FUTURE

SURVIVE AND THRIVE: The Changing Environment for Content and Video Services

SPONSORED BY

COMCAST TECHNOLOGY SOLUTIONS

IN PARTNERSHIP WITH

B&C TVTechnology

TABLE OF CONTENTS

TABLE OF FIGURES

ABOUT THE DATA

To better understand how corporations with media assets are planning to deliver them to end consumers, nScreenMedia partnered with *Broadcasting & Cable* and *TV Technology*, two Future Publishing brands, to field a survey to 205 United States company managers with responsibility for the technical implementation of their video distribution services. The respondents were drawn from the following groups:

- Broadcast television stations, station groups, or networks
- Pay television operation/MSO/MVPD
- Programmers: syndicators, studios, other license holders
- TV services: Producers, distributors, talent, television rep firms, or other providers
- New media: Digital, internet, or interactive companies
- Other companies with video assets to be delivered to consumers.

Survey respondents were all based in the US and drawn from the following disciplines:

- Corporate management
- Engineering/IT management
- Programming management

For ease of reference, this report will refer to all survey respondents as content and video providers (CAVPs).

WHAT WE LOOKED AT AND WHY

The objective of the survey was to understand better how content and video providers are leveraging online resources and delivery mechanisms to optimize the business and technical performance of their services. The survey covered a number of topics, including the following:

- Types of services and monetization methods
- Video service differentiation methods and approaches
- Attitudes to new technologies such as AI and the cloud
- Video platform approaches used to deliver the service
- Threats and challenges to success

Neither Comcast Technology Solutions nor Future Publishing influenced the data, analysis, and conclusions presented here.

THE VIDEO MARKET TODAY

Content and video providers (CAVPs) today can reach viewers through many different routes. The

Figure 1 **Content and video provider distribution channels**

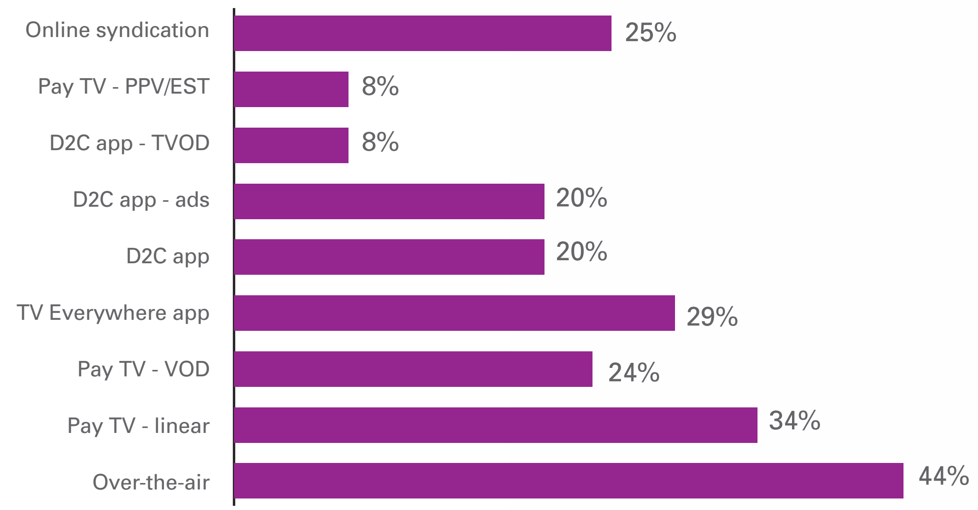
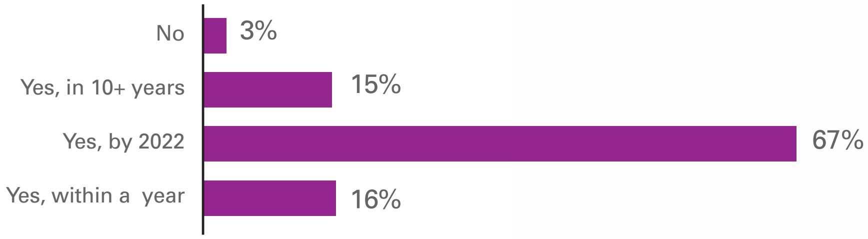


Figure 2

Will all TV channels launch D2C services?



media executives who participated in our survey reflect this diversity. Over-the-air broadcast and pay TV linear channels remain an important part of the distribution strategy for 44 percent and 34 percent of respondents, respectively. Additionally, online delivery in the form of TV Everywhere apps is now another very important way to reach viewers. Three in 10 survey participants already have apps in market tied to their distribution through pay TV operator systems.

