

Video Landscape Report

IAB Digital Video Center of Excellence

May 2018, 4th Edition



Table of Contents



Introduction

In early 2018 at the IAB Annual Leadership Meeting, IAB announced a paradigm-shifting thesis to capture, explain and understand an "enduring shift in the way the consumer economy operates", a shift from a century old "indirect brand economy" to a "direct brand economy" characterized by data-driven, digitally native, and customer experience-obsessed upstart brands with direct connections to consumers. They are disrupting the legacy business model of marketing and driving the growth of a new consumer economy.

All digital publishers, media companies, technology and data solution providers in the ecosystem have an important role to play in building the "attention stack" that both direct and indirect brands can leverage to scale their growth and/or empower their digital transformation. Video, with the on-going convergence between traditional TV and digital video, has become an integral and powerful part of this attention stack for all 21st century brands in the new direct brand economy.

However, the constant change and confluence of technological innovations and consumer behavior shifts also cast new questions around video - What does video mean? What will it become? How is video used to reach, engage, and drive attention and action? It is absolutely imperative to understand the complex and evolving ecosystem of video advertising to guide both buy-side and sell-side perspectives and decisioning.



Background

- IAB Digital Video Center of Excellence created this video landscape report after reviewing and compiling existing industry research reports and publications, as well as consulting with more than a dozen industry practitioners and subject matter experts including broadcast, cable, ad tech, digital pure plays, agencies, and brands.
- The key objective of this report is to provide perspectives on the state of the video advertising ecosystem. It
 will also serve as a modular tool to simplify video and educate the advertising marketplace about the growth
 and value of video in reaching and engaging consumers.
- Given the complexity of the entire video landscape, this report is going to anchor around the confluence of consumer consumption and technology in an advertising-supported video ecosystem to provide a clear understanding of the current state of video to a buy-side audience.
- The May 2018 report is the fourth edition (initially released in October 2016).



Executive Summary – State of Video

- The video ecosystem has never been more complicated and exciting. We have seen an unprecedented number of content creation sources, distribution platforms, and consumption channels, and as a result, more video viewing time in total. While traditional TV still dominates ad revenue, digital video especially mobile video—is the fastest-growing video type by consumption. All of these developments and touchpoints have provided more opportunities for 21st century brands and marketers to directly connect and engage with consumers.
- Looking across the video platforms and channels, traditional and new opportunities to reach and engage consumers abound in this rapidly evolving video ecosystem. This report looks into a number of opportunities including programmatic video, addressable TV, connected TV/OTT, augmented reality (AR), vertical video, live streaming video, esports, Original Digital Video, 6 second ads, interactive video, and branded video.



Executive Summary – State of Video

- While opportunities to reach and engage viewers have increased through a myriad of video touchpoints, we continue to see challenges across traditional TV and digital video platforms due to consumers' behavior shifts and emergence of new technologies, especially advanced audience data and automation. In this report, we discuss challenges as well as on-going efforts and opportunities to address them. The key challenges include audience fragmentation, content discovery, advertising experience, ad fraud, and cross-platform measurement.
- The interplay of technology and consumer behavior is driving current and emerging trends that push and shape this evolving video landscape. The industry needs to have a deeper understanding of the shift in consumer dynamics and technology to better leverage these trends. IAB will continue to play a pivotal role in shaping the future of video advertising in the 21st century brand economy and has outlined key pillars and initiatives to keep driving the industry forward.



Landscape

The video ecosystem has never been more complicated and exciting—we have seen an increased number of content creation sources, delivery and consumption channels, and platforms, and as a result, more video viewing time in total. While traditional TV still dominates ad revenue, digital video— especially mobile video—is the fastest-growing video type by consumption.



The changing faces of video in a complex ecosystem

The term video is perceived through varying yet overlapping frameworks and lenses.

Video Type

Long form video Short form video Original digital video User-generated content Vertical video 360 video Virtual reality Live video

Distribution Mechanism

Over the air/Broadcast Cable Satellite IP-based

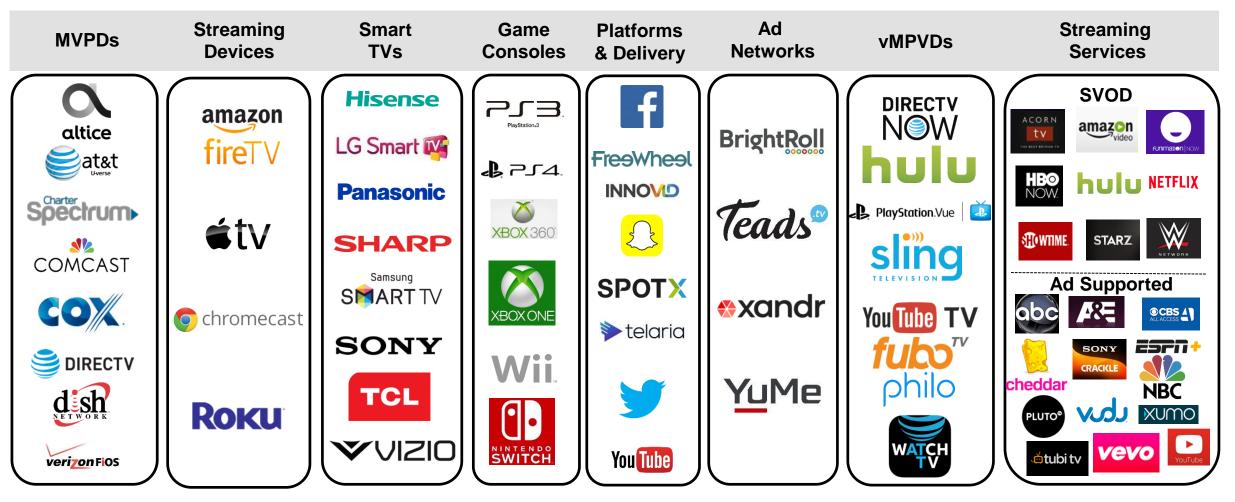
Viewing Device/Platform

Desktop Mobile Gaming console OTT/Connected TV Social Messaging app Digital OOH Ad Unit

In-stream Out-stream Overlay Picture in Picture Shoppable Interactive



Video delivery and consumption is more crowded than ever

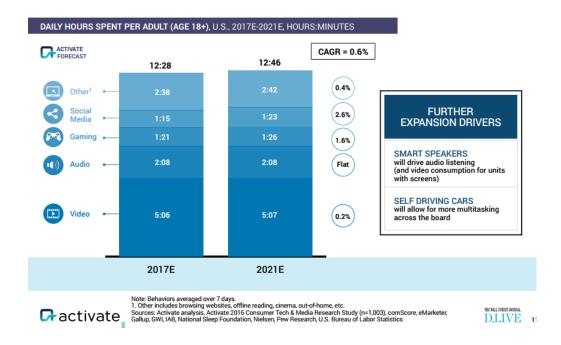


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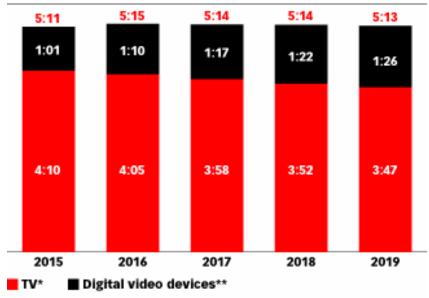
Video viewing accounts for the biggest share of daily media time spent; digital video viewing time increases year-over-year

- According to Cisco, IP video traffic will be 82% of all consumer internet traffic by 2021, up from 73% in 2016. The Activate Tech and Media Outlook 2018 report showcases the dominance of video in US consumers' total daily media usage.
- While TV still takes the majority share of total viewing time, digital video's share has increased over time.



