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.

 $_{\mbox{\scriptsize (xviii)}}$  FreeWheel reported CPG at 18% of ad views in Q1 2016



<sup>(</sup>NVIII) Interactive Advertising Bureau. "2016 Internet Advertising Revenue Half-Year Report". (November 2016). Retrieved at http://www.iab.com/wp-content/uploads/2016/04/IAB\_Internet\_Advertising\_Revenue\_Report\_HY\_2016\_\_\_.pdf

# **Q4 2016 CONCLUSION**

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

# **GLOSSARY**

### Ad Load

Average number of ads in a content stream

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

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 DirectTV

# **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

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

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

(1) Lynch, Jason. "In Dramatic Overhaul, TNT to Cut Ad Load by 50%," Adweek (January 7,2016). Retrieved at http://www.adweek.com/tv-video/turners-chief-creative-cutting-tnt-ad-loads-50-percent-dramatic-overhaul-168893/

(iii) Lynch Jason "Super Bowl 50 Breaks Streaming Record for the Big Game but Doesn't Match Yahoo's NFL Livestream," Adweek (February 8,2016). Retrieved at http://www.adw com/tv-video/super-bowl-50-breaks-streaming-record-big-game-doesnt-match-yahoos-nfllivestream-169529/

<sup>IIII</sup> Battaglio, Stephen. "Broadcast and cable TV upfront ad sales end slump with 4.5% gain," Los Angeles Times (July 12,2016). Retrieved at http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-network-upfront-20160712-snap-story.html

<sup>(n)</sup> Greenberg, Julia. "Zuckerberg Really Wants You to Stream Live Video on Facebook," Wired (April 6,2016). Retrieved at https://www.wired.com/2016/04/facebook-really-really-wantsbroadcast-watch-live-video

(\*) Baumgartner, Jeff. "Report: Hulu Developing Virtual MVPD Service," Multichannel News (May 1,2016). Retrieved at http://www.multichannel.com/news/content/report-hulu-developingvirtual-mvpd-service/404576

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FresWheel Video
Monetization
Report

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.

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