A minority of the media executives in our survey use direct-to-consumer (D2C) services to reach viewers. One in five has a D2C subscription service, and the same percentage have launched a D2C ad-supported service. However, this could be about to change.

There are 215 online subscription video services in the US.[i] Our survey indicates that broadcasters and cable channels are responsible for just a handful of them. It doesn't appear likely that things will stay that way. We asked our survey group if they thought all major TV and cable channels would ultimately have their own D2C video service, and 87 percent thought that would happen as early as 2022. Recent developments indicate that it could happen sooner than that.

The Walt Disney Company, a company that has been distributing media for decades, has announced plans to deliver a new US direct-to-consumer (D2C) service in 2019. The service will deliver much of the company's top assets, including movies from Disney Studios, Marvel, Pixar, and Star Wars, as well as original content such as *Flora and Ulysses.*[ii]

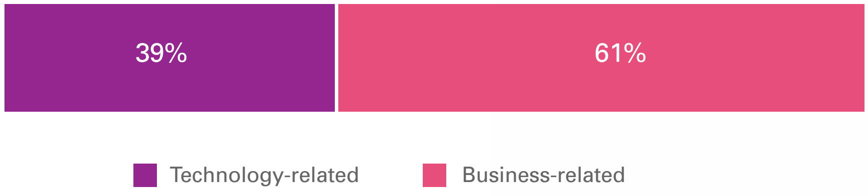
With Disney's entry into the D2C market, others are sure to follow.

MATURITY ISSUES CHALLENGE TODAY'S VIDEO SERVICES

It has been 10 years since Netflix launched its streaming video service. Today, nearly seven in 10 consumers in the US use a subscription video on demand (SVOD) service, while in the UK a third of homes have at least one service.[1] The market for online video is maturing, and as it does it presents a different set of challenges than it has the past 10 years.

Figure 3

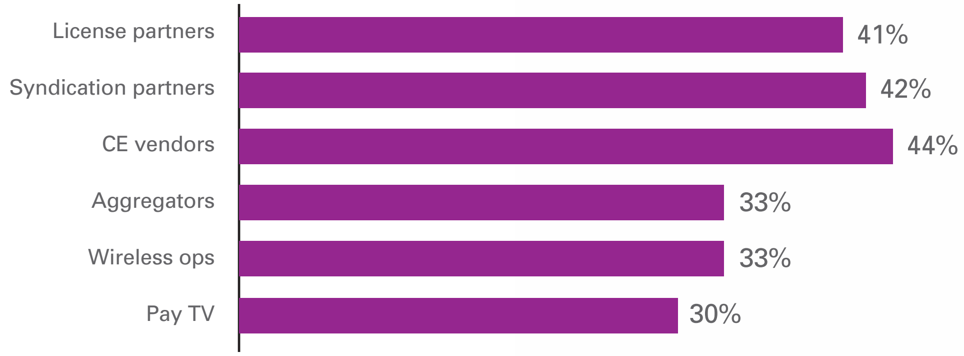
Technical or business issues challenge success



[1] In the UK, nine million of the 27 million households have at least one SVOD service.

Figure 4

Most important CAVP distribution channels



In the early market for online video, the technology of delivery posed many different challenges. From creating apps to keeping the video secure, everything in the video streaming technology ecosystem was in flux. As we enter the second decade of SVOD services, it is business challenges that dominate. Three out of five participants in our survey group said business issues posed the biggest challenge to success. CAVPs are dealing with a variety of maturity issues as they work toward building sustainable online video businesses. Our survey results highlight some of these issues.

