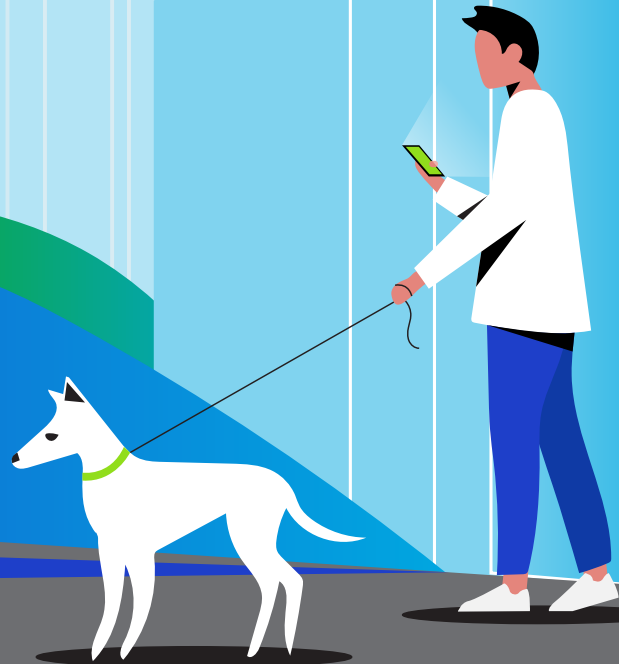




Video Trends Report

Q2 2021





Introduction

TiVo seeks real consumer opinions to uncover key trends relevant to TV providers, digital publishers, advertisers and consumer electronics manufacturers for our survey, which is administered and examined biannually in this published report. We share perspectives and feedback from viewers to give video service providers and industry stakeholders insights for improving and enhancing the overall TV viewing experience for consumers. TiVo has conducted a survey (quarterly or biannually) since 2012, enabling us to monitor, track and identify key trends in viewing habits. Additionally, we've compiled opinions about Subscription Video on Demand (SVOD), Transactional Video on Demand (TVOD) and Advertising-Based Video on Demand (AVOD) providers, emerging technologies, connected devices, over-the-top (OTT) apps and content discovery features, including personalized recommendations and search.

TiVo, part of Xperi Holding Corporation (NASDAQ: XPER), brings entertainment together, making it easy to find, watch and enjoy. We serve up the best movies, shows and videos from across live TV, on-demand, streaming services and countless apps, helping people to watch on their terms. For studios, networks and advertisers, TiVo delivers a passionate group of watchers to increase viewership and engagement across all screens. Learn more at business.tivo.com.

For more about this report, please contact getconnected@tivo.com.

Survey Methodology

Q2 2021 Survey Size

4,500

Geographic Regions

U.S., Canada

Age of Respondents

18+

This survey was designed by TiVo and conducted in Q2 2021 by a leading third-party survey service; TiVo evaluates the results and publishes this biannual report analyzing key trends across the TV industry.

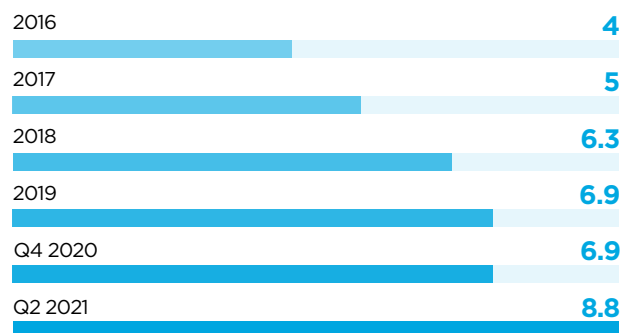


Part One

Video Prospers

As the world continues to manage the COVID-19 pandemic, one thing is clear—when times get tough, demand for quality video entertainment skyrockets. Even as many consumers are increasingly cost-conscious, most are simultaneously hungry for more and more content with cheaper prices, faster service and more personalized interfaces.

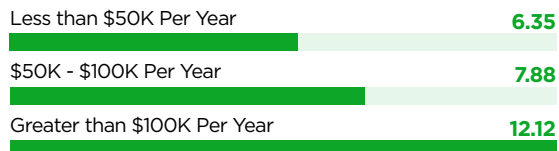
Average Number of Services Per Respondent



Since just Q4 2020, the average number of services among survey respondents increased from 6.9 to 8.75—around a 27 percent increase. Of those, respondents had an average of five paid services and 3.7 free services.

When categorized by age, we found that respondents aged 18–30 noted using an average of **11.3** different video services. By comparison, respondents aged 51 or older use around **five** video services.

Average Number of Services Per Respondent by Income Level





AVOD (Via YouTube) Is Ubiquitous In Top Video Service Bundles

Every year, the video service market gets increasingly crowded. From this vast menu of choices, consumers gravitate toward services that suit their needs, interests and price points—choosing a few bundled together and skipping the rest.

But which combinations of video services are most common among today's viewers?

Top Bundles of Three Services

Percentage of total respondents

Pay-TV Subscribers



Broadband-Only Subscribers



Top Bundles of Four Services

Percentage of total respondents

Pay-TV Subscribers



Broadband-Only Subscribers





SVOD Churn Double That of Pay TV

Around 11 percent of respondents said they canceled pay-TV service within the last six months. Of those, 73 percent cited price as a factor in their decision. Still, nearly 70 percent admitted they're not sure if they're actually saving money on entertainment.

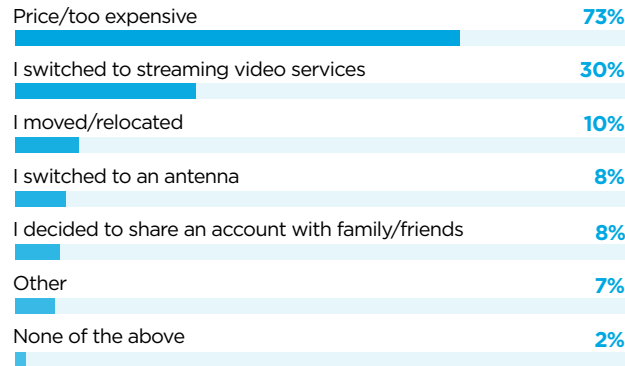
Just under 25 percent of respondents indicated they'd cut or stopped subscribing to a paid streaming or live TV streaming service within the last six months; 19 percent noted canceling at least one video subscription due to their COVID-19 situation.

While respondents cited a variety of reasons for canceling their streaming service, three of the top four reasons involved cost.

Broadband is no exception to the cost-conscious trend. 18% of survey respondents noted they had cancelled or switched their broadband internet service in the last six months. 35% of respondents said that they switched after getting a promotional offer.

Why Consumers Canceled Pay-TV Service

Percentage of respondents indicating canceling pay TV; Respondents could choose more than one answer



Why Consumers Canceled SVOD

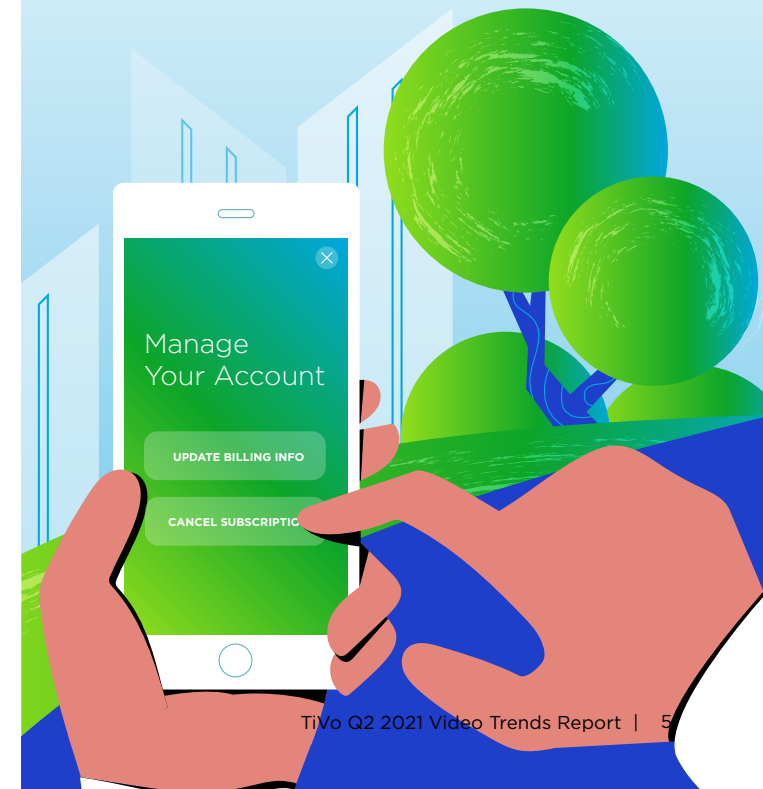
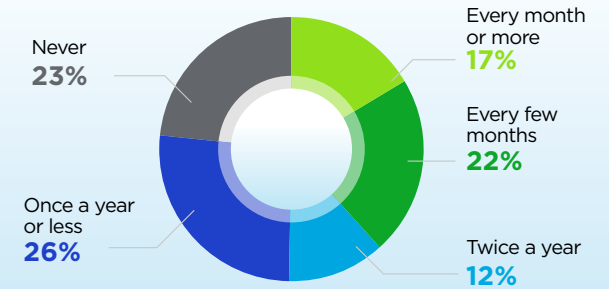
Percentage of respondents indicating canceling SVOD service; Respondents could choose more than one answer



Seventeen percent of respondents admitted to evaluating or adjusting their entertainment spending MONTHLY; just over fifty percent do so at least twice per year.

How Often Do Consumers Evaluate and Adjust Entertainment Spending?

Percentage of total respondents





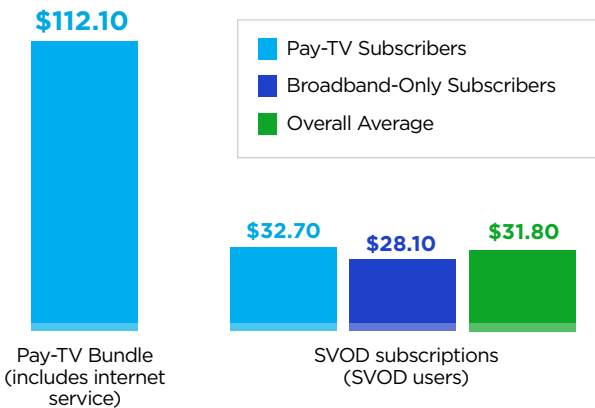
On Average, Consumers Spend \$142.20/Month on Internet/Video

Fifty-five percent of survey respondents are already at their spending limit: they either don't have room in their budget for any additional streaming services (30%) or they can only pay less than \$10 per month for additional streaming services (25%).

Thirty-one percent of survey respondents say that they can afford to pay more than \$10 per month for additional streaming services.

Video Services Cost Per Month

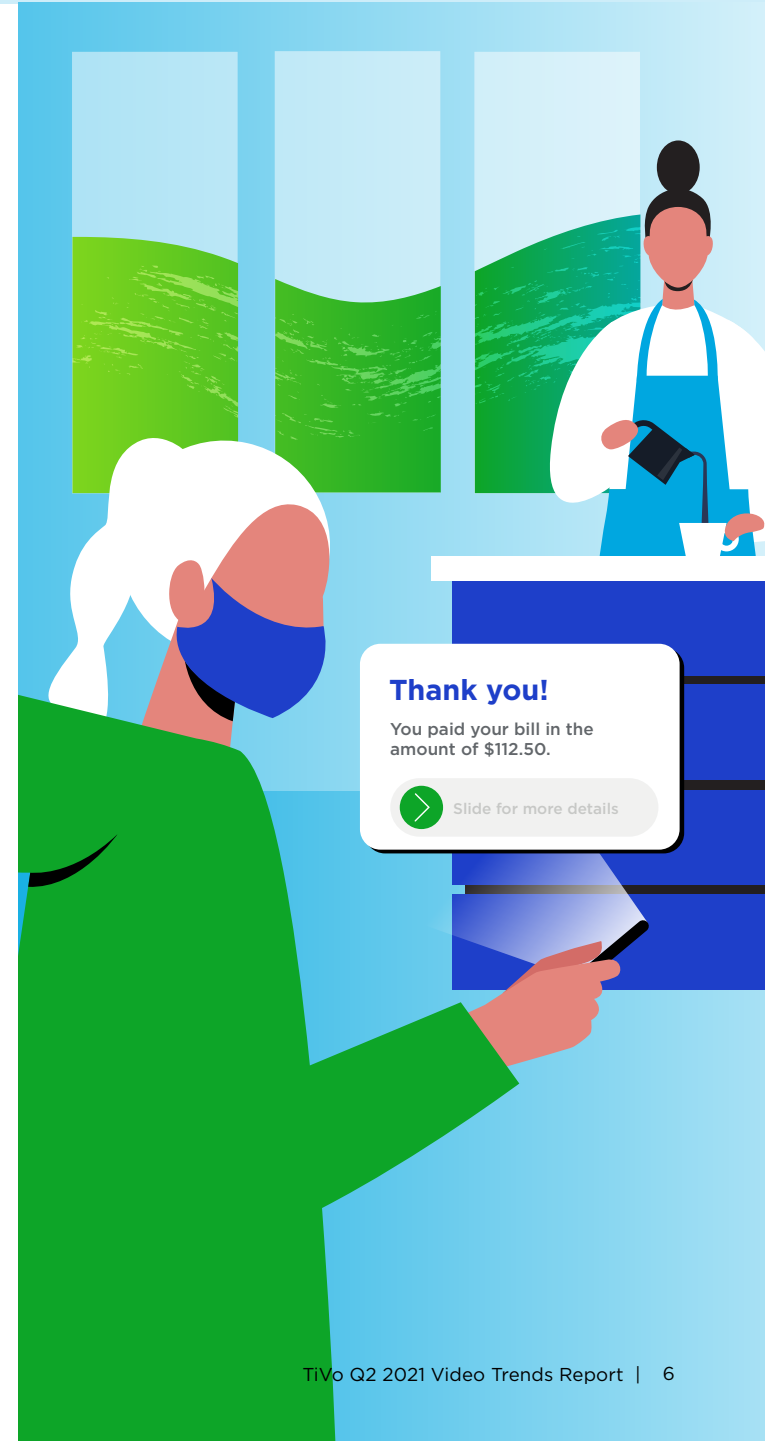
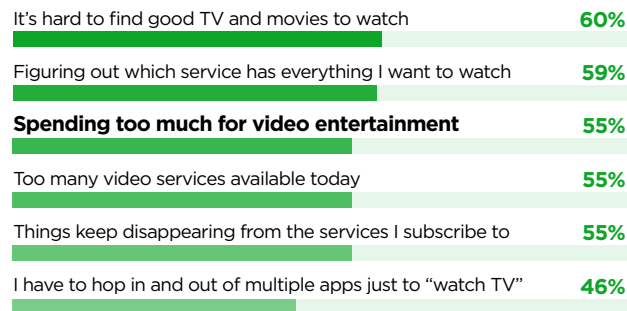
Average across respondents who use the service in question



(Self-reported) Average **TVOD** purchases/rentals per month range from **\$11 - \$26**.

Top Consumer Pain Points

Percentage of total respondents; Respondents could choose more than one option



Thank you!

You paid your bill in the amount of \$112.50.

[Slide for more details](#)



Most Viewers Still Considered “Channel Surfers”

We analyzed how consumer behavior patterns vary from service type to service type, gaining insight to help identify areas for improvement and maximize the viewer experience.

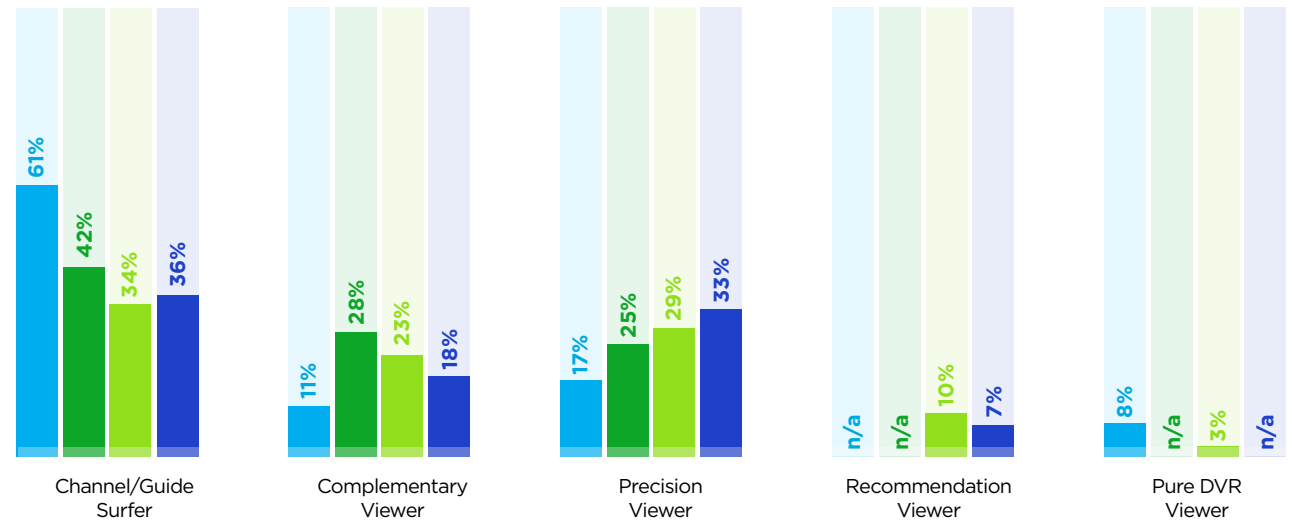
In this report, we have defined a number of different viewing behavior types:

- **Surfers** click or scroll through channels, apps, guides or videos to see what looks interesting in the moment.
- **Complementary Viewers** are multitaskers—watching videos while doing other activities or using content as background noise.
- **Precision Viewers** have a particular video in mind beforehand, and they search for, navigate to and watch that exact video without browsing other options.
- **Recommendation Viewers** watch the content recommended by their subscription streaming service.
- **Pure DVR Viewers** are pay-TV customers who primarily watch shows or movies they recorded ahead of time.

Types of Viewing Behavior

Percentage of respondents that indicated they use the service type in question; “Other” viewing types not listed

■ Pay-TV (cable/satellite) ■ Free Streaming Services ■ Live TV Streaming ■ Subscription Streaming Services



The percentage of complementary viewers for live TV streaming declined around 5% since Q4 2020. In other words, people are paying more attention to their live TV programming.

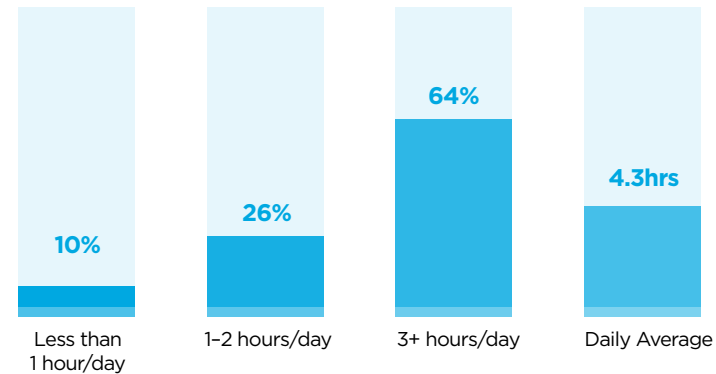


Pay-TV Viewers Averaging 4+ Hours of Video Per Day

Over 60 percent of those who use pay-TV services watch more than three hours per day.

Pay-TV Subscriber Daily Viewing Time

Percentage of respondents who have this service type



SVOD, AVOD and TVOD viewers still watch less per day overall, but the (self-reported) average video viewing time appears to be rising across the board.



Local Content an Absolute Must for Pay-TV Subscribers

A solid majority (86%) of pay-TV subscribers said they consider viewing local content important, a slight increase since Q4 2020. By contrast, only 65 percent of broadband-only customers consider viewing local content important.

Consider Viewing Local Content Important

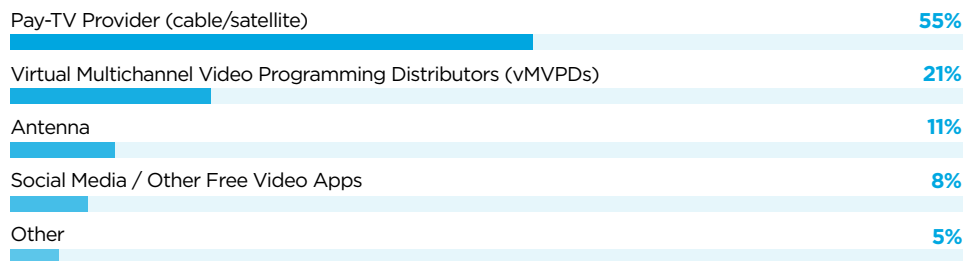
Percentage of respondents

■ Q4 2020 ■ Q2 2021



What is the Primary Way You Watch Local Content?

Percentage of respondents who watch local content



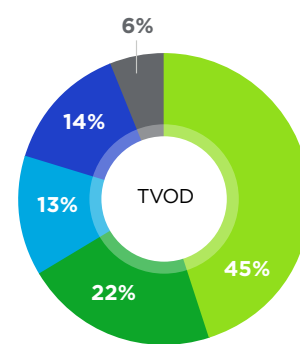
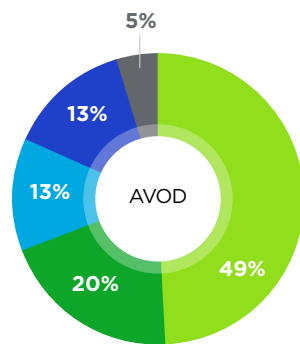
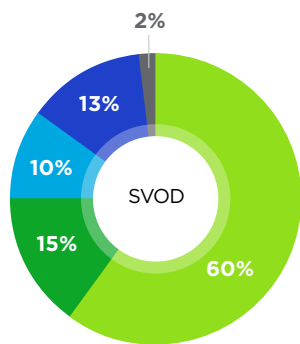
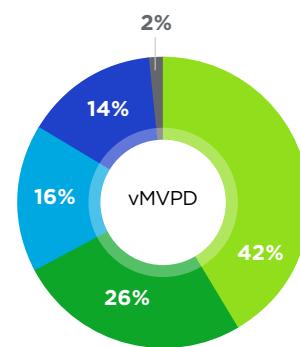
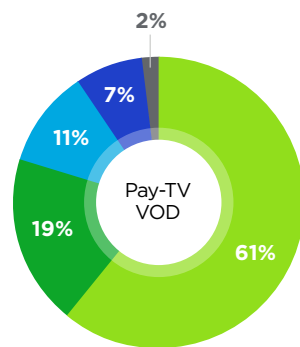
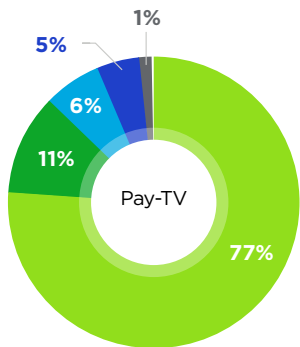


Which Screen to Watch?

We asked survey respondents which screen they used most often to watch various video service types. TVs were the overwhelming favorite across the board, with smartphones being the favored second choice: 26 percent of respondents said they primarily use their smartphones to watch videos on vMVPDs, while 20 percent said they use their smartphones to watch AVOD content.

Where viewers most often watch...

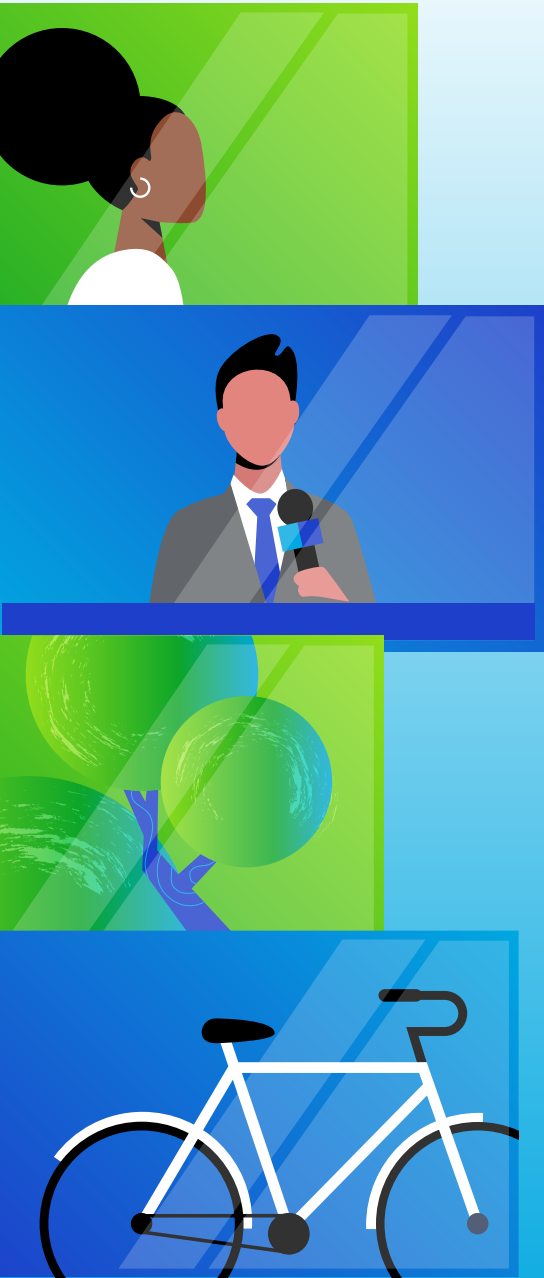
■ On a TV ■ On a smartphone ■ On a tablet ■ On a computer (laptop or desktop) ■ Not sure



Top Sources for Purchasing or Renting Movies/TV Shows

Percentage of respondents indicating they use TVOD services; Respondents could choose more than one option

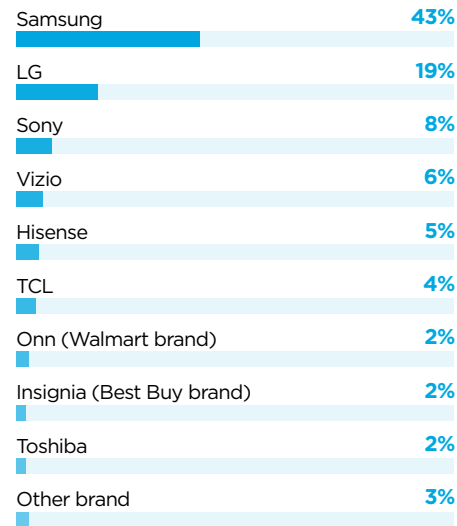
Amazon Prime Video purchases/rentals (not Prime)	65%
YouTube Movies & Shows (pay per movie or show)	30%
Google Play Movies & TV	27%
iTunes video store	20%
Redbox Online (not physical discs)	15%



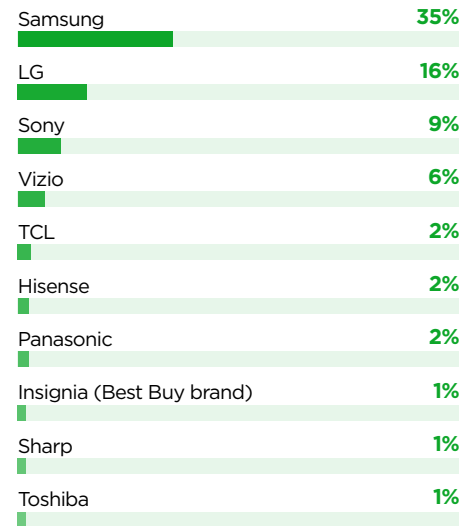
Smart TV Ownership Increasing

Seventy-one percent of survey respondents own a smart TV, 11 percent higher than in Q4 2020; 29 percent of respondents indicated that they purchased a smart TV in the last six months.

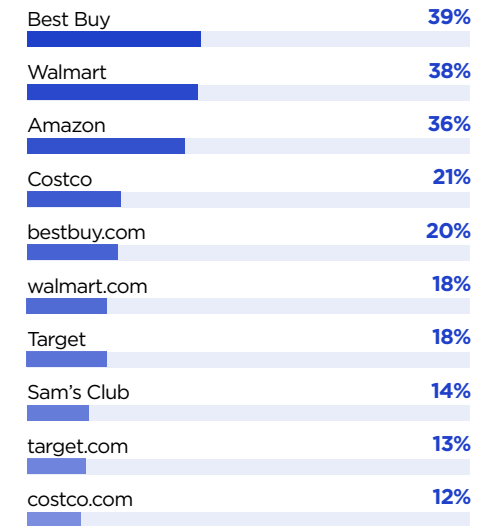
Top 10 Smart TV Brands Recently Purchased



Top 10 Smart TV Brands Respondents Plan to Purchase Next



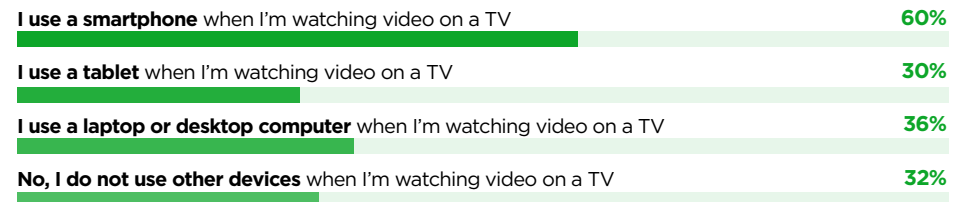
Top 10 Places Respondents Plan to Purchase Their Next Smart TV



TV viewers are increasingly distracted—multitasking on other devices even as they watch long-form content. Sixty percent of respondents said they use a smartphone while watching their TV; 30 percent use their tablet while watching TV.

When you watch video on a TV, do you use other devices to perform other tasks at the same time?

Respondents could choose more than one option



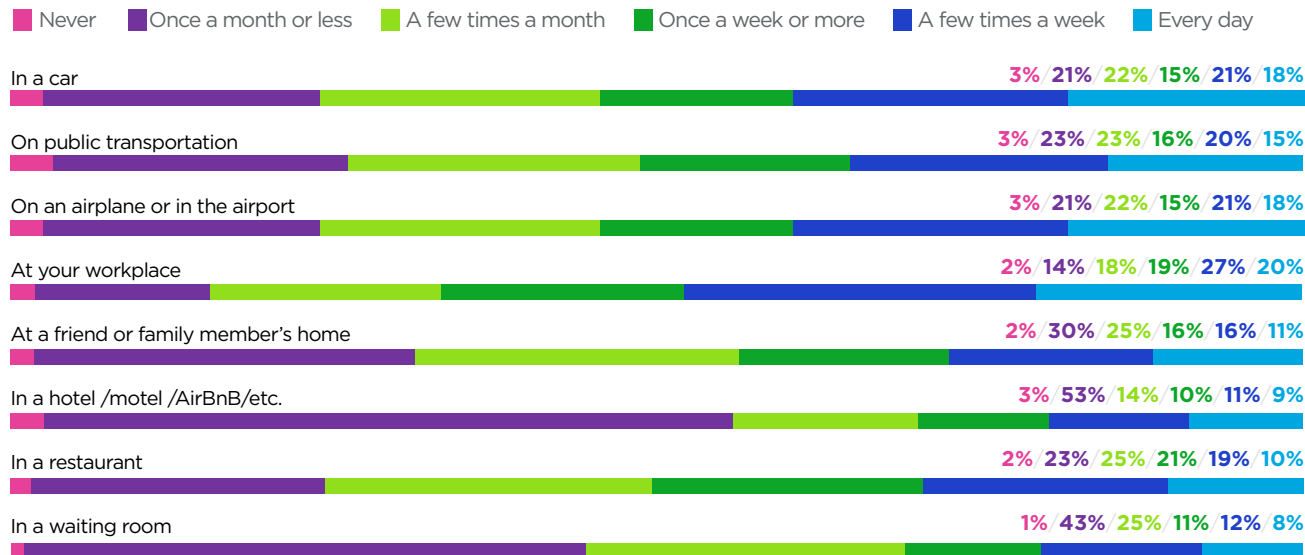


~60% of Respondents Use Mobile Devices to Watch Video When Away From Home

Consumers tend to watch videos on their smartphones as a way to kill time or fill space in nearly every spare moment of their lives: in their cars (42%), at a friend or family member’s home (40%), in waiting rooms (35%), hotels (35%), at their workplace (32%), on public transportation (27%), in airports (25%) and in restaurants (24%).

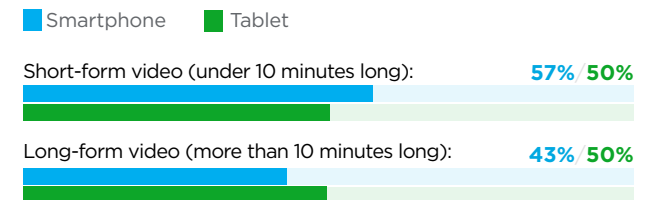
How Often Consumers Watch Video on a Smartphone or Tablet in the Following Locations

Of respondents indicating that they do watch videos on a smartphone or tablet when away from home



While more than half of their mobile video viewing time is spent watching videos less than 10 minutes long, respondents also watch longer videos on their smaller screens. On average, survey respondents said they spend 43 percent of their smartphone viewing time and just under half of their tablet viewing time watching long-form videos.

When you watch video on a smartphone/tablet, what percentage of the time do you watch the following types of video?





Brand Loyalty Aside, Media Players Remain Popular

Media players are still the primary way consumers watch streaming video on their TV. Around 41 percent of respondents said their streaming media player is the main way they watch video apps like Netflix, Prime Video or Hulu on their TV, and 53 percent of streamer owners say the ability to watch subscription-based video was the most important factor in their decision to get a media player.

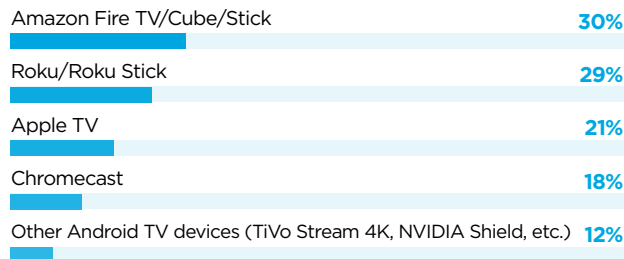
Yet, despite their popularity, survey respondents indicated there's room for improvement, and many are quite willing to drop their current streamer for a better option.

Nearly half (46%) of streaming media player users plan to upgrade or switch streamers in the next year.

Discovery time may be a pain point. Even among the most popular streaming media players, the average time it takes consumers to find a TV show or movie to watch is noticeably higher than for those looking for content on their pay-TV set-top box or smartphone.

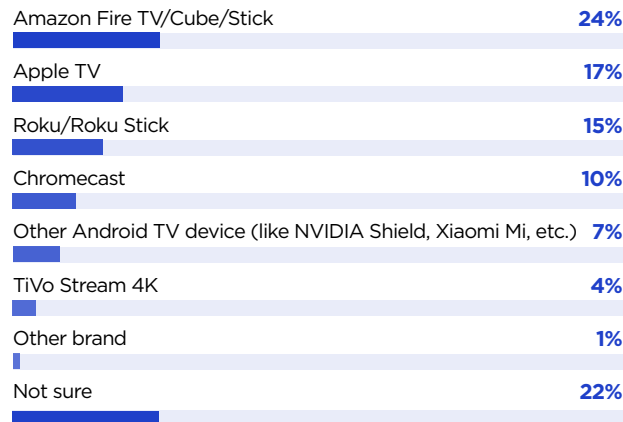
Top Streaming Media Players Respondents Have Now

Ranked by popularity; Percentage of streaming media player users; Respondents could choose more than one option



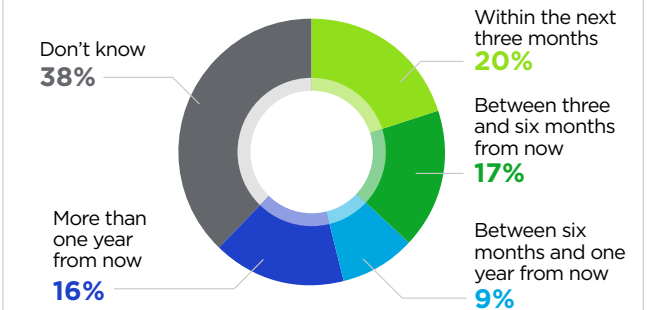
Top Streaming Media Players Respondents Plan to Purchase Next

Ranked by popularity; Percentage of streaming media player users



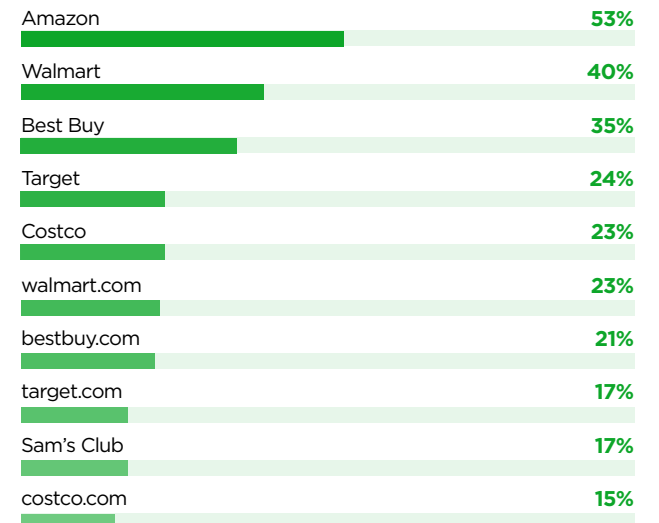
When do you think you'll STOP using the streamer you have now (upgrade it, switch to something else, etc.)?

Percentage of streaming media player users



Top 10 Places Respondents Plan to Purchase Their Next Streaming Media Player

Percentage of streaming media player users; Respondents could choose more than one option





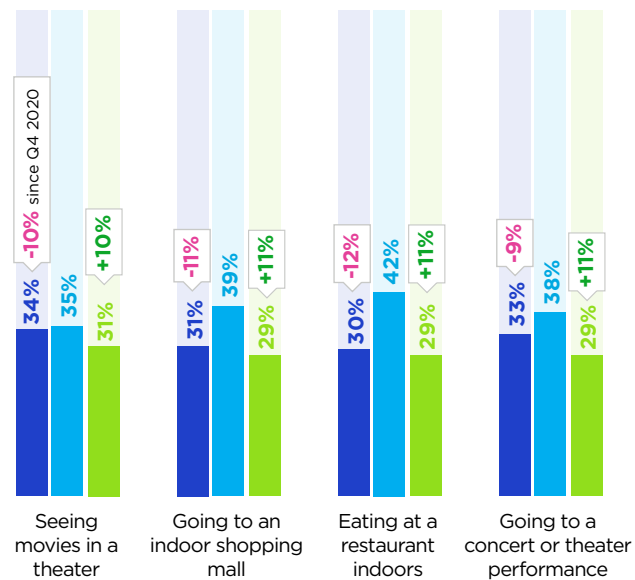
Theaters Slated For a Comeback, But Movie-Goers Need Incentives

When pandemic safety restrictions shut down movie theaters across the country, film studios quickly adapted, partnering with subscription services to release new movies straight to streaming. Demand for new video content only increased over the course of the pandemic, and consumers appear to have adapted as well. Fifty-six percent of respondents noted watching more video as a result of the pandemic.

Activities Post-Pandemic

Percentage of respondents who noted performing activity pre-pandemic

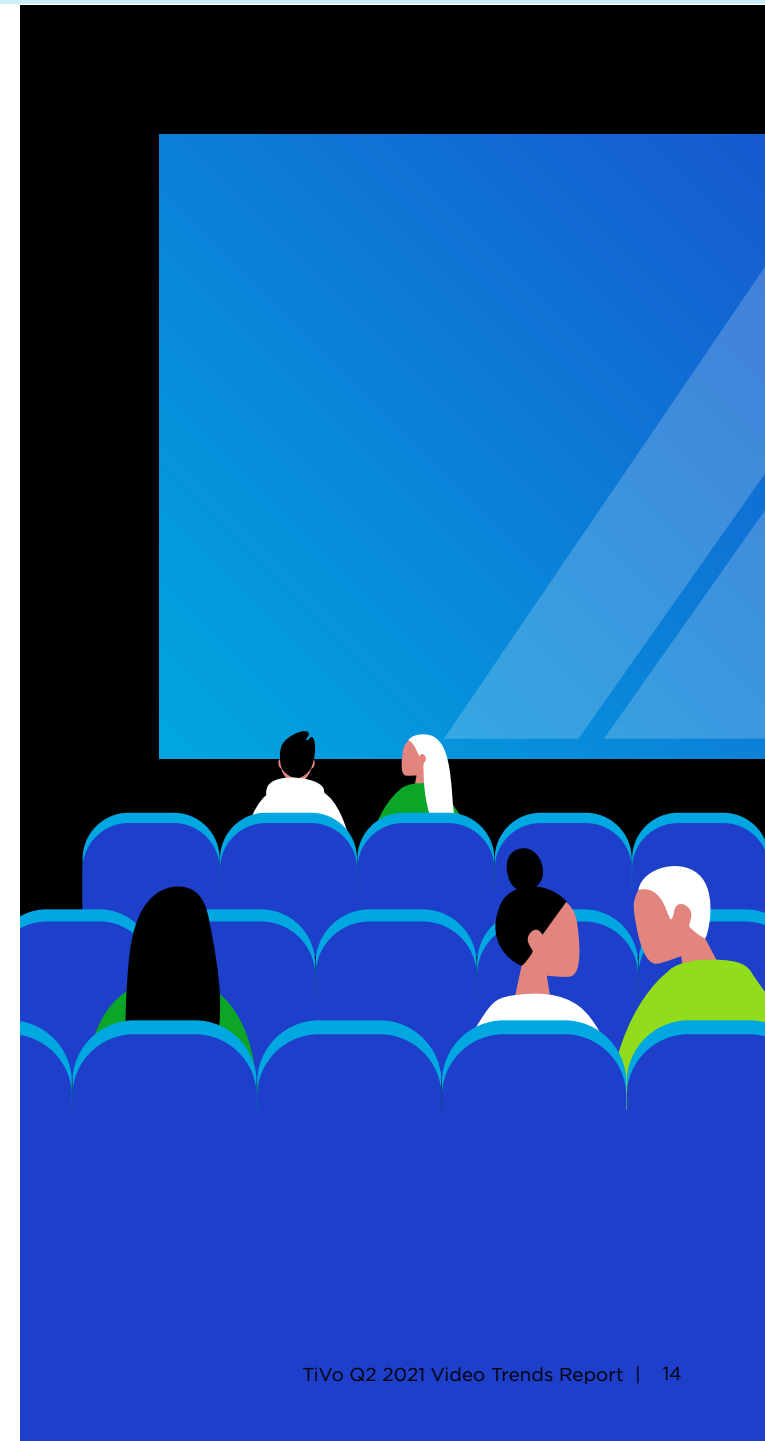
Less About the Same More



When we conducted our last survey in Q4 2020, many respondents indicated they were less likely to participate in crowded, public activities, even after the pandemic was over. Now, despite the pandemic's ongoing volatility, consumers seem more eager to return to crowded pre-pandemic activities. Thirty-one percent of respondents said they are likely to see movies in a theater post-pandemic more often than before the pandemic started; 29 percent are more likely to go to an indoor shopping mall, eat at a restaurant indoors, or go to a concert or theater performance.

58% are interested in paying to view a new movie release at home.

64% are interested in viewing new movie releases at home, even after the pandemic is over.



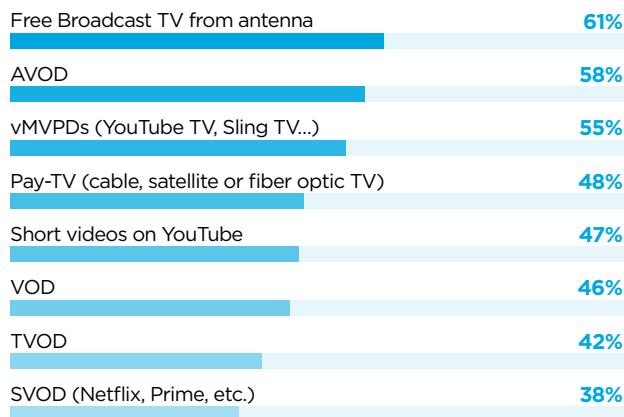


Consumers Watching Free Content Remain the Most Tolerant of Commercials

Sixty-one percent of those who watch free broadcast TV from antenna and 58 percent of AVOD users say they don't mind ads or commercials when watching TV. Screen and device type may play a role in consumer attitudes about ads as well: 31 percent of respondents say that ads on a smartphone/tablet are worse than ads on a TV; 23 percent say that TV ads are worse; 38 percent say they are the same.

Don't Mind Ads or Commercials When Watching TV

Percentage of respondents that indicated they use the service type in question



For those with cost concerns (i.e., the vast majority of consumers), free, ad-supported video services are increasingly seen as solid alternatives—allowing them to access content without adding to their total entertainment bill.

81%

said they would rather use free, ad-supported streaming than subscribe to another paid service.

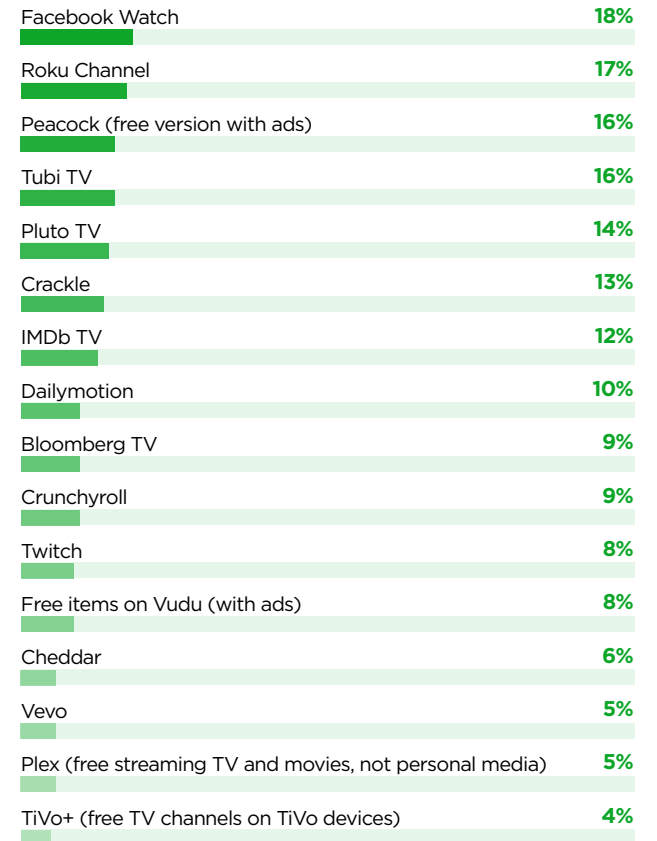
83%

wish that paid streaming services like Netflix or Prime Video offered a free, ad-supported option.

When asked their preferred type of AVOD experience, **39 percent** of survey respondents reported wanting a free service that offers live TV channels in a guide; **47 percent** prefer a free service that offers an “on demand” library of TV shows and movies.

Most Popular AVOD Services Other Than YouTube

Percentage of respondents that indicated they use the service type in question; Respondents could choose more than one option



238%

 The average in-window residual lift for programming promoted on TiVo+, TiVo's AVOD service.

Viewership data for Linux boxes only. All channels analyzed were considered digital brands (no cable) with niche audiences. Promotions included features in the EPG and What to Watch Promotions were platform-only.



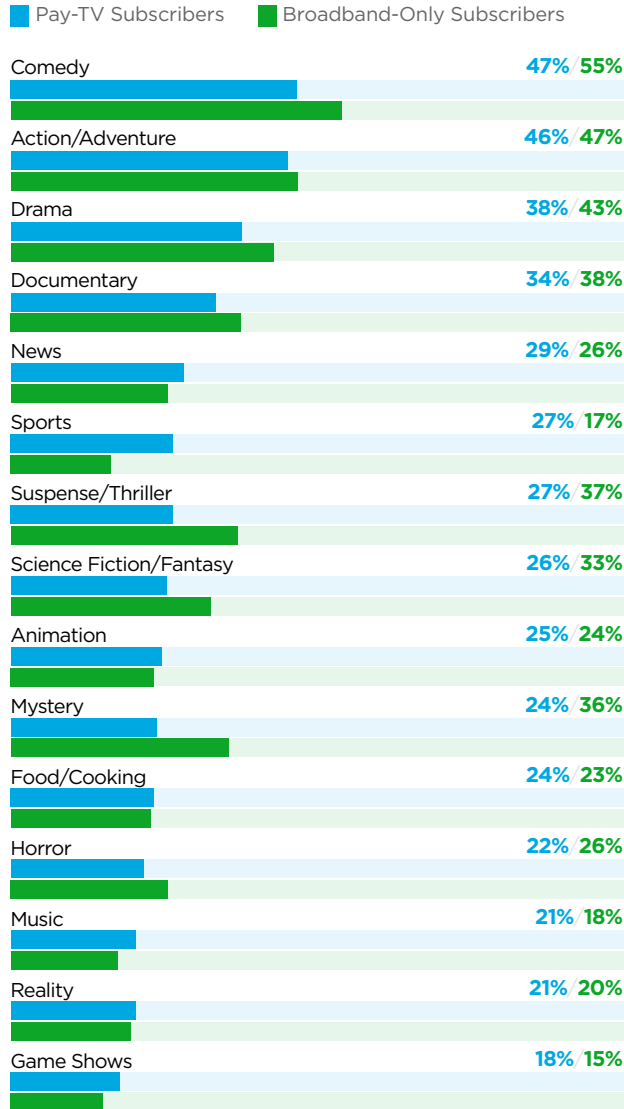


AVOD Genres by Viewing Type

Comedy, action and drama all topped the charts for most popular TV show and movie genres.

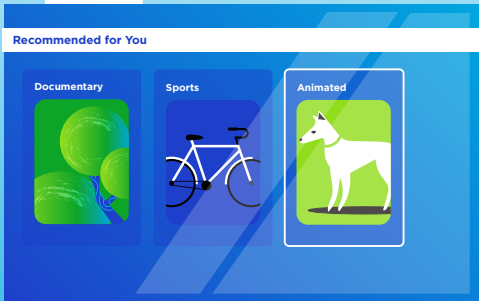
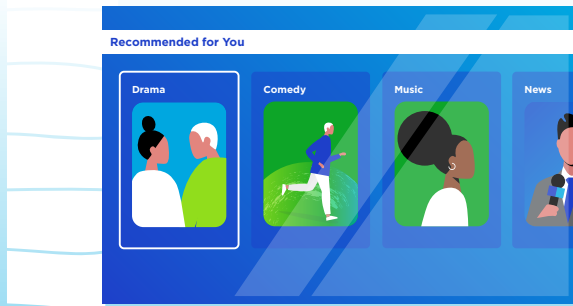
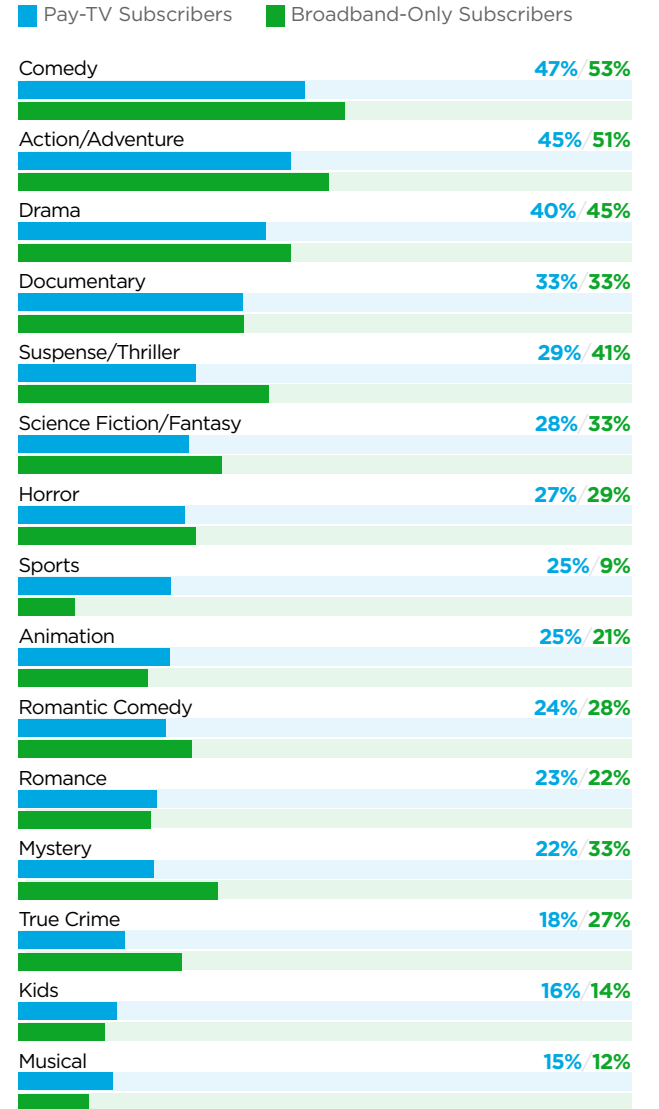
Most Popular TV SHOW Genres for AVOD Users

Among respondents who use AVOD services or TVE apps; Respondents could choose more than one answer



Most Popular MOVIE Genres for AVOD Users

Among respondents who use AVOD services or TVE apps; Respondents could choose more than one answer





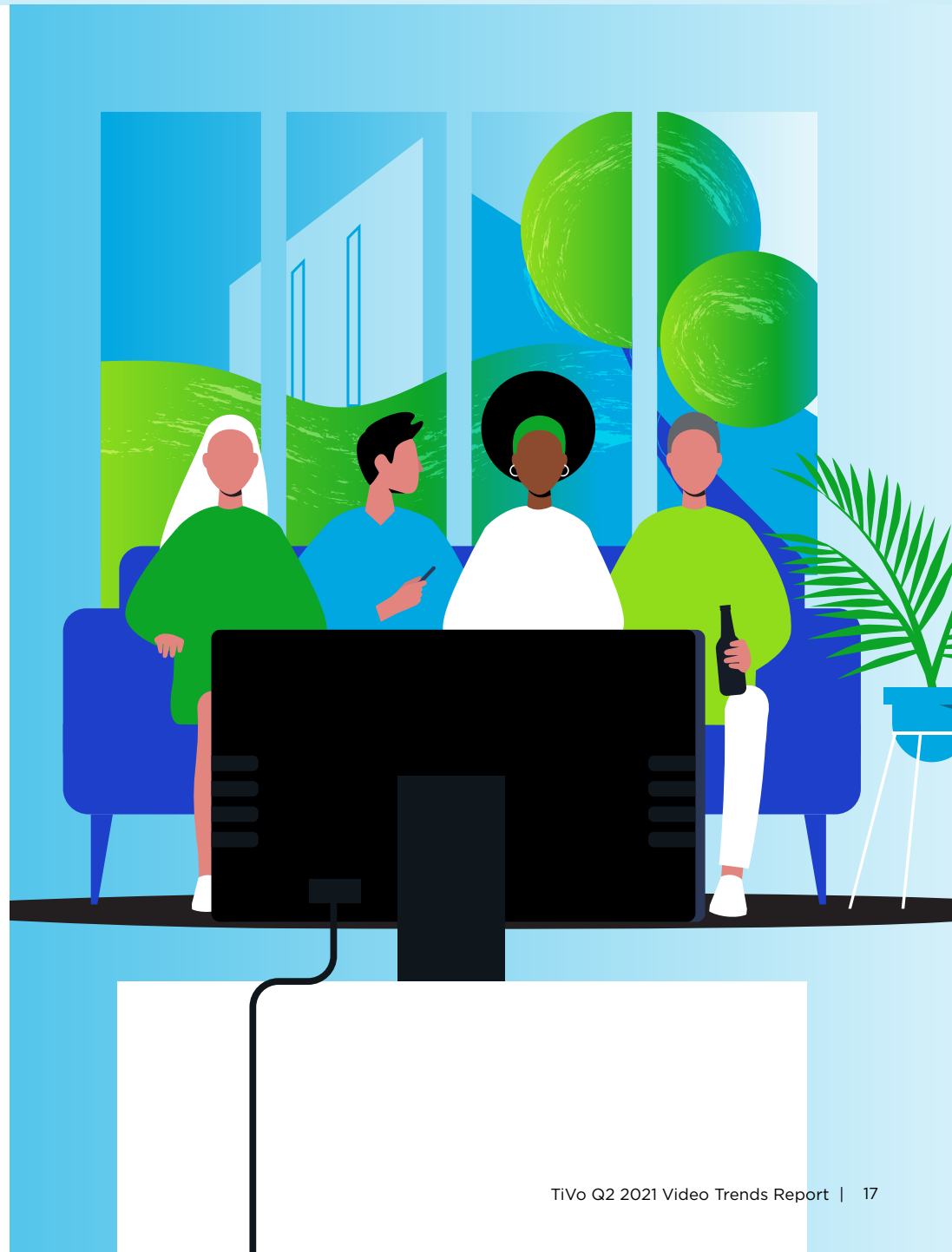
Part One Conclusion

The Video Paradox

Despite Varied Pain Points, Consumers Keep Feeding Their Video Habit

North American consumers are coping with the pandemic with a growing enthusiasm for new content and video technology. Many complain that it's increasingly difficult to discover said content and their budgets are increasingly stretched thin, yet the average number of services per consumer continues to rise.

Responding to these clear signals of ever-increasing demand, the abundance of content and video technology options grows larger every year. And, as consumers are presented with a widening array of options, their standards are getting higher; they're increasingly willing to cancel or add services at the drop of a hat if a better option presents itself. For content creators and service providers, making their products better, faster, stronger, easier to use and more reliable is key. The video market is ruthlessly competitive and it rewards innovation.





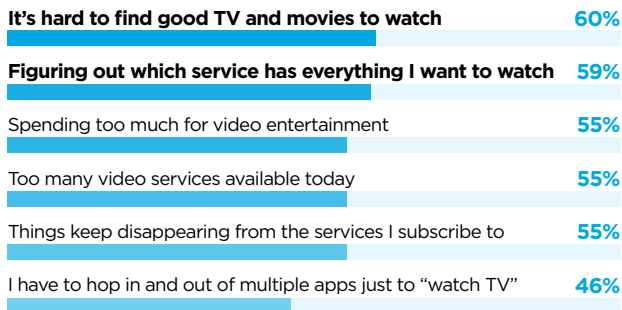
Part Two

Content Overload Drives Demand for Innovation

As more content becomes available, managing and navigating video services is becoming increasingly difficult. As a result, consumer demand for consolidated content management is high and rising.

Top Consumer Pain Points

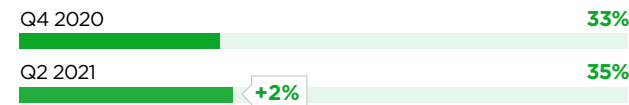
Percentage of total respondents; Respondents could choose more than one option



While 88 percent of survey respondents noted an interest in having the ability to VIEW, BROWSE AND SEARCH all of their available content (everything they can watch from any of their current video services) from a single guide or menu, 35 percent were **extremely interested** in doing so (a two percent increase from Q4 2020). Similarly, 86 percent are interested in the ability to PAY for all their video services from a single guide or interface, rather than navigating websites or apps to pay separate bills (with 33 percent **extremely interested** in doing so).

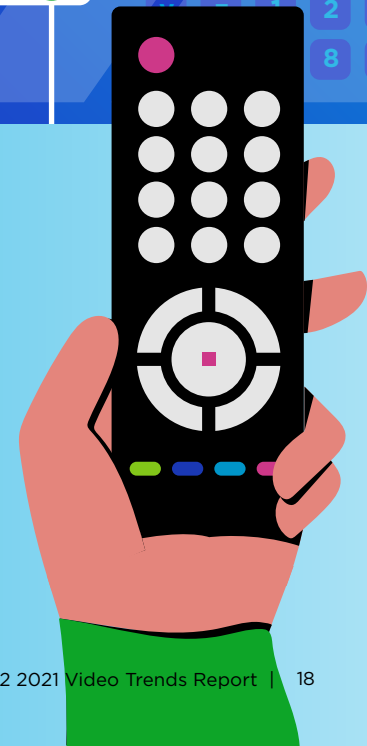
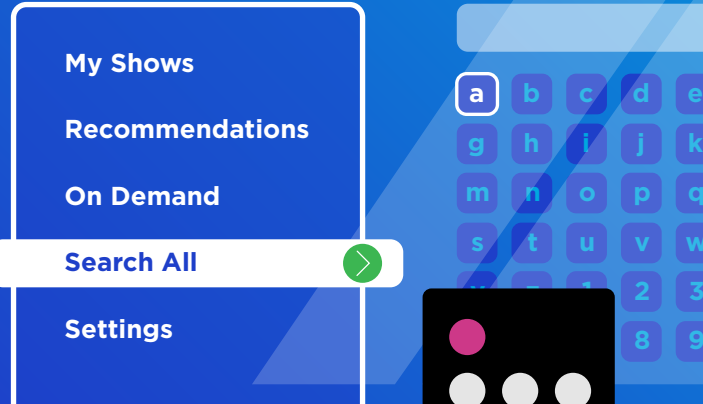
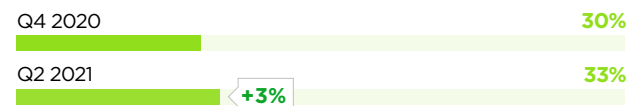
“Extremely Interested” in the Ability to VIEW, BROWSE AND SEARCH All Available Content from a Single Guide or Menu

Percentage of total respondents



“Extremely Interested” in the Ability to PAY for All Services Through a Single Interface

Percentage of total respondents





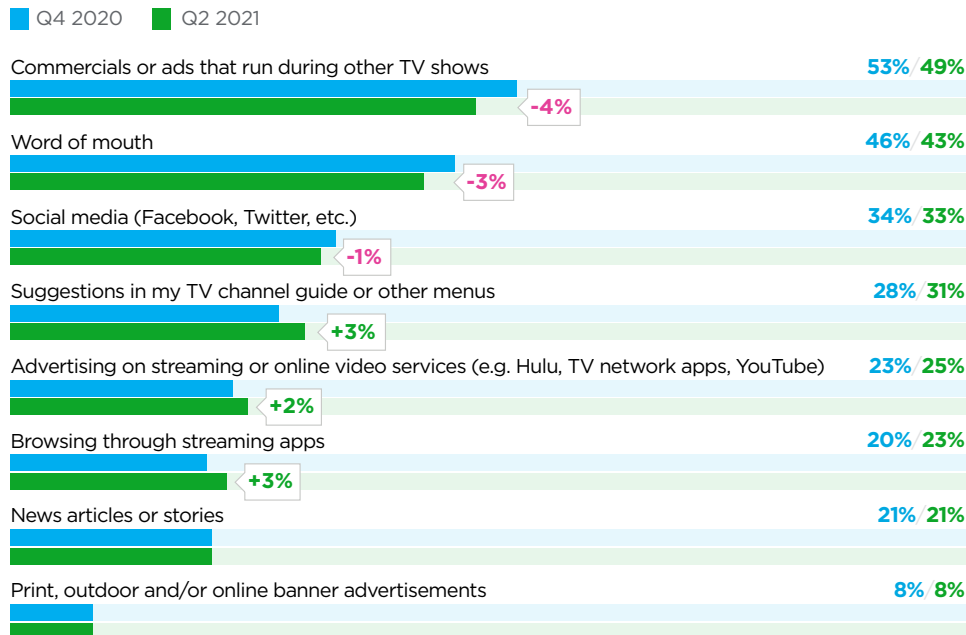
Discovery Trends are Slowly Shifting

Importance of EPG Rises While Others Fall

Consumers learn about new TV shows and movies through suggestions offered by their channel guide or other menus (+3% since Q4 2020), advertising on streaming or online video services (+2% since Q4 2020) or when they see interesting content while browsing streaming apps (+2% since Q4 2020). More traditional discovery avenues (i.e., commercials played during TV shows, word of mouth recommendations, social media advertising) still account for the majority of content discovery, but they have diminishing impact every year.

How Viewers Discover New Movies/TV Shows to Watch

Percentage of total respondents; Respondents could choose more than one answer



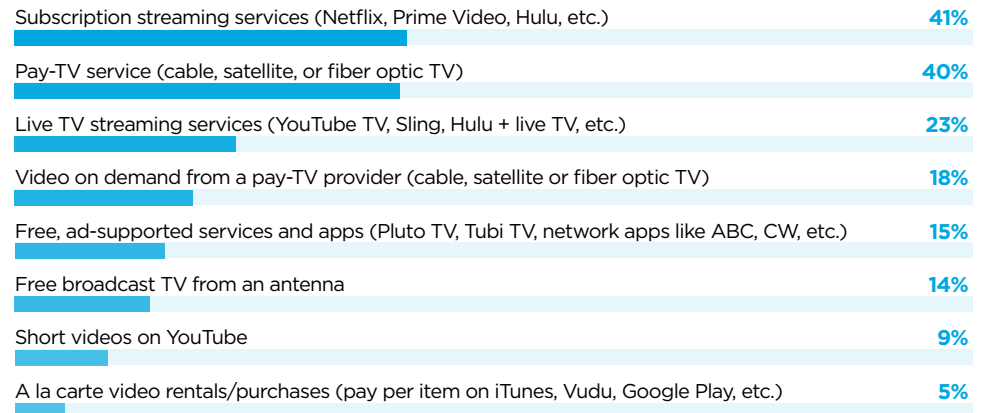
When consumers are on the hunt for **NEW** TV shows or movies to watch, the two main places they look are on subscription streaming services (41%) and pay TV (40%).

11.4

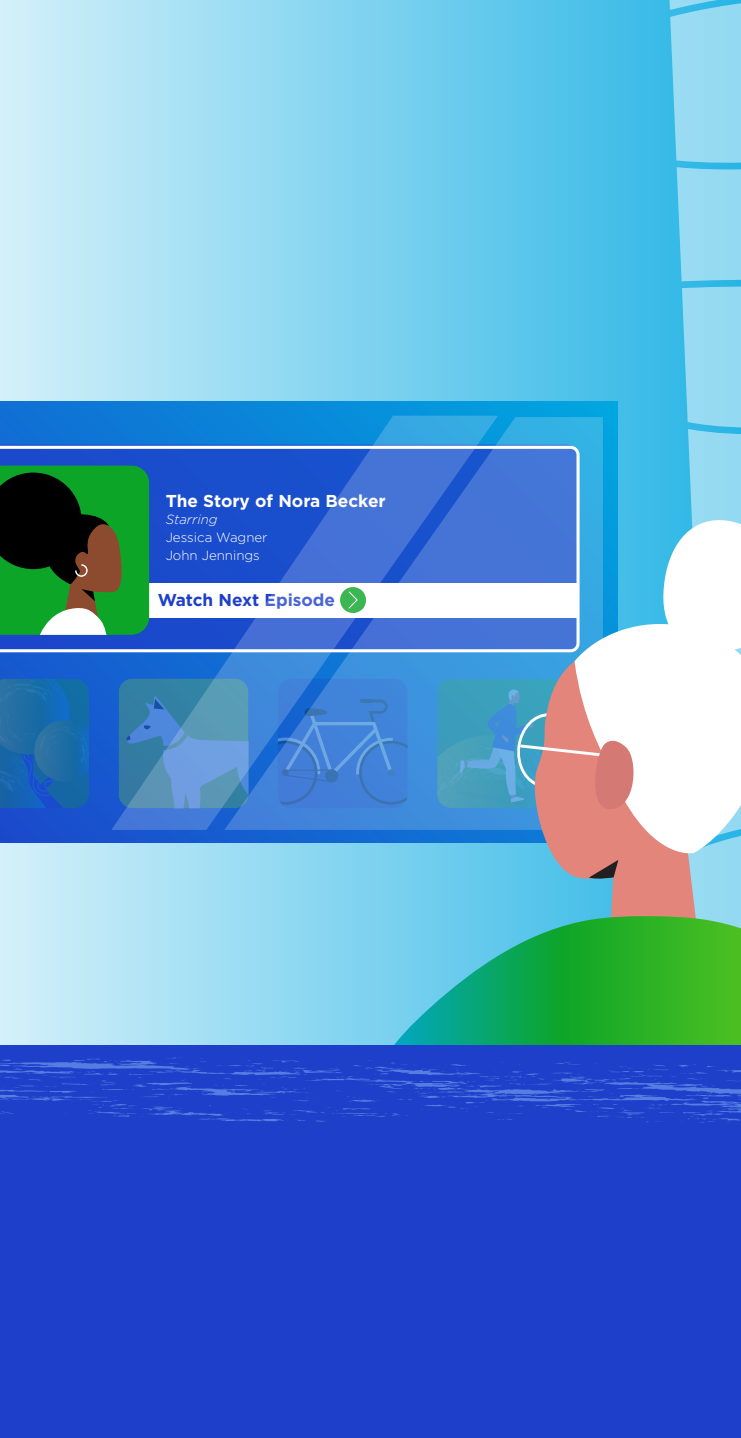
Average discovery time via smart TV was 11.4 minutes.

How Viewers Discover New Movies/TV Shows

Percentage of total respondents; Respondents could choose more than one answer



Our survey also revealed that consumers have dramatically different experiences finding something to watch on various devices. On average, respondents were able to discover content most quickly on PCs, with **56%** of computer users reporting finding something to watch in less than five minutes. Pay-TV set-top box discovery time came in a close second.



vMVPDs Get Top Marks in Discovery

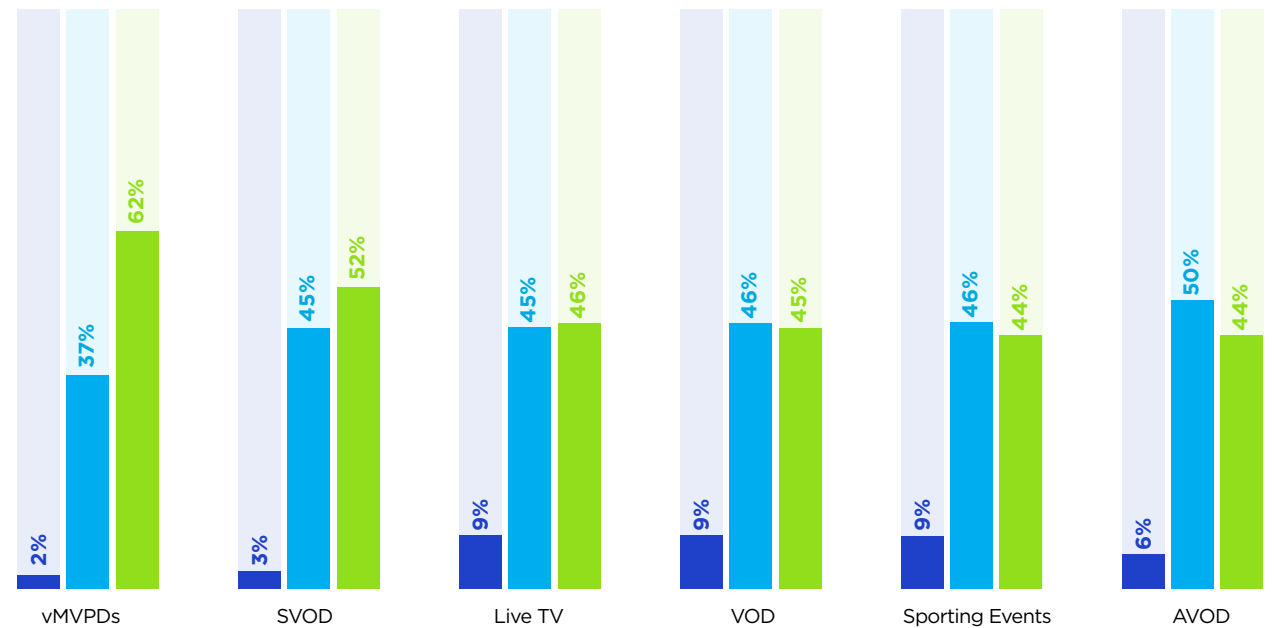
When we asked survey respondents how difficult it was for them to find something to watch in various categories, interesting patterns emerged. First, vMVPDs rose to the top with the highest “ease of use” scores: 62 percent of vMVPD users say it’s “always easy” to find something to watch, while just two percent say it’s “never easy.”

By contrast, nearly 10 percent of those watching live TV, video on demand or sporting events say it’s “never easy” to find something to watch; only 44 percent of AVOD users say it’s “always easy.”

Ease of Use

Respondents using the service type in question

Never Easy Sometimes Easy Always Easy





Recommendations Drive Engagement ~40% of the Time

41%

When provided a recommendation by their pay-TV service, customers report watching the recommended show or movie 41.2% of the time.

Respondents who use pay-TV service

40%

When provided a recommendation by their SVOD service, customers report watching the recommended show or movie 39.8% of the time.

Respondents using SVOD services

41%

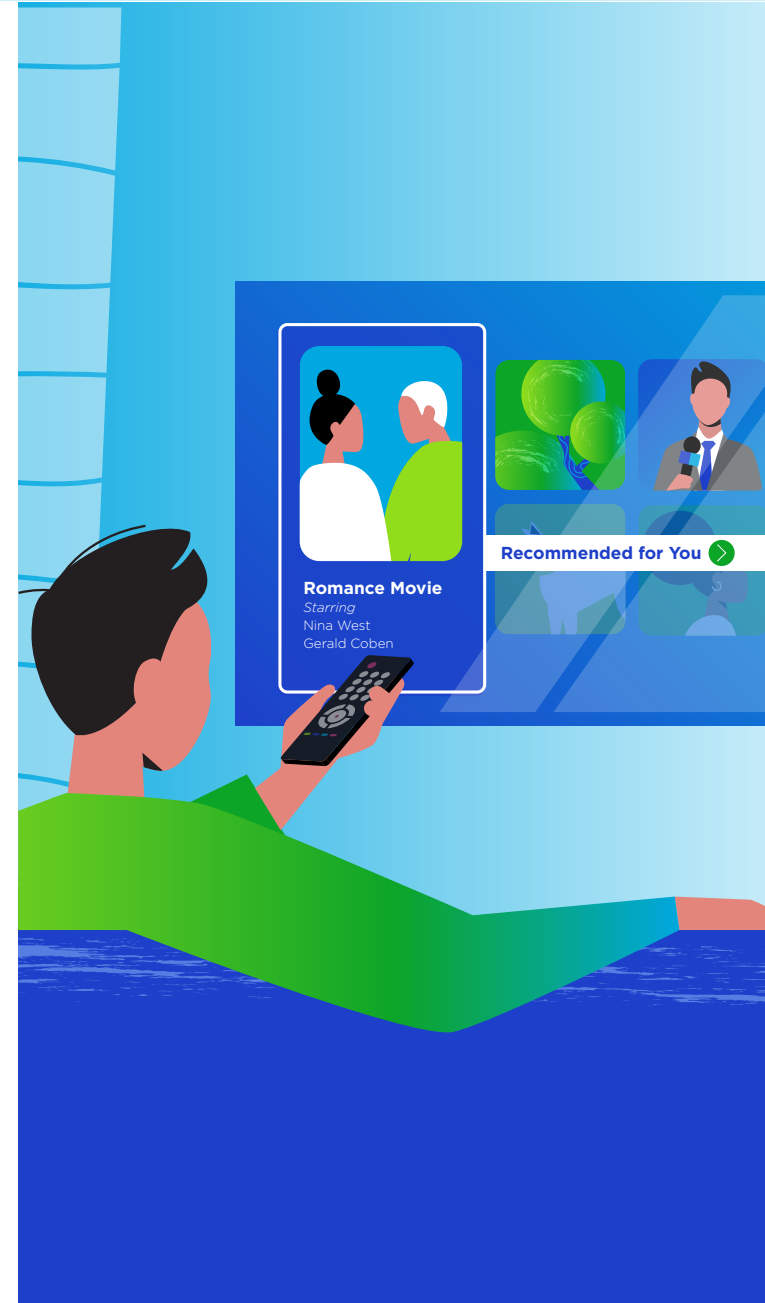
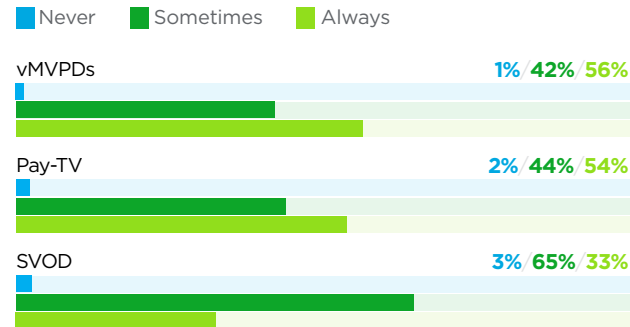
When provided a recommendation by their vMVPD service, customers report watching the recommended show or movie 41.2% of the time.

Respondents using vMVPD services

While recommendation awareness is down since Q4 2020, those respondents who indicated that they do get recommendations are confident in their relevance. The percentage of users who say that recommendations are “always relevant” increased across the board.

How Relevant are Recommendations?

Respondents using the service in question



50%

of respondents say they are interested in a service that helps them find shows and movies they can watch FOR FREE WITH ADS.

63%

would be interested in a service that recommends the next episode of a show they have been watching.

40-41%

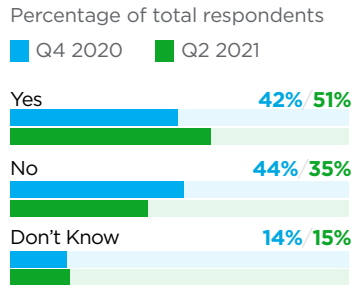
of respondents indicated that they didn't use personalized recommendations on any medium.



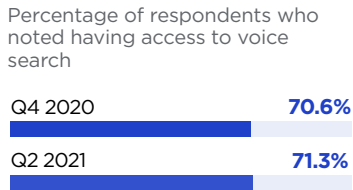
Consumer Awareness and Confidence in Voice Technology Has Grown

Back when voice search was still new and novel, few survey respondents used it or even knew whether their devices had voice search capabilities. Now, 51 percent of survey respondents indicate at least one of their devices has voice search capabilities, around nine percent higher than in Q4 2020. Of those, 71 percent reported using voice search functions to find something to watch. Of respondents who use their voice to search, 88 percent use it at least once a week.

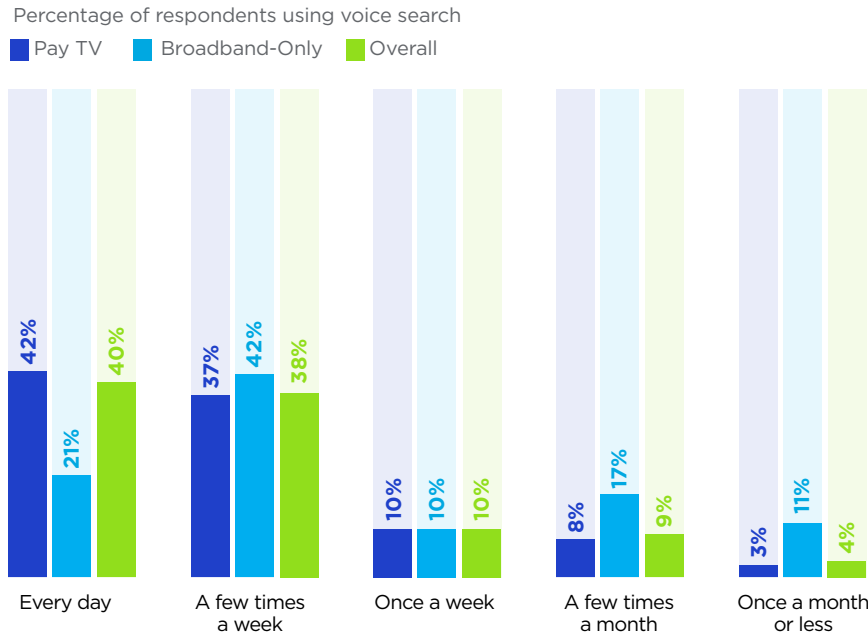
Have Access to Voice Search



Use Voice Search



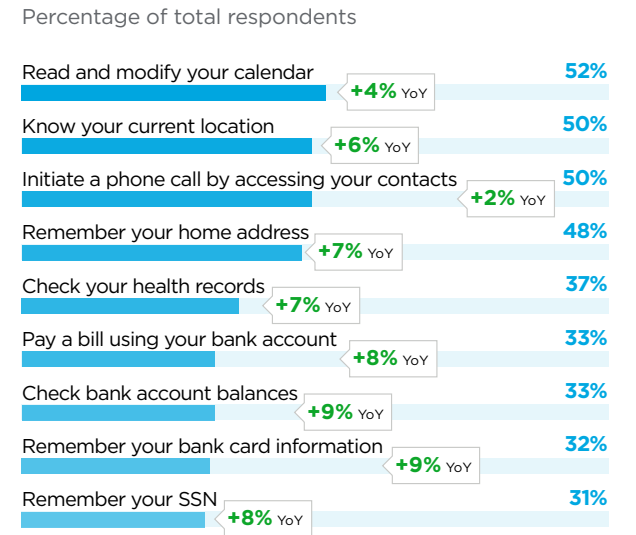
How Often Consumers Use Voice Search (per week)



Trust in Virtual Assistants Rises Across the Board

Fifty-nine percent of survey respondents indicated they use some form of virtual assistant (Alexa, Siri, Google Assistant, Cortana, etc.), eight percent higher than in Q4 2020. Of those, 63 percent allow their device to learn their voice, seven percent higher than in Q4 2020.

Are you comfortable letting a virtual assistant...?





Opportunity Knocks: Some Respondents Still Think Voice Search is a Gimmick

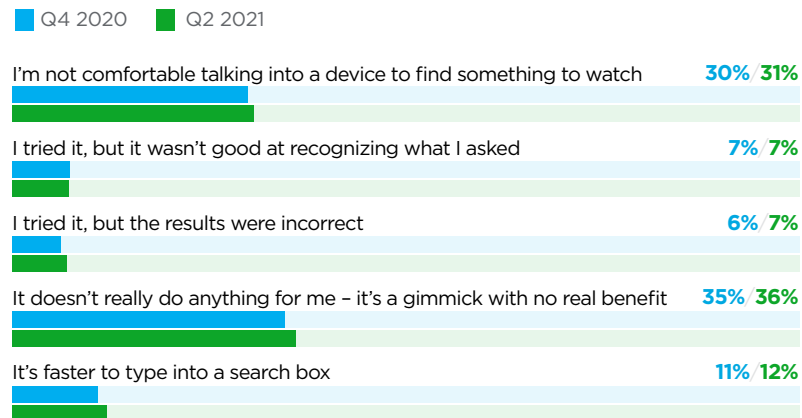
12% said it's faster to simply type into a search box.

Among survey respondents indicating that they don't use voice search, 36 percent said they thought voice search was "a gimmick with no real benefit," while 12 percent said it's faster for them to simply type into a search box.

While voice search times are getting faster every year, comparing average discovery times for text versus voice reveals that some consumers are still getting results faster by typing text into a search box — but the gap is narrowing.

Top Reasons Consumers Are Not Interested in Using Voice Search

Percentage of respondents indicating they are not interested in using voice search

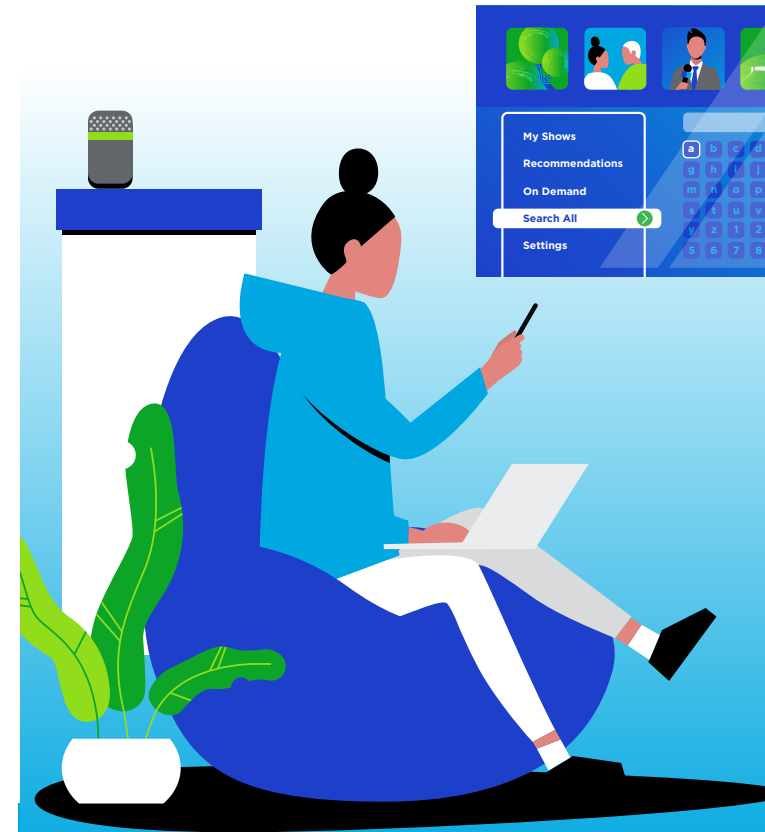


9.7 minutes

Reported average for someone to find a TV show or movie by typing into a search box.

10.3 minutes

Reported average for someone to find a TV show or movie by using their voice.





Part Two Conclusion

Adaptability = Survival

With Enormous Challenge Comes Incredible Opportunity

The video landscape is constantly changing, and consumers – ever adaptable – are adjusting accordingly. For content creators, device manufacturers and service providers to thrive, they must improve their products, optimize metadata to deliver more personalized video experiences and aim for peak innovation.

As the demand for new and better content continues unabated, cost concerns remain a major pain point. Still, discovery technology – electronic guides, text search, and yes, virtual assistants and voice search – is absolutely necessary for navigating the vast ocean of choices, with the caveat that consumer demand rewards quality and punishes poor performance.

