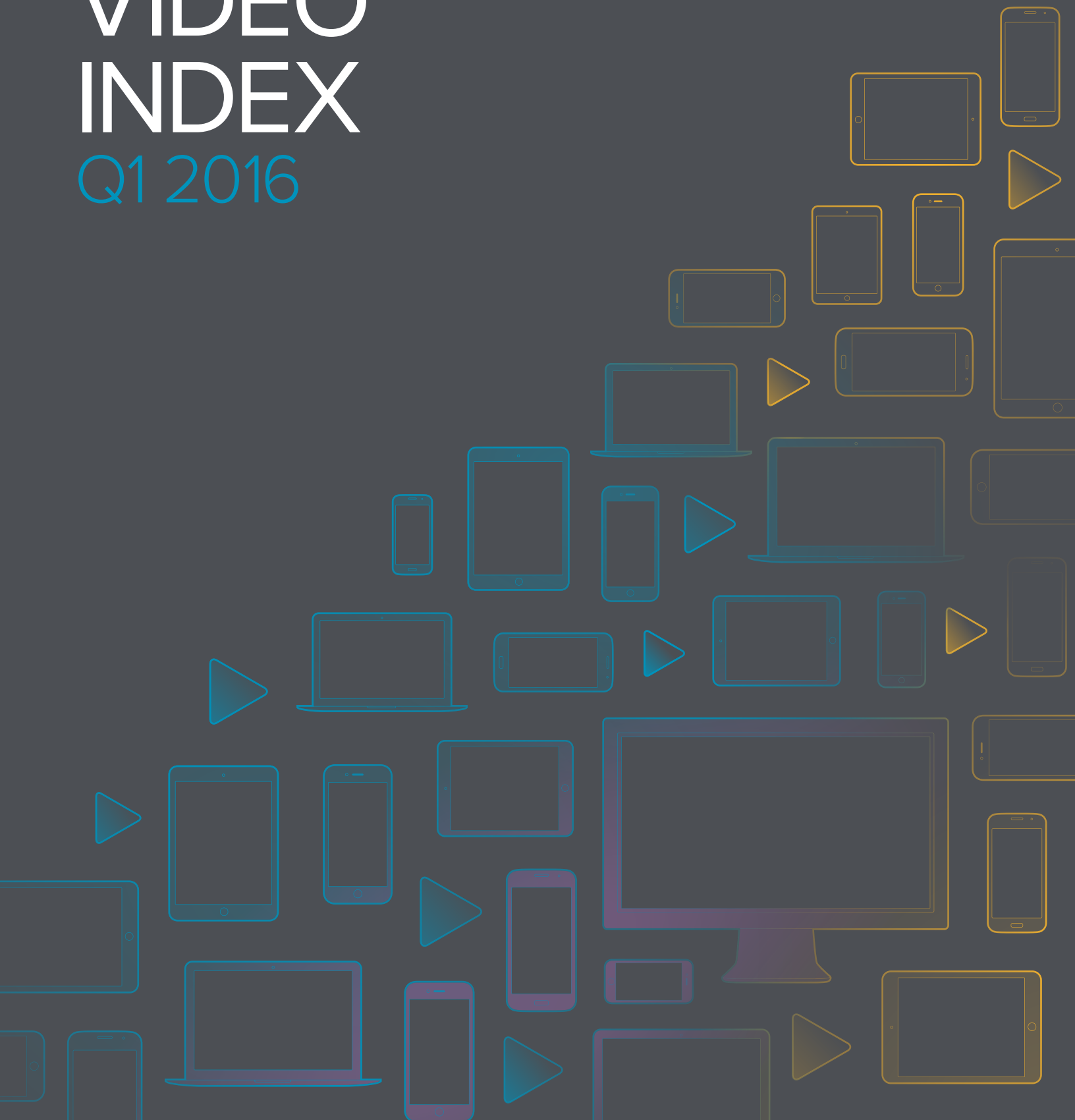
OOYALA®

GLOBAL VIDEO INDEX

Q1 2016



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POINT OF VIEW

JIM O'NEILL, PRINCIPAL ANALYST & VIDEOMIND EDITOR

The OTT Boom has arrived.

One year ago, FCC Chairman Tom Wheeler was nearly booed off the NAB Show stage when he challenged broadcasters to embrace OTT. Broadcasters had other ideas.

What a difference a year makes.

The first four months of the year were rife with new OTT plays launching — and rumors of many more to come. Netflix, the 500-pound gorilla in the market, in January **launched in 130 new territories**, creating a "global Internet TV network" that spurred competition and content production around the world, especially in Asia.

Among APAC service providers that ramped up: PCCW expanded its freemium OTT play in Asia; SingTel pushed SVOD service Hooq; iFlix accelerated its own regional expansion, and NBCUniversal readied "Hayu," offering a variety of content in Australia (and Ireland).

In the United States, **Hulu announced its plan** for a virtual MSO in 2017; a new Sling TV that includes Fox (but loses ESPN) is moving toward **1 million subscribers**; a new OTT service is arriving from Starz; and **AT&T has announced plans to create a virtual MSO** to run much of its premium content with an aggressive focus on younger viewers. We heard rumors that **YouTube planned a virtual MVPD play** in addition to its **YouTube Red SVOD service** (which also was expanded into Latin America).

And, of course, social media sites played a growing role. **Twitter cut a deal for NFL Thursday Night Football** and Facebook continued its pursuit of all things video. It **exceeded 100 million hours of streamed video daily in Q4**, and just weeks into Q2 launched (with Ooyala as a media solutions partner) **"Facebook Live."** The new service allows broadcasters and video publishers to quickly and simply syndicate their official broadcasts to Facebook.

What should we expect next?

More.

The second half of 2016 will see a run on the OTT market unlike any we've seen before. There will be winners and there will be losers. Not every new service is destined for success, but the players are now out in force.

In Ooyala's Q1 2016 Video Index, we look at the numbers – and see that the OTT boom is tied to several other trends in viewing habits. Trends like these:

- **Viewers are demanding more quality.** Data shows that viewers are less tolerant than ever of quality problems. They're more forgiving on live streams, but buffering and slow join times on VOD lead to drop-offs of 40% or more. Viewers also remain a bit impatient in general: shorter video is still watched to completion more often than longer video on all devices.

- **After a long flatline, tablets are gaining traction, particularly during the day.** In the evenings it's all about mobile with tablets, likely driven by viewing of SVOD content and second-screen applications. But a closer look at the data shows that workday video starts on tablets and mobile devices are now gaining ground on PCs. It's part of a gradual evolution that has seen mobile devices become more ubiquitous in the workplace than traditional workstations. Nearly one in five (18%) of all mobile views are now on tablets, the third consecutive quarter of growth.

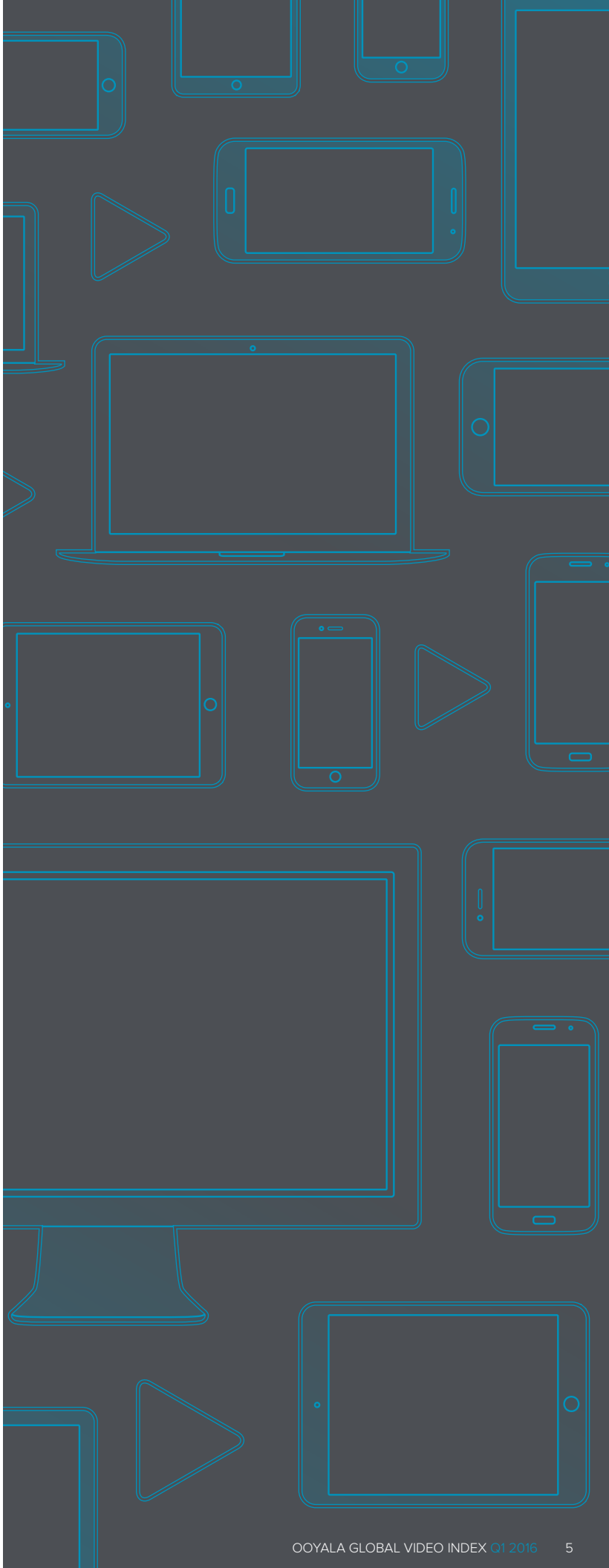
- **Ad reinsertion is saving publishers millions.** The ad-blocking battle continues, and it remains a growing threat to publishers and broadcasters who stand to lose as much as $27 billion in potential ad revenue by 2021. But! Ad reinsertion technology is taking the battle to the ad blockers, boosting ad impressions by as much as 23%. That's earning big publishers millions every year.