DEVELOPING NEW DISTRIBUTION PARTNERS

Although programmers are beginning to focus their efforts on online D2C services, they won't be abandoning current distribution channels. The survey group continues to see their long-term partners, such as pay TV operators, as important.

However, developing new distribution channels requires that CAVPs develop new relationships. When asked to identify their most important distribution partners, CE vendors were rated eight or higher in importance (on a 10-point scale) by 44 percent of the survey group. Syndication and license partners were also rated as important by over 40 percent of participants.

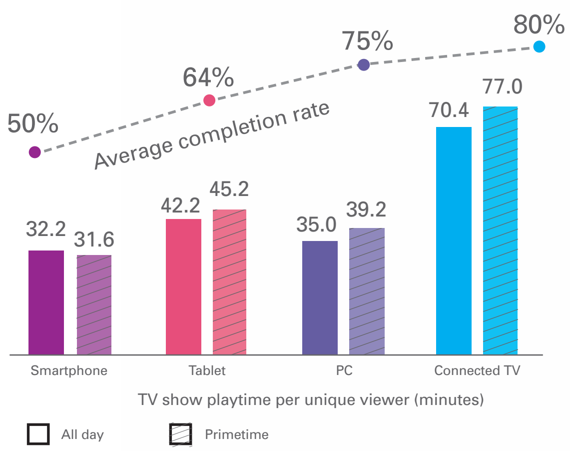
Online video service aggregators, such as Amazon Channels, were rated as important by a third of survey participants, as were wireless operators such as T-Mobile and Sprint.

CE vendors are particularly worthy of close attention from CAVPs, since they also act as video service aggregators. However, building relationships with streaming media player, smart TV, and connected device makers is something quite new for programmers and broadcasters. The effort is worth it, as they can be tremendously influential in helping customers find a video service.

Consider the connected TV, which is one of the most important screens for any CAVP. With average viewing sessions of 77 minutes and completion rates of 80 percent, the connected TV delivers better engagement than any other

Figure 5

Connected TV delivers the highest engagement



screen.[iii] Forty-seven percent of households with Wi-Fi have a streaming media player such as Roku or Apple TV.[iv] Roku owners have thousands of channels from which to choose, so it's critical to ensure that a video service is easy to find.

BEING DISCOVERED TOPS THE LIST OF CHALLENGES

We asked our survey participants to rank the importance of 10 of the most pressing business challenges for content and video providers. The most challenging issue, with 71 percent of participants rating it eight or above on a scale of one to 10, was ensuring that audiences could find the service easily. Given that there are already over 200 premium video services, it's little wonder CAVPs are so concerned.

They have every reason to focus on the discovery issue. Though over two-thirds of Americans use at least one SVOD service, their attention is centered on the top three services. Netflix is used by 55 percent, Amazon Prime Video by 26 percent, and Hulu by 17 percent. HBO Now is far back in fourth place with six percent, and most other services are used by less than one percent. Simply being heard above the noise of the big three services is a major challenge.[v]

