



GLOBAL VIDEO INDEX

Q4 2016



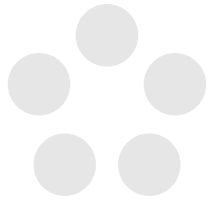


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POINT OF VIEW

JIM O'NEILL, PRINCIPAL ANALYST &
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After pulling the data for this report, my colleague, data scientist Ricardo Vazquez Sierra asked me, “Do you think it will ever stop growing?”

The short answer? “No.”

His question, of course, was about mobile video views, which in Q4 increased another two percentage points from the previous quarter to make up more than 54% of all video starts we tracked between October and December. It's the third quarter in a row that's seen smartphones and tablets collect more than half of all online video plays globally.

Mobile video — in one form or another — will continue to grow as younger users who have been tethered to their mobile devices since birth continue to play a larger role in the ecosystem. It also will grow as more operators look to mobile video for subscriber growth and profits à la AT&T and its DirecTV Now play, and as industry leaders Netflix and Amazon continue to tweak their massive services, offering more and more “content to go” via downloads for offline viewing.

More than 1.5 billion smartphones shipped in 2016, up 3% from 2015, with Apple — which became the world's leader in smartphone sales in Q4 — shipping 78.3 million handsets in that quarter (followed by Samsung at 77.5 million and Huawei at 44.9 million).

In its latest Visual Networking Index, Cisco posits that by 2021, “more members of the global population will be using mobile phones (5.5 billion) than bank accounts (5.4 billion), running water (5.3 billion) or landlines (2.9 billion).”

Over the past five years, we've always taken a global look at how viewers consume video. For Q4 2016, we're doing the Video Index a little differently: In addition to a global profile, we're also breaking out how online video performs in individual geographies, comparing how video is watched in North America, Latin America, EMEA and APAC.

A little peek at the bottom line: By and large, consumption is similar everywhere, but that's only true to a point. The difference between mobile plays in EMEA and North America is much larger than you'd imagine, especially when looking at content that's considered “global.”

In a word, we were somewhat surprised by the outcome. We think you will be too.

HOW THE WORLD WATCHES VIDEO

2 + 1 = 3? Not always, as we discovered when we took a deeper dive on how the same batches of AVOD content are consumed in four regions across the world: APAC, EMEA, LatAm and North America.

For Q4's Global Video Index, we examined several large customers who distribute their ad-supported content in every geographic region. We were looking for patterns in how AVOD content performs in each region. We balanced general news content against entertainment, sports news and health news content to "normalize" distribution.

The results? Wow.

While mobile remains a lynchpin as far as the share of content plays on each device, it was notable that not every region performed as expected, including the largest market — North America.

Here's what we found:

OVERALL GLOBAL CONSUMPTION

On the whole, the content is consumed with gusto across all devices, but mobile devices saw 56% of all starts, similar to the numbers we saw in the quarter for all content.

Smartphones, at 45% of all plays, are just ahead of desktops, which saw 44%. Tablets pick up about 11% for the selected AVOD content, more than 3% ahead of its average for all video content. That's likely due to tablets being nearly universally used to "graze" a diaspora of

AVOD content from longer shows and movies to very short content throughout the day, but especially at home.

APAC CONSUMPTION

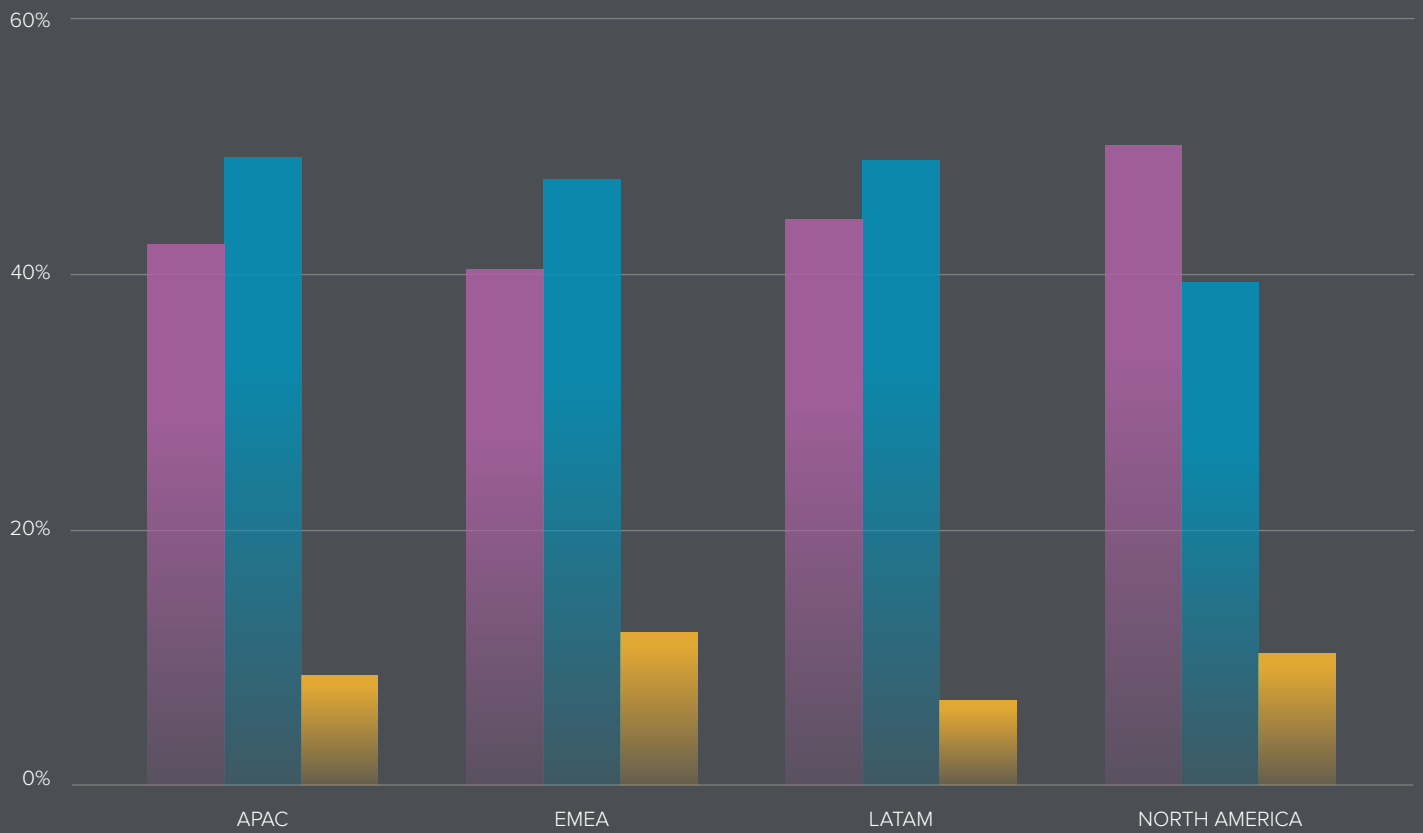
Viewers consuming the AVOD content in the Asia-Pacific and Japan region showed an ever higher predilection toward mobile devices, especially smartphones. That's not too surprising since, in many of the region's countries, mobile networks perform better and are deployed more widely than fixed networks, a nod to both economics and difficult terrain.

That broad, regional mobile device deployment is evident in the share of content plays on smartphones in Q4 — more than 49%. Tablets added nearly 9% more, giving mobile 58% of all video plays in the region.

Desktops, meanwhile, came in at just 42%.

A significant segment of consumers already tends to be mobile-centric, with smartphones especially prevalent and penetration rising quickly. In 2017, the number of smartphone users in APAC is expected to reach 1.25 billion, up from 888 million in 2014. By 2019, that number is expected to reach 1.48 billion.

South Korea's 88% smartphone penetration is the highest in the world, followed by Australia at 77%. Malaysia — at 65% — also has a Top 10 smartphone penetration rank.



CONTENT CONSUMPTION:
A DIFFERENT PROFILE IN EVERY REGION
Q4 2016



- PC ■
- PHONE ■
- TABLET ■

EMEA CONSUMPTION

EMEA's mobile usage for the content examined actually was higher than any other region we looked at. Nearly 60% of all video plays for the selected content were on mobile devices. Smartphone plays topped 47% and plays on tablets came in at more than 12%, the highest of any region.