- **Business models remain a challenge.** Will subscription (SVOD), ad-supported (AVOD) or hybrid models win? Or will there be a more widely-accepted hybrid model like HBO's — which offers operator-based subscriptions, TV Everywhere bonuses (HBO Go), and a direct-to-consumer play in HBO Now? So far, the numbers don't show a clear winner.

- **Mobile is driving Latin America.** In our special Q1 spotlight on Latin America, we dig into the numbers for the Latin America market and see that they still vary widely by country due to infrastructure and content. But mobile is taking center stage everywhere in LatAm; by 2020 it will be the world's second-largest smartphone market (behind Asia Pacific) with more than 605 million smartphones.

One thing is certain, OTT or not: content viewing is more fragmented across devices than ever before. Competition for audiences is intensifying. And viewers are increasingly insisting on exactly what they want — from whichever provider will give it to them.

Read on for the numbers.



HOW OTT BUSINESS MODELS COMPARE: SVOD VS. AVOD

How to monetize online video remains a hot question, primarily because it's one that has so many potential answers. Maximizing revenue is top of mind for most video providers, regardless of their business model. However, sometimes "which business model to choose?" is the first question. There are numerous approaches to maximizing ROI for subscription (SVOD) services, getting ad loads right for ad-supported (AVOD) services, and driving traction with various iterations of transactional (TVOD) or "freemium" (FVOD) services.

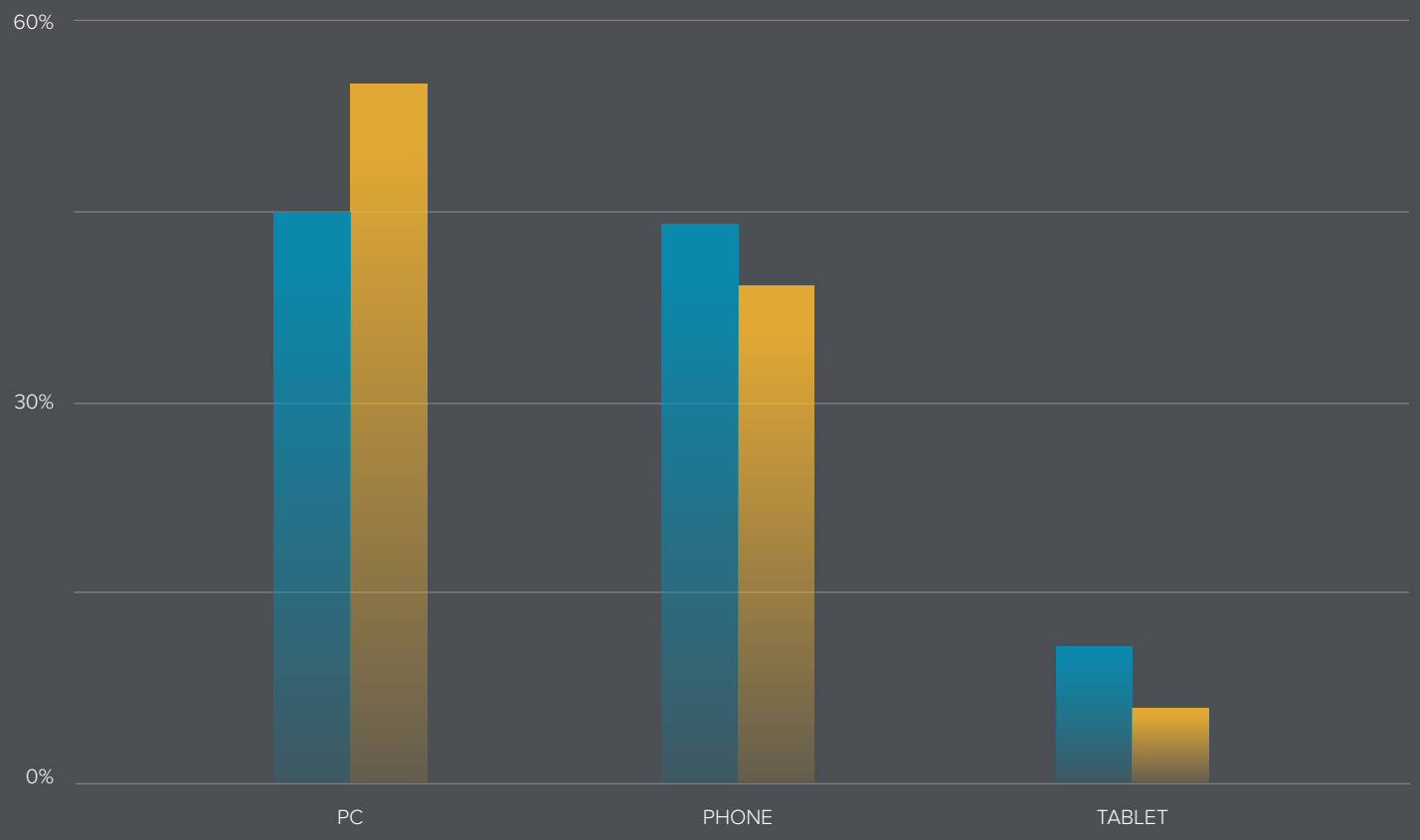
This quarter, we looked at how consumption of AVOD and SVOD assets differ. We looked at what kind of content is engaged with more on various devices, how content length affects engagement, and what those consumption habits mean for ad monetization.

SVOD VS. AVOD: VIEWING PATTERNS BY DEVICE

Overall, smartphones and mobile devices were used slightly more than PCs to watch SVOD content. Combined, smartphones (44%) and tablets (11%) made up more than half (55%) of all SVOD views.

When it came to AVOD viewing, the opposite was true: PCs got 55% of video views, smartphones 39% and tablets just 6%.

Those patterns indicate that watching premium content delivered via subscription services may be an experience that's more personal and as such, more broadly viewed on personal devices.