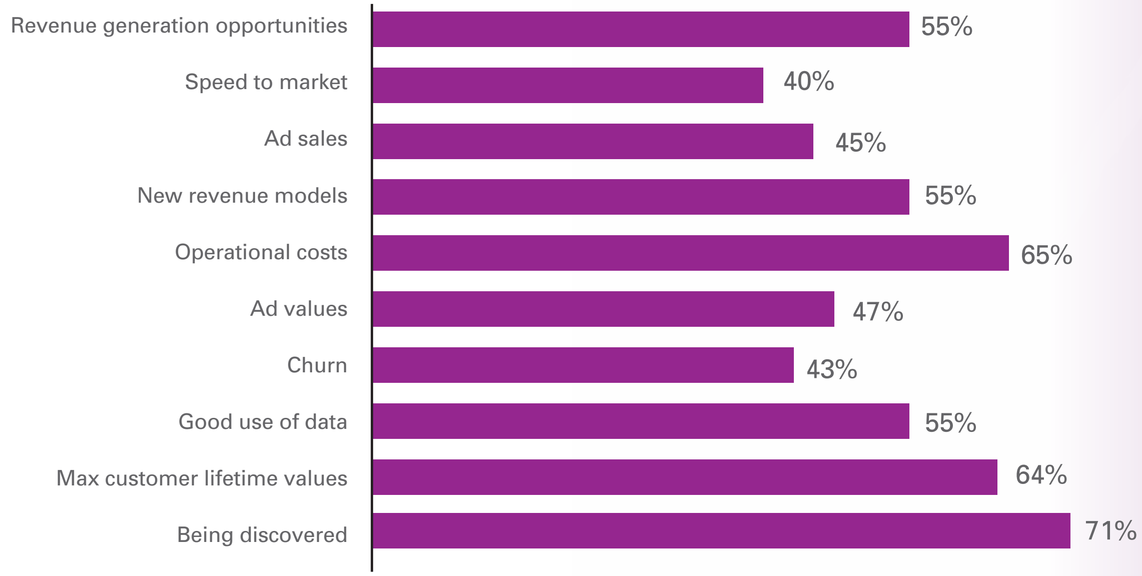
One approach to solving this problem is to maximize distribution of a smaller service. For example, CuriosityStream, a video service offering nonfiction documentaries, delivers not only through branded apps but also appears in aggregation partner services such as Comcast X1, Amazon Channels, and Elation VRV.

As a business matures, it's natural to focus on optimizing revenue generation and reducing costs. So it is with our survey group. Controlling operational costs and maximizing customer lifetime value are the second and third most frequently cited challenges. It's interesting to note that our survey group put far less importance on churn (rated almost last in our survey) than customer lifetime value (CLV.)[2] The cost of signing up a new subscriber is very small for online services, so high churn costs very little. On the other hand, since subscribers can cancel at any time, finding a way to keep them paying for as long as possible is critical to the success of the business.

Perhaps the best way to keep subscribers as long-term customers is to ensure a steady flow of content that interests them. BritBox, an SVOD service bringing the best of British TV to American audiences, has managed to control binge-and-

Figure 6

Biggest business challenges (ranked 8 or higher)



[2] Churn measures the number of people who cancel a service, usually given as a percentage per quarter. Customer lifetime value measures how much money subscribers spend during their tenure with a service.

bolt behavior—where people sign up, binge on content, and then cancel—with a sharp focus on content curation. When a company can control binge-and-bolt, customers stay longer, increasing CLV. BritBox's president, Soumya Sriraman, explains:

"There are three pillars that we stand for: first, fresh, and finest. We want to be the first to bring you British content that we think you will enjoy watching. We want to bring it to you fresh. There are going to be new things appearing on the service every single day, and some of them will go away if you don't keep up. This is the finest British television you can find anywhere, the great classics from the libraries of BBC and ITV. The library is where the binge-and-bolt will be happening. How do you play with 'first' and 'fresh' to minimize the bolt?"[vi]

Fifty-five percent of survey participants rate revenue generation and new revenue models as important, reinforcing the theme that improving the financial performance of the business is a key focus. Ad sales and values were rated relatively low in importance. However, a different picture emerges when we look at just the 70 percent of survey respondents who monetize through ad sales. These respondents rated these ad-related challenges as the most important.

