

FreeWheel | Video | Monetization | Report

Q1 2017

As we turned the corner into 2017, one thing became clear:

the industry has never been closer to true unification in premium video than it is now. At Variety's Entertainment and Technology Summit in New York on May 9, 2017, Lyle Schwartz, President of North American Investment at GroupM said emphatically, "We've got to stop talking about TV...and start talking about video." This echoes the sentiment that FreeWheel has supported since its inception a decade ago: the idea that video is video, no matter what screen it's viewed on — the wires are just details. This quarter, we've reached a point where our data shows that traditional linear television and digital video look more similar than ever before...so why are we still treating them as two separate things?

For many agencies and publishers, the reality on the ground is that the businesses of traditional linear television and digital video reside in their own silos. Even as media buyers begin to combine their linear and digital video budgets and publishers offer more converged sales options, much of the actual execution and measurement remains fragmented. FreeWheel has been planning for this since the beginning and are building the technology to enable true unification.

This quarter's Video Monetization Report (VMR) highlights how the boundaries within premium video are dissolving and at the end of the day it's all just video. For example:

- More and more digital video monetization comes from live streams that mirror the linear feed, with live news in particular seeing tremendous growth.
- For the first time, over-the-top (OTT) devices that are connected to the TV set surpassed desktop as the largest platform where premium video is consumed. Together with set-top-box video on demand (STB VOD), the two living room-centric platforms account for nearly half of all ad views this quarter.
- Syndication via MVPDs witnessed strong growth, fueled by increased adoption of TV Everywhere platforms and significant growth in virtual MVPD ad views.
- As with the past, we found that premium video monetization mirrors linear TV investment in terms of the top
 industry categories. This quarter, we also report that 40% of ad views were generated by campaigns with a
 demo guarantee, a standard practice in traditional TV that we expect to increase as agency budgets unify.
- To follow the expanding growth of premium video around the globe, we are excited to expand our dedicated analysis on European market trends, beginning on page 23.

We hope you enjoy reading more about this exciting evolution in premium video and stay with us to see what comes next.

Best.

Ying Wang	Jeremy Scher	Xu Yao	Steven Rosenblum	Miruna Dogaru
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Q1 2017 CORE OBSERVATIONS THE MOST DEFINITIVE DATA AVAILABLE ON PREMIUM VIDEO

UNITED STATES

CONVERGENCE DRIVES GROWTH OF PREMIUM VIDEO

ach year since the debut of the FreeWheel Monetization Report (VMR) in 2011, the premium video industry set new records, bringing more content to consumers than ever before¹. While many trends have come and gone, one has held true for 25 consecutive quarters: premium video is growing steadily. We are excited to report that in Q1 2017, video starts and ad views grew 12% and 15%, respectively, reflecting impressive continued double-digit growth in a much larger market.

This quarter, much of the growth indicates that premium video consumption and monetization are sharing more of the qualities that define traditional television. Mirroring the viewing patterns in linear, live news is riding high on political coverage as viewers increasingly choose to engage with news content on streaming apps. Live sports also continue to play a key role in driving digital video consumption, with tent-pole events including Super Bowl LI reaching viewers across all screens. The continued upward climb of viewing on OTT and STB VOD devices, which together account for nearly half of the total ad impressions this quarter, reaffirmed the television set as the preferred place for engaging with premium video.

As publishers develop strategies to better capitalize on these trends, we see growth coming from both traditional direct sales and programmatic sales channels. Going forward, it will be increasingly important for publishers to consider how these approaches should complement one another and what specific programmatic transaction models to use.

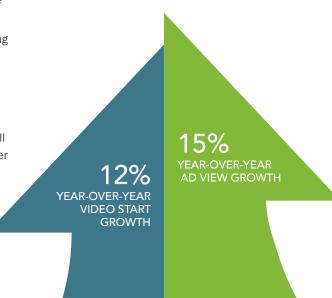
At the same time, an increased focus on ad experience is leading to better outcomes for both viewers and advertisers. While the ad experience is relatively uniform across device platforms, publishers have an opportunity to better understand user behavior at the device level to further optimize the experience.

The double-digit growth in both ad views and video starts we observed this quarter is truly impressive given the increasing size of the overall industry. In the following sections, we'll explore these drivers of growth and illustrate how the lines between traditional television and digital video continue to fade.