Average Time Spent per Day with Video by US Adults, by Device, 2015-2019

hrs:mins



Note: ages 18+; time spent with each medium includes all time spent with that medium, regardless of multitasking; for example, 1 hour of multitasking with digital video while watching TV is counted as 1 hour for TV and 1 hour for digital video; numbers may not add up to total due to rounding; *excludes digital; **includes time spent watching digital video via game console, connected TV or over-the-top (OTT) device, as well as via desktop/laptop or mobile device; excludes time spent with video via social networks Source: eMarketer, Sep 2017

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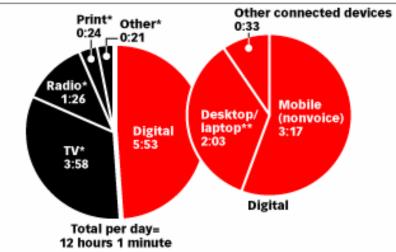
www.eMarketer.com



Mobile video is taking a greater share of total digital video consumption and it continues to grow

Average Time Spent per Day with Major Media by US Adults, 2017

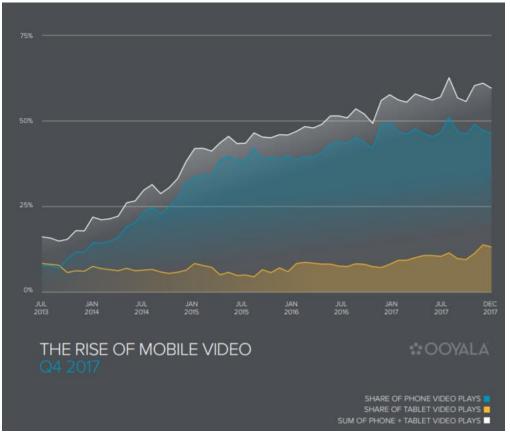
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Note: ages 18+; time spent with each medium includes all time spent with that medium, regardless of multitasking; for example, 1 hour of multitasking on desktop/laptop while watching TV is counted as 1 hour for TV and 1 hour for desktop/laptop; numbers may not add up to total due to rounding; *excludes digital; **includes all internet activities on desktop and laptop computers Source: eMarketer, Sep 2017

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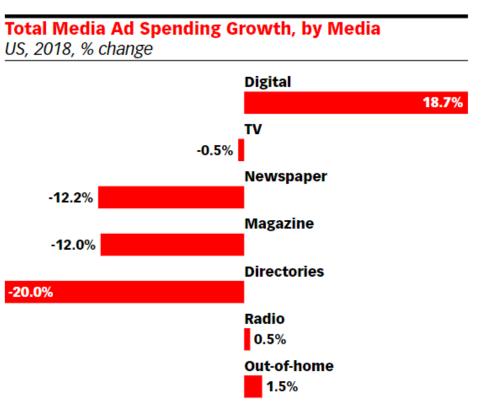
TV ad spend remains dominant, though digital video exhibits a faster revenue growth rate whereas TV ad spend is stagnant

US TV* and Digital Video** Ad Spending, 2016-2021

billions, % change and % of total media ad spending

	2016	2017	2018	2019	2020	2021
TV*	\$71.29	\$71.65	\$71.93	\$72.22	\$74.03	\$74.17
—% change	3.5%	0.5%	0.4%	0.4%	2.5%	0.2%
—% of total media ad spending	36.6%	34.9%	33.5%	31.9%	30.8%	29.4%
Digital video**	\$10.70	\$13.23	\$15.42	\$17.56	\$19.81	\$22.18
—% change	39.2%	23.7%	16.5%	13.9%	12.8%	12.0%
—% of total media ad spending	5.5%	6.5%	7.2%	7.8%	8.3%	8.8%

Note: *includes broadcast (network, spot and syndication) and cable TV; **includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices; includes advertising that appears before, during or after digital video content in a video player Source: eMarketer, Aug 2017



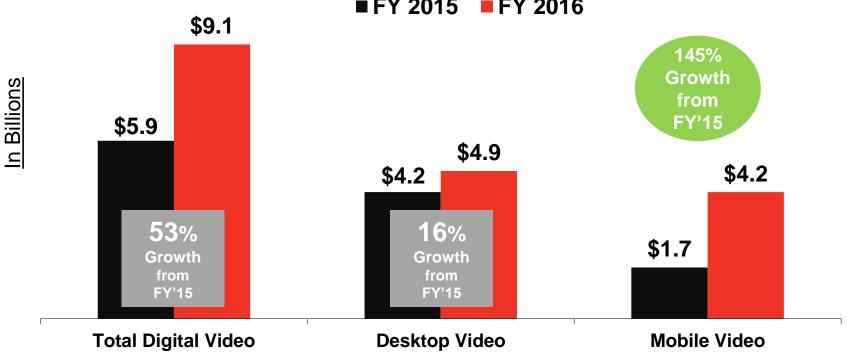
Source: eMarketer, March 2018 (see below for notes and methodologies).



Mobile video is the primary driver of digital video ad revenue growth

- According to eMarketer, US digital video ad spending will grow at double digit annual rates through at least 2021, reaching \$22.18 billion by that time, or 17.2% of all digital ad spending.
- The gap between mobile and desktop video ad spending is closing up.

Digital Video Ad Revenue 2015 vs. 2016



■ FY 2015 **FY 2016**

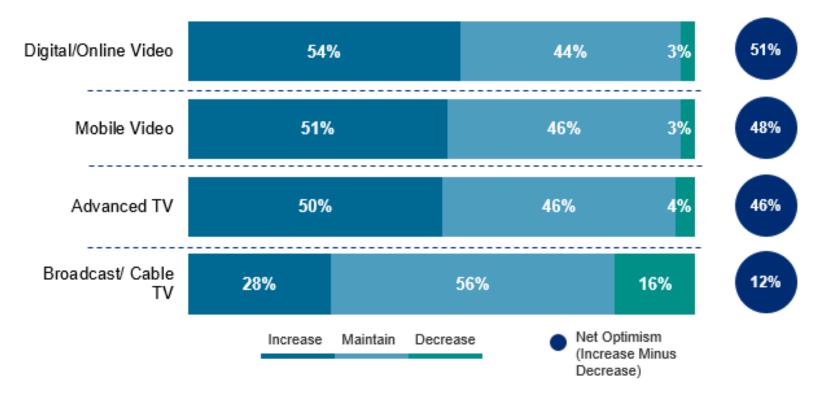


The buying community feels optimistic about investing in digital and mobile video

1 in 2 are planning to increase spend on mobile and digital video advertising in next 12 months.

Spending Optimism for Video and TV Advertising Types

In the next 12 months, would you expect the spend on the following to increase, decrease or maintain the same?

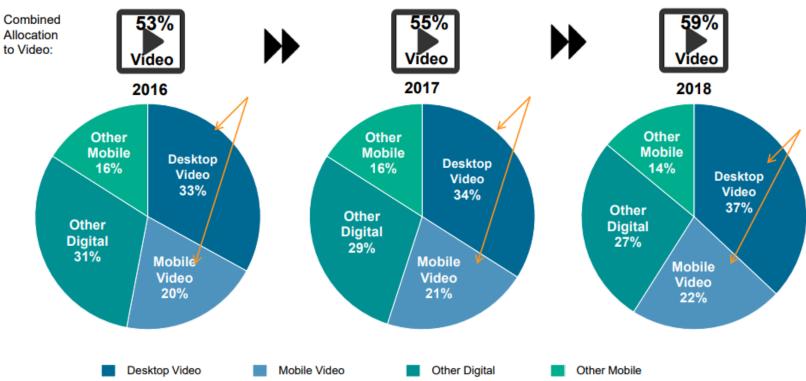




Nearly 60% of marketer's digital advertising budgets are allocated to digital video

Advertisers will spend more than \$10 million, on average, on their brand's digital/mobile video advertising in 2018.