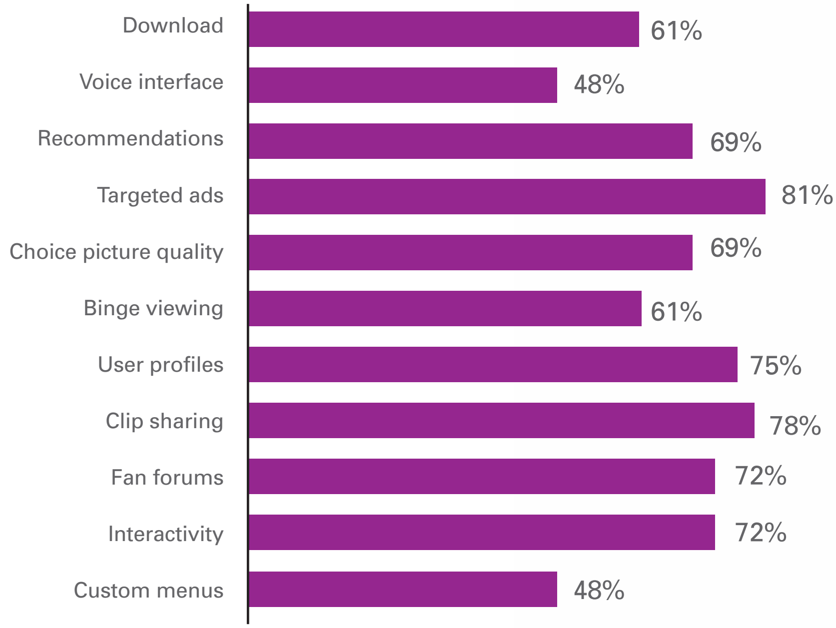
Fifty-five percent of the survey group also rated making good use of customer and service data as a significant challenge. The availability of detailed consumer usage and preference data is something quite new for TV programmers. It is, perhaps, a key driving factor behind the fact that many of them want to launch a D2C service. Unfortunately, processing all the data and putting it to good use is a major challenge.

FEATURES TO IMPROVE SERVICE EXPERIENCE

Offering a great service experience is critical if a CAVP is to capture and retain a viewer's attention. Ensuring the service has the right set of features is a great way to keep the experience ahead of the competition. We asked the survey group to rank a set of eleven features that could be helpful in doing that. Ad targeting was the number-one feature identified by our survey group, with 81 percent saying they already had it or planned to implement it.

Figure 7

Features either implemented or planned by CAVPs



Full addressability, or the ability to target ads at individual viewers, is a key tool in making any video experience more competitive. It helps in two ways. First, since targeted ads are more valuable than untargeted ads, addressability allows CAVPs to reduce ad loads while maintaining revenue. Second, as the ads are more relevant to the viewer they're more likely to be comfortable watching them.

Seventy-eight percent of respondents said they had already implemented clip sharing or were planning to implement it soon. As we've discussed, being found is the biggest challenge facing CAVPs, and clip sharing can help. Social media is a tremendously powerful tool they can use to find new customers. Allowing existing subscribers to share clips from the video they're enjoying on the service is a great way to get the word out about the service.

Survey participants also indicated that features such as user profiles, fan forums, and interactivity were important for improving the service experience.

Less than half of the survey group said they had implemented or planned to add voice features to their service. Voice assistants like Alexa and Siri continue to be very popular. The Consumer Technology Association (CTA) says that device makers shipped 27 million voice assistants—such as Alexa and Google Home—in 2017 and that they will ship 44 million more in 2018.[vii] Given the popularity of voice devices, CAVPs should consider adding these features as a way to differentiate their service and improve customer experience.

ONLINE VIDEO TECHNOLOGY TODAY

With the connected TV evolving into an important screen, it's no surprise that television quality is a requirement for CAVPs. Virtually all (92%) of our survey group said meeting or exceeding the quality and reliability of broadcast television was somewhat or very important to them.

Many consumers are already comfortable with the quality of online video. In a 2017 survey of US consumers, Ericsson ConsumerLab asked participants if they were satisfied with various aspects of the video services they used. Eighty-four percent said they were happy with the video picture quality of the online video service, and 83 percent were happy with the user experience. Eighty percent of scheduled linear TV viewers said they were happy with the video quality, and 68 percent were happy with the experience.[viii]

Our survey group was a little more skeptical than consumers about the quality of online video. That said, most think it will reach parity with broadcast TV. A third of the survey group believes online delivery already meets or exceeds TV quality and reliability. Another quarter thinks this will