SVOD AND AVOD: SHARE OF TIME WATCHED Q1 2016

SVOD
AVOD

HOW OTT BUSINESS MODELS COMPARE: SVOD VS. AVOD

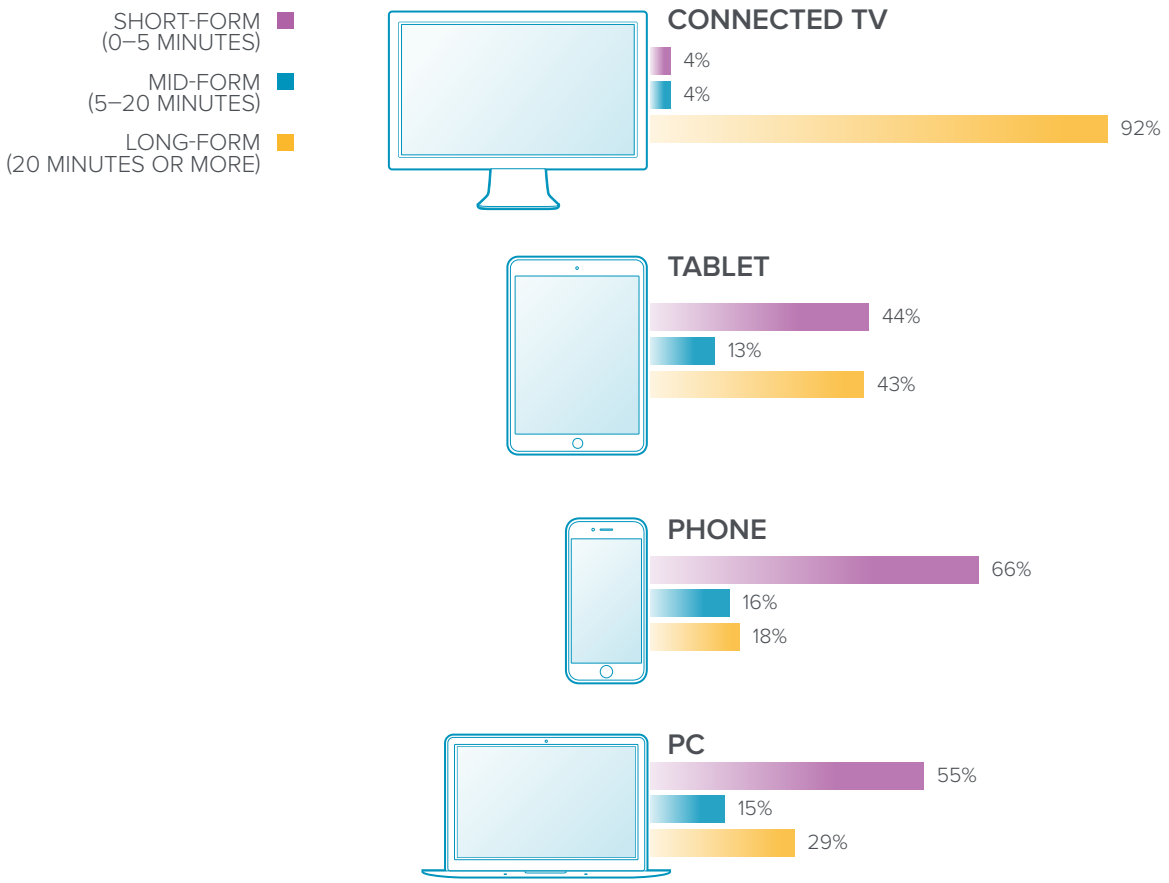
SVOD VS. AVOD: SHARE OF TIME WATCHED

SVOD content is, by and large, long-form (20 minutes or more). Measure its share of time watched on devices and it makes up the vast majority of the pie.

On smartphones, tablets, PCs and connected TVs, long-form's share of SVOD viewing time ranges from 97.7% for smartphones to 99.9% for connected TVs.

The spread of time watched for AVOD content is far more complex, although it still follows the basic credo of "bigger screens are better."

AVOD's share of time watched varies greatly by device:



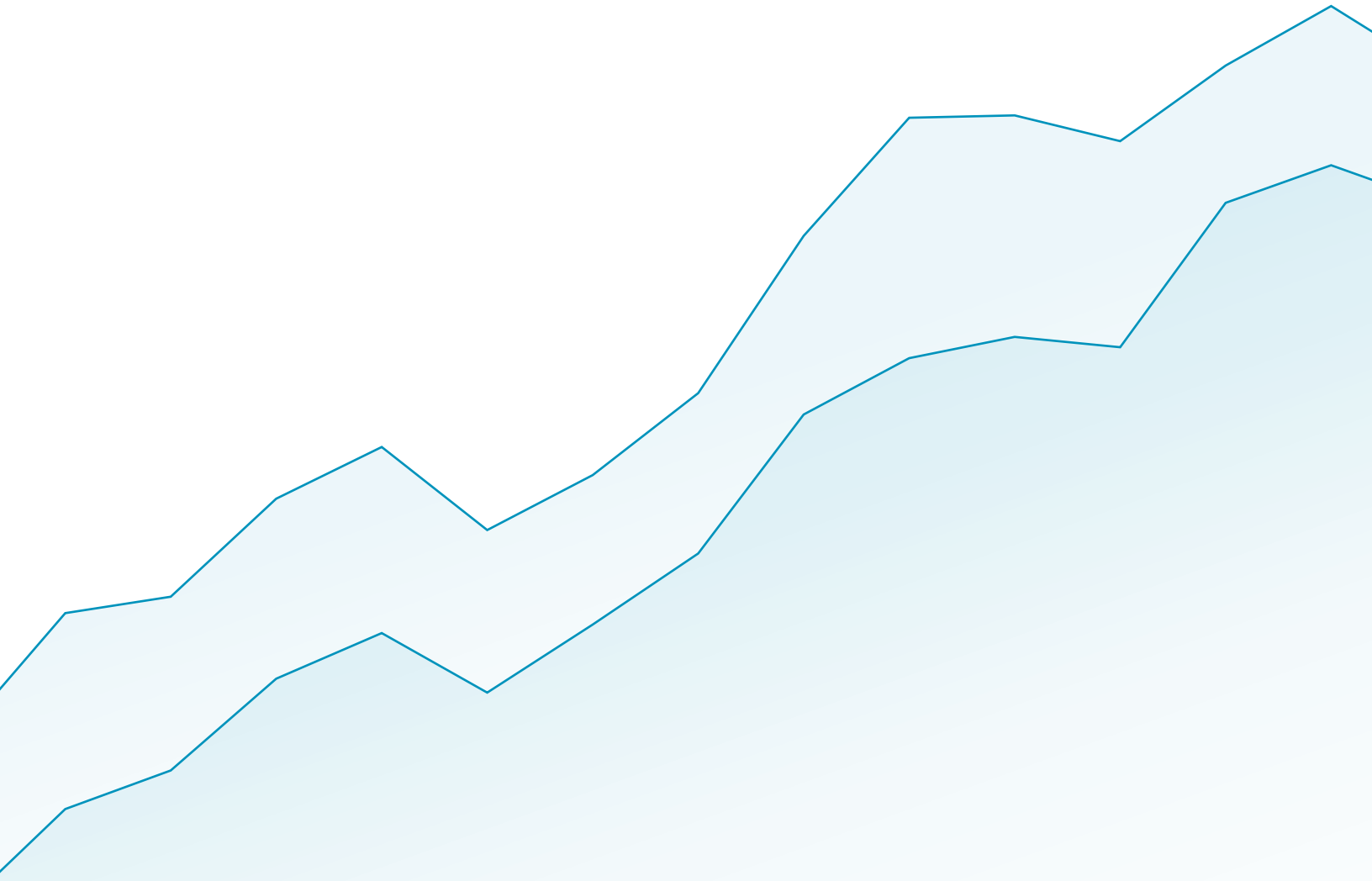
THE BOTTOM LINE

Consumption of premium content continues to grow on all devices and for all forms: short, medium and long.

As to a "winner" between AVOD and SVOD: who is the clear king of ROI? That's a battle still being waged and, frankly, there's no clear leader.

The immediate solution for content owners is one that's becoming more common: a hybrid model that includes SVOD, AVOD and even TVOD content to reach as many potential customers in as many ways as possible.

Among other considerations to weigh when deciding on funding models: Catalogue size, content type and consumers' willingness to subscribe, and even how consumers can pay. In North America and Europe, for example, credit cards are *de rigeuer*. But in emerging markets like Latin America and Asia a better approach might be partnering with an ISP that has established customer relationships.



VIEWING PATTERNS BY TIME OF DAY, DAY OF WEEK

Research posits that the first thing Millennials reach for in the morning is their smartphone, and that's increasingly true for all demographic groups as smartphone device penetration continues to climb.

But, in terms of viewing online video today, the morning is one time when smartphones, tablets and PCs all seem to ramp up synchronously. All gradually gain views as users catch up on news and sports highlights, perhaps watch videos shared on social media, and even do a little entertainment planning.

But our research shows that (at least in the U.S. where this portion of the study was based) tablet and mobile device usage for video viewing flattens somewhat as the workday begins, then continues to accelerate through the day. PCs, of course, are another story, with video views growing to the point where they are generally significantly higher than either tablets or mobile devices.

Interestingly, when comparing weekday data to Q3 2014, the last time we took a deep dive on daily device trends, there has been a change. Video viewing on smartphones and tablets combined during the workday have grown, and are chasing PCs. The broad rise of mobile devices as primary video devices has spilled over into the workplace, too. (Let's face it: it's far more comfortable catching up on SportsCenter highlights — not to mention fights at campaign rallies — on a mobile device than on your PC, especially in the age of the open office.)

In the late afternoon on most weekdays, the use of mobile devices, especially tablets, for viewing video accelerates, outpacing the still-growing use of smartphones. Two years ago, smartphone and tablet use during the evening and late night hours differed only slightly.

Today, tablet viewing is accelerating at a faster pace, a trend that may be driven by users engaging both in SVOD viewing and in second-screen activities in relation to traditional TV viewing during primetime.

The decline of video viewing on PCs, meanwhile, which began at midday, accelerates and drops continuously until bottoming out about 2–4 a.m.

Device use over the weekend is far more democratic, although PC video viewing is higher than on either smartphones or tablets from about 9 a.m. to 3 p.m. on Saturdays.

While that could be attributed to people working on Saturdays, it's also possible that they're using computers at home to view on a larger screen.

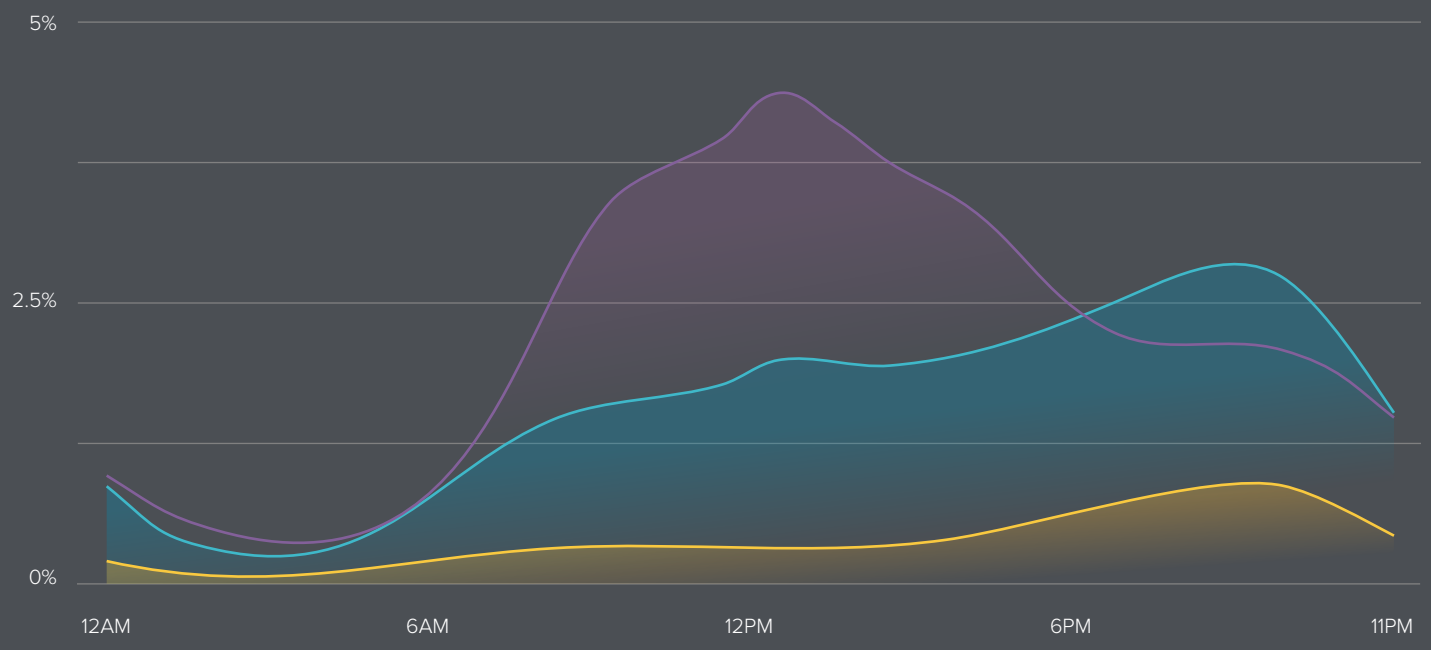
Nevertheless, the gap between PCs, tablets and smartphones is narrowing.

THE BOTTOM LINE

Viewing on mobile devices once was significantly lower than on PCs during the workweek; tablet and smartphone views combined now are becoming more common.

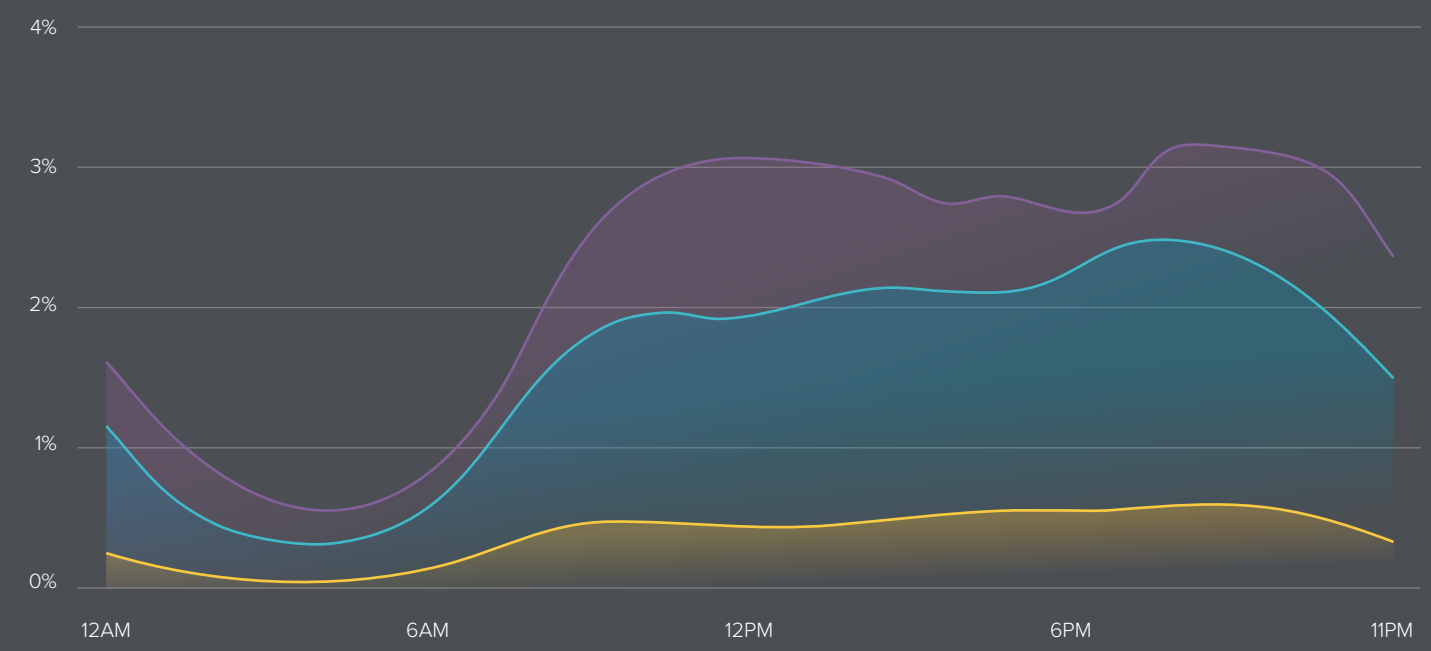
It's no surprise that **by 2018, brands are expected to spend more on mobile advertising ($114 billion) than on PCs**, and second only to TV ($215 billion). In fact, ZenithOptimedia forecasts mobile ad spend will grow at a CAGR of 32%.

To maximize revenues, make sure your target remains firmly on mobile. Mobile isn't just the future, it's the present, too.



HOURLY CONSUMPTION BY DEVICE TYPE (WEEKDAY) Q1 2016

PC
PHONE
TABLET



HOURLY CONSUMPTION BY DEVICE TYPE (WEEKEND) Q1 2016

PC
PHONE
TABLET

VIDEO ADVERTISING TRENDS

PROGRAMMATIC TRADING

Momentum for programmatic video advertising carried through to Q1, a traditionally slower advertising quarter for publishers. Across our global user base of Ooyala Pulse SSP, our programmatic trading product, we saw even more premium inventory being made available programmatically — a 22% increase from Q4 to Q1. Combined with continued growth in programmatic activity from premium buyers, this led to a 74% increase in paid impressions.

Even though there is still a mix of fixed price and second-price auction, greater adoption of the latter is helping drive publisher CPMs upwards. We saw a 13% increase in the average CPM in private marketplaces. This is even more notable considering it occurred during Q1, when publishers typically see CPMs drop.

And across our footprint, we also saw some of our more progressive broadcasters and publishers increase monetization significantly by deploying technology that circumvents ad blockers.

UNLOCKING BLOCKED AD REVENUE

The threat of more use of ad-blocking technologies by consumers has ad-supported publishers more than a little concerned.

More than 200 million Internet users currently use ad blockers. That number likely will continue to climb, especially as mobile networks — in the name of conserving customer data usage — move toward blocking ads and more device manufacturers, like Apple and Samsung, include ad-blocking technology on their phones.

A recent study from Juniper Research forecasts that **publishers globally stand to lose as much as $27 billion in revenue by 2020** if the industry can't find a solution.

Publishers have reacted in a number of ways, the most prevalent being to block customers who use ad-blocking technology from viewing content. But that strategy, while certainly effective in punishing visitors who use ad blockers, has a big downside in that it's difficult to engage a user who can't get to your content.

We think there's a better way: ad reinsertion.

Ooyala's ad reinsertion technology, deployed via a plug-in to Flash video players, is operated as a managed service and works with any ad server to unblock ads and increase ad delivery.

In Q1, we looked at a selection of Ooyala customers who are currently using our ad reinsertion technology. What we saw was good news for publishers and broadcasters alike.

Broadcasters — who generally stream premium content that has higher demand and often are considered "invited guests" — nevertheless saw a significant number of their ads blocked without using ad reinsertion technology. But for those who used Ooyala's ad reinsertion plug-in in Q1, ad impressions were up as much as 15%.

For publishers, meanwhile, ad reinsertion increased ad impressions by as much as 23%.

THE BOTTOM LINE

Ad blocking causes a considerable loss of advertising income for publishers and broadcasters.

Common tactics to ameliorate those losses — blocking premium content, or even the entire site from users — can be counterproductive, leading to complaints from visitors or, worse yet, the complete loss of their business.

Other methods, such as incorporating Server Side Ad Insertion, or ad-stitching, greatly inhibit a publisher's revenue potential as well as their ability to dynamically re-allocate inventory across their base of buyers.

Ad reinsertion technology increased ad impressions by as much as 23% during the quarter. As more users turn on ad blocking technology, the potential associated revenue gains are significant.