Digital Spend Allocation: Video vs. Other Non-Video-3 Year Trend ; Average Percent





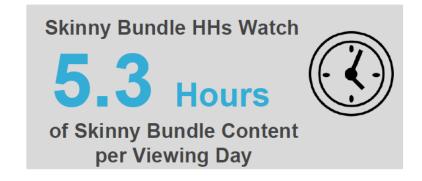
Streaming skinny bundles respond to consumers' cord cutting and cord shaving trends

Definition: A stand alone Over the Top live TV streaming service that offers smaller bundles of channels for a lower price than traditional pay TV packages and allows viewers to watch live television outside the home on mobile devices.

- According to the latest estimates published by The Diffusion Group, a growing array of virtual MVPDs ended 2017 with about 5.3 million subscribers.
- TDG's analysis also found that just 9% of virtual MVPDs subscribers are cordnevers, while 54% are cord-cutters and 37% are "dual-service subs" that also have a more traditional pay TV service.

Provider	Year-end 2017 Subscriber Estimates (millions)	Percentage of Mix
Sling TV	2.3	43.40%
DIRECTV NOW	1.2	22.64%
PlayStation Vue	0.6	11.32%
Hulu with Live TV	0.45	8.49%
YouTube TV	0.3	5.66%
fuboTV	0.15	2.83%
Philo	0.05	0.94%
Other	0.25	4.72%
Total	5.3	100.00%

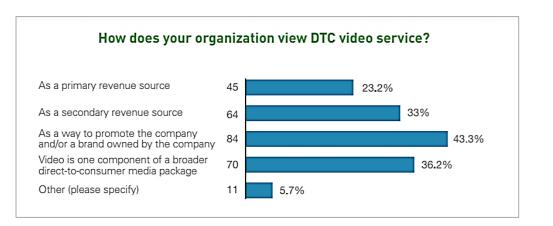
comScore research shows that skinny bundles account for more than half of OTT viewing time in skinny bundle households.





More TV Networks are going direct with consumers via OTT offerings

- Citing the ongoing unbundling of cable TV packages in the coming years, the latest report from The Diffusion Group predicts that all "major" TV networks will introduce standalone direct-toconsumer (DTC) OTT services by 2022. This will drive total DTC subscriptions close to 50 million by 2022.
- According to an Akamai report, over 50% of publishers view DTC video services as a primary or secondary revenue source.
- Existing OTT services already launched or announced by major TV networks include HBO Now, Starz, Showtime, ESPN+, CBS All Access, and more.







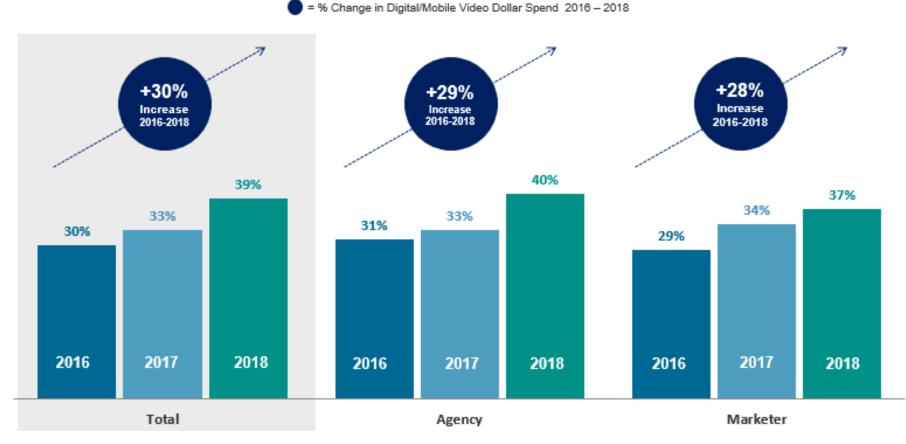
Growth Opportunities

Looking across the video platforms and channels traditional and new—opportunities to reach and engage consumers abound in this rapidly evolving video ecosystem. The report looks into a number of opportunities: Addressable TV, Programmatic Video, Connected TV/OTT, Augmented Reality, Vertical Video, Original Digital Video, and esports, to name a few.



Cross-platform video buying including both TV and digital video experiences significant YOY increase

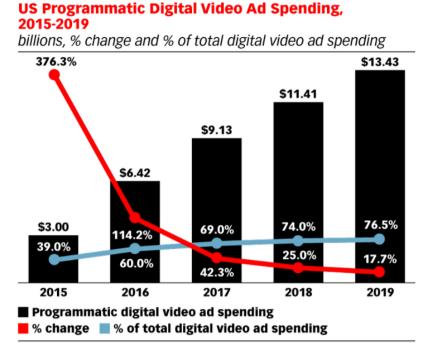
• 40% of advertisers' 2018 budget will be spent on cross platform (TV + digital video) buys.



Average Percent Share of Ad Budgets Spent on Cross-Platform—3 Year Trend

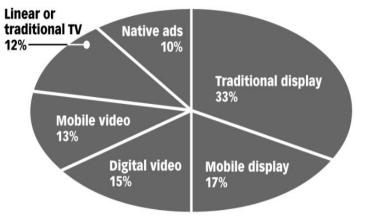
Automation in video buying and selling continues a Y-O-Y double digit increase

- eMarketer predicts that over three-quarters of all US digital video ad dollars will move programmatically by 2019.
- Cowen and Company estimates 15% of total programmatic ad spend is on digital video.



Note: digital display ads transacted via an API, including everything from publisher-erected APIs to more standardized RTB technology; includes advertising that appears on desktop/laptop computers, mobile phones, tablets and other internet-connected devices; includes advertising that appears before, during or after digital video content in a video player Source: eMarketer, Oct 2017





Source: Cowen and Company, "Ad Buyer Survey VI: Look for Digital Advertising to Grow Its Lead Over TV/Offline Advertising in 2018," Jan 4, 2018



Addressable TV scales up to 64 million households, nearly half of all pay TV households

ADDRESSABLE TV

- Addressable TV allows advertisers to purchase audiences as opposed to traditional methods of buying based on programming.
- Ability to serve different ad content to different audience segments watching the same TV program on IPTV and set top boxes, based on specific audience targeting in either live, playback or VOD mode.
- Addressable VOD: Subset of addressable TV where the ad is inserted into cable programs within the VOD content, accessible through a cable provider set top box.
- There are approximately 64 million addressable households across the household level targeting TV providers (see chart to right).
- Addressable TV ad spend is expected to grow to \$3.04 billion in 2019 (eMarketer, 7/17).
- Typical targeting verticals include Entertainment (driving tune-in), Autos, CPG, Insurance, Retail, Finance, Pharmaceutical, Political

ADDRESSABLE HOMES

TELEVISION PROVIDER	LIVE / LINEAR	VOD
COMCAST	12 MM*	19.5 MM
S DIRECTV	15.5+MM	N/A
Spectrum	N/A	10MM
dish MEDIA SALES	9 MM**	N/A
fios	5 MM	N/A
COX	N/A	змм
altice	2.3 MM	N/A

Ranked by total size of addressable homes

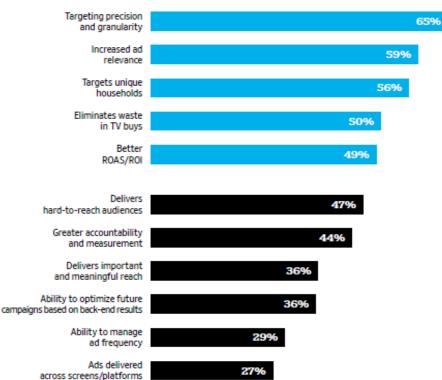
Source: TV providers shared updated stats as of Feb 2018;

*Comcast Live/Linear homes are a subset of Comcast VOD homes **DISH includes Sling TV

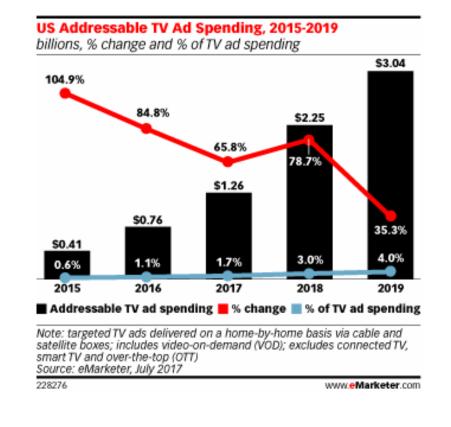


Addressable TV ad spend will exceed \$3 billion by 2019 due to well-recognized benefits

 Marketers recognize the benefits of addressable TV such as targeting precision, increased ad relevancy, the elimination of waste, higher ROI according to AT&T AdWorks and Advertiser Perceptions study.





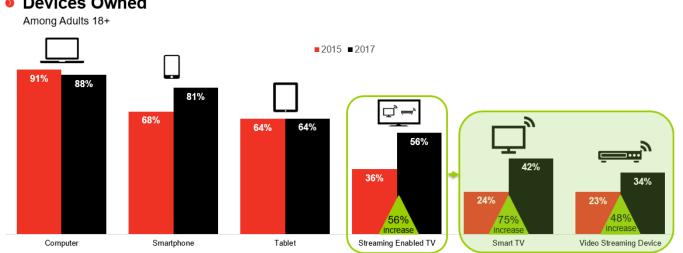


Connected TV/OTT growth opportunity is clear as device ownership increases amidst the cord-cutting upswing

IAB has defined OTT as:

- Over the Top Device A device that can connect to a TV (or functionality within the TV itself) to facilitate the delivery of internet based video content (Roku, Apple TV, Smart TV's, game consoles, etc.)
- Over the Top Video Video content transported from a video provider to a connected device over the internet outside the closed networks of telecom and cable providers

In 2017, aggregated streaming-enabled TV ownership has reached majority of American adults (56%)



- According to MoffettNathanson Research, the rate of consumers dropping their cable and satellite TV packages hit the highest level ever in the fourth guarter in 2017. The total number of pay TV subscribers dropped 3.4% from a year earlier, the highest rate of decline since the trend of cord cutting emerged in 2010.
- In total, approximately 13.5 million households do not pay for traditional forms of TV service currently, the firm estimated.



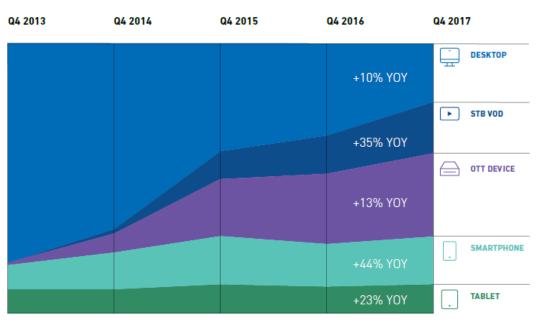
Source: IAB Over The Top Video: An Overview 2017; The Changing TV Experience: 2017, IAB 2017; Fortune, "Cord Cutting Hits Another Record, Bashing Cable and Telecom 23 Stocks" March 1st 2018.

Devices Owned

Connected TV/OTT ad revenue growth trajectory is proven as both publishers and advertisers understand the benefits

 Along with device ownership, global OTT revenue growing, expected to more than double from 2016 to 2022, exceeding over 80 billion dollars.

Ad View Composition and Growth by Device, U.S. Q4 2013 to Q4 2017



OTT now commands the largest ad view share of any device type at 31%, revealing the power to connect with audiences at scale.

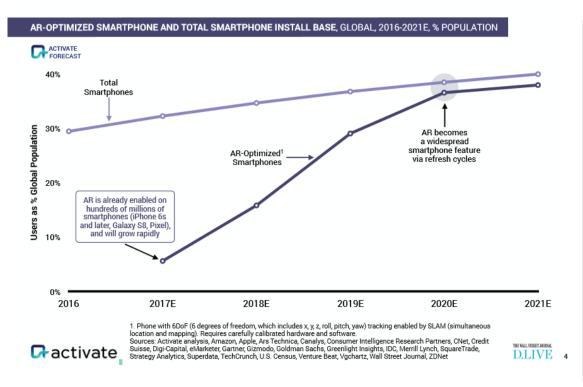
Benefits of OTT Video Ads –

- Full-screen TV experience with high co-viewing activity that extends audience reach and engagement
- Reach highly desirable audience including cordcutters / shavers / nevers, millennials and families
- Advanced targeting and dynamic ad insertion
- Enhanced survey and audience analysis capabilities
- Digital measurement
- Reduced risk of fraud



Augmented Reality (AR) offers a unique experience to connect consumers and brands

- In the summer of 2017, both Apple and Google released operating system support for the creation of augmented reality apps on their mobile platforms. Activate research anticipates that AR will become a widespread smartphone feature by 2020.
- The rise of AR makes a variety of advertising options possible. Snapchat finds that AR ads with Lenses generate a 19% lift in awareness, 15% lift in purchase intent, and 9% sales lift.





Source: www. Macworld.co.uk







FINALS GOT MELIKE

Source: Digiday



25 Source: Tech and Media Outlook 2018, Activate, 2018; Forbes "11 Creative Uses of Augmented Reality in Marketing and Advertising", June 2017; https://forbusiness.snapchat.com/blog/introducing-lens-studio-a-new-way-to-create-branded-ar-experiences/

New formats including vertical video are increasingly embraced by content creators and brands

Vertical Video

- In response to growing consumption of video in vertical orientation, IAB has published Vertical Video Advertising Best Practices offering marketers tips and suggestions for how to develop device and platform-specific vertical video creative.
- Vertical video ads are beneficial because they leverage 100% of the phone's real estate and work well on mobile apps where consumers are used to interstitials being served.
- Well over half of advertisers (61%) interviewed for the IAB 2018 NewFronts Video Ad Spend study stated they purchased vertical video ads in 2017.





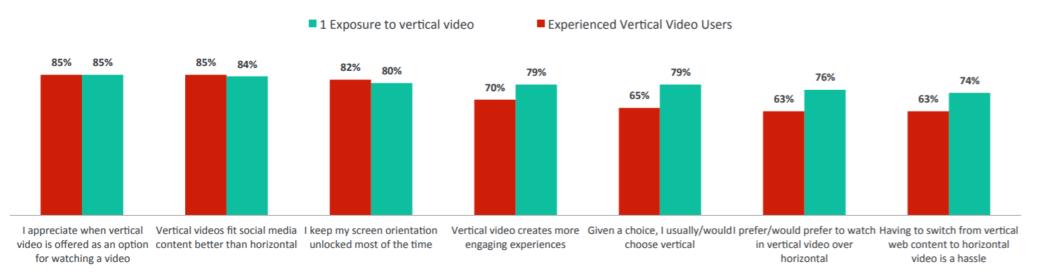
Vertical Video Advertising Best Practices



Vertical video is also being embraced by consumers

- According to YuMe's 2017 vertical video study, both experienced and first time vertical video viewers
 appreciate having vertical video as a option, would prefer to watch vertical video over horizontal and believe
 vertical video creates a more engaging experience.
- Initial studies from companies such as Facebook and Snapchat also indicate that consumers are receptive to vertical video ads and that these ads can generate higher engagement and in some cases incremental brand lift.