Figure 8 **Importance of online video achieving TV quality and reliability**

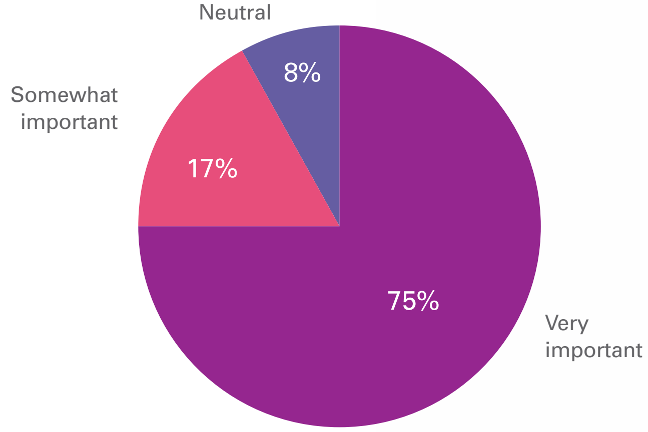
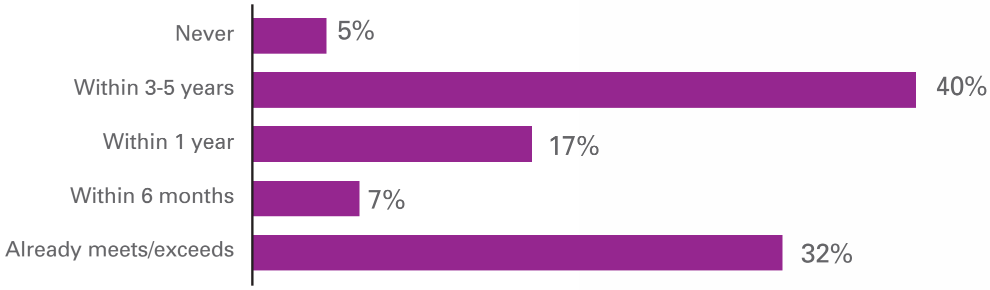


Figure 9

When will online meet/exceed TV quality/reliability?



happen within one year, and 40 percent believe it will take between three and five years. Just five percent think online delivery would never match broadcast quality.

LEVERAGING THE CLOUD

Cloud resources allow many businesses to achieve the scale and flexibility they need without the huge investment in capital equipment and operational support staff typically required. Video businesses can also enjoy these benefits. In a way, online video services have always benefited from the cloud, since content delivery networks (CDNs) typically handle the task of streaming video to customers. Today, the cloud can host virtually all the functions of a typical video service. Cloud-resident resources can handle content management, encoding, security, data management and analysis, customer support and billing, and even content creation.

That said, content and video providers are just beginning to embrace cloud technologies. To assess how comfortable media service managers are with leveraging cloud resources, we asked our survey group how much of the video workflow they're comfortable hosting in the cloud. Half of the respondents said they would be comfortable with most, if not all, the functionality of their service existing in the cloud.

Twenty-three percent said they would be willing to host all of their video-related functions in the cloud. A further 26 percent said they would trust the cloud with all but their core functionality. Twenty-four percent said most functions take place inside their private network and only video management and delivery happened in the cloud. Twenty-seven percent said they would allow only the bare minimum to be hosted in the cloud.

There is every reason to expect a strong shift toward cloud hosting in the future. Providers like Comcast Corp. and Cox Communications are already hosting most functions of their video services in the cloud. Such an architecture allows them a great deal of flexibility in delivering video to customers. For example, Comcast announced last year that its X1 video customers could use a Roku streaming media player rather than the operator set-top box. Customers have full functionality through the Roku device, including DVR and on-demand functionality.[ix]

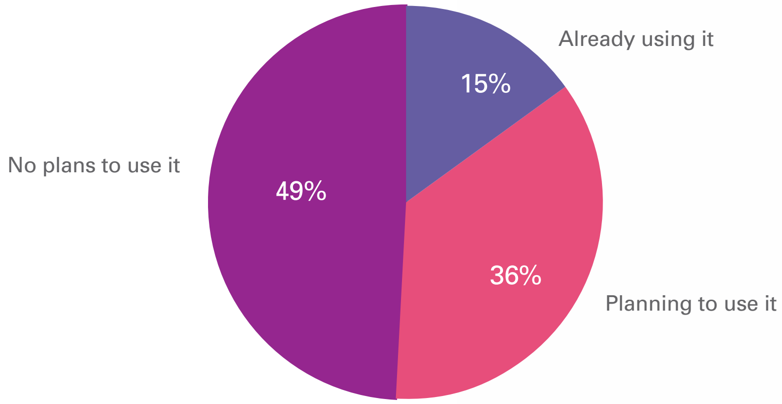
ARTIFICIAL INTELLIGENCE

Our survey suggests that content and video providers are looking to new approaches to help their services grow and prosper as they mature in the years ahead. Some are leveraging AI to help boost the performance of their businesses and others are mixing revenue models to pave the way to success.

For example, in the 2017 US Open Tennis Championship, a collaboration between USTA and IBM Watson Media allowed fans to experience the sport in a whole new way.[x]

Figure 10

Artificial intelligence use by CAVPs



The Watson Media Cognitive Highlights tool analyzed the on-court tennis matches to extract video clips of key points in the action. Some of the data Watson processed to do this included:

- Live broadcast feeds
- Commentator excitement level
- Crowd excitement level
- Player facial expressions

Combining these elements, Watson identified key moments such as aces, match points, and on-court tantrums. The tool extracted a clip of the event and gave it an interest score, or "rank."

USTA used the Watson-curated set of US Open clips in four different ways:

- A "Highlight of the Day" USTA Facebook page clip post
- Users of the US Open app got push notifications about clips featuring favorite players
- They appeared in player biography pages on USTA's digital platforms
- Monitors in the onsite player's lounge and IBM Watson Experience near court nine showed the clips

The ability of AI to process large amounts of unstructured data could be of interest to content and video providers, since more than half of our survey group said data processing was one of their biggest challenges. We asked survey participants if they currently use, or plan to use, AI in their video business. Fifteen percent said they already use it and 36 percent said they planned to use it in the future.

Half of the respondents said they had no plans to use the technology. It's likely this number will shrink over the coming months and years. Vendors are applying AI to many areas of functionality in video services. In addition to data processing, it's helping to boost encoder performance, deliver better content recommendations, and flag customers who might be about to cancel their service. As the technology proves itself in real-world video applications, more companies will move to adopt it.

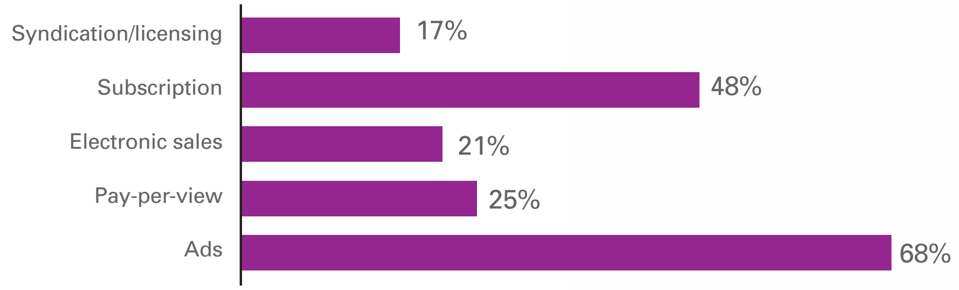
IMPROVING MONETIZATION

Subscription VOD has driven the early market for premium online video services. However, our survey group seems to be moving away from SVOD and toward advertising-supported services. They also seem to be combining monetization methods, as nearly half selected more than one monetization method.

Of the 90 percent of survey respondents who directly monetize their videos, over two-thirds rely on ads as a primary source of revenue. Less than half use subscriptions. However, combining ad-free viewing with subscriptions in freemium services could be a great way to boost revenues and grow video subscribers. Ellation's freemium service VRV aggregates SVOD services for the fandom community. The company asks SVOD partners to

Figure 11

Monetization methods used by VSPs



contribute some content that can be enjoyed for free by anyone downloading the app. VRV sells ads against the content and shares revenue with the SVOD partner companies. The availability of free content reduces the barriers to people installing the app and widens the funnel of people likely to sign up for one or more of the partner SVOD services.

A quarter of survey respondents are using pay-per-view, while electronic sales (21%) and syndication and licensing (17%) were the least used monetization methods. Pay-per-view is an area for growth for content and video providers. Consider how ITV, Britain's top commercial TV broadcaster, is leveraging pay-per-view to grow revenues.

Late in 2016, ITV turned to boxing to add a new revenue source for the company: pay-per-view.[xi] ITV Box Office was launched late in 2016 after the company acquired the rights to an IBO world super middleweight title bout between Chris Eubank Jr. and Renold Quinlan. Though there were some problems with streaming the event, ITV was sufficiently encouraged with the overall performance to deliver Eubank's title defense in July.

ITV has expanded its commitment to boxing by launching the *World Boxing Super Series*, an exclusive multi-screen series of PPV events through ITV Box Office. The series will feature more fights from Eubank as well as other fighters, such as George Groves.

CONCLUSION

The survey data shows clearly that the challenges of content and video providers today have shifted from where they were just a few years ago. With two out of three respondents citing business issues as being a bigger challenge than technology, attention has switched from getting online to building a thriving business. Maturity issues such as being discovered, containing operational costs, and improving revenue generation are the new focus as the market matures and adjusts.

There's still plenty of opportunity for success. Given the variety of responses from our survey, we expect to see more experimentation and innovation from CAVPs when it comes to business models, adoption of new technology,

Figure 12

Comfort level with cloud infrastructure

and distribution channels, all while delivering online video services with the quality and fidelity necessary to delight customers.

CAVPs do not perceive technology as a barrier. On the contrary, technology offers solutions to some of the maturity challenges they face. For example:

- Moving more functionality to the cloud can help cut operational costs. AI can also be employed to cut costs by simplifying video workflows. It can also help differentiate a service by improving the experience.
- Addressable ad experiences enabled by programmatic ad platforms and server-side ad insertion can boost revenue.
- Unified search, coupled with advanced voice-driven interfaces, can help audiences find a service more easily.

As we move into a new phase in the evolution of content and video services, two things are certain; there will be plenty of new services looking to take full advantage of the evolving media market, and the video technology platform will continue to advance in support this growth. ■

ABOUT nScreenMedia

nScreenMedia is a resource to the digital media industry as it transitions to the new infrastructure for multi-screen delivery. Through a mix of informed opinion, news, information, and research, nScreenMedia helps you make sense of multi-screen media. www.nscreenmedia.com

[i] Brett Sappington, "State of the Pay TV Market," presentation given at The Pay TV Show (Denver, CO, May 2018).

[ii] Dave McNary, "Film News Roundup: Disney Developing Flora and Ulysses for Streaming Service," Variety, 31 May 2018, https://variety.com/2018/film/news/disney-developing-flora-and-ulysses-D2C-service-1202827267/ (accessed on June 8, 2018).

[iii] Colin Dixon, "Secret Life of Streamers Part II," nScreenMedia, Q2 2018, http://www.nscreenmedia.com/secret-life-of-streamers-2/ (accessed on June 8, 2018).

[iv] Susan Engleson, "State of OTT," comScore, Q2 2018, p. 13.

[v] TiVo, "Online Video and Pay-TV Trends Report," TiVo, Q4 2017, p. 15.

[vi] Colin Dixon, "Finders-Keepers: Scenarios in the Open Market for TV Entertainment," nScreenMedia, Q3 2017, p. 6, http://www.nscreenmedia.com/finders-keepers-scenarios-open-market-tv-entertainment/ (accessed on July 2, 2018).

[vii] Steve Koenig and Lesley Rohrbaugh, "CES 2018 Tech Trends," CTA, January 2018, https://www.cta.tech/cta/media/ResearchImages/CES-2018-Trends.pdf (accessed on June 9, 2018).

[viii] Ericsson ConsumerLab, "TV and Media 2017," Ericsson, October 2017, p. 12.

[ix] ←add a reference for this→

[x] Colin Dixon, "New IBM Watson Media Boosts US Open Fan Engagement," nScreenMedia, 30 August 2017, http://www.nscreenmedia.com/ibm-watson-artificial-intelligence-us-open/ (accessed July 2, 2018).

[xi] Colin Dixon, "ITV Looks to PPV Boxing to Replace Declining TV Ad Revenue," nScreenMedia, 28 November 2017.