EMEA countries have some of the highest penetration rates for tablets, according to eMarketer. In Western Europe, for example, countries with the top tablet penetration include the United Kingdom (66%), Netherlands (66%), Norway (65%), and Denmark, Ireland and Sweden all at 62%. As a whole, Western Europe neared 57% in 2016 and is expected to surpass 64% by 2020.

An estimated 179 million consumers owned tablets in the region.

Western Europe for the past few years has seen tablet usage grow explosively, up nearly 30% in 2014, 12% in 2015 and more than 9% last year. Although usage growth is expected to continue slowing, it still is forecast to exceed 5% for the next two years.

By contrast, desktop plays of the study's content came in at just 40%, the lowest among all regions.

LATIN AMERICA CONSUMPTION

As expected in Latin America, which has seen some of the fastest smartphone growth in the world, mobile consumption of the group's content was quite high. In fact, plays on mobile devices were nearly 56%, which was behind APAC and, surprisingly, EMEA.

Plays on smartphones were nearly even with APAC at nearly 49%. Plays on tablets had only 7% of share, behind every other region, and significantly trailing the overall average for the selected content of more than 10.5%.

The region's 44% share of plays on desktop devices was spot on the overall average for the content across all regions.

As in APAC, users in Latin America are being directed toward mobile as a primary screen because it's the technology that's quickly becoming most easily accessible due to its lower cost of deployment in more remote areas and the consumer choice to opt for a mobile device rather than a larger screen tied to a spotty — and often expensive — wired network.

NORTH AMERICA CONSUMPTION

The headline? North America had the lowest share of mobile plays among all regions for the content studied at just under 50%.

Its 49.9% was six percentage points (PP) behind the overall average of 55.9%, and nearly 10 PP behind EMEA.

North America's share of smartphone plays (39%) was below every other region, although tablet plays came in at better than 10%, essentially tied with APAC.

Desktop plays? A hair over 50%, six PP higher than LatAm and the overall region's average of 44%.

Industry group GSMA said 75% of North America's mobile phones were smartphones, with 80% of adults having a mobile phone. An estimated 229.3 million consumers used smartphones last year, a number expected to swell to 262 million by 2020.

Millennials, obviously, are primary users, with 97% in the United States between 18 and 44 years old owning smartphones.

They're not alone. Other generations also have predominantly switched to smartphones. In the 45–54 age group, 89% own smartphones, among 55–64, 80% own smartphones, and even 68% of 65+ are smartphone owners.

THE BOTTOM LINE

If you're not offering all of your content on mobile devices, you're likely missing the lion's share of the market. As more operators offer unlimited data and more consumers acquire smartphones and tablets — even older consumers — users will look first to mobile devices.

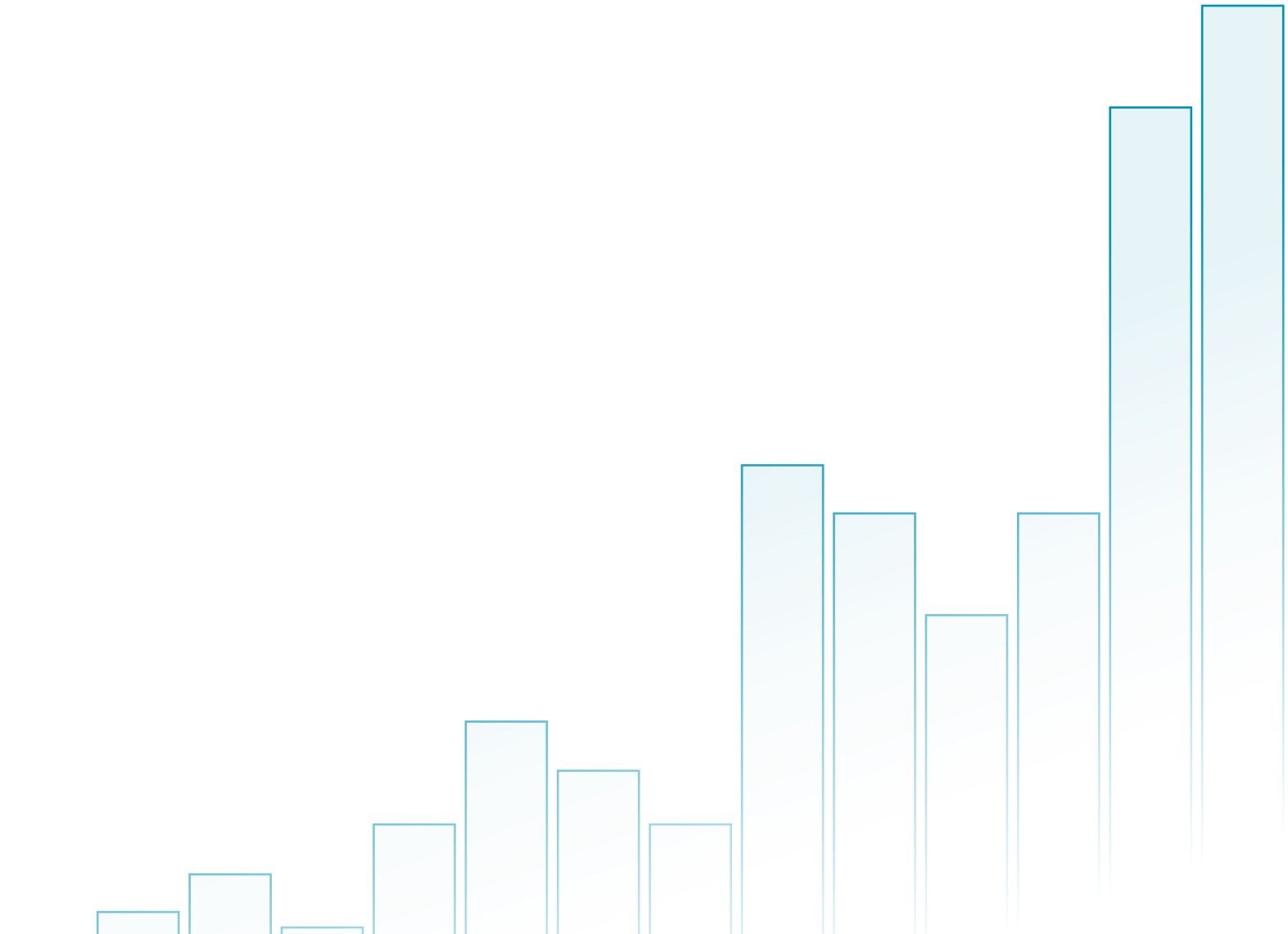
That holds true especially for shorter content like news and sports score updates, but increasingly is true for more niche content like health news, entertainment news, business news and even live events, especially content that is ad-supported.

An increasing amount of premium content has been made available on OTT services, both SVOD and AVOD. How that SVOD/AVOD mix changes in the future is still evolving. Proponents of each already are declaring a winner. But, at Ooyala, we believe the eventual winner will be a hybrid of the two, with content owners monetizing across several dimensions to make sure they reach the largest potential addressable audience.

So, it's critical that you evaluate how you present your content, how you help viewers discover content and how you most efficiently keep them engaged.

It's clear mobile will continue to be a growing access point. But, especially if you're in search of a global audience, you need to know how viewers consume content not only on a regional basis, but likely on a country-by-country basis as well.

How? Data. But collecting reams of data points is just the beginning. You need to be able to utilize that data to make the kinds of decisions that will help you grow your business.



TABLET AND SMARTPHONE VIDEO TRENDS

Since the Video Index began in 2011, one metric has been a constant: the growth of mobile video consumption.

The fourth quarter was no different, as mobile continued to star. More than 54% of all video starts occurred on mobile devices. That's up from 46% a year ago, 34% in 2014, and just 17% in 2013.

More interesting is the last two months of 2016. In November, mobile video views jumped to 56% of all views and December saw mobile top 58%, the highest percentage of mobile video plays we've ever seen, likely indicative of a significant bump coming in 2017.

In past quarters, much of mobile's growth was spread between increases in both smartphone and tablet consumption. But virtually all of Q4 2016's growth came in the number of plays on smartphones. In Q1, smartphone starts were 39% of all plays, in Q2 it was 43%, in Q3 it was 44% and in Q4 it hit 47%. That's up eight percentage points over the course of the year, compared to a six percentage point increase in the previous year.

Plays on tablets remains relatively steady at 7.6%, just off the 8.0% average for the year. It is notable that tablets' share has declined steadily from Q1 when they stood at 8.5%.

In December, plays on smartphones alone soared to 49.5%, the highest percentage of video plays ever, adding a bit to November's previous best ever of 48.8%. Both numbers were influenced heavily by holiday sales that put more smartphones into consumers' hands. To put that into perspective, both numbers were higher than any previous total for all mobile devices prior to Q2 2016. Since 2012, January's percentage of plays that were mobile have increased at least 1% over the previous month.

Could January 2017 see 60% of all video starts being on mobile devices? Definitely.

In fact, look for mobile plays for Q1 2017 to grow an additional 4.5%, reaching nearly 59% of total video plays.

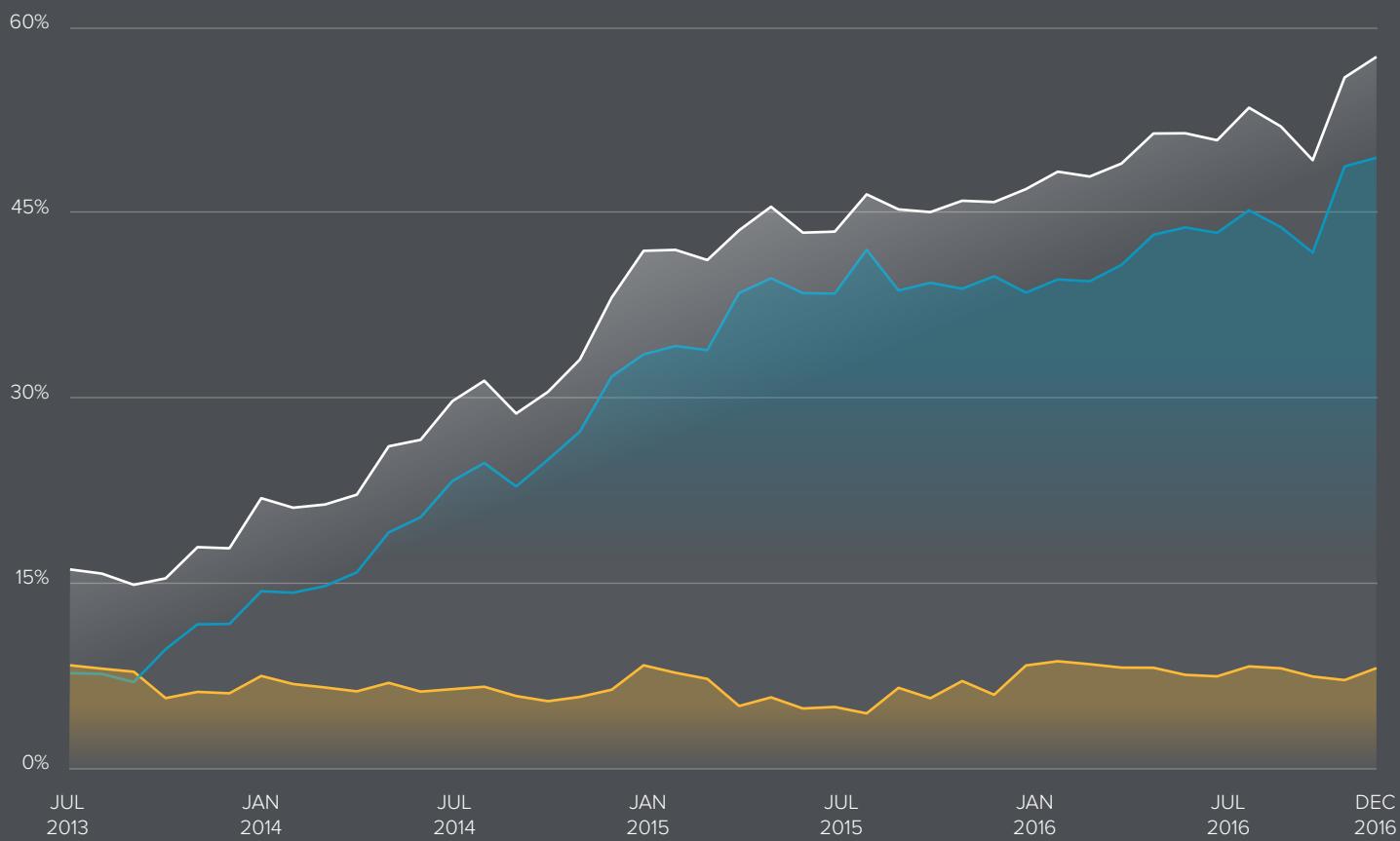
Globally, shipments of smartphones and tablets did slow somewhat in 2016, likely the result of insipid innovation. But with Apple looking to release an iPhone 8 in 2017 — its 10th anniversary phone — that growth might accelerate again. By 2020, the smartphone-installed base will exceed six billion units, up from four billion in 2016, a somewhat more bullish forecast from IHS.

Views on mobile devices will continue to grow as more premium content comes over the top to mobile devices.

Millennials long have been seen as the biggest consumers of mobile video, with Nielsen in its Q2 2016 Comparable Metrics report showing that among 18–34 year olds, weekly reach was higher on smartphones (60%) than for PCs (27%) and tablets (24%). But older consumers, increasingly, are acquiring smartphones; AARP — the American Association of Retired People — said 61% of Baby Boomers now own the devices. And that ownership is increasing their mobile video consumption. Nielsen, in its Cross Screen Reports series, points out that nearly three-quarters of Boomers in the U.S. watch at least some video on their smartphones, pointing out that consumption increased 163% — to 30 minutes — in Q3 2016 year-over-year.

The increase in consumption hasn't been lost on wireless carriers. Increasingly, carriers are looking to mobile video to entice new subscribers. U.S. carriers AT&T and Verizon and U.K. carrier Vodafone, for example, this year began offering unlimited data to users... all in the name of mobile video.

The future is mobile.



THE RISE OF MOBILE VIDEO

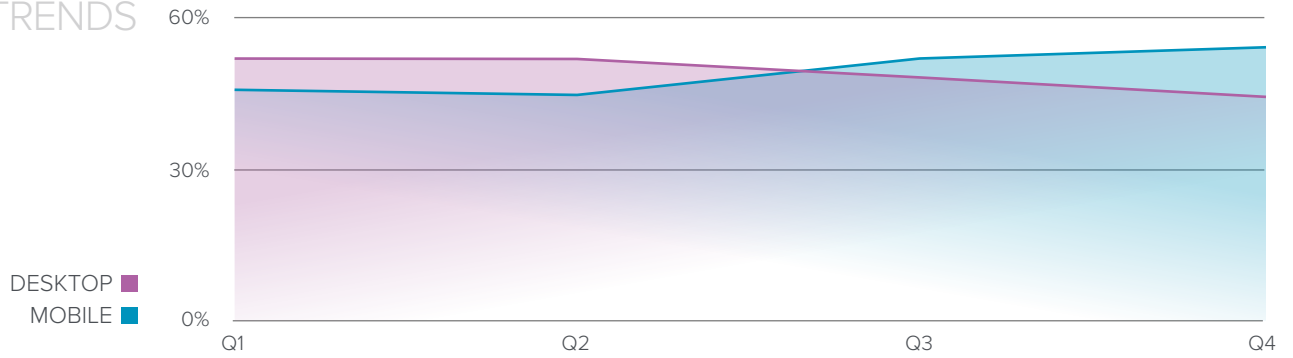
Q4 2016



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

TABLET AND
SMARTPHONE
VIDEO TRENDS

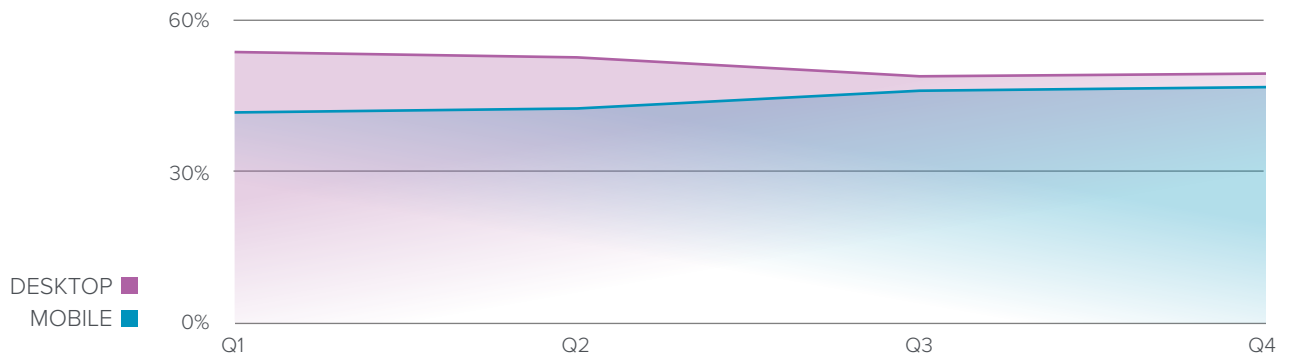
MOBILE VIEWING AROUND THE WORLD



DESKTOP VS. MOBILE SHARE
APAC Q4 2016



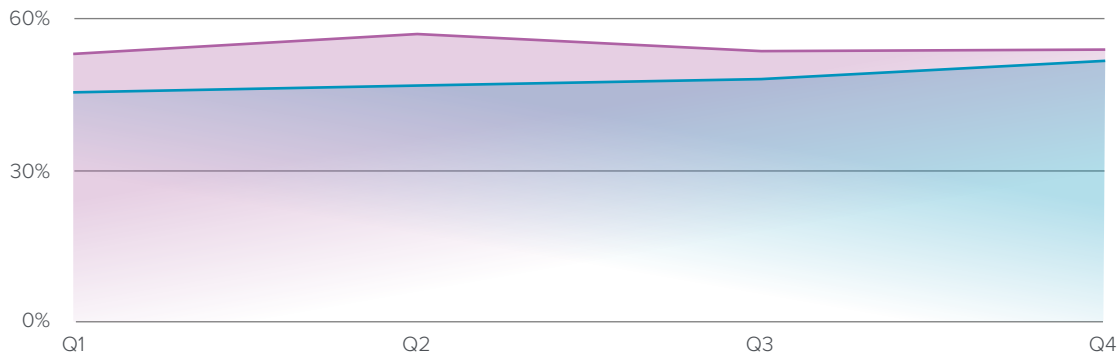
Mobile use in the **APAC** region saw strong growth across all of 2016. In Q4, median mobile views topped 54%, with December's median at 56%. APAC saw media mobile views cross the 50% threshold in July.



DESKTOP VS. MOBILE SHARE
EMEA Q4 2016



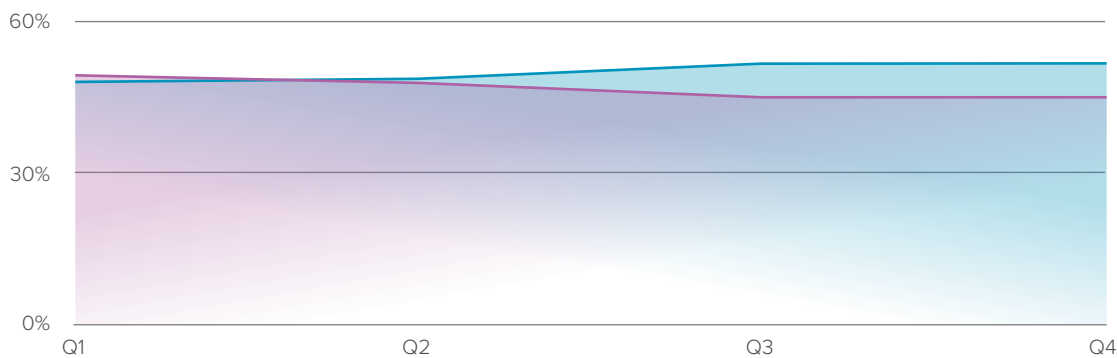
In **EMEA**, meanwhile, median mobile starts were just more than 40% to start the year but climbed steadily across the ensuing 12 months, ending the year at more than 48% compared to 47% for desktop screens.



DESKTOP VS. MOBILE SHARE LATAM Q4 2016



Latin America also showed steady growth through the year, with mobile views reaching a median of nearly 52% in Q4 after starting the year at 45%. Every month in Q4 was over 52%.



DESKTOP VS. MOBILE SHARE NORTH AMERICA Q4 2016



North America, as expected, showed a proclivity toward mobile use, with mobile outperforming desktop screens in virtually every month. Only three months saw desktop medians higher than mobile — February, March and May — and only by a small margin of about 2%. From June onward, mobile showed a decided edge, finishing the year with a 52% to 44% advantage.

THE BOTTOM LINE

Smartphones have become ubiquitous, common among all age groups in nearly every country on the planet. While the growth rate for both tablet and smartphones shipments has declined from their heyday, the sector is still growing at a moderate pace, and it's not expected to stop anytime soon.

Niche content providers were among the earliest content owners to get their assets onto mobile devices, and they've been able to reap some of the first-mover benefits. But, as major studios, broadcasters and operators jump into the fray, making your assets available on mobile devices won't be enough to guarantee success.

To stand out in the crowd — and to understand the consumer — you'll need to be able to draw critical insights from the data that you should be collecting on every one of your assets, looking at who's watching, the geos, the engagement and how they watch, all of which will allow you to better serve your customer.

And, as the ecosystem matures, it will be increasingly important to make use of social media, to enter the market with an adaptable marketing plan and to be ready to pivot as the market — inevitably — changes.

ENGAGEMENT TRENDS

On a global basis, it's a universal truth (not quite a theory, but close) that the longer the content, the more likely viewers will gravitate toward a larger screen.

In every Video Index since it began in 2011, connected TVs have seen the lion's share of long-form content consumption.

Q4 was no different. Nearly 96% — 95.88% to be exact — of time watched on connected TVs was long-form. Medium-length content of 5–20 min duration? Just 1.49%. Short-form time watched was just 2.63%.

Tablets, too, see a fair share of long-form content time watched, about 65%, with medium-form adding another 10%, meaning three-quarters of time watched on tablets is likely premium content from content providers looking to extend viewing experiences.

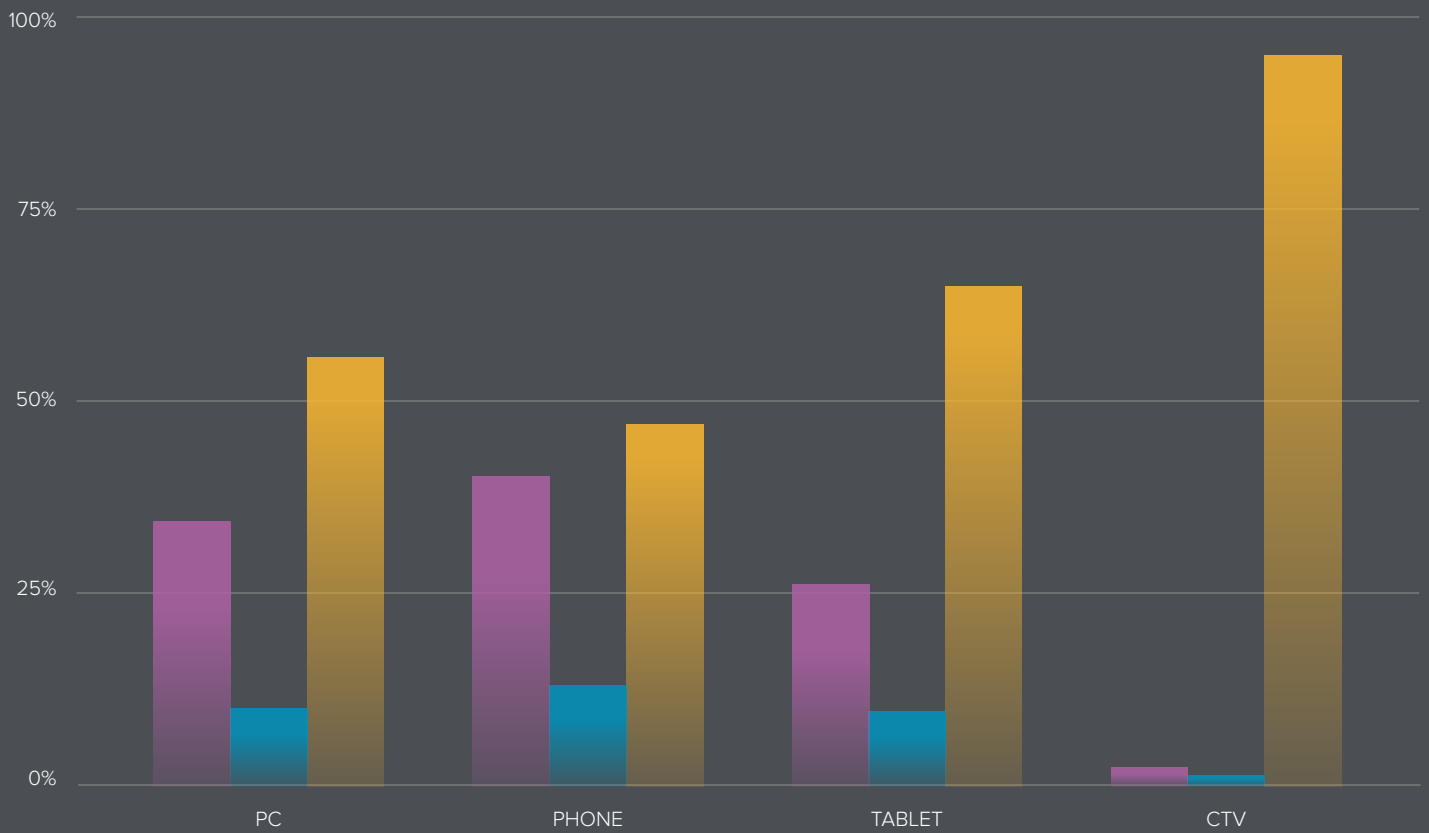
That shouldn't be too surprising, since a tablet's screen size and quality makes it a natural portable alternative to connected TVs and a replacement for older, un-connected TV sets around the home.

For all the studies that suggest screen size on smartphones are too small to allow regular consumption of long-form and mid-form content consider this: In Q4, long-form content made up more than 47% of time watched on smartphones, with mid-form content adding another 13%. Snackable, short-form content shorter than five minutes? Just 40% of time watched on mobile devices.

Those numbers are in line with ComScore reports that say consumers regularly stream Netflix content to their mobile devices, including half of Millennials, more than a third of Gen X subscribers and 30% of Baby Boomers.

Of course, desktop screens also have a place in the online video ecosystem. PCs were the birthplace of online video, with virtually 100% of content being short-form.

How times have changed. In Q4, long-form content and medium-form made up nearly two-thirds of viewing time, 66%. The remaining 34% was with short-form content, a dramatic change from just a couple of years ago.

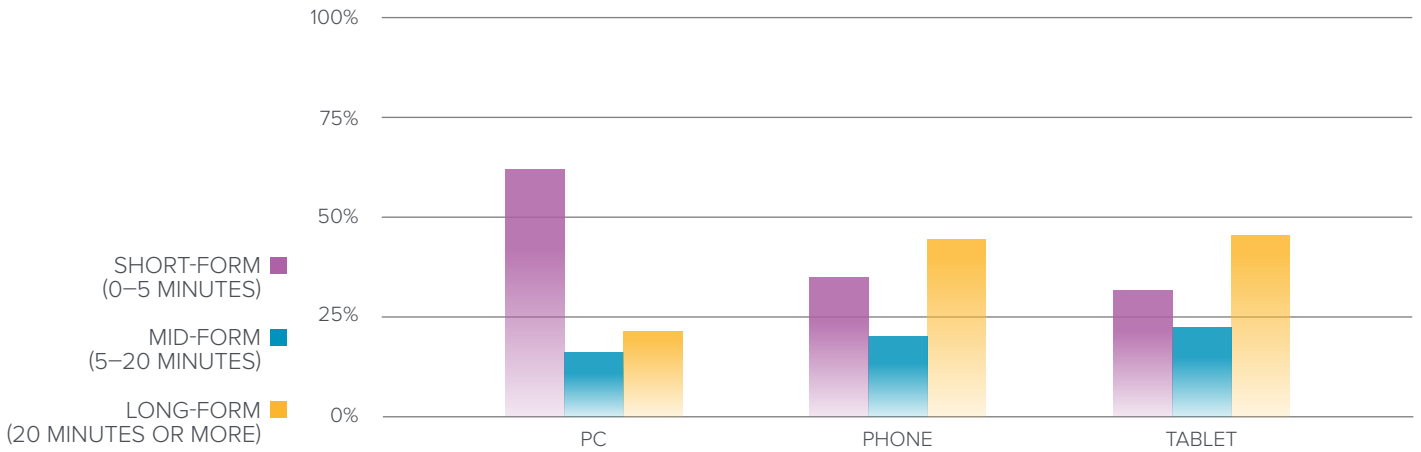


SHARE OF TIME WATCHED
BY DEVICE AND VIDEO LENGTH
Q4 2016



SHORT-FORM (0-5 MINUTES) ■
MID-FORM (5-20 MINUTES) ■
LONG-FORM (20 MINUTES OR MORE) ■

ENGAGEMENT TRENDS AROUND THE WORLD



TIME WATCHED BY DEVICE APAC Q4 2016



ENGAGEMENT TRENDS

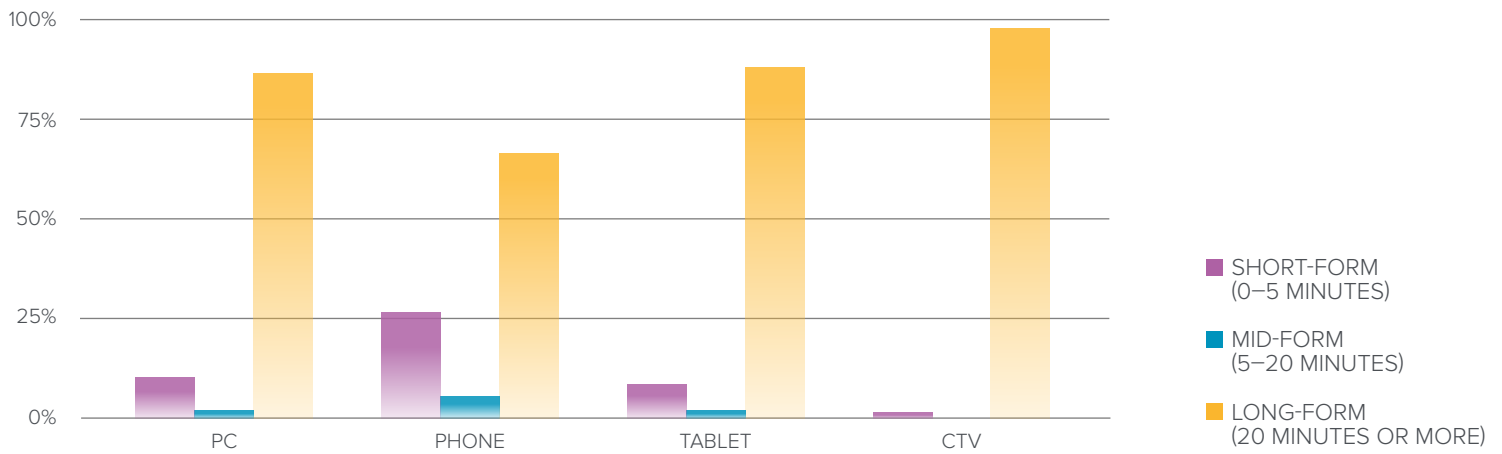
APAC'S MOBILE HABIT

Short-form content in the Asia-Pacific region makes up 62% of time watched on desktop screens, bucking the trends in other regions that see higher percentages on mobile devices, especially smartphones. In fact, APAC short-form viewing on desktop screens is 28 percentage points higher than the world average.

On the other end of the spectrum, medium- and long-form content make up just 38% of time watched on desktop devices in APAC, compared to 66% for the rest of the world (ROW). Long-form in particular — at 21% of time watched on desktops in APAC — is significantly less than any other region and 34 PP off the world average of 55%.

Time watched on smartphones for medium- and long-form content in APAC is 5 PP ahead of the ROW average, which is to be expected as the region is rapidly building out its wireless infrastructure and bypassing more cumbersome wireline expansion. More prosperous countries are rapidly expanding 4G, and in some cases more technologically advanced markets are in early 5G discussions. Verizon, for example, is planning a 5G trial deployment in the next several months, and early 5G already is available in at least one Nordic market.

But it's long-form and especially medium-form content watched on tablets that really underlines just how focused APAC is on mobile devices. The region's time watched of medium-form content — the most common content available — is more than 2X that of ROW, while its time watched of long-form content is 19 PP lower than the global average.



TIME WATCHED BY DEVICE EMEA Q4 2016



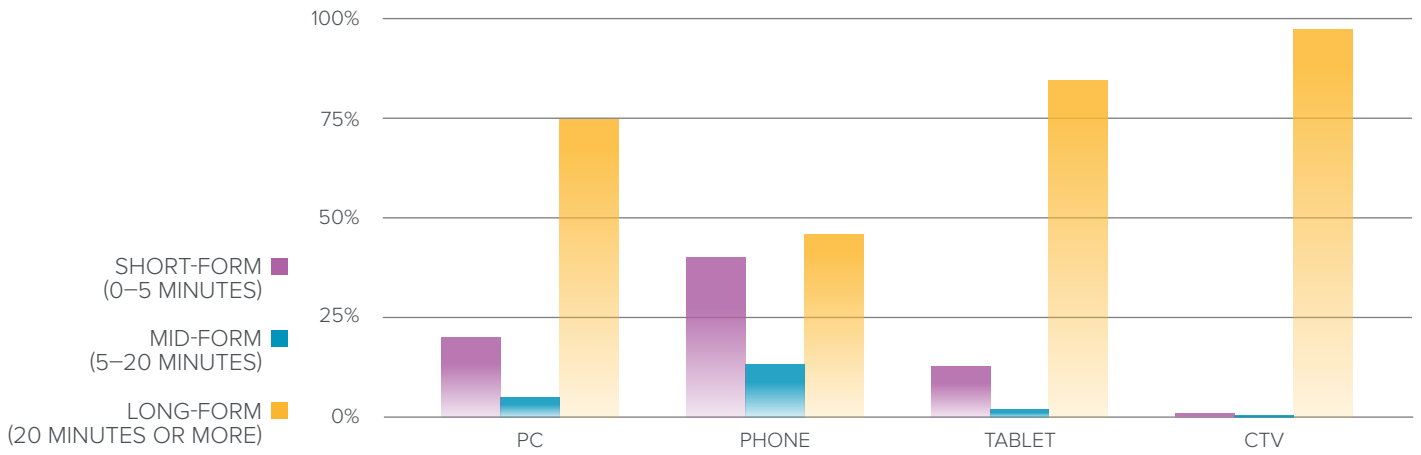
IN EMEA, LONG-FORM IS KING

In EMEA, long-form content makes up the dominant viewing time on every device, with time watched on connected TVs (98%), tablets (89%), desktop (87%) and smartphones (67%) exceeding time watched averages for ROW... in some cases by quite a lot.

With time watched at 89%, EMEA viewers exceed long-form time watched by ROW on connected devices by 2 PP, desktops by 12 PP, on smartphones by 20 PP and on tablets by a whopping 24 PP.

Interestingly, EMEA time watched for medium-form content is significantly behind ROW. On PCs and tablets, medium-form time watched is just 20% of ROW, smartphone time watched is about half, and connected TVs are below 1% (a trait shared by nearly every region).

Long-form time watched is so dominant that EMEA falls behind world averages sharply in terms of time watched for short-form content, with 27% for smartphones, 10% for PCs and 9% for tablets.



TIME WATCHED BY DEVICE LATAM Q4 2016



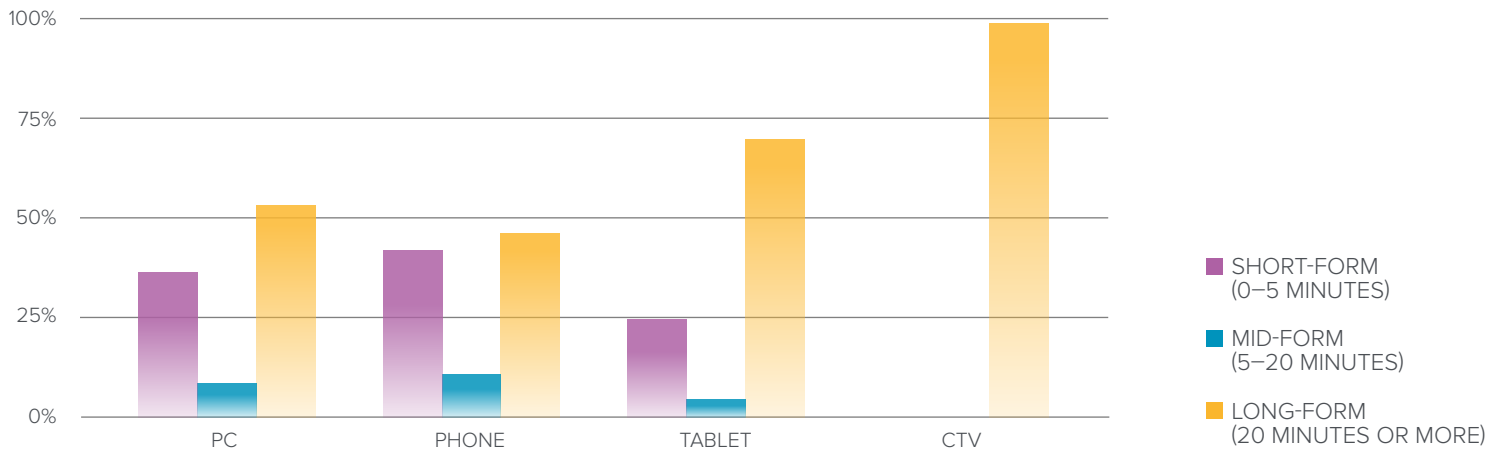
ENGAGEMENT TRENDS

LATAM TOPS ROW IN TIME SPENT ON LONG-FORM VIEWING

Latin America, like EMEA, also has a higher-than-normal time watched for long-form content on almost all devices, staying neck-and-neck only with smartphones. Its 98% of time watched on connected TVs is 2 PP higher than ROW; its 84% for tablets beats ROW by 19 PP and its 75% for desktop screens is 20 PP higher than ROW. Only smartphones (at 46% vs. ROW's 47%) are close.

Medium-form content time watched in Latin America, again, is similar to EMEA in its dissimilarity to ROW. Viewers' time watched for medium-form on PCs was 50% of ROW, 20% for tablets, and was equal for connected TVs. Latin America's love affair with its soap operas likely helped it to a slightly higher time watched on tablets, a perfect screen with which to watch the grand dramas.

Short-form content time watched, meanwhile, showed it had more in common with ROW than EMEA or APAC, at least in terms of smartphones where it showed 41%, compared to 40% for ROW. But the dominance of long-form time watched left LatAm trailing in terms of PC time watched (20% vs. ROW 34%) and tablet time watched (13% vs. ROW 26%).



TIME WATCHED BY DEVICE NORTH AMERICA Q4 2016



NORTH AMERICA IS ALL ABOUT LONG FORM

Like their cousins in EMEA and LatAm, North American viewers are addicted to long-form content, with time watched on all devices equal to or ahead of the rest of the world.

Long-form time watched on connected TVs (100%) and tablets (70%) exceed ROW averages; time spent viewing long-form on smartphones matches ROW average and only desktop viewing is off the average (by 1 PP) for ROW.

Market size matters, and the North American online video market remains the largest in the world (aside from China, which isn't included in the Video Index).

But North America's numbers, while in line with most ROW figures, skew in terms of tablet time watched for medium-form content, a surprise as tablets are in more than 50% of American households and are used heavily for video consumption.

While consumption of medium-form content on PCs, CTVs and smartphones is in line with ROW figures, it's just 50% of ROW's time watched for tablets.

Finally, North America is highly representative in terms of time watched for short-form content with ROW, differing by just small amounts.

THE BOTTOM LINE

Clearly, we are in the midst of a content revolution, driven by an equally revolutionary change in the way content is consumed.

Where online content once was seen as supplemental to traditional TV, it's now replacing it.

Content creators, broadcasters and operators need to be aware of the sea change taking place and to be prepared to go with the flow.

While the connected TV screen clearly has the edge for long- and medium-form content, it by no means has a monopoly. Connected devices of all kinds are continuing to take viewing time away from traditional TV, and also are having an impact on movie theaters, which in 2016 saw profits drop a further 15%. And, according to a recent report, more than 51% of American consumers prefer watching a movie at home to going out to a movie theater. Increasingly, that viewing occurs on a smartphone or tablet.

For premium content owners, that means delivering more of their content directly to consumers, increasing their efforts to keep content secure and using data to maximize engagement.

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.

VIDEO ADVERTISING TRENDS

Mobile video continues to be a primary target for brands looking to reach Millennials and, increasingly, surrounding demographic segments.

A recent report from ZenithOptimedia, for example, says that, globally, consumers spent nearly 20 minutes a day watching online videos on mobile devices, four minutes more than they watched on desktop computers and smart TV sets in 2016. That's up nearly 40% from a year earlier, and Zenith forecasts mobile video viewing will grow 33% in 2017 and 27% in 2018.

PwC's Global Entertainment and Media Outlook believes that growth will fuel equally rapid expansion for mobile advertising, making it the fastest-growing ad channel globally; U.S. spending alone is expected to see CAGR of 26.5% through 2020.

By some measures, brands spent \$17.5 billion on online video ads in 2015, and eMarketer, for example, forecasts that spending will increase by double digits through 2020. Much of that growth will be handled through programmatic trading. At Ooyala, we're seeing very high increases in mobile activity. Mobile web is still where the quantity is, although in-app is slowly getting more play.

Some of the other trends we're seeing include:

- ◆ Buyers have started to implement third-party vendors who track and report data on the impressions around IVT (Invalid traffic) and fraud. It appears this is the newest effort to deal with low-quality traffic, meaning agencies and buyers will have to step up their game in reporting and in finding better and clean inventory. It will

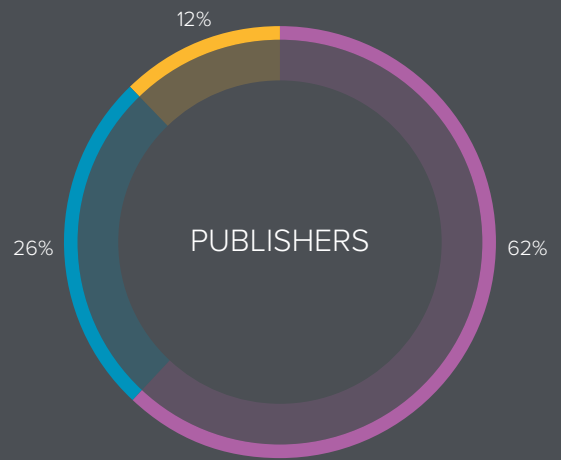
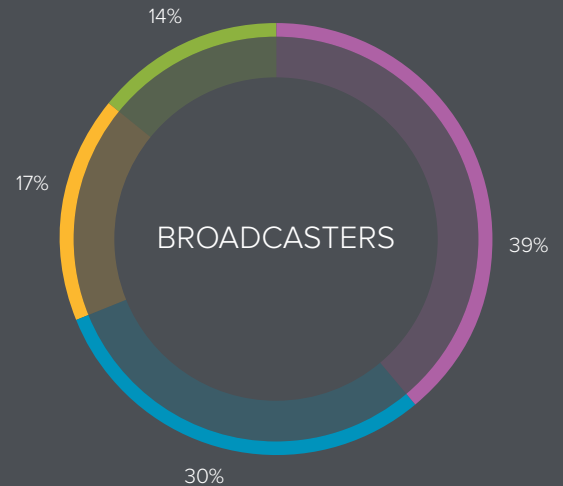
have a huge market impact, as publishers need to adapt their inventory and make it clean for all buyers. Complicating matters: Each DSP uses a different third-party data vendor and not all have similar data.

- ◆ VAST to VAST (or, V2V) is the direct connection to a publisher and to a buyer, meaning getting a VAST tag from Reckitt (for example), allows you to apply targeting algorithms and send as a VAST to a direct publisher. Only networks with very large operation teams can do this, and this takes a lot of time and work, but the margin makes it worth it.
- ◆ An increasing move away from longer, traditional pre-roll ads, with agencies going for shorter ads in the five- to 15-second range. Audi in 2013 rolled out a five-second ad to highlight the Audi R8's 0–100km/h 3.5 second acceleration. It continued to take advantage of YouTube's six-second bumper ads, and edited longer ads into a series of shorts. Geico and the Martin Agency, meanwhile created a series of ads that — literally — were crushed from full-length to 15 seconds as a viewer watches. The companies said they recognize that pre-rolls aren't always popular with viewers and decided to at least make them entertaining.

PRE-ROLL IMPRESSIONS

Smartphone and tablet pre-roll ads remained the belle of the ball for broadcasters in Q4, with impressions growing from 44% in Q3 to 47% in Q4. Impressions increased on both smartphones (from 29% to 30%) and on tablets (from 15% to nearly 17%). Their growth came at the expense of PCs, which saw pre-roll impressions drop from 44% last quarter to 39% in Q4. Connected TV pre-roll impressions also grew, about 2%, to 14% in Q4.

Publishers, who last quarter saw mobile (27.5%) and tablet (12.2%) combine for a 39.7% share of ad impressions compared to 60.2% of ad impressions for computers, actually saw fewer mobile impressions (38.4%; 26.2% on smartphones and 12.2% on tablets), compared to impressions on PCs, 61.6%.



PRE-ROLL AD IMPRESSIONS Q4 2016



- PC ■
- PHONE ■
- TABLET ■
- CTV ■

MID-ROLL IMPRESSIONS

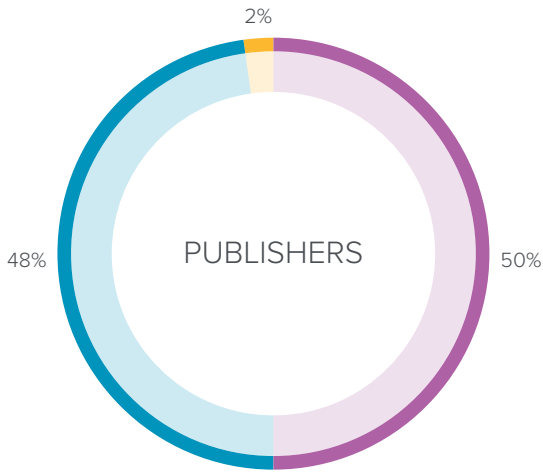
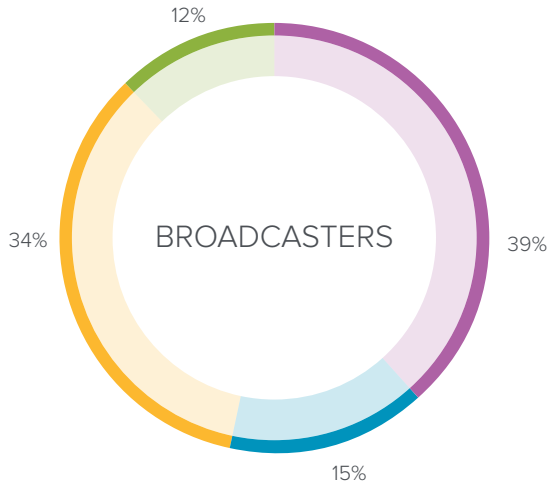
As longer-form content increasingly is being watched on smartphones, the number of mid-roll ad impressions is migrating, too. Among broadcasters in Q3, smartphones saw 12% of all mid-roll ad impressions. In Q4, that number grew to 15%, an increase of 25%. Tablet mid-roll impressions (34%) declined about 10% and mid-roll impressions on PCs (39%) showed a decline of just more than 7%.

Connected TVs actually showed the largest change in mid-roll impressions among all devices, increasing some 33% from Q3, representing 12% of all ad impressions on CTVs. Connected TVs include Internet-ready televisions and screens connected to the Internet via devices like Roku, Apple TVs, Chromecasts and the like, one of the fastest-selling segments in the industry.

But it was the growth of mid-roll impressions on mobile devices from publisher's platforms that was the most extraordinary in Q4.

In Q3, PCs owned mid-roll impressions with a 68% share (compared to 30% for smartphones and 2% for tablets). In Q4, smartphones took 18 points from PC mid-roll impressions, resulting in a relative dead heat between PCs (49.9%) and smartphones (48.2). Tablets remained at roughly 2%.

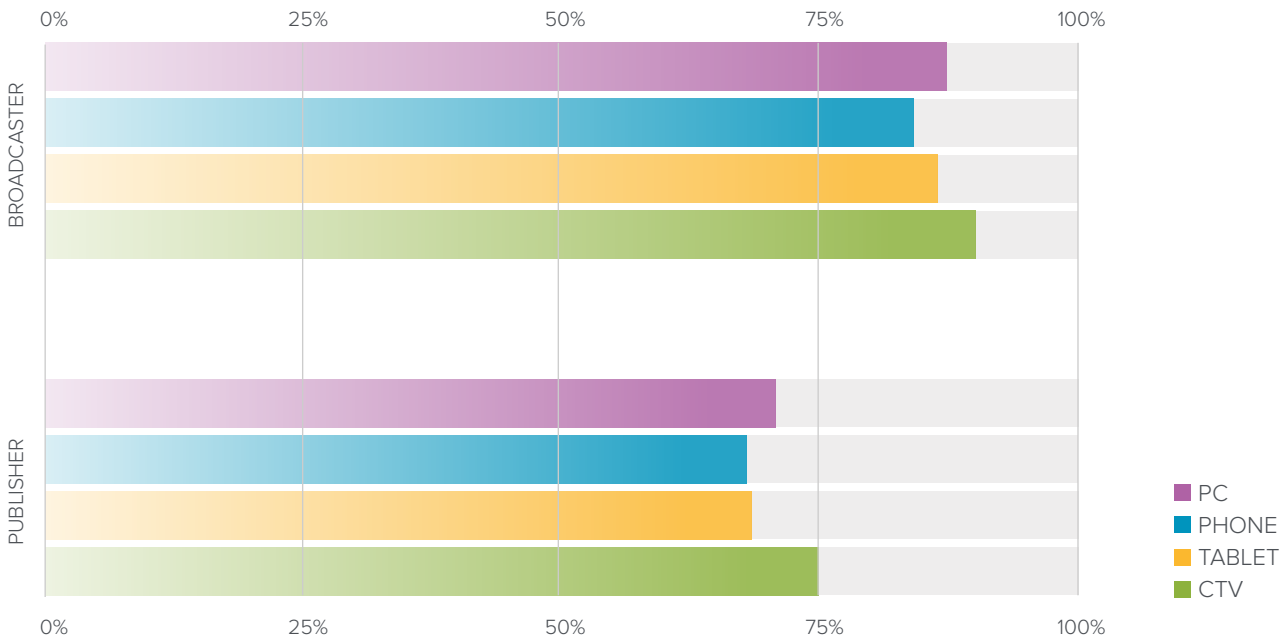
The change, of course, correlates with the adoption of mobile videos by consumers. Look for it to continue in quarters to come.



MID-ROLL AD IMPRESSIONS Q4 2016



- PC ■
- PHONE ■
- TABLET ■
- CTV ■



PRE-ROLL COMPLETION RATES BY MARKET SEGMENT Q4 2016



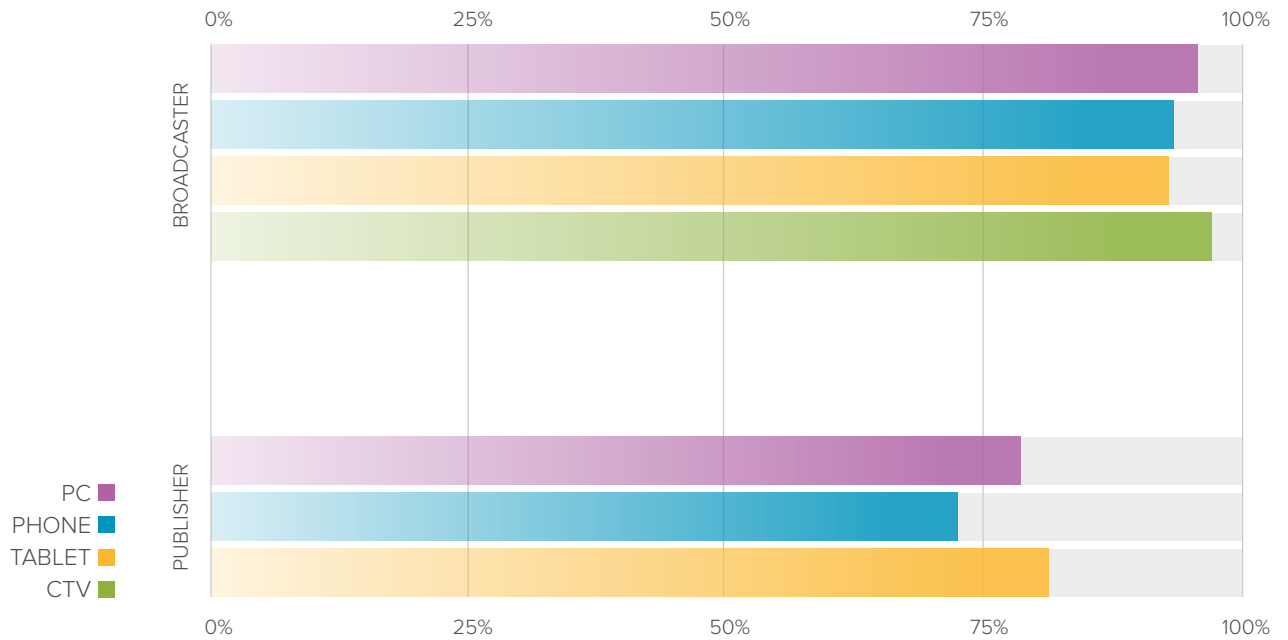
PRE-ROLL AD COMPLETION RATES

Pre-roll ad completion rates for broadcasters remain extremely high on all devices with connected TVs (92%), PCs (89%), tablets (88%) and smartphones (85%) scoring well.

Pre-roll completion rates for publishers, meanwhile, remained static, with connected TV completion rates the highest at 76% (down from 83% in Q3), PC rates at 72% (the same as in Q3), tablets at 70% (compared to 69% Q/Q) and smartphones at 69% (down from 70% a quarter ago).

Broadcasters continue to see higher pre-roll completion rates because consumers likely are going there to watch specific content on-demand, the modern equivalent of appointment TV. Publishers continue to contend with viewers who are grazing sites to find content of interest.

VIDEO ADVERTISING TRENDS



MID-ROLL COMPLETION RATES BY MARKET SEGMENT Q4 2016



VIDEO ADVERTISING TRENDS

MID-ROLL AD COMPLETION RATES

When publishers put their heads on pillows at night, they dream of mid-roll completion rates similar to those a broadcaster experiences. Alas, the reality is quite different.

Broadcasters in Q4 averaged 96% completion rates across all devices for mid-roll ads, off slightly from Q3's 97% average. Mid-roll completion rates for PCs (97% compared to 98%), smartphones (95% compared to 96%) and tablets (94% compared to 96%) all slipped slightly. Only connected TVs (98%) compared on par with Q3.

The story for publishers was a bit bleaker, as their overall device average for mid-roll completion declined to 78% in Q4 from 84% in Q3, with PCs (at 79% from 87%), tablets (at 82% from 87%) and smartphones (at 74% from 78%) all falling significantly. Publishers often struggle with ad completions because viewers are apt to abandon content quickly, grazing across other content offerings — or even other sites — if they find advertising too obtrusive. