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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 ongoing 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.
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 December report is the fifth 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, virtual reality (VR), augmented reality (AR), vertical video, stories, live streaming video, esports, Original Digital Video, branded video, interactive/shoppable video, and 6 second ads.
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 ongoing efforts and opportunities to address them. The key challenges include audience fragmentation, creating scalable creative, 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.
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**
- 360
- Augmented Reality
- Live streaming
- Long form
- Original digital video
- Short form
- User-generated content
- Vertical video
- Virtual reality

**Distribution Mechanism**
- Cable
- IP-based
- Over the air/Broadcast
- Satellite

**Viewing Device/Platform**
- Desktop
- Digital OOH
- Gaming console
- Messaging app
- Mobile
- OTT/Connected TV
- Social

**Ad Unit**
- In-stream
- Interactive
- Out-stream
- Overlay
- Picture in Picture
- Shoppable
- Vertical Video

**Transaction Type**
- Addressable
- Cross Screen
- Data Driven Linear
- Direct
- Linear
- OTT
- Programmatic
Video delivery and consumption is more crowded than ever

<table>
<thead>
<tr>
<th>MVPDs</th>
<th>Streaming Devices</th>
<th>Smart TVs</th>
<th>Game Consoles</th>
<th>Platforms &amp; Delivery</th>
<th>Ad Networks</th>
<th>vMVPDs</th>
<th>Streaming Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>altice</td>
<td>amazon</td>
<td>Hisense</td>
<td>PS3</td>
<td>Extreme Reach</td>
<td>BrightRoll</td>
<td>DIRECTV NOW</td>
<td>SVOD</td>
</tr>
<tr>
<td>Charter Spectrum</td>
<td>fireTV</td>
<td>LG Smart TV</td>
<td>PS4</td>
<td>FreeWheel</td>
<td>Teads</td>
<td>fubo TV</td>
<td>HBO NOW</td>
</tr>
<tr>
<td>COX</td>
<td>Panasonic</td>
<td>Sharp</td>
<td>XBOX360</td>
<td>INNOVD</td>
<td>xandr</td>
<td>hulu</td>
<td>hulu</td>
</tr>
<tr>
<td>COMCAST</td>
<td>chromecast</td>
<td>SONY</td>
<td>XBOX ONE</td>
<td>SPOTX</td>
<td>YuMe</td>
<td>philo</td>
<td>NETFLIX</td>
</tr>
<tr>
<td>DISH Network</td>
<td>Roku</td>
<td>TCL</td>
<td>Wii</td>
<td>telaria</td>
<td>Sling</td>
<td>PlayStation Vue</td>
<td>STARZ</td>
</tr>
<tr>
<td>DISH Network</td>
<td>verizon FIOS</td>
<td>VIZIO</td>
<td>WII</td>
<td>YouTube</td>
<td>xumo</td>
<td>vevo</td>
<td>SHOWTIME</td>
</tr>
<tr>
<td>DIRECTV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ad Supported</td>
</tr>
</tbody>
</table>

And more…
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.
- While TV still takes the majority share of total viewing time, digital video’s share has increased over time.
- Connected TVs experienced 15% quarter-to-quarter growth from Q4 2017 to Q1 2018.

Source: Nielsen Total Audience Report Q1 2018
Mobile video is taking a greater share of total digital video consumption and it continues to grow

- Mobile video consumption has been on the rise and will likely continue to rise with 5G planned for a global launch in 2020.

<table>
<thead>
<tr>
<th>Average Time Spent per Day with Digital Video, by Device</th>
<th>US, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop/Laptop</td>
<td>23.81</td>
</tr>
<tr>
<td>Mobile</td>
<td>37.75</td>
</tr>
<tr>
<td>Other Connected Device</td>
<td>24.55</td>
</tr>
<tr>
<td>Total Video</td>
<td>86.11</td>
</tr>
</tbody>
</table>

Source: eMarketer, September 2018

TV ad spend remains dominant, though digital video is exhibiting a fast revenue growth rate whereas TV ad spend has peaked.

**US TV* and Digital Video** **Ad Spending, 2018-2022**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>$69.87</td>
<td>$69.17</td>
<td>$69.52</td>
<td>$68.82</td>
<td>$68.13</td>
</tr>
<tr>
<td>Digital</td>
<td>$27.82</td>
<td>$33.56</td>
<td>$40.13</td>
<td>$45.27</td>
<td>$50.63</td>
</tr>
</tbody>
</table>

**Total Media Ad Spending Growth, by Media**

<table>
<thead>
<tr>
<th>Media</th>
<th>2018, % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>25.7%</td>
</tr>
<tr>
<td>TV</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>-17.7%</td>
</tr>
<tr>
<td>Magazine</td>
<td>-18.0%</td>
</tr>
<tr>
<td>Radio</td>
<td>0.5%</td>
</tr>
<tr>
<td>Out-of-home</td>
<td>4.9%</td>
</tr>
<tr>
<td>Directories</td>
<td>-20.0%</td>
</tr>
</tbody>
</table>

Note: *includes broadcast (network, spot and syndication) and cable TV; **includes in-banner, in-stream and in-text; includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets; data up to 2014 is derived from IAB/PwC data Source: eMarketer, Sep 2018
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.

Source: IAB Video Ad Spend Study 2018.
Mobile video is the primary driver of digital video ad revenue growth and outpaced desktop video revenue for the first time in 2017

- Growth of digital video revenue on smartphones and tablets continued, reaching $6.2 billion in FY 2017, a 53% rise from FY 2016.
- For the first time, mobile video overtook desktop video revenue and comprised 52% of all video ad spend in 2017.

### Historical Digital Video Revenues, Full Year ($ billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Mobile</th>
<th>Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2016</td>
<td>$4.0</td>
<td>$4.9</td>
</tr>
<tr>
<td>FY 2017</td>
<td>$6.2</td>
<td>$5.7</td>
</tr>
</tbody>
</table>

### % of Video Revenue by Format

<table>
<thead>
<tr>
<th>Year</th>
<th>Mobile</th>
<th>Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>2017</td>
<td>52%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Source: IAB Internet Advertising Revenue Report, FY 2017
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?

<table>
<thead>
<tr>
<th>Advertising Type</th>
<th>Increase</th>
<th>Maintain</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital/Online Video</td>
<td>54%</td>
<td>44%</td>
<td>3%</td>
</tr>
<tr>
<td>Mobile Video</td>
<td>51%</td>
<td>46%</td>
<td>3%</td>
</tr>
<tr>
<td>Advanced TV</td>
<td>50%</td>
<td>46%</td>
<td>4%</td>
</tr>
<tr>
<td>Broadcast/ Cable TV</td>
<td>28%</td>
<td>56%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Net Optimism (Increase Minus Decrease):**

- Digital/Online Video: 51%
- Mobile Video: 48%
- Advanced TV: 46%
- Broadcast/ Cable TV: 12%

Source: IAB Video Ad Spend Study 2018.
Buyers are also optimistic regarding Advanced TV products

- Data informed and highly addressable products on the big screen are leading the pack

**Projected Spend Plans Next 12 Months: Increase/Decrease/Maintain**

<table>
<thead>
<tr>
<th>Product</th>
<th>Increase</th>
<th>Stay the Same</th>
<th>Decrease</th>
<th>Net Spend Optimism Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data-enabled linear TV</td>
<td>56%</td>
<td>40%</td>
<td>4%</td>
<td>52</td>
</tr>
<tr>
<td>OTT/Connected TV</td>
<td>53%</td>
<td>44%</td>
<td>3%</td>
<td>50</td>
</tr>
<tr>
<td>Addressable linear TV</td>
<td>53%</td>
<td>47%</td>
<td>0%</td>
<td>53</td>
</tr>
<tr>
<td>Full Episode Player</td>
<td>41%</td>
<td>53%</td>
<td>7%</td>
<td>34</td>
</tr>
<tr>
<td>Cable/Satellite Video on Demand</td>
<td>27%</td>
<td>68%</td>
<td>5%</td>
<td>22</td>
</tr>
<tr>
<td>Linear TV (cable or broadcast)</td>
<td>20%</td>
<td>57%</td>
<td>23%</td>
<td>-3</td>
</tr>
</tbody>
</table>

Source: Videology Ad Perceptions Survey April 2018
When accounting for vMVPDs, the number of Pay TV subscribers has actually increased YOY

<table>
<thead>
<tr>
<th>(in Millions)</th>
<th>2Q 2017</th>
<th>2Q 2018</th>
<th>YOY Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay TV Subscribers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legacy Pay TV Subscribers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable Subscribers</td>
<td>47.42</td>
<td>46.35</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Satellite Subscribers</td>
<td>32.33</td>
<td>30.64</td>
<td>-5.2%</td>
</tr>
<tr>
<td>IPTV Subscribers</td>
<td>10.51</td>
<td>10.07</td>
<td>-4.2%</td>
</tr>
<tr>
<td>vMVPDs Subscribers</td>
<td>3.07</td>
<td>6.74</td>
<td>119.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>2Q 2017</th>
<th>2Q 2018</th>
<th>YOY Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sling TV</td>
<td>1.86</td>
<td>2.34</td>
<td>25.9%</td>
</tr>
<tr>
<td>DirecTV Now</td>
<td>0.49</td>
<td>1.81</td>
<td>268.4%</td>
</tr>
<tr>
<td>Hulu Live TV</td>
<td>0.17</td>
<td>0.96</td>
<td>478.8%</td>
</tr>
<tr>
<td>PlayStation Vue</td>
<td>0.47</td>
<td>0.75</td>
<td>59.5%</td>
</tr>
<tr>
<td>YouTube TV</td>
<td>0.09</td>
<td>0.41</td>
<td>371.3%</td>
</tr>
<tr>
<td>fuboTV</td>
<td>-</td>
<td>0.33</td>
<td>n/a</td>
</tr>
<tr>
<td>Philo</td>
<td>-</td>
<td>0.15</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Company Reports, Strategy Analytics Estimates, 2Q 2018
Numbers in italics are based upon Strategy Analytics estimates
Both traditional TV networks and digitally-first publishers are going direct to 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-to-consumer (DTC) OTT services by 2022. This will drive total DTC subscriptions close to 50 million by 2022.

- The Roku Channel Store contain OTT apps from more than 5,000 publishers

How does your organization view DTC video service?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a primary revenue source</td>
<td>23.2%</td>
</tr>
<tr>
<td>As a secondary revenue source</td>
<td>33%</td>
</tr>
<tr>
<td>As a way to promote the company and/or a brand owned by the company</td>
<td>43.3%</td>
</tr>
<tr>
<td>Video is one component of a broader direct-to-consumer media package</td>
<td>36.2%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

Source: The Future of Direct-to-Consumer Video Services - Analysis & Forecasts, 2018-2028, The Diffusion Group, 2018
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, Virtual Reality, Augmented Reality, Vertical Video, Stories, Original Digital Video, esports, branded video, interactive video, and 6 second video.
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.

Source: IAB Video Ad Spend Study 2018
Programmatic spending is dominant within digital video, but accounts for only a small portion of OTT

- Automation in video buying accounted for 81% of digital video spend in 2018, but OTT remains mostly direct.
- 86% of OTT/CTV inventory is still purchased direct.
- Of those premium video deals that do get transacted programmatically, only 7% occur in the ‘open exchange’.

Digital Video Programmatic Spending

OTT/CTV Programmatic Breakdown

Chart 1: Share and Growth of Direct and Programmatic Monetization, U.S.
G2 2018

Ad View Share by Transaction Model*

14%
Programmatic
+58% YOY

7%
Open Exchange

86%
Direct
+17% YOY

93%
Private Marketplace

Source: FreeWheel Video Monetization Report Q2’18
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 $3.37 billion in 2020 (eMarketer, 7/18).
- Typical targeting verticals include Entertainment (driving tune-in), Autos, CPG, Insurance, Retail, Finance, Pharmaceutical, Political

### ADDRESSABLE HOMES

<table>
<thead>
<tr>
<th>TELEVISION PROVIDER</th>
<th>LIVE / LINEAR</th>
<th>VOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>comcast</td>
<td>12 MM**</td>
<td>19.5 MM</td>
</tr>
<tr>
<td>directv</td>
<td>15.6 MM</td>
<td>N/A</td>
</tr>
<tr>
<td>charter spectrum</td>
<td>N/A</td>
<td>10MM</td>
</tr>
<tr>
<td>dish media sales</td>
<td>9 MM***</td>
<td>N/A</td>
</tr>
<tr>
<td>fios</td>
<td>4.6 MM</td>
<td>N/A</td>
</tr>
<tr>
<td>cox</td>
<td>N/A</td>
<td>3MM</td>
</tr>
<tr>
<td>altice</td>
<td>2.3 MM</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: TV providers shared updated stats as of Nov 2018; **Comcast Live/Linear homes are a subset of Comcast VOD homes; **DISH includes Sling TV

---

Source: IAB Advanced TV Targeting Primer, IAB Nov 2018
Addressable TV ad spend will exceed $3 billion by 2020 due to well-recognized benefits

- Marketers recognize the benefits of addressable TV such as targeting precision, media plan optimization, audience discovery, and incremental reach.

Source: Videology/Advertiser Perceptions Advanced TV Trends, April 2018
Reach continues to grow within the OTT/CTV universe driven by adoption of Smart TVs and Streaming Devices

IAB has defined OTT and CTV as follows:

- **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
- **Connected TV** – A television set that is connected to the Internet via OTT devices, Blu-ray players and gaming consoles or has built-in Internet capabilities (i.e., a Smart Television) and is able to access a variety of long-form and short-form web-based content.

### Connected TV User Penetration, by Device
**US, 2018, % of connected TV users**

<table>
<thead>
<tr>
<th>Device</th>
<th>% of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart TV</td>
<td>51.9%</td>
</tr>
<tr>
<td>Connected game console</td>
<td>35.8%</td>
</tr>
<tr>
<td>Roku</td>
<td>32.4%</td>
</tr>
<tr>
<td>Amazon Fire TV</td>
<td>26.6%</td>
</tr>
<tr>
<td>Google Chromecast</td>
<td>16.8%</td>
</tr>
<tr>
<td>Blu-ray player</td>
<td>15.3%</td>
</tr>
<tr>
<td>Apple TV</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

Source: eMarketer, July 2018
Over half of OTT/CTV viewership occurs on the big screen

- Roku has the biggest share of OTT/CTV viewership at 41%, driven by device ownership and Smart TV integrations
- Gaming consoles still account for 23% of CTV streaming hours
- Per FreeWheel’s latest monetization report, OTT commands the largest ad view share of any device type at 41%

Source: FreeWheel Video Monetization Report Q2’18 and Conviva’s State of the TV Streaming Industry Q3 2018
Consumers watching OTT are watching ad-supported OTT providing marketers the opportunity to gain incremental reach with an attractive audience

- 73% of adults who watch streaming video say they watch ad supported OTT (ASV OTT) video and 45% say they watch ASV OTT the most out of all streaming video.

- ASV OTT viewers spend less time watching cable than SVOD viewers – providing marketers an incremental reach.

- The audience that is watching ASV OTT is an attractive audience for marketers as they are younger, diverse, affluent, and have children in the household.

<table>
<thead>
<tr>
<th></th>
<th>U.S. Gen Pop</th>
<th>Watch ASV OTT Most</th>
<th>Watch SVOD OTT Most</th>
<th>TV Only Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49%</td>
<td>60%</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
<td>40%</td>
<td>54%</td>
<td>56%</td>
</tr>
<tr>
<td>18-34</td>
<td>30%</td>
<td>44%</td>
<td>42%</td>
<td>10%</td>
</tr>
<tr>
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<td>37%</td>
<td>36%</td>
<td>28%</td>
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<td>61%</td>
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<td>58%</td>
<td>60%</td>
<td>72%</td>
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<tr>
<td>Black/African American</td>
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<td>15%</td>
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<td>Hispanic</td>
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<td>14%</td>
<td>23%</td>
<td>11%</td>
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<tr>
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<td>12%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>$75K+ Income</td>
<td>28%</td>
<td>34%</td>
<td>34%</td>
<td>21%</td>
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<tr>
<td>Married</td>
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<td>51%</td>
<td>51%</td>
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<tr>
<td>Kids in Household</td>
<td>41%</td>
<td>51%</td>
<td>51%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Sources: IAB Ad Receptivity and the Ad-Supported OTT video Viewer, Oct 2018
The media industry continues to experiment with immersive media forms like VR as a way to capture consumer attention

- There will be 36.9 million users of VR by the end of 2018. While that number is growing, user adoption has been slower than expected. Adoption could increase with the release of standalone headsets that require no mobile phone or PC like Oculus Go.

- Publishers like The New York Times, CBS, and Hulu are investing in VR as a way to capture consumer attention. This content can be watched via apps on compatible VR devices like PlayStation VR, Oculus Go, Google Daydream, etc.

- IAB released an Augmented and Virtual Reality Glossary to provide additional clarity and guidance across the industry.
Augmented Reality (AR) is growing - the technology is likely in your pocket right now

- In 2017, both Apple and Google released operating system support for the creation of AR apps on their mobile platforms. ARtillery Intelligence estimates that by the end of 2018 there will be 1.2 billion Android and iOS devices worldwide that are compatible with Google ARCore and Apple ARKit.
- AR provides marketers a window into an attractive audience that skews female, young, and affluent.
- According to a 2018 BCG study, marketing executives expect to drive bottom of the funnel objectives with AR campaigns - 36% stated that generating incremental sales will be a primary objective of AR marketing in the next 24 months.
New formats including vertical video are increasingly embraced by content creators, publishers, and brands

- In response to growing consumption of video in vertical orientation, the industry is embracing vertical video. For example:
  - Elizabeth Murdoch founded Vertical Networks a content studio geared towards mobile first, vertical video.
  - In September 2018, YouTube launched vertical video ads for the first time.
- Over half of the advertisers (61%) that were interviewed for the IAB 2018 NewFronts Video Ad Spend study stated they purchased vertical video ads in 2017.
- IAB published a Vertical Video Advertising Best Practices guide offering marketers tips and suggestions for how to develop device and platform-specific vertical video creative.

Source: IAB Video Ad Spend Study 2018
As consumers are embracing short and long-form “story” formats, publishers and brands have incentive to create vertical video

- Since early 2016, story creation and consumption (which is inherently vertically oriented) has increased 842% -- with over 970 million social accounts now using the feature daily across Instagram, WhatsApp, Snapchat, and Messenger.
- As consumers are spending more and more time on their mobile phones, platforms see the opportunity and are pushing into longer form “story” vertical video creation like Instagram with IGTV.

Source: Block Party, *Beyond the News Feed: Why Stories are Becoming the New Face of Social Media*, 2018

Source: Business Insider, *How to use IGTV, the new Instagram app for watching and creating long-form videos*
Live streaming video is now mainstream across the world

- According to IAB’s Live Video Streaming study, 70% of consumers globally are streaming digital video content at least once a day and 47% of those consumers are streaming more live video than they did a year ago.

- In 2018, we still see a big focus on live streaming with Twitter announcing new partnerships with ESPN to do “SportsCenter Live”, Amazon continuing to live-stream NFL Thursday night football, and several major events like the FIFA World Cup and Winter Olympics also contributed to live streaming viewership this year.

- The majority of global consumers (52%) are watching free live streaming video content with ads and the IAB study revealed that 64% of those consumers took action after seeing an ad during a live video stream (i.e. brand recall, clickthrough, and site visits).

Source: IAB, Live Video Streaming – A Global Perspective, June 2018
The rapid expansion of esports presents a viable advertising opportunity targeting a desirable audience.

- Definition: Esports is organized competitive video gaming.
- The audience for esports is growing and is an attractive target for marketers.
  - According to NewZoo, the global esports audience reached 380.2 million in 2018 and is expected to reach 557 million in 2021.
  - The esports audience is attractive for marketers as its young, diverse, and affluent.
- Esports is expanding beyond just digital distribution into linear TV and real-world stadiums. It is also building localized communities and fan bases through franchised leagues like Activision Blizzard’s Overwatch League.
- IAB released “Marketer’s Guide to Esports: How Get in the Game” to highlight how marketers can get involved in this opportunity.

Receptiveness to Future Esports Developments - % who say the following would make them like esports more:

- 71% Seeing esports on broadcast TV
- 68% Watching esports tournaments in real-world stadiums
- 63% Being able to bet on esports matches
- 59% Seeing non-endorse brands in esports sponsorship/ads
- 54% Having franchised leagues within 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 ad-supported 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.

Source: IAB Video Ad Spend Study 2018.
Branded entertainment and video is gaining traction from marketers who are utilizing it to avoid common digital advertising pitfalls.

- PQ Media estimates that the global branded entertainment revenues grew at twice the rate of overall advertising/marketing to surpass $100 billion (includes product placement, consumer experiential marketing, consumer content marketing).
- Video is an integral piece of branded entertainment. 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 and one-third will increase investment in branded video.
- Branded video is becoming important on OTT as highlighted by recent data from the Branded Entertainment Network (BEN) that shows that 100% of Amazon’s original programming contains brand integrations, while 91% of Hulu originals and 74% of Netflix originals incorporate them.
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 beyond the standard video playback controls such as different calls-to-action, registration forms, poll/surveys, links, etc.

- An IAB study called “The Interactive Ad Effect” showed that “calls to action” (CTA) for mobile interactive video work. Those CTAs grabbed the consumer’s attention and when consumers did interact with the CTA, they reported higher brand ratings afterwards.

- Respondents in the study also thought it was convenient to be able to buy directly from an ad – showing the potential for shoppable ads particularly if the ad is retargeted for something the consumer is interested in purchasing.

Source: IAB Video Glossary 2016 & creative example from BrightLine, 2018, https://vimeo.com/257157956/44a423707c; IAB The Interactive Ad Effect: CTAs in Mobile Video Shoppable Ads, Oct 2018
Research shows that the first 5 seconds of an ad gets the most attention.

Source: IAB The Interactive Ad Effect: CTAs in Mobile Video Shoppable Ads, Oct 2018
As a result, many are experimenting with short form, 6 second ads but many factors can influence its success

- Studies by Teads, FreeWheel, and TVision Insights looked at effectiveness of shorter ads in terms of the environment they air in as well as the nature of the ad itself

<table>
<thead>
<tr>
<th>Environment Variables</th>
<th>Consumer Variables</th>
<th>Creative Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Form vs Long Form Content</td>
<td>Demographics (age/sex)</td>
<td>Created as short ad vs cut down of longer ad</td>
</tr>
<tr>
<td>Pod Positioning</td>
<td>Heavy vs Light TV viewer</td>
<td>Story vs no story</td>
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<tr>
<td>Length of adjacent commercials</td>
<td></td>
<td>Animation vs film</td>
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<tr>
<td>Variety of unit lengths in pod</td>
<td></td>
<td>Level of humor</td>
</tr>
<tr>
<td>Sequential alignment (:06 second ad, followed by a :30)</td>
<td></td>
<td>Quantity of information</td>
</tr>
</tbody>
</table>

Source: Teads How to Make 6 second Ads Work Harder, Oct 2018, FreeWheel Six Second Ad Experience May 2018, TVision Insights Navigating Content Chaos 2018
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, creating scalable creative, user experience, ad avoidance, fraud and cross-platform measurement.
Media consumption is fragmented with more ways to access entertainment, news, and content than ever before.

The entire media landscape is fragmented and the same holds true when we look at the video ecosystem. On an average week, there are:

- 218M people with live/time shifted TV
- 144 using video focused app/web on a smartphone
- 124 using TV connected devices
- 65M using video focused app/web on a tablet

Source: Nielsen Total Audience Report, 2018
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 has been on a steady increase since 2009

- The top three SVOD platforms alone have over 50,000 titles combined for consumers to choose from

Source: Ampere Analysis: Navigating Content Chaos 2018
The consumer ad experience is a challenge but giving consumers more control can help

- In a 2017 FreeWheel report, 52% of marketers and agencies thought creating a better ad experience for users/consumers was the biggest challenge in the video industry.

- Companies are experimenting with strategies to give consumers more control over their ad experience. For example, Hulu and true[X] are utilizing interactive ads and Hulu has a model where consumers can select what ad they watch.
Creating affordable, scalable creative is a challenge that self-serve solutions may help solve

- Creative is an important piece of any campaign and according to Nielsen, is responsible for up to 47% of the sales lift attributed to advertising.
- A leading creative succinctly expressed the creative challenge, “One of our clients wants to craft an overarching story and then slice it up to personalize for different consumer segments. The struggle is how to make that interesting and do it at scale.”
- The industry is experimenting with self-serve solutions to help solve these issues. Innovid launched “OTT Composer” - a self-service tool that allows clients to create interactive ads for CTV.

Percent Sales Contribution by Advertising Element

Innovid’s “OTT Composer”

With so many options available to consumers, discovery of content has become a challenge

- As of Q4 2017, TiVo reports that the majority (64%) of consumers say they always or sometimes get frustrated when trying to find something to watch on TV.
- Consumers are increasingly discovering content via advertising on social media and digital platforms.
- The on-demand nature of most streaming services can be seen as a reason for this.
  - Example: Xumo’s switch from VOD to Linear-like streaming model led to 10x increase in time-spent viewing.
  - Example: vMPVD’s share of streaming time dominates over publisher’s more VOD focused apps.

### Xumo’s Linear-Like Interface

![Xumo’s Linear-Like Interface](image)

### % of OTT Viewing Hours Publisher Direct vs vMVPD

<table>
<thead>
<tr>
<th></th>
<th>Q3 2017</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>vMVPD</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>vMVPD</td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>
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 smartphone devices.

- US ad blockers tend to skew younger between the ages of 18 and 34.

Source: eMarketer, August 2018
Note: internet users of any age who access the internet at least once per month via any device (including a mobile device) that has an ad blocker enabled
Methodology: Estimates are based on the analysis of various elements related to the ad spending market, including macro-level economic conditions; historical trends; estimates from other research firms; company releases; data from benchmark sources; consumer media consumption trends; and consumer device usage trends.
Video advertising fraud still exists but is on decline and ads.txt has proven to be valuable in the fight against fraud

- 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 has trended down overall versus 2017. In Q3 2018, GIVT maintained a decreased level of 3.78%.
- The drop is likely the result of increased pressure for accountability from advertisers, increased vigilance among ad tech vendors, and increased adoption of ads.txt which is designed to prohibit domain spoofing. According to Pixalate, as of September 2018, 73% of websites worldwide have implemented ads.txt.
Cross-screen measurement remains the top challenge to video and TV advertising

- In the 2018 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 and measurement of linear TV and online video are vastly different. Without comparable metrics, it’s hard for media buyers and planners to assess the relative value of cross-platform ad inventories.

- Companies are increasingly relying on platforms that integrate and unify disparate data and measurement sources into one interface

- Outcome based analysis (attribution) is increasing in capabilities across all screens—providing marketer’s with ROI and conversion based metrics that can be easily compared across screens
Voice assistance is a new and popular approach to addressing video content discovery

- Just under 20% of the US population report owning a smart speaker in 2018. Consumer adoption is projected to grow over the coming years.
- TiVo research finds that consumers who own devices that allow for voice control are watching more video—particularly in the daytime hours.
Blockchain offers the potential to strengthen accountability in digital advertising

While it’s not a single solution to take away all the problems of digital advertising, blockchain’s role as a decentralized ledger does offer potential to increase transparency between buyers and sellers, providing a shared, auditable record of digital ad spend.

- Since every node on a network contains a copy of the blockchain, and every copy contains the full history of all recorded transactions, buyers and sellers see potential to improve inventory quality control, transactional security and financial transparency. Advertising 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 inventory within blockchain network

**Case example**: Recently campaign management platform Mediaocean partnered with IBM in the use of blockchain in campaigns for advertisers including Kellogg, Kimberly-Clark, Pfizer, and Unilever. Blockchain was used to record all media transactions in a “secure, immutable, standardized and comprehensive manner.”

Source: IAB “Blockchain for Video Advertising: A Market Snapshot of Publisher and Buyer Use Cases, Feb 2018; PR Newswire, “Mediaocean and IBM Partner to Integrate Blockchain Across the Media Ecosystem”
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, non-traditional 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.
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:

- **Creative Innovation**: Assemble and analyze learnings to explore what works best in video ads from a branding and engagement perspective.

- **Data Driven Video**: Showcase best practices that help publishers, marketers, and agencies on how to successfully implement a data-driven video strategy.

- **Cross-Platform Measurement**: Collaborate with industry experts to evaluate how best to balance both short-term and long-term success metrics. Facilitate buyer/seller alignment in the planning process as to how success will be measured and what data can be shared between both parties.

- **Digital Video and TV Convergence**: Address the lack of industry standard definitions across Advanced TV (OTT, Connected TV, FEP, etc...) Simplify the opportunities available in a fragmented marketplace and identify which opportunities work best, depending on the marketer’s advertising objectives.
IAB Resources

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

Mainstreaming OTT and Advanced TV
- Advanced TV Attribution Guide
- Ad Receptivity and the Ad-Supported OTT Video Viewer
- Advanced TV Targeting Primer
- Changing TV Experience Study
- Over The Top (OTT) Video: An Overview
- The OTT Co-Viewing Experience

Educating the Digital Video Marketplace
- Digital Video Glossary
- Digital Video Viewers and Brand Connection
- Guide to Digital Video Advertising
- IAB 2018 Video Ad Spend Study
- IAB Cross-Platform Video Planner/Buyer Training
- Keeping Up on Cross-Platform Video Measurement
- Long Form Video T’s & C’s
- Personal Prime Time
- Video Content Discovery Study

Emerging Formats, Platforms, and Protocols
- Augmented and Virtual Reality Glossary
- Blockchain for Video Advertising White Paper
- Building 21st Century Brands: Video Creative Innovation
- Live Video Streaming – A Global Perspective
- Marketer's Guide to Esports: How to Get in the Game
- The Interactive Ad Effect: CTAs in Mobile Video Shoppable Ads
- Vertical Video Advertising Best Practices

Tech Standards
- IFA for OTT
- Open Measurement SDK
- Simplifying Video Ad Delivery - Blog Post
- VAST 4.1
- VMAP
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:

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• Nina@iab.com