CHART 1

TOTAL VIDEO START AND AD VIEW GROWTH, U.S.
Q1 2016 VS Q1 2017



^{1.} https://www.wsj.com/articles/peak-tv-still-going-strong-with-455-scripted-shows-in-2016-1482350706



TV-QUALITY EXPERIENCES DRIVE VIEWING

he content viewers choose to watch is a key indicator of the unification of premium video. In Q1 2017, live streamed ad views made up nearly a quarter of all ad impressions and achieved 47% year-over-year organic growth. Full-episode content continued to reign with 60% of ad views, growing at a solid 14% year-over-year. The persistent growth of these two categories illustrates that people are increasingly turning to premium video for TV-quality experiences.

On the other hand, clips have gradually declined in share and total impressions. Two factors may explain this. First, people are spending a larger share of their viewing time with full-episodes and live content, which are less likely to be found outside of premium publisher environments. Additionally, the focus on customer retention has led several publishers to re-evaluate their clips ad experience. Traditionally, a common practice has been to monetize every clip or turn on autoplay for pre-roll ads on clips. However, publishers are scaling back in response to user complaints about ad saturation, which we explore later in our ad experience section.

What's especially fascinating is the content that populates live streams. Historically, this has been the domain of sports, but in the past year, news content emerged as an important driver of live viewing. In Q1 2017, news accounted for 16% of live ad views compared to just 9% in Q1 2016. Moreover, news was the only vertical to gain share across clips, full-episodes and live, as publishers found ways to capitalize on interest in political events.

SUPER BOWL LI



FreeWheel supported a hybrid ad experience with the same national ads as TV but different local ads for 135 participating affiliate markets

Sports viewing continues to claim the lion's share of live ad views and drives the industry toward convergence through high-profile events. On Sunday February 5th, FreeWheel was the exclusive provider of ad decisioning solutions for FOX's production of Super Bowl LI, enabling FOX to serve both national and local affiliate ad streams across all digital platforms with its Hybrid Linear Digital Ad Scheduler (HyLDA). In a Super Bowl streaming first, FOX supported custom digital ad insertions for 135 participating affiliates.

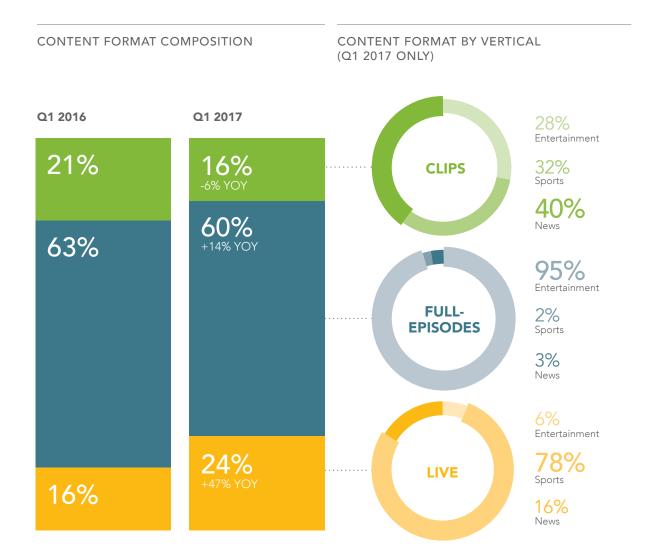
In the hybrid ad experience, the digital streams mirrored the same national ads that played on TV while inserting different local ads based on the affiliate market. We expect to see more live streams take advantage of this capability, as publishers want to exercise more control over the ad experience while serving ads dynamically where they can produce the most value.



CHART 2

CONTENT COMPOSITION AND GROWTH BY FORMAT AND VERTICAL, AD VIEWS, U.S. Q1 2016 VS Q1 2017

- Clips (0-5min.)
- Full-Episodes (5+ min.)
- Live



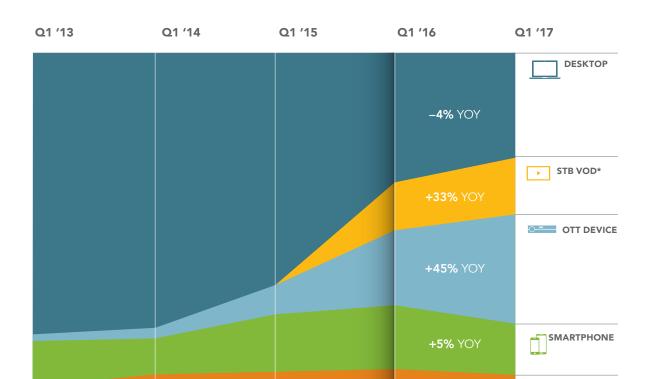
BY COMPARISON, LIVE NEWS WAS ONLY 9% IN Q1 2016

CORE OBSERVATIONS / U.S.



CHART 3

AD VIEW COMPOSITION AND GROWTH BY DEVICE, U.S Q1 2013 – Q1 2017



COMPOSITION SHARES BY QUARTER

81%	79%	67%	37%	31%
_	_	_	14%	16%
2%	3%	8%	22%	32%
13%	11%	17%	18%	13%
4%	7%	8%	9%	8%

+3% YOY

TABLET

^{*} FourFronts STB VOD and Canoe Phase III integrations

MATURING PLATFORMS AND NEW SERVICES BRING "TV" BACK TO THE BIG SCREEN

othing provides clearer evidence of the unification of premium video than the surge in viewership and monetization on devices that stream content directly to the television screen. In Q1 2017, nearly all of the device growth came from OTT and STB VOD*, which we've previously dubbed the "new living room" platforms.

For the first time, OTT devices claimed the top title in terms of ad view share. In just four years OTT has exploded from 2% to 32% of total ad views as publishers have invested heavily in making content available on the big screen. Smartphone and tablet shares have remained relatively steady in the same time period, during which there has been a surge in activity on mobile driven by social media platforms. Desktop continues its gradual decline in share as viewers find better screens for engaging with both full-episode TV-quality content and snackable clips content.

Despite the growth in "new living room" devices, monetization challenges remain for these platforms. OTT devices are 100% viewable and have human audiences interacting and engaging with content in a lean-back environment, one of the most valuable audiences for digital video; however they don't support all of the same methods for validating audiences and viewability that are used on desktop and mobile devices. This creates hurdles for agencies, who are reluctant to extend their buys to these platforms without the same validation tools. Fortunately, there is a significant effort to overcome these limitations including the extension of Nielsen DAR measurement on Roku and work on the part of many equipment manufacturers to expose device IDs for audience targeting purposes.



VIRTUAL MVPDS DRIVE SYNDICATION GROWTH

his quarter, we reported that 29% of all programmer ad views were generated via syndicated platforms: content aggregators, long-tail websites, and MVPD platforms which include TV Everywhere and virtual MVPD services. We define virtual MVPDs as digital-only cable alternatives that offer access to both live and on-demand premium content bundles for a subscription fee. These services are growing in popularity and are particularly attractive to cord-cutters and cord-nevers.

Continuing a trend from the past, we've seen syndication volume from long-tail sites continue to

decline rapidly as both publishers and advertisers become more cautious of where they allow their content to appear. Aggregators account for the vast majority of syndication for on-demand content, serving as a means to capture additional audiences and create new sources of inventory.

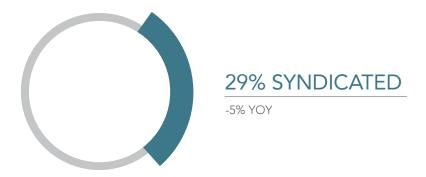
Programmer ad views generated via MVPD products grew at 84% year-over-year in Q1 2017, driven by increased adoption of TV Everywhere platforms and significant growth in ad views via virtual MVPDs. We expect continued growth in this category as adoption increases and new services are launched in the coming quarters.



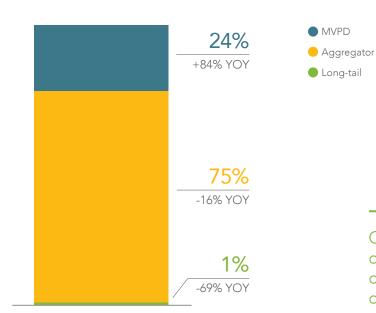
CHART 4

SHARE AND GROWTH OF AD VIEWS BY SYNDICATION PLATFORM, U.S. Q1 2017

TOTAL VOLUME OF AD VIEWS, U.S.



BREAKDOWN BY PLATFORM



Growth of virtual MVPD services creates new viewing options for consumers and monetization channels for publishers

MONETIZATION

SHOW ME THE MONEY

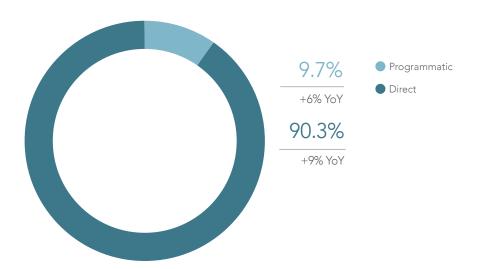
s premium video viewership continues to grow, it gets more difficult to maximize yield and revenue on new inventory and screens. Programmers have two primary options when it comes to monetizing their inventory: they can

build direct relationships with agencies or source demand programmatically through a third party sales channel. We define programmatic here as the use of automation software or managed services to execute an advertising deal.



CHART 5

SHARE AND GROWTH OF DIRECT AND PROGRAMMATIC MONETIZATION, U.S. Q1 2017



MONETIZATION

TRADITIONAL DIRECT SALES

he vast majority of premium video advertising is still transacted through the traditional direct sales model. Publishers cultivate relationships with agencies who represent brand marketers, negotiate media buys, and deploy large teams to execute the deal. Historically, the teams at the agencies who represent linear and digital video budgets were siloed. Now, many of these groups have started to merge and purchase video cross-platform, meaning that traditional linear and digital video campaigns are increasingly sharing the same characteristics.

One of these characteristics is the ability to buy on guaranteed demographic segments. Just as buyers of TV media are looking for a commitment that they reached their intended audience, more digital video buyers are demanding the same audience guarantees. In Q1 2017, based on a sample of clients using FreeWheel's Audience & Measurement suite, we measured that 40% of paid ad impressions were delivered as part of a demo-guaranteed campaign. While this practice has always been present in digital video, we expect it to grow as more campaigns are sold as "converged" meaning that they have a single budget across linear TV and digital platforms, and as audience targeting and measurement capabilities improve across fastgrowing platforms such as OTT and STB VOD.

The growth in converged buying also means that the advertising mix on linear and digital video platforms will look more similar in the future. Already, the advertisers on premium digital video look similar to traditional TV, with consumer packaged goods (CPG), auto and financial services making up a significant portion of spend.

In Q1, 40% of direct-sold deals were transacted with a demo guarantee



CHART 6

AD VIEW SHARE BY ADVERTISER INDUSTRY, U.S. PROGRAMMERS Q1 2017

j	-	

19%

Consumer Packaged Goods



15%

Financial & Business Services



12%

Auto



12%

Retail



10%

Entertainment & Media

- 8% TELECOM
- 6% COMPUTING PRODUCTS
- 6% QUICK SERVICE RESTAURANTS
- 6% HEALTHCARE & PHARMACEUTICALS
- 4% TRAVEL & LEISURE
- 1% ENERGY, MANUFACTURING, UTILITY & INDUSTRIALS
- 1% GOVERNMENT & NON-PROFIT
- .4% EDUCATION



MONETIZATION

PROGRAMMATIC SALES

n Q1 2017, we observed a 6% year-over-year increase in monetization via programmatic channels. When talking about programmatic as a sales strategy, it's important to outline the

various transaction models since each provides a different value and are best fit for different use cases.

The three most common types of transaction models:

1. Programmatic direct: 1:1

Negotiating a deal directly with a single buyer, but executing it through automated channels in order to take advantage of data targeting and operational efficiency

2. Private auction: 1:Few

Inviting a short list of buyers to access premium inventory and to take advantage of competition but only within a curated, compliant environment

3. Open exchange: 1:Many

Opening up inventory to a new, expanded set of buyers to allow for greater competition and full automation

In the first two transaction models, publishers create a unique deal ID that essentially serves as a passkey to a portion of their inventory. They can then choose to share the ID with a single buyer in a programmatic direct deal, or with multiple buyers to form a private auction. Advantages to these methods include a centralized reporting system for the advertiser and workflow efficiencies around campaign setup. Private auctions can also foster competition among existing advertiser relationships and in turn increase inventory yield. Among premium video players, we expect programmatic direct deals and private auctions to drive much of the future growth, as open exchange environments may expose publishers to risks around compliance, data leakage, brand safety, and creative control.

USER EXPERIENCE

PUTTING THE VIEWER FIRST: FOCUS ON AD EXPERIENCE

n a recent survey of 250 brand and agency executives commissioned by the FreeWheel Council for Premium Video (FWC), 52% of respondents identified improving the ad experience as the single biggest challenge that faces the video industry today³.

For better or worse, an ad experience qualifies for the timeless principle of ergonomics: do it well, and the seamless experience will feel natural to the point where it almost goes unnoticed. Do it poorly, and viewers will hardly notice anything else. As video consumption continues to shift towards digital platforms and services, viewers have higher expectations around all elements of the viewing experience; content quality alone is not enough to ensure viewer engagement and retention. This quarter we take a deeper look into some of our ad experience metrics to identify what's working and—more importantly—where there is still room for improvement.



CHART 7

AD COMPLETION RATES BY AD UNIT AND CONTENT DURATION, U.S. Q1 2017

PRE-ROLL



MID-ROLL



USER EXPERIENCE

AD ENGAGEMENT

espite the concerns around ad experience, viewers seeking out premium video content remain highly engaged with the advertising overall. Mid-roll ad completion rates for premium full-episode and live content were 98% and 97% respectively in Q1 2017. This means that nearly all mid-roll ads are viewed to 100% completion once started, a positive sign for the future of ad-supported premium video.

Pre-roll ad completion rates are also relatively high, but vary based on what type of content they precede. Full-episode and live streamed content have higher pre-roll completion rates than clips, possibly because viewers are more likely to have sought out that content and are more committed to reaching the video.



CHART 8

AVERAGE NUMBER OF ADS PER MID-ROLL BREAK, FULL-EPISODES, U.S. Q1 2017





CHART 9

AVERAGE RATIO OF PRE-ROLLS TO VIDEOS, CLIPS, U.S.

Q1 2017



USER EXPERIENCE

AD CLUTTER

ne of the earliest targets of the ad experience crusade has been the ad load itself. The number of ads surrounding content, commonly referred to as "ad clutter," can have a significant impact on how long a user watches and whether they return for more. The complaints have been particularly acute in linear television, where the number of ads per break can sometimes creep into the teens. As a result, NBC reduced ad loads on Saturday Night Live by 30% for the most recent season, while Turner has committed to continuing a reduced ad load on TNT after seeing notable success with the experiment last summer^{2,3}.

In Q1 2017, full-episodes of premium video content averaged around four ads per mid-roll break and 97 seconds in total duration. This metric has remained steady for multiple quarters as publishers begin to put the consumer experience front and center.

What's surprising, however, is that there is not a lot of variability in this metric across device platforms, despite evidence from A/B tests of ad loads conducted by the FreeWheel Advisory Services team demonstrating that viewers of the same content are more sensitive to high ad loads on mobile apps vs. tablet apps.

Similarly, we see that the ratio of pre-rolls on clips is also fairly uniform across devices. Overall, users see about one ad for every two clips started. This has been a significant improvement from the past when it was quite common to show one ad for every clip played. As with full-episode content, there may be an opportunity to customize the clips ad experience for different devices. Publishers can play with variables, including whether or not to show an ad upon first visit or the amount of time between ads, to create a custom experience by platform.

Clips

^{2.} http://www.adweek.com/tv-video/turner-will-continue-reduced-ad-loads-tnt-next-year-and-could-expand-tbs-2018-172742/

^{3.} https://www.wsj.com/articles/saturday-night-live-premiere-airs-almost-30-fewer-commercials-1475509829

USER EXPERIENCE

AD REPETITION

he second most common complaint around poor ad experiences is the repetition of ads.

Ad repetition has been the kryptonite of publishers and advertisers alike since the dawn of digital video. "Lack of creative diversity" was cited as the top underlying reason for a poor ad experience by the same survey panel of agency and brand executives referenced on page 18.

These types of issues are likely to warrant negative feedback from agency heads and publisher executives. While most publishers don't allow the same ad to repeat more than twice in an episode, viewers who binge content can sometimes be subject to compounding ad repetition issues.

In Q1 2017, 6% of creatives played more than two times within a full-episode stream. In comparison, the number for live was 19%. Live consists mostly

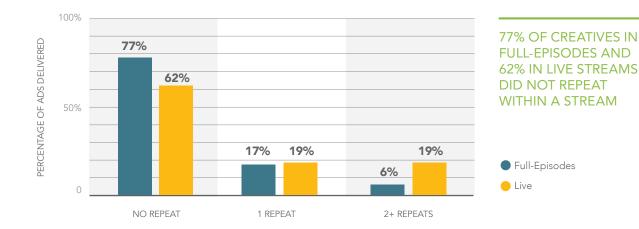
of sporting events, which to date tend to have less advertiser diversity than full entertainment episodes.

With users increasingly fragmenting where they spend their time, collaboration between advertisers and publishers will be crucial to reach engaged users at scale and keep them engaged. Positive advertising experiences can lead to improved advertiser ROI, reduced ad blocking, and greater engagement on publisher platforms. We know users have an appetite for premium content; now the industry must work together to keep them coming back for more in an economically sustainable way.



CHART 10

AD REPEAT FREQUENCY PER STREAM BY CONTENT FORMAT, U.S. Q1 2017



4. FWC/Advancing the Ad Experience, FWC (April, 2017). Retrieved at http://freewheel.tv/fwcouncil/#freewheel-council-positions







Q1 2017 CORE OBSERVATIONS THE MOST DEFINITIVE DATA AVAILABLE ON PREMIUM VIDEO

EUROPE

INTRODUCTION

ithin the individual countries and markets that make up the European broadcast ecosystem, one common goal holds universally true: to deliver a premium, TV-quality experience. This focus on premium video may be partly rooted in their linear history, but European broadcasters and operators have always maintained a careful balance between driving monetization and maintaining a quality user experience.

Supply and demand forces have shaped a different trading balance within each individual European country. Buyers vary in the way budgets are allocated across linear and digital content. Viewers show different preferences for subscription versus adsupported models. Broadcasters differ in how they design and build their technology solutions, and each has created their own unique combination of content versus scale.

Despite these differences, European countries are loosely joined together by similar values when it comes to advertising and media:

- Broadcasters have exhibited consistent caution when it comes to balancing monetization and viewer experience.
- Continued investments in premium content and technology have led to increased viewership.



CHART 11

TOTAL VIDEO START AND AD VIEW GROWTH, EUROPE Q1 2016 VS Q1 2017

Over the past year, the FreeWheel European footprint has expanded to include several new clients. In order to maintain parity, these have not been included in the growth calculations, but are part of the Q1 2017 composition figures.

- Advertisers are allocating an increasing share of wallet to the industry as accountability improves.
- Inventory yield has improved as broadcasters drive technology solutions to be more efficient, automated, and data-driven.
- European broadcasters and operators have built partnerships within and beyond their national borders, in order to address the issue of scale and audience fragmentation.

We are excited to report that the organic growth trends we observe in the U.S. persist across the pond. Video starts grew by 79% in Q1 2017 while ad views grew by 17% in the quarter, indicating a significant opportunity for monetization growth in the European market. We will see how this and other trends evolve as we expand our international statistics in the VMR to follow the landscape of the premium video industry across the globe.

79% YEAR-OVER-YEAR VIDEO START GROWTH

17%
YEAR-OVER-YEAR
AD VIEW GROWTH

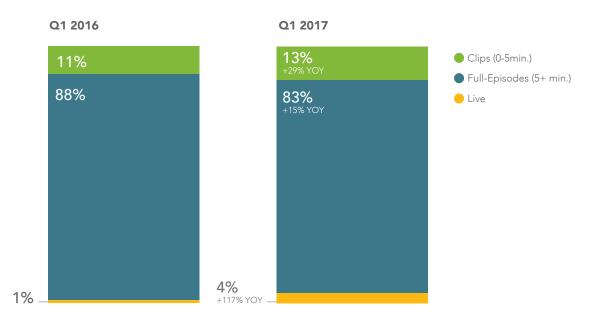
LIVE MONETIZATION HITS EUROPE

his quarter marks the true arrival of live monetization via digital ad insertion in a European marketplace historically dominated by on-demand full-episodes. Much of this growth is driven by live sporting events, similar to the U.S. Full-episode content continues to grow as broadcasters build out their on-demand libraries. In contrast to the U.S., we have seen significant increases in monetization on clips with 29% growth. Broadcasters are beginning to experiment with leveraging content teasers as a means of expanding their audience and retaining viewers.



CHART 12

AD VIEW COMPOSITION AND GROWTH BY CONTENT DURATION, EUROPE Q1 2016 VS Q1 2017





VIEWERS RETURN TO THE LIVING ROOM

uropean broadcasters have expanded their digital footprint across all platforms, giving users the ultimate choice of watching what they want, when and where they want it. Faced with this proliferation of choice, viewers are responding by indicating their preference for the increased functionality available through TV-friendly devices such as OTT and STB VOD. This new living room also brings new monetization opportunities, as viewers have a higher ad load tolerance in that environment⁵.

These living room devices have the benefit of guaranteed viewability while remaining shielded from fraud in a protected ecosystem, creating an advertiser-friendly environment. Even better, studies

have shown that users are more engaged in these premium environments. For example, a recent report by Channel 4 found that, in comparison to its own All 4 VOD ads, video ad completion rates for YouTube are 62% lower and more than five times lower on Facebook⁶.

Outside of the living room, tablets and smartphones continue to see growth due to their functional nature while desktop viewing continues to fall. Overall, we expect growth on non-desktop devices to continue as monetization strategies expand in response to changing consumption habits.

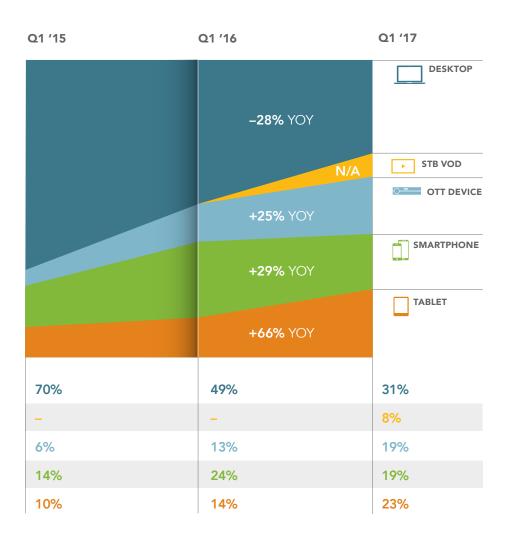
^{5.} http://www.millwardbrown.com/adreaction/genxyz/global/download-and-contact

^{6.} http://www.thedrum.com/news/2017/03/21/channel-4-pounces-google-furore-with-claim-tv-vod-20-cheaper-ads-youtube



CHART 13

AD VIEW COMPOSITION AND GROWTH BY DEVICE, EUROPE Q1 2015 VS Q1 2016 VS Q1 2017





INDUSTRY PLAYERS KEEP SALES RIGHTS CLOSE TO HOME

s the focus on premium video continues to grow in Europe, sales rights become more and more coveted, both by broadcasters and operators. Instead of relying on aggregators and distributors to expand their reach, there is a trend in Europe to increase the content distribution footprint while maintaining primary sales rights.

This is a significant difference from the U.S. where distributors typically receive a percentage of overall impressions similar to the two minutes per hour on linear TV. Although operating under different dynamics, we expect to see continued collaboration between broadcasters and operators to mutually build scale and unify viewership through premium video experiences.

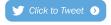


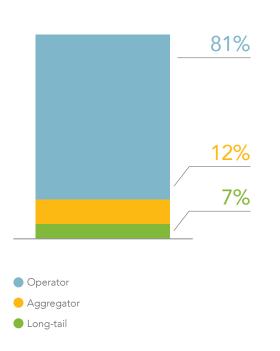
CHART 14

SHARE OF AD VIEWS BY SYNDICATION PLATFORM, EUROPE Q1 2017

TOTAL VOLUME OF AD VIEWS, EUROPE



BREAKDOWN BY PLATFORM



EUROPEAN BROADCASTERS AIM TO MAXIMIZE YIELD ACROSS ALL SALES CHANNELS

n the most significant departure between U.S. and European broadcasters, almost a quarter of all European transactions are conducted through programmatic channels. Appetite for programmatic trading varies by market, but bigger markets such as the U.K. and France are generally in line with this mix. European broadcasters are consistently focused on maximizing yield ahead of prioritizing one sales channel over another; as such programmatic impressions are set to compete directly with direct-sold deals. This is in contrast to

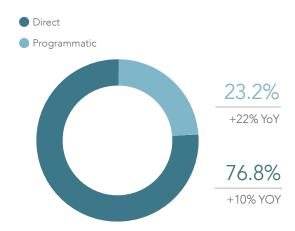
the U.S. where traditional direct-sold deals still tend to take precedence.

European media agencies have shown a strong desire to automate the trading process and European broadcasters have responded by increasing their investment in programmatic channels, while paying close attention to brand safety and viewer experience requirements. In future editions of the VMR it will be interesting to analyze the split of campaigns traded via private versus open exchanges.



CHART 15

SHARE AND GROWTH OF DIRECT AND PROGRAMMATIC MONETIZATION, EUROPE Q1 2017

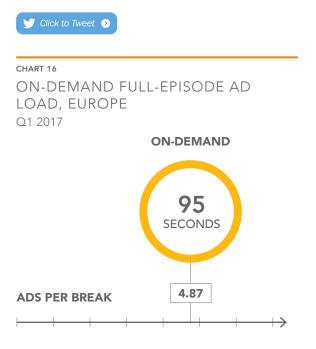




AD EXPERIENCE RETAINS TOP PRIORITY AS LANDSCAPE EVOLVES

uropean broadcasters continue to be focused on protecting their viewer experiences, putting the viewer as a top priority before increasing ad loads toward a typical linear TV experience. For example broadcasters will deliver a reduced ad load to new viewers initially, but once the viewer is engaged and consumes a certain amount of content, the ad load is increased. Interestingly, when comparing this data to its U.S. counterpart, the break durations are almost identical, yet European broadcasters show more ads in each break. This indicates a preference by European broadcasters to fill breaks with more total ads that are individually shorter in length rather than fewer, longer ones.

Overall the European market continues to have an opportunity for increased monetization via the application of custom ad load strategies across various devices and user consumption patterns.



Q1 2017 CONCLUSION

The beginning of a new year gives us time to reflect on where we are and where we're headed as an industry. For the first time ever, we are starting to observe the effects of digital video on a linear TV landscape that has remained nearly unchanged for decades. Live and full-episode TV-quality content is growing at double-digit rates across the board and nearly half of all digital video consumption occurs on the big screen. New MVPD subscription models are emerging. Viewers have high expectations around all components of the premium content experience, and publishers and advertisers alike are recognizing the cooperation that will be crucial in driving the industry forward.

The day where we will refer to linear and digital as a single entity is on the horizon. Stay tuned for reliable insights on the trends of our converging video ecosystem.

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. He is also a regular co-author of the Video Monetization Report and has contributed towards other market-facing thought leadership. Before FreeWheel Jeremy began his career in Accenture's Management Consulting practice.



XU YAO

Xu Yao is a data scientist on FreeWheel's Advisory Services team. He works across FreeWheel's client base to provide tactical analysis in support of ad model design and testing, viewer ad experience assessments, competitive benchmarking and ad integration audits. His work also contributed to the FreeWheel Video Monetization Report for the past four quarters. Xu is particularly passionate about leveraging FreeWheel's rich dataset to help clients unveil data-driven insights and drive higher business outcomes.



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.



MIRUNA DOGARU

As Lead of Advisory Services at FreeWheel, Miruna Dogaru represents the European Business Advisory Practice. In this role, she works with new and experienced media companies to identify and implement digital strategies, maximize yield and drive operational efficiency. Before FreeWheel, Miruna advised media and technology companies as part of Deloitte Digital.

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Ad View

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

Aggregators

High-traffic content aggregators, for example AOL and MSN

Broadcaster

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

Content Verticals

Content genre, e.g. news, entertainment, sports

Unique deal identifier of a programmatic transaction that can be used to match advertisers and publishers directly

Direct-sold

Advertising deals made directly between a publisher and an advertiser

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

FreeWheel Council for Premium Video (FWC)

Serves the interests of those in the premium video industry through leadership positions, research, and advocacy to promote the premium video economy

Hybrid Linear Digital Ad-Scheduler (HyLDA)

FreeWheel solution that brings together the scheduling capabilities of a linear ad system with the dynamic nature of the digital world

Impression

Occurs each time an ad is displayed. Synonymous with "ad view"

Inventory

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

Linear

Traditional broadcast, cable, or satellite television

Long-Tail

Small scale/niche content aggregators

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

Nielsen Digital Ad Ratings (DAR)

Provides a comprehensive, next-day view of an ad's computer and mobile audience in a way that is comparable to Nielsen TV Ratings

Operator

Provides pay TV services in the EU, functioning similarly to MVPDs in the U.S. Examples include Sky UK and SFR

Over-the-top (OTT)

Viewing content delivered over an internet connection. Typically seen as OTT Device, which includes devices like Roku, Apple TV, Connected TVs, etc.

Pre-roll

An ad break that occurs before content starts

Premium Video

Video content that is professionally produced, rights managed, and limited in supply

Private Auction

An invite-only programmatic exchange, facilitated via Deal ID, in which only select buyers are eligible to participate

Programmatic

The use of automation software or managed services to execute an advertising deal

Programmatic Direct

Programmatic deals executed directly with a single buyer

Programmer

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

Publisher

Producers or syndicators of content. Can be programmers or digital pure-plays

Set-top-box Video-On-Demand (STB VOD)

Accompanies a cable/broadcast/satellite setup. Contains a cable input and outputs to a TV

Simulcast

A digital stream of a live event that is simultaneously broadcast on linear TV

Syndication

Viewing that occurs outside of a publisher's Owned and Operated properties or primary platforms

TV Everywhere (TVE)

Apps that allow viewers to access content over the internet by logging-in with their MVPD subscription credentials

Video Start

Accrued after the first frame of video content is displayed. Formerly referred to as video view

Virtual MVPD

Digital-only cable alternatives that offer access to both live and on-demand premium video content for a subscription fee

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 starts in 2016 and 59 billion video starts for Q1 2017.

#FreeWheelVMR

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