Vertical video format on Smartphone By Experience level





Live video is poised to tap additional consumer engagement and consumption

- Major platforms like Facebook, Snapchat, Amazon, and Twitter are making a big push into live video to increase user consumption and engagement on the platform.
 - Amazon live-streamed NFL Thursday night football games for the 2017 season.
 - Facebook also inked a deal in March 2018 to air 25 MLB day games this season.
 - At its second NewFronts presentation in 2018, Twitter continued to place a big emphasis on live video announcing new partnerships with ESPN to do "SportsCenter Live", NBCU who will distribute a variety of live video and clips across it's portfolio, Live Nation to do live concert broadcasts, and more.
- The actual return on investment of live video remains to be seen as the live video ad formats are still in the test and learn stage.

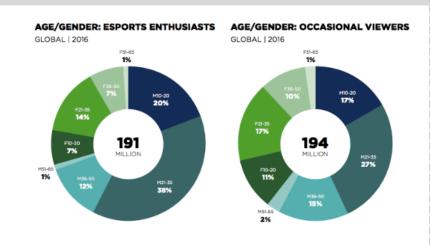


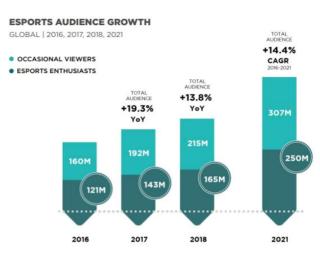


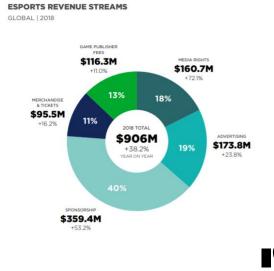
The global expansion of esports presents a viable advertising opportunity targeting a desirable audience

esports is competitive multiplayer electronic video gaming, played competitively for spectators. esports offers media companies and brands a new means of engaging with younger audiences who both play games and watch game content.

The esports Enthusiast audience currently skews young and male. The majority of them are employed full-time and earn a good income, making them a desirable target group for a variety of marketers, especially big brands. About 165 million people worldwide are expected to watch professional esports content more than once a month, up from 143 million in 2017. By 2021, esports enthusiasts viewership is expected to reach 250 million. Esports revenues will grow with a CAGR (2016-2021) of +27.4% to reach \$1.65 billion by 2021. Sponsorship is the largest revenue stream, followed by advertising and media rights.





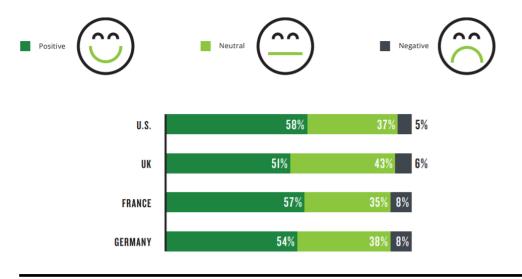


Source: NewZoo, Global Esports Market Report 2017 & 2018 Global Esports Market Report

Sponsorships represent a key way for advertisers to become involved in esports and consumers are receptive

- Brands are getting involved with esports sponsorships. IT/computer, retail, and online services were the top three brand categories utilizing esports sponsorships in 2016 and 2017.
- 50-60% of consumers had favorable responses towards brand involvement in esports events.
- Consumers think that endemic brands such as gaming equipment and service brands (i.e. Intel, Comcast Xfinity, Logitech, etc.) are appropriate when involved in esports.

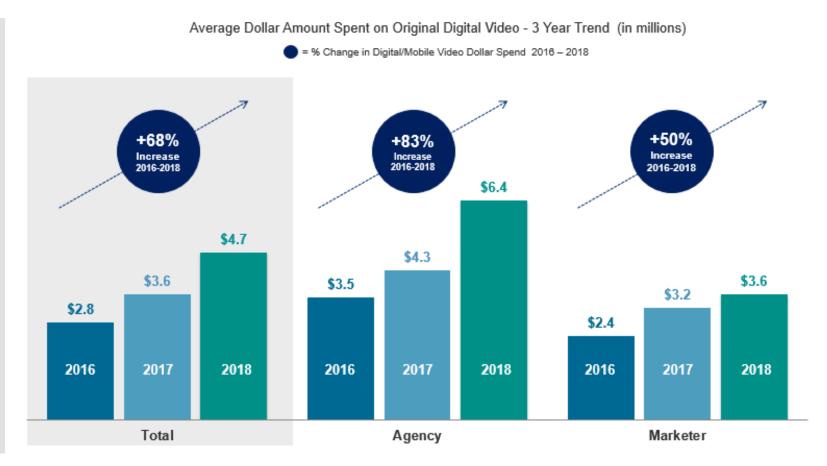
ATTITUDES TOWARDS BRAND INVOLVEMENT IN ESPORTS





Annual spend on Original Digital Video advertising continues to climb

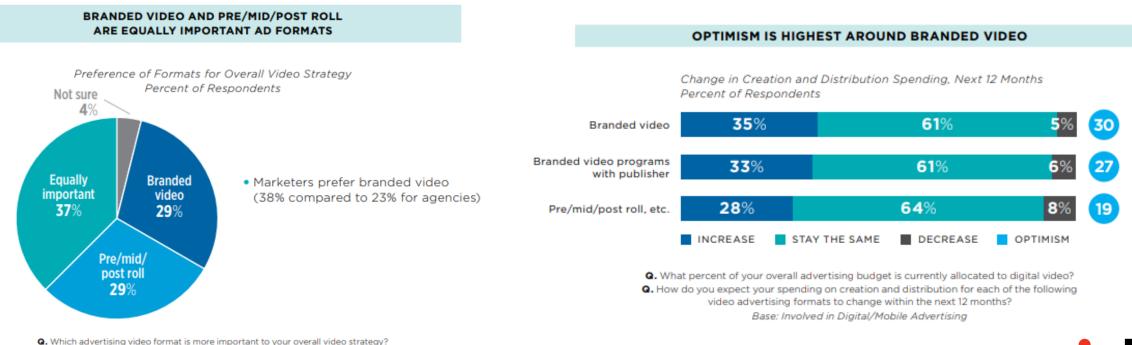
- Original Digital Video (ODV) is defined as professionally produced digital video content for digital delivery and consumption.
- In the context of video advertising, the IAB Video Ad Spend report refers to adsupported original digital video.
- In 2018, Original Digital Video is estimated to account for 47% of total digital video budget. Agencies have significantly increased their ODV investment





Branded video is gaining more traction from brand marketers as they shift from advertisers to storytellers

- According to a Trusted Media Brands study, 37% of total marketers and agency respondents believe branded video and pre/mid/post roll are equally important to their video strategy; 38% of marketers actually prefer branded video.
- In addition, one-third will increase investment in branded video.
- According to a Ryot study, these ads are also effective. Consumers who experienced branded video formats were more impressed than those who experienced standard ads. This lead to 33% higher ad recall, 50% more ad affinity, and 55% larger purchase intent.



Q. Which advertising video format is more important to your overall video strategy? Base: Involved in Digital/Mobile Advertising

Source: Trusted Media Brands (TMB) Digital Video Outlook, Jan 2018; Ryot Studio's "Content as King: Why Great Video Content is the Key to Unlocking Hearts and Minds".

Interactive & shoppable videos deliver audiences to the bottom of the funnel by bringing the store to viewers

Definition:

- Digital video creative served on Connected TV/OTT, mobile and desktop that can take user input to perform enhanced actions through elements integrated above and beyond the standard video playback controls.
- Interactions can include various calls-to-action, registration form, poll/survey, links, menus and hot-spots to support story progression and/or drill down on specific parts of the content itself.

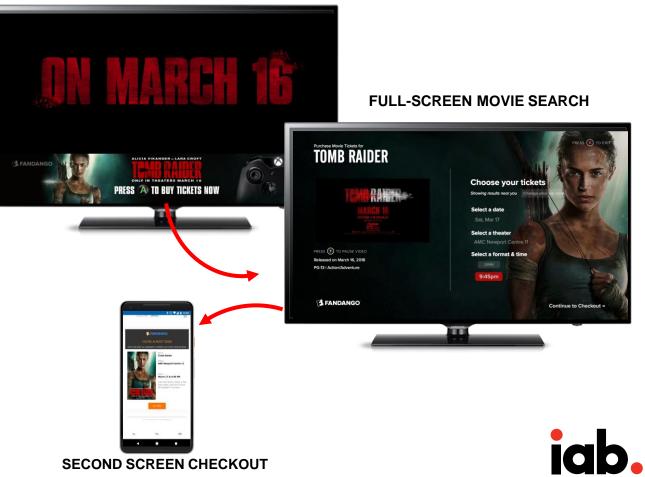
Benefits:

- Offers advertisers the opportunity to enhance a lean back video experience by adding an interaction element.
- OTT experience takes into account the nuances of TV remote control navigation / interaction.

BrightLine Interactive/Shoppable Video Ad Example with Hulu and Fandango:

Viewers on OTT can purchase movie tickets directly from the spot. Clicking a standard overlay during a commercial launches the full-screen checkout experience, where viewers input their intended theater, date, and time, then send the information to themselves to complete the purchase on mobile or desktop.

TICKET PURCHASE



33 Source: IAB Video Glossary 2016 & creative example from BrightLine, 2018, https://vimeo.com/257157956/44a423707c

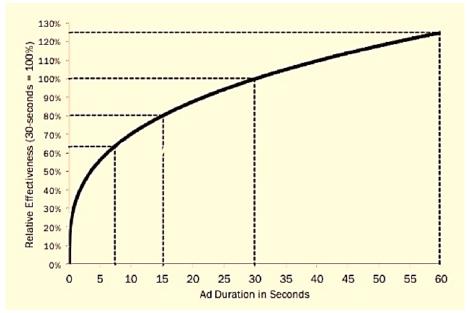
Shorter ad formats provide publishers and advertisers the opportunity to gain consumer's attention

In a world where short form content is becoming increasingly popular and consumer's attention span is shortening, publishers and advertising have started experimenting with 6 second ads.

- In early 2016, YouTube announced 6 second bumper ads in their videos. In 2017, Facebook and Twitter shared that they would also be working with advertisers to create 6 second ads.
- 6 second ads are not only for digital. FOX utilized 6 second ads during the Teen Choice Awards in August 2017 and selected NFL games. AMC is also utilizing 6 second ads during season 8 of The Walking Dead this year.



When it comes to ad effectiveness, research conducted by MediaScience and Ehrenberg-Bass Institute identifies that shorter ads like 6 seconds are viable ad formats. Relatively speaking, shorter ads deliver 60% of the impact of a 30-second commercial.





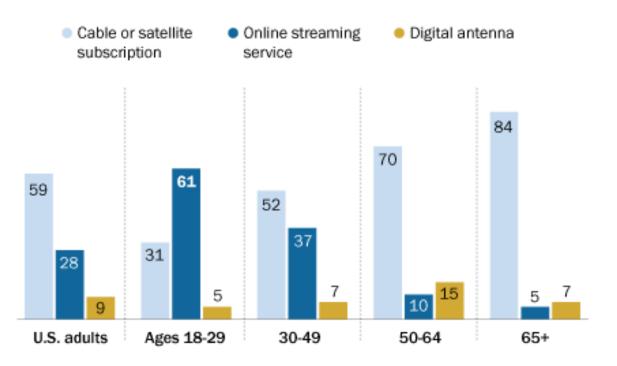
Challenges & Solutions

While opportunities to reach viewers have increased, we see challenges across traditional TV and digital video platforms due to consumers' behavior shifts and new technologies. These challenges include audience fragmentation, user experience, ad avoidance, fraud and cross-platform measurement.



Media consumption is fragmented – young adults favor streaming services as their primary way to watch TV

% of U.S. adults who say ____ is the primary way they watch television

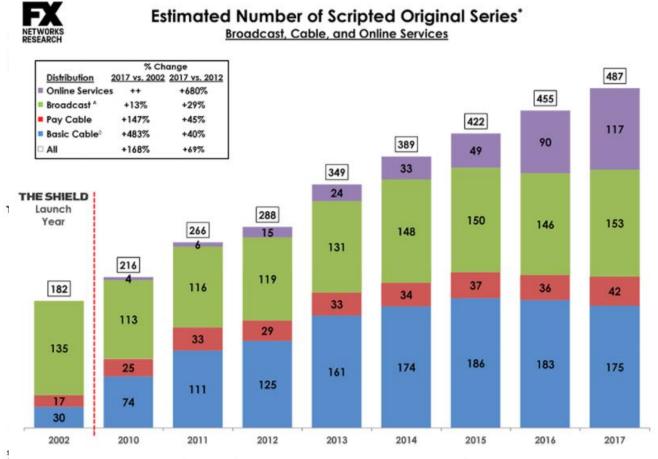


- The rise of online streaming services such as Netflix and Hulu has dramatically altered the media habits of Americans, especially young adults.
- About six-in-ten of those ages 18 to 29 (61%) say the primary way they watch television now is with streaming services on the internet, compared with 31% who say they mostly watch via a cable or satellite subscription.
- In addition to demographic and generational differences, audience fragmentation is also resulting from the proliferation of devices, platforms and content sources.



The explosive growth in quantity and sources of content also contributes to audience fragmentation

- According to FX Network Research, the number of scripted original series across broadcast, cable, and online services is on a steady increase since 2009.
- The number of scripted originals hit a record 487 in 2017, up from 455 in 2016.
- Overall, the number of shows on television has grown by 69 percent since 2012. Online services have seen the most growth on a percentage basis, growing by an astonishing 680 percent compared to 2012.

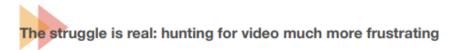


Cource: "Estimated by FX Networks Research as of 1/2/18; culled fram Nielsen, Online Services, Futon Critic, Wikipedia, Egguidas, et al., "Includes PBS, Mincludes Audience Network (DIRECTV), Online Services = Amazon Prime, Crackle, Facebook Watch, Hulv, LouisCK.net, Nettlik, Playstation, Seeso, Sundance Now, Vimeo, Yahoo, and YouTube Red. Excludes library, daytime dramas, one-epicode specials, non-English language/English-dubbed, children's programs, and short-form content (< 15 mins).</p>

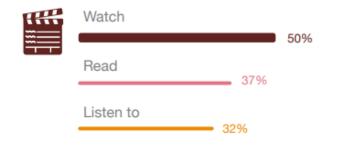


With the device/platform fragmentation and access to an explosive amount of content, discovery has become a challenge

- The Content Discovery study from PwC identifies video content discovery is a bigger pain point and source of frustration for consumers than discovering other types of media.
- As of Q4 2017, TiVo reports that the majority (65%) of consumers say they always or sometimes get frustrated when trying to find something to watch on TV.

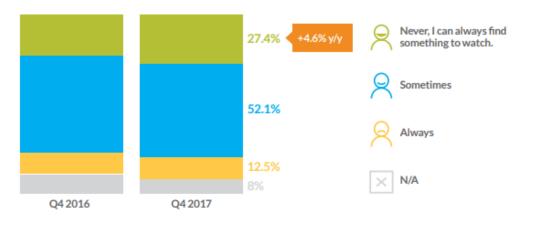


It's frustrating searching for something to...



Base: Those who look for new...video, books, music-Q8a-8c. Please tell us how much you agree or disagree with the following statements about...video, books, music. Top 2 box.

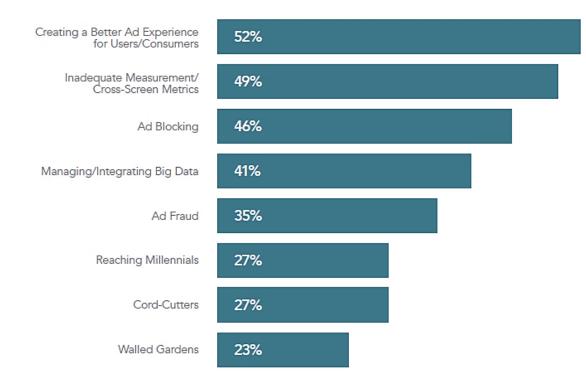
How often do you get frustrated when trying to find something to watch on TV?





More than half of marketers and agencies believe improving the ad experience for consumers is the industry's #1 challenge

What Are The Biggest Challenges Facing The Video Industry?

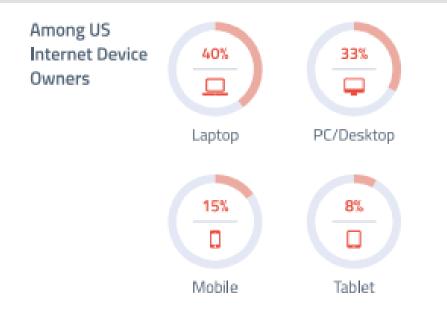


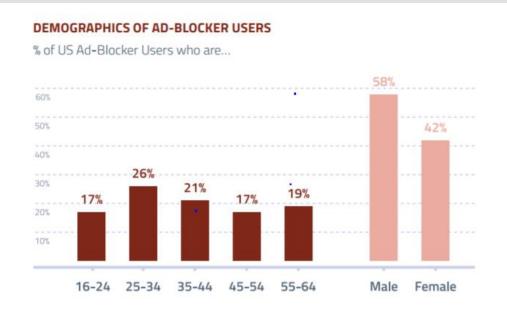
- Areas of improvement for the consumer ad experience could include frequency management, optimizing the appropriate ratio of content length to advertising duration, adjusting ad delivery to content consumption patterns, dynamic ad loads, and ad repetition.
- Honing in on one aspect of user experience from FreeWheel's latest Video Monetization report, 84% of ad views in full-episode content did not repeat ads in the viewing session in Q2 2017. For live content, 62% of ads did not repeat within the same stream. While there has been some progress made here, there is still much work to be done.



Consumer behavior of ad blocking/avoidance, enabled by technology, is another challenge

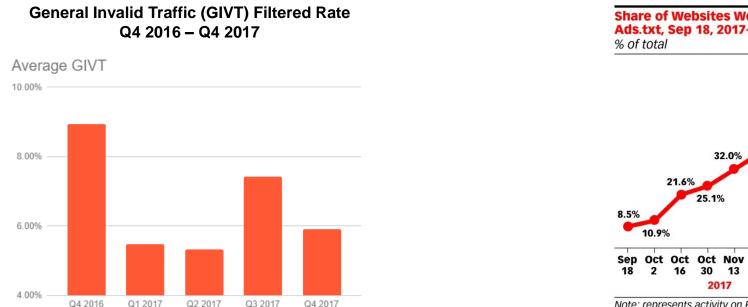
- Although ad avoidance or ad skipping is not completely new to video, technology has granted more power and control to audiences to enable ad blocking as a direct response to poor user experiences with digital advertising.
- Ad blocking in the US is more common on laptop and desktops than mobile devices.
- US ad blockers tend to be male and younger.



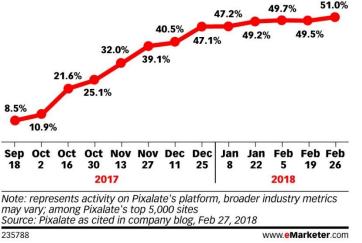


Video advertising fraud still exists but is on decline from 2016 to 2017

- With the growing video ad spend, premium video with higher CPMs has become the target of fraudsters.
- Video advertising benchmarks published by Extreme Reach show that fraudulent video advertising traffic declined by 31% in 2017 compared to 2016, and 40 percent for aggregated sites.
- The drop is likely the result of increased pressure for accountability from advertisers, increased vigilance among ad tech vendors, and increased adoption of <u>ads.txt</u> which is designed to prohibit domain spoofing. According to Pixelate, as of February 2018, 51% of websites worldwide have implemented ads.txt.



Share of Websites Worldwide that Have Implemented Ads.txt, Sep 18, 2017-Feb 26, 2018 % of total



iab.

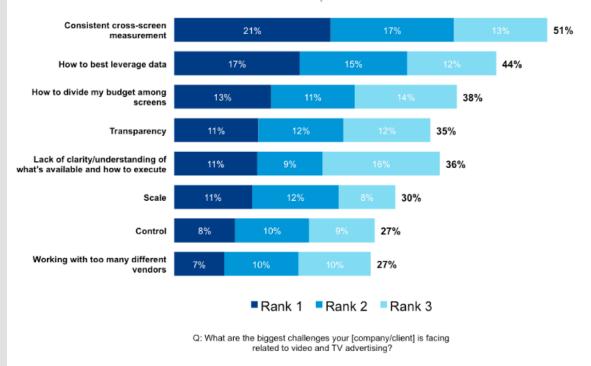
Source: Extreme Reach Full Year 2017 Video Advertising Benchmarks Report, March 2018; Pixalate Feb 27, 2018

Cross-screen measurement remains the top challenge to video and TV advertising

- In the latest Videology State of Video report, 51% of brand and agency buyers cite consistent cross-screen measurement as a main challenge to video and TV advertising.
- Metrics used to measure video on linear TV and online are vastly different. Without comparable metrics, it's hard for media buyers and planners to assess the relative value of cross-platform ad inventories.
- The lack of consensus in metrics presents a barrier and friction point to significant investment decisions which require a solid and accurate understanding of where and to what extent audiences are watching TV and digital video.

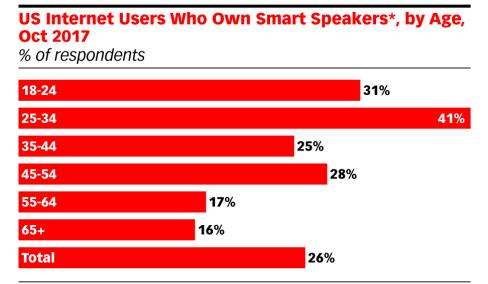
Biggest Challenge Related to Video and TV Advertising

Percent of Respondents - 1 to 3



Voice assistance is a new and popular approach to addressing video content discovery

- Over a quarter of US internet users 18+ report owning a smart speaker in 2018. Consumer adoption is projected to grow over the coming years.
- TiVo research finds that smart speaker owners are using voice functionality on their voice-enabled devices weekly. The number of users taking advantage of voice search will grow dramatically as consumers upgrade to new voiceenabled streaming devices and usage will expand more into video content discovery.



Note: *such as Google Home or Amazon's Echo/Dot Source: TSYS, "2017 US Consumer Payment Study" conducted by Qualtrics, March 27, 2018

VOICE-ENABLED DEVICES	AVERAGE VOICE SEARCHES PER WEEK
Amazon Fire TV	6.5
Cable/satellite service — set-top box or remote	6.8
Roku	6.9
Google Chromecast	7.3
Gaming Consoles (i.e., Xbox, Sony PlayStation, etc.)	7.4
Apple TV	7.6
TIVo BOLT VOX	8.6



Blockchain is being explored as a potential solution for certain digital video advertising challenges

- Blockchain is a decentralized ledger or database distributed across a peer-to-peer network and composed of a concatenation of blocks. Every node on the network contains a copy of the blockchain, and every copy contains the full history of all recorded transactions.
- The technology is being explored within the context of the media and advertising industry. A few use cases include:
 - Whitelisting: Maintain list of trusted publishers/distributors
 - Reconciliation: Independently verify and reconcile camping data
 - Identity Management: Decentralize identity management
 - Security: Consensus-based architecture creates barrier for fraudsters to misrepresent rights to buy / sell inventory within blockchain network



Blockchain for Video Advertising: A Market Snapshot of Publisher and Buyer Use Cases

- et al.

About Blockchain for Video Advertising

- Blockchain technology has ramifications far beyond the financial sector.
 As an immutable, distributed transparent ledge, blockchain is a natural fit for the digital advertising supply chain.
 Potential benefits of blockchain for advertising include increased efficiency, transparency, cost reduction, and the elimination of fraud.
 2018 will be the year that a wide range of blockchain applications will be rolled out across digital and cross-screen video advertising including linear television, with 2019 likely being the year that these technologies begin to see
- video davernising including linear relevision, win 2019 likely being the year mar these technologies begin to see broader adoption – provided certain risks can be mitigated. Long-form, premium video and TV advertising, with their high CPMs and low volume, is a compelling use case for





Cross-industry collaboration and initiatives strive for measurement solutions

- In response to the measurement challenges, the industry-wide measurement initiative "Making Measurement Make Sense" (3MS) released the Digital Audience-Based Measurement Standards in December 2017, which brings the industry one step closer to 3MS cross-media measurement goals.
- IAB Tech Lab released Open Measurement SDK in April 2018 that supports and facilitates in-app measurement of video, native video, as well as video verification.

	April 10, 2018
	CONNECT WITH US: V I in void of the contract o
MRC Digital Audience-Based Measurement Standards	IAB TECH LAB RELEASES OPEN MEASUREMENT SOFTWARE DEVELOPMENT KIT FOR MARKET ADOPTION & LAUNCHES COMPLIANCE PROGRAM TO FACILITATE ITS PROPER USE
	Eliminates Need for Multiple SDKs for Third-Party Viewability & Verification Measurement for Mobile In-App Advertising
Sponsoring associations: Media Rating Council (MRC) Interactive Advertising Bureau (IAB)	NEW YORK, NY (April 10, 2018) – The IAB Technology Laboratory today released its Open Measurement Software Development Kit (OM SDK), a set of tools designed to seamlessly facilitate third-party viewability and verification measurement for ads served in mobile app environments—without various measurement provider SDKs and systems previously required. Market adoption of the OM SDK will support scaling in-app measurement, increase confidence and flexibility for buyers, and consolidate fragmented inventory. Major app publishers and ad SDK providers, as well as third-party measurement/verification providers tested the OM SDK in a limited release period that kicked off in October 2017 to ensure that it is fully functional and ready for industry-wide use.
Modia Rating Council, In: iab. ANA A-s #	 Version 1.0 of the OM SDK includes: Availability on iOS and Android platforms "Begin-to-render" impression measurement Viewability verification, as per the Media Rating Council (MRC) definition Multiple ad types (display, native, native video, HTML video, etc.) Video verification via all versions of the Digital Video Ad Serving Template (VAST)



Emerging Trends

The confluence of consumer behavior and technology is driving current and emerging trends that push and shape this evolving video landscape. The industry needs to have deeper understanding of the shift in consumer dynamics and technology proliferation to better leverage the trends that may have a significant impact on video advertising's future.



Changing video consumption, creation and distribution landscape will drive new advertising opportunities

On-demand, anytime, anywhere consumption is here to stay, blurring boundaries between TV and digital video.

Creation and distribution of content is being disrupted, lowering the cost of entry and enabling new, nontraditional players to compete.

Rapid, massive media and technology consolidation and partnerships will further blur the boundaries.

Data is playing a pivotal role in audience buying, targeting, and measurement. New technologies like **blockchain** are also being explored to address key media supply chain issues.











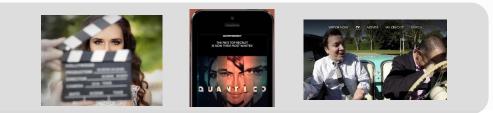
Empowered by technology and choice, consumers are in control, demanding quality content and advertising experiences

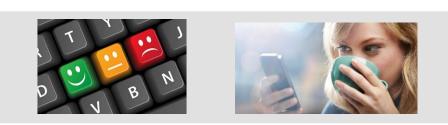
The bar for **content quality** is getting higher and higher. Audiences are wielding control over the success and failure of any piece of content.

Creative quality and device/platform-specific experiences are critical to success in an increasingly cross-platform, programmatic marketplace.

Striking a balance between **user experience and** value to advertisers will be a continuous effort.

Industry-wide collaboration to tackle **currency**, standardization, and user experience challenges will continue.













IAB Call To Action

IAB Digital Video Center of Excellence will continue to educate the marketplace on the changing video advertising landscape to help unlock video's full potential. We have taken the initiative to focus on the following industry-wide opportunities and challenges:

- Buyer & Seller Education: Provide training on Digital Video and Advanced TV, specifically the video advertising ecosystem, video advertising standards, and the terminology, technologies and best practices for planning, purchasing, targeting, optimizing, and measuring ad campaign effectiveness on digital channels.
- Measurement & Attribution: Develop audience measurement practices to establish common (apples-to-apples) currency across media and platforms.
- Content and Creative Best Practices: Develop creative repository with various examples of cross media campaigns, brand objectives, and creative execution to showcase that cohesive cross platform brand storytelling requires tailoring content and creative to specific device, platform, and channel.
- Content Distribution and Discovery: Continue the research and development efforts to improve the process for how video viewers can search and discover content across platforms and devices in a fragmented media environment.



IAB Resources

In addition to this video landscape report, below are additional IAB Digital Video Center resources to understand the video ecosystem:

- IAB 2018 Video Ad Spend Study
- Digital Video Viewers and Brand Connection
- Marketer's Guide to Esports: How to Get in the Game
- Advanced TV Targeting Primer
- Blockchain for Video Advertising White Paper
- <u>The OTT Co-Viewing Experience 2017</u>
- Vertical Video Advertising Best Practices
- Simplifying Video Ad Delivery
- Guide to Digital Video Advertising
- Keeping Up on Cross-Platform Video Measurement

- 2017 Video Content Discovery Study
- 2017 Video Ad Spend Study
- 2017 Changing TV Experience Study
- Over The Top (OTT) Video: An Overview
- Digital Video Glossary
- Tech Standards: <u>Digital Video Suite</u>, <u>VAST 4.0</u>, <u>VMAP</u>, <u>Open Measurement SDK</u>, <u>OTT IFA</u>



Closing Thoughts

The combination of sight, sound, and motion that underlies video storytelling has unique advantages in creating enduring two-way relationships with consumers that 21st century brands desire to reach and engage.

Convergence of traditional TV and digital video consumption is growing rapidly, impacting advertising planning, selling, and buying. This confluence of consumer behavior and technology will continue to propel the industry to adopt a more holistic understanding of the consumer that recognizes the differences by consumption, platform, content type, and audience segment.

The video advertising ecosystem, as an integral part of the "attention stack" will enable 21st century brands to create, plan, and execute video campaigns that reach consumers directly wherever they are and engage them interactively with greater relevance. The Direct Brand Economy will continue to thrive on the promise of a converged future of traditional TV and digital video.



Thank You

Please address any questions or comments to Eric@iab.com and Nina@iab.com