Here are a couple of examples of how much money potentially is being left on the table, using a range of CPMs that a broad range of publishers and broadcasters might encounter:

A publisher with 43 million ad impressions weekly — of which 23% are delivered via ad reinsertion — stands to increase revenue by between $148,350 and $247,250 a week (using CPMs of $15 and $25 respectively) or between $7.7 million and $12.9 million annually.

Even a smaller broadcaster with a million hits a day — or 7 million a week —with 17% of the ads being delivered via ad reinsertion, will see incremental revenue of between $17,850 and $29,750 (again using the $15–$25 CPM spread), or between $928,000 and $1.5 million a year.

Publishers and broadcasters need to be as proactive — and customer friendly — as possible to maintain business growth and cash flow.

PROGRAMMATIC INVENTORY

22% in Q1

AVERAGE PRIVATE MARKETPLACE CPMS

13% in Q1

INCREASED IMPRESSIONS THROUGH AD REINSERTION

up to 15% for broadcasters

up to 23% for publishers

ENGAGEMENT TRENDS

WHEN AND WHY DO VIEWERS DROP?

As you'd expect, different devices engender different levels of engagement among viewers. This quarter we took a turn from our usual research showing the share of overall time watched by devices, and instead, looked at where viewers typically drop off for short-, mid- and long-form content.

For long-form content, viewers generally begin to abandon the video at 75% of completion, with a significant drop-off at 85% on PCs. On smartphones, that defection occurs slightly earlier, around 70%, with rapid abandonment occurring around 75%. Tablets, not surprisingly, show a different picture. Although there's a marked abandonment at 75%, remaining viewers tend to leave more slowly, spread out over the remaining portion of the video.

Mid-form content shows a different pattern. On PCs, viewers often stay until the 80% mark, with steady abandonment beginning at that point. Smartphones show a similar loyalty, with viewers staying well beyond 80% before leaving and tablet viewers stay longer still.

Short-form content completion rates are very high, with viewing peaking at the 90% mark and beyond, and most viewers finishing each video. Smartphone viewers are more prone to leave early, but it isn't until 90% of the video has played that you see significant abandonment. Tablet viewers, too, are prone to stay until more than 95% of the video has been completed.

THE BOTTOM LINE

Short video has the greatest chance of being watched in its entirety, while longer video is more prone to abandonment earlier.

Depending on the length of the video, be aware of where your viewers are likely to leave and make sure you run mid-roll ads before that point to maximize impressions.

Likewise, to increase the stickiness of your site, make sure to make recommendations before viewers are likely to leave, or risk them not being seen.

HOW DISCOVERY HELPS KEEP VIEWERS ENGAGED

One of the best ways to prevent dropoff from happening is through personalized recommendations, which can be crucial for companies with deep content libraries, to extend customer engagement and make sure valuable assets can be easily discovered and consumed.

There were more than 400 original scripted series on U.S. broadcast TV, pay-TV and Internet TV in 2015, the most ever. Add deep libraries of older content, programming created for traditional TV in other markets, and the thousands (tens of thousands?) of other assets created — short-form, reality shows, concerts and sporting events. The result? Think of a restaurant menu the size of a telephone book… somewhere there is a dinner you'll love, but finding it will take, well, forever. It's easier to try another restaurant.

Serving up personalized recommendations has a positive impact on time spent within an app or website, the number of videos viewed, and the number of ads shown — all having a direct correlation to revenue and loyalty. And knowing when viewers are dropping off from any particular type of video can inform decisions on when and where to display video recommendations. It's not always about displaying options on the end screen, but other options such as displaying when a viewer pauses or forwards through a video, or overlaying recommendations during the viewing experience, can net great results.

Here's a look at the impact personalized recommendations, collected from a cohort of Ooyala clients utilizing Ooyala Discovery, our data-driven recommendation engine, had during Q1.

Discovery starts ratio shows how often a recommended video actually plays, relative to the number of times recommended videos are presented to the user. For example, if a viewer is shown recommended videos 10 times and plays four, that's a Discovery starts ratio of 40%.

In our recent look at Discovery starts ratio, the overall average was 40%, a similar figure to the ratio we observed a year ago, and one that leads to significantly increased engagement time, and opportunities for additional ad views.

Lift measures Discovery-driven plays as a percentage of organic video plays. We found lift averaged nearly 10%.

Time lift measures the amount of viewing time of Discovery-recommended videos, as a percentage of organic view time. Maximum lift for one customer was 23%, while the overall average was more than 6%.

THE BOTTOM LINE

Know your customers, likes — and dislikes — to keep them coming back… and staying longer.

Discovery tools are the keys that unlock better viewing experiences and ensure longer engagement.

The more time a viewer spends with your content, the more ads they'll potentially see.

Next, we'll look at how the overall quality of experience – one key factor in retaining viewers – impacts engagement.

DISCOVERY STARTS

40%

LIFT

10%

TIME LIFT

6%

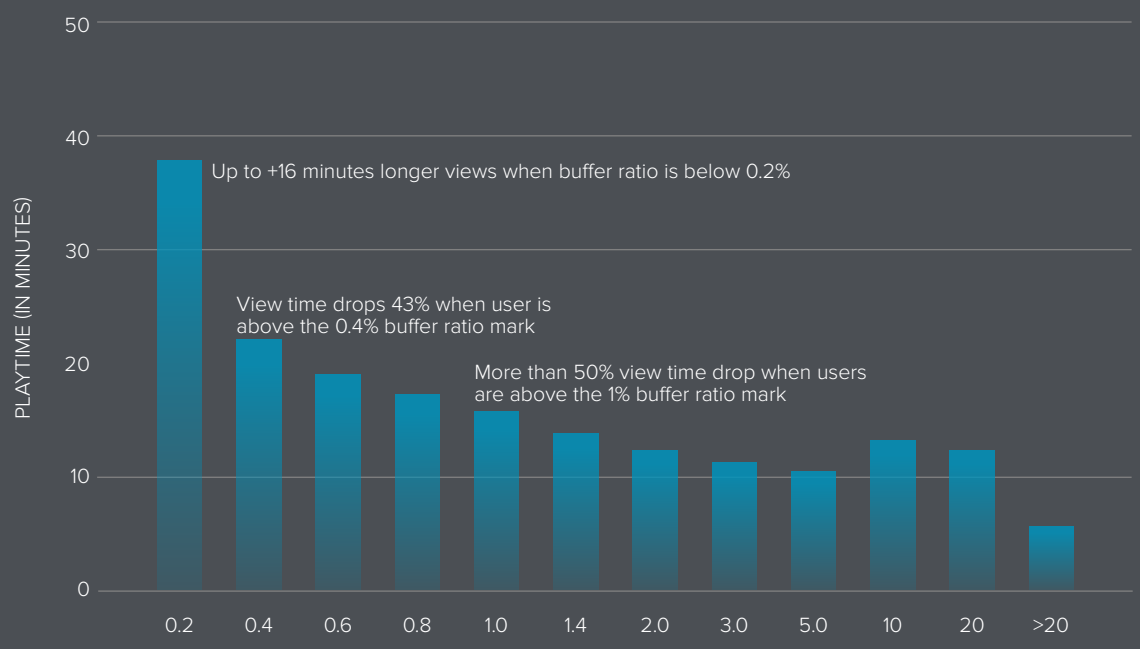
HOW QOE IMPACTS ENGAGEMENT

Among the many challenges that service providers and content owners face is making sure users have a quality of experience (QoE) when watching streaming video that is as "TV-like" as possible. Anecdotally, many industry pundits will tell you that viewers have come to expect "Five 9s" performance – .99999 quality — during their streaming sessions.

But the reality is that viewers are more forgiving for certain types of content than for others. Knowing the difference can help when it comes to assigning assets and deciding when to stretch your capabilities.

We worked with Nice People at Work (NPAW), an Ooyala technology partner, to shared some insights on viewer behavior and reaction to delivery issues.

Aggregated data on live streaming and video-on-demand from four companies that stream live sports content and five broadcasters and SVOD platforms — comparing data on buffer ratio, join time and average bitrate — found that viewers watching live events — generally — will tolerate more of, well, everything, than for VOD content. Viewers may value live sports more than VOD — at the moment an event is happening — and thus be willing to "fight through" issues to watch.

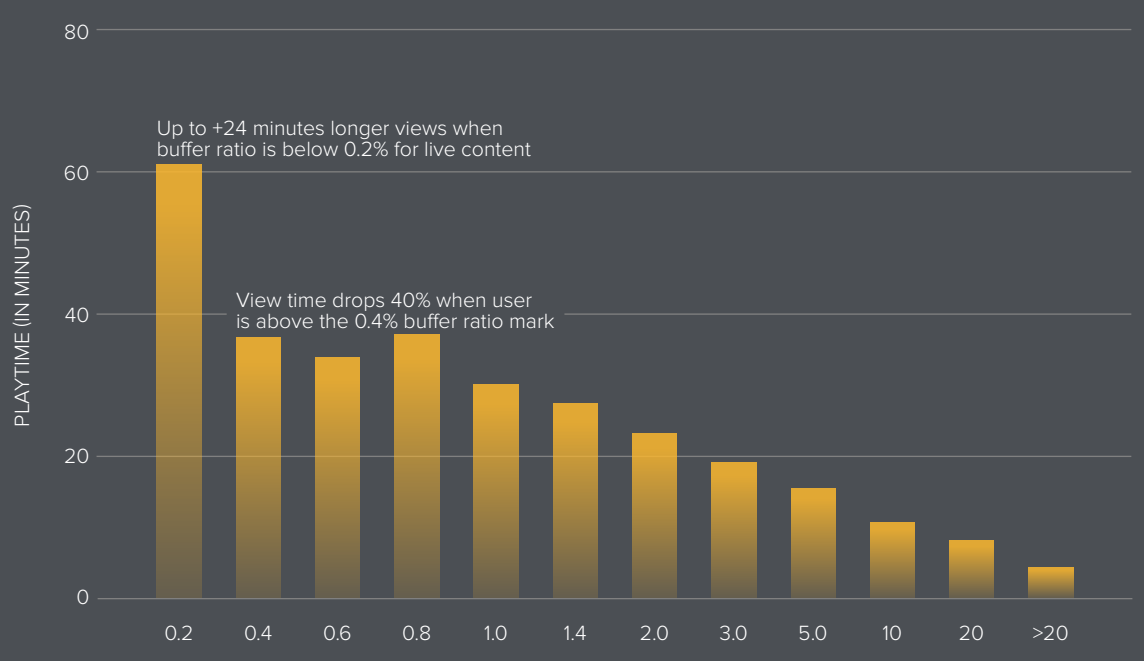


BUFFER RATIO VS. PLAYTIME (VOD)
Q1 2016

BUFFER RATIO

The data shows that low buffer ratios — the time on buffer divided by session time — increase view time. A ratio below 0.2% for live video can maximize playtimes, with some live content seeing increases of as much as 120 minutes per session (content dependent). Conversely, if your content buffer ratio rises to 0.4%, viewing time can drop by as much as 40%.

For VOD content, a buffer ratio of 0.2% also results in longer viewing, but less than live; viewers extend their viewing +16 minutes. Higher buffer ratios result in slightly higher drops. At 0.4% buffer ratio, view time decreased 43%. When buffer ratio increases to 1%, however, view time plunges to more than 50%. QoE is critical for VOD providers because you can lose engagement with your audience in a specific region, device, ISP or CDN (if you are multi-CDN) entirely.



BUFFER RATIO VS. PLAYTIME (LIVE)
Q1 2016

HOW QOE IMPACTS ENGAGEMENT

JOIN TIME

The impact on viewers of join time — the initial buffer of content at the start of a session — varies greatly, but, again, is highly dependent on the kind of content being streamed.

For live content, data shows little decrease in play time until the 25–30 second mark, at which time as many as 40% of viewers will abandon the video.

That decrease in viewers happens much more quickly when it comes to VOD content, especially on PCs. Some 40% of viewers will drop on PCs when join time reaches just six seconds. But viewers tolerate longer join times when they are on smaller devices — live smartphones and tablets — which show no clear drop-off.

AVERAGE BIT RATE

As with buffer ratio and join time, viewers tend to be far more forgiving when it comes to average bit rate with live video; most viewers tend to accept the bit rate they are served, without a significant impact on viewing time. But higher bit rates, 2.8 Mbps and above, do have a positive impact on viewing time.

THE BOTTOM LINE

Viewers are becoming less tolerant of QoE issues, but there is some wiggle room, especially when it comes to live content. While viewers are more patient for buffer ratios during live streaming, there are limits to their willingness to wait that can cost you up to 40% of your audience if they are exceeded and, potentially, cause you to lose subscribers.

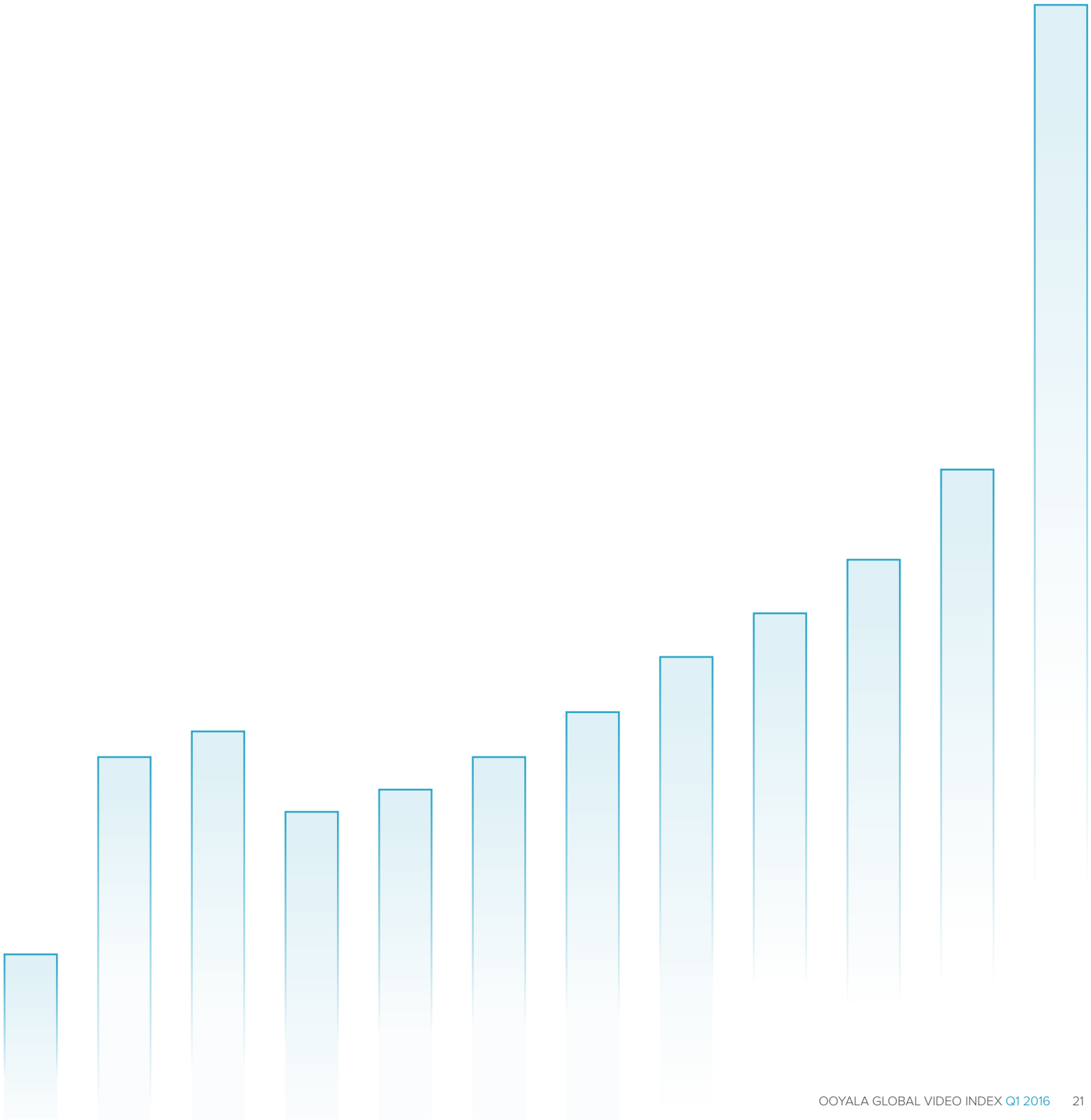
For VOD content, those limits are much shorter, and the drop-off more abrupt. The added impact, of course, is fewer ads served, given the audience engagement lost.

Know how much your audience will tolerate and make sure you deliver more than you promise.

In terms of join time, data shows the threshold is higher for live than VOD. Users waiting for live streams to begin generally are more patient, and will wait for up to 25 or 30 seconds — if they have no other way to watch the content. Regardless, at the 30-second mark they begin abandoning their efforts... in droves. Hit that mark and you stand to lose 40% of your audience.

When it comes to average bit rate, the operating concept is this: Deliver the best stream possible at higher bit rates to devices that can consume them for live, as very high quality will keep viewers engaged longer.

In general, on all three QoE metrics, consumers using smaller devices like smartphones and tablets are more tolerant than are users on computers and connected TVs. But a look to the future would suggest that even smartphone users will expect higher-quality streams, disengaging if they don't get them.



TABLET AND SMARTPHONE VIDEO TRENDS

The first quarter of 2016 continued to see consumption of video on mobile devices grow as global ownership of smartphones reached more than 56%, up from 42% at the end of 2013, according to ZenithOptimedia. Global penetration of smartphones is forecast to reach two of every three people in the world by 2018.

Ooyala's Q1 numbers showed that mobile video made up 48% of all video views in the quarter, up 14% from a year ago and up 129% from 2014.

While smartphone views make up the lion's share of mobile viewing, it's interesting to note that views on tablets have continued to rise over the past couple of quarters.

Q1 saw tablets make up 18% of all mobile views, up from 14% in Q4 and 12% in Q3. A case can be made that growing consumption of videos on tablets has been driving overall consumption on mobile devices for the past several quarters.

Aside from the increase in tablet plays seen in Q1, views on tablets made up 14% of all mobile views in Q4 2015 and 12% in both Q3 and Q2 2015.

Prior to that, tablet views as a percentage of mobile views had been falling steadily since Q4 2013.

CAN TABLETS MAKE A COMEBACK?

Although the growth of tablet sales has slowed, they're far from dead. An entire generation of young consumers is being introduced to them as grade schools — particularly in the U.S. — distribute tablets to primary students.

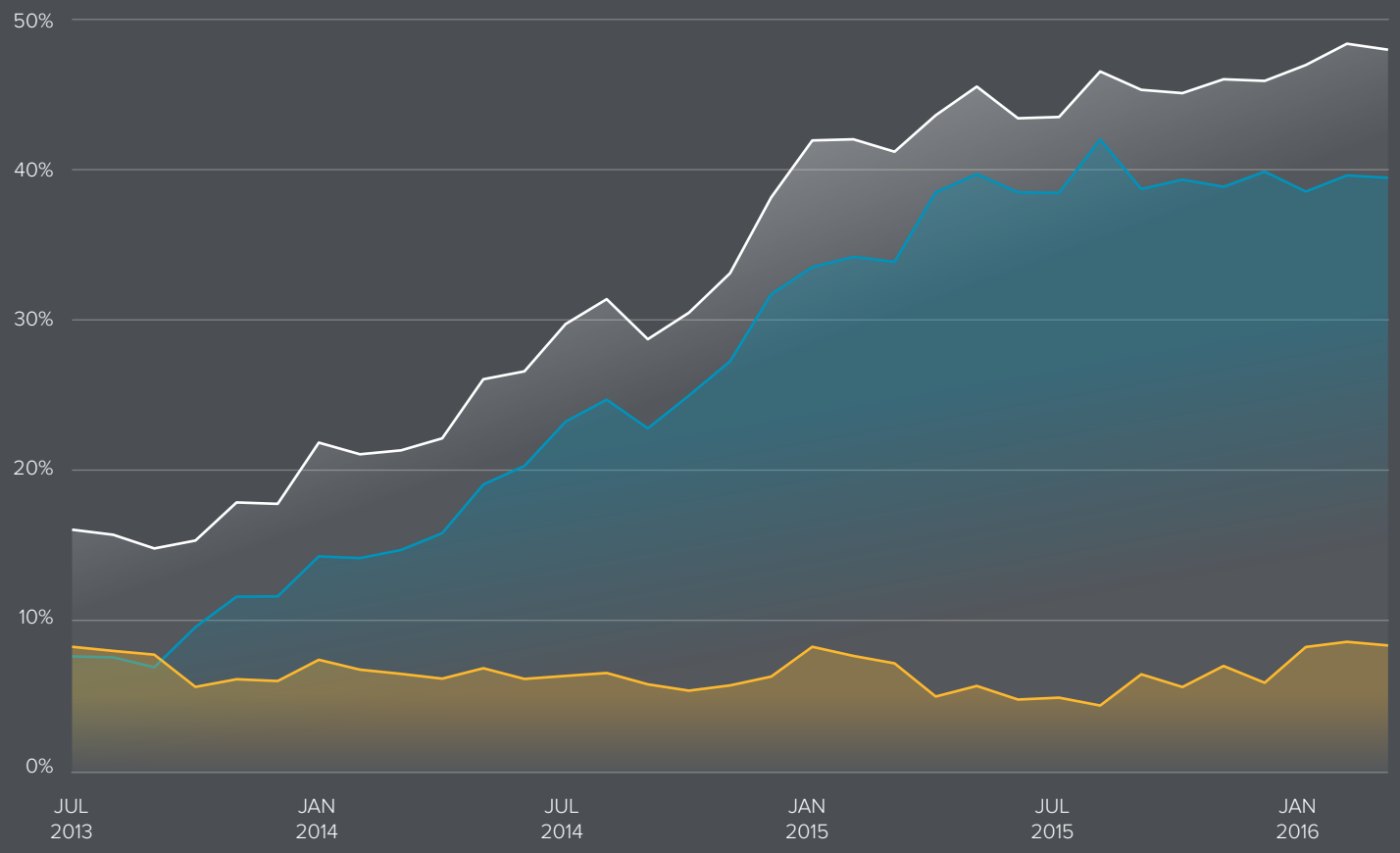
Digitimes Research forecasts the 2016 decline in global sales at less than 5%, with shipments stabilizing — and increasing slightly — in 2017, 2018 and 2019. In each of those years, sales are forecast to exceed 175 million units.

THE BOTTOM LINE

There are some Chicken Littles out there saying the sky is falling for mobile phones and tablets. Apple's iPhone had one of its worst sales quarters ever, and tablet sales continue to sink. But look beyond the surface and it's evident that phone and tablet penetration is the cause of slowed sales, not disaffection with the devices. In multiple territories, smartphone penetration exceeds 90% and tablets are nearing 50%.

A mobile-first strategy is crucial for content owners and operators looking to reach the critical Millennial market — as well as the Gen Edge demographic that's coming up next.

And the more premium content you make available on mobile devices, the higher your consumption will be.



THE RISE OF MOBILE VIDEO
Q1 2016

SHARE OF PHONE VIDEO PLAYS
SHARE OF TABLET VIDEO PLAYS
SUM OF PHONE + TABLET VIDEO PLAYS

SPOTLIGHT ON LATIN AMERICA

In each of the past two quarters, we've highlighted data from different regions. In Q3 2015, we looked at over-the-top video in Europe, and in Q4 2015 we looked at how OTT was consumed in the Asia Pacific Region.

For Q1 2016, we've focused on nine countries in Latin America that see a lot of traffic across our video footprint: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Peru and Puerto Rico.

Here's what we saw.

DEVICE USAGE

Latin American device usage reflects a similar pattern to the rest of the world, with mobile devices taking a growing segment of video views.

Smartphones saw 37% of all video views in LatAm, just 2% less than the 39% in ROW. About 11% of views were on tablets, 2% more than the ROW.

The result? Slightly more than 48% of all views are on mobile devices, dead even with the rest of the world.

But the distribution of tablet, smartphone and PC views varied greatly across the region.

In Peru, Colombia and Brazil, for example, PCs ruled with more than 57% of all views.

Puerto Rico, meanwhile, had a whopping 64% of video views on mobile devices, with Costa Rica at 61%, Panama at 60%, Mexico at 57% and Chile also above the region's average at 55%.

Tablet views were equally as scattered, with Brazil seeing 12% and Mexico 9%, while Panama, Chile and Costa Rica came in at 2%.

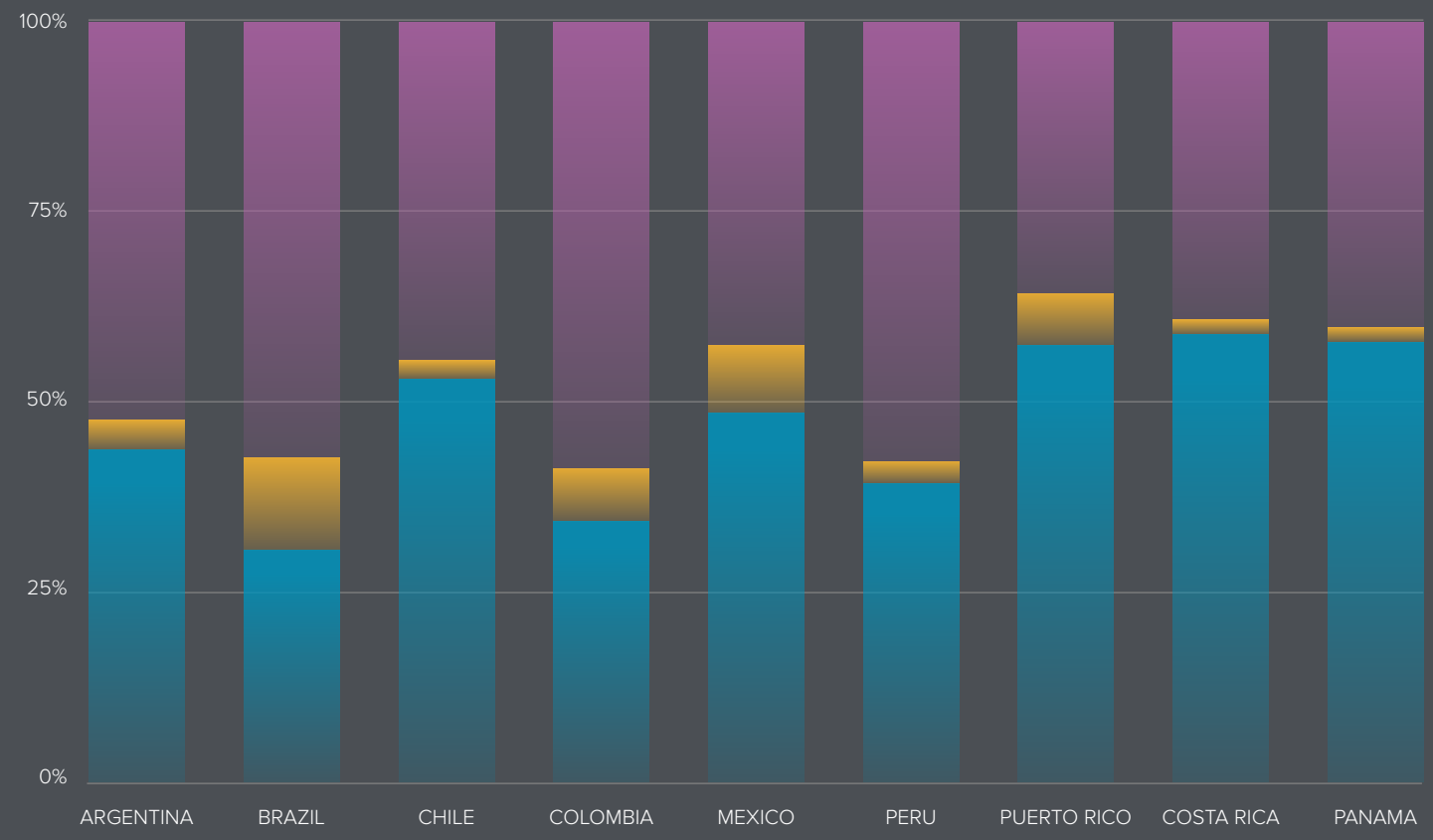
Much of the variation is due to lack of robust fixed broadband networks in some areas, and aggressive mobile deployment by operators, swinging more users to mobile networks than to fixed line. In 2011, for example, the number of mobile connections in Latin America eclipsed the number of fixed broadband connections. In fact, Brazil, Mexico, Argentina, Colombia and Venezuela have 5X as many mobile broadband connections as fixed-line connections.

LatAm's mobile market is taking center stage. It's poised to be the second-largest smartphone market in the world (behind Asia Pacific) by 2020 with more than 605 million smartphones, according to the GSMA, a global trade organization for the mobile industry. They estimate that 50% of the population will use smartphones to access the Internet by 2020, compared to 35% today, with the total rising by some 105 million users to 321 million.

PricewaterhouseCoopers said the region's market was becoming "one of the most-watched markets in the industry," driven by government privatizations and liberalizations throughout the region in the 1990s. "A combination of trends — economic growth, consumer demand and further regulatory changes — is moving countries across Latin America to continue investing and innovating to meet the communications needs of consumers and businesses," PwC said. "In most of the countries, mobile and broadband offer major opportunities and are attracting competition not only from local operators, but also from abroad."

eMarketer, meanwhile, forecasts that the region will see smartphone penetration top 57% by 2019, with Chile at 73%, and Colombia and Mexico at 70% each.

Tablet usage in Latin America also is on the rise, forecast to reach 23% of the population by 2020. Currently, there are roughly 109 million tablet users in the region, with eMarketer forecasting that to exceed 147 million by 2020. Mexico has the second-highest number of tablet users, 27.9 million, compared to Brazil's 41.3 million, but leads the region in terms of penetration.

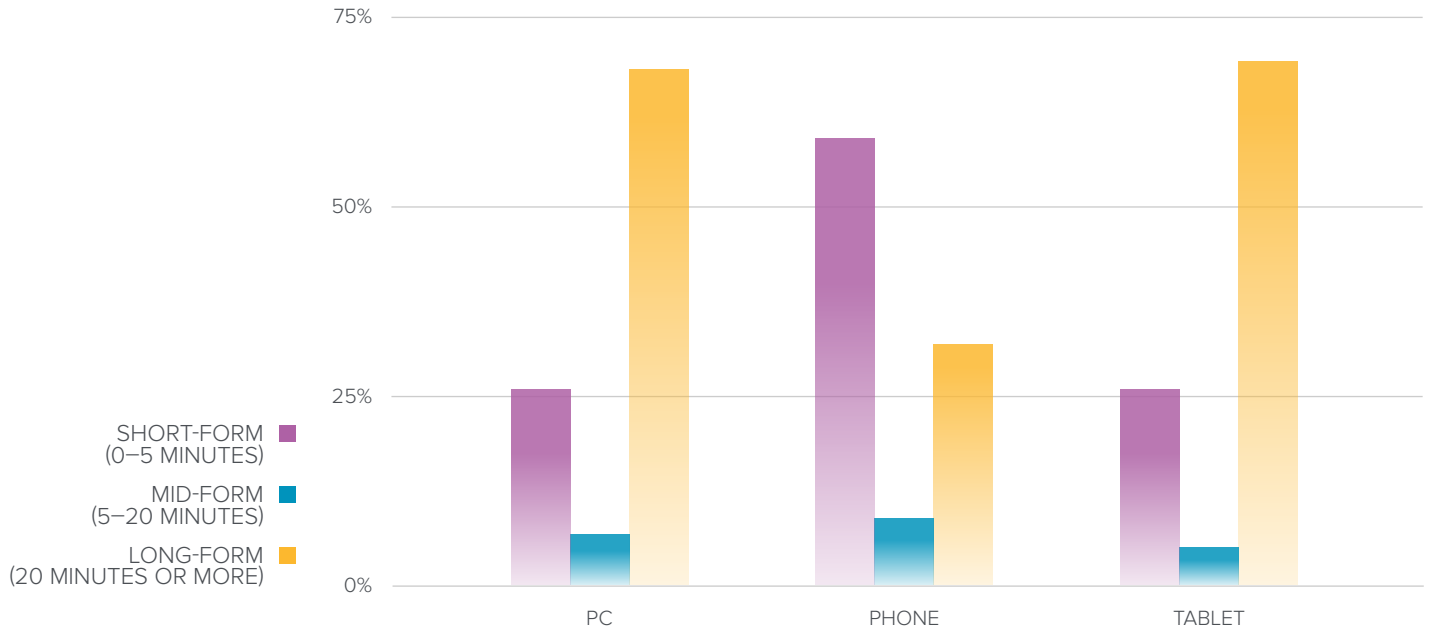


LATAM: ENGAGEMENT BY DEVICE

FOR COUNTRIES WITH THE MOST VIDEO VIEWS IN OOYALA'S FOOTPRINT

Q1 2016

PHONE
TABLET
PC



LATAM: SHARE OF TIME WATCHED BY DEVICE AND VIDEO LENGTH Q1 2016

SPOTLIGHT ON LATIN AMERICA

TIME WATCHED

Latin America also followed the ROW in terms of watching longer video on the best screen available, generally.

While in the ROW, 83% of video watched on connected TVs is long-form (20 minutes or more in length), in Latin America it's a whopping 99%. Only 1% of viewing time on connected TVs is spent with medium-length video (5–20 minutes).

Tablets were next at 69%, followed by PCs (69%) and smartphones (32%).

In the ROW, 51% of video watched on tablets was long-form, followed by tablets (51%), PCs (35%) and smartphones (29%).

Where medium-length video (5-20 minutes) also saw plenty of viewing time on tablets in the ROW (16% mobile, 14% PCs and 12% tablets), the Latin American share among mobile, PCs and tablet devices was just 5%, 7% and 9% respectively.

More than half (59%) of mobile video time watched was with short-form video (0–5 minutes), similar to 55% for the ROW.

Time spent watching video on PCs, meanwhile, was only 26% in LatAm, about half that for the rest of the world.

THE BOTTOM LINE

Latin America is, in many ways, a textbook example of the OTT revolution as it plays out in emerging markets. Many operators in the region are assuming a mobile-first strategy and placing more traditional fixed broadband deployments on the back burner.

As more — and likely less-expensive — mobile devices flood the market, the trend toward mobile video consumption will accelerate. Publishers, broadcasters and operators will need to keep pace.

As in Asia, which also is seeing rapid mobile development, getting content on mobile devices isn't just about appeasing Millennials, but about reaching an audience that is rapidly migrating to an OTT ecosystem.

ABOUT OOYALA'S GLOBAL VIDEO INDEX

This report reflects the anonymized online video metrics of the vast majority of Ooyala's 500+ customers, whose collective audience of hundreds of millions of viewers spans nearly every country in the world. This report does not document the online video consumption patterns of the Internet as a whole. But the size of the Ooyala video and advertising footprint, along with the variety of our customers, results in a representative view of global consumption and engagement trends.

ESPN, Univision, Sky Sports, Foxtel, NBCUniversal, RTL (Germany), M6 (France), TV4 (Sweden), Mediaset (Spain), STV (UK) and Singapore's Mediacorp: these are just a few of the hundreds of broadcasters and media companies who choose Ooyala.

Ooyala is a subsidiary of Telstra, the largest telecommunications company in Australia, providing fixed and mobile services to millions of consumers, as well as advanced network applications and services to enterprise clients in Australia and overseas.

Headquartered in Silicon Valley, Ooyala has offices in New York, London, Stockholm, Sydney, Tokyo, Singapore, Cologne, Paris, Madrid, Chennai and Guadalajara, and sales operations in dozens of other countries across the globe.

For more information, visit **www.ooyala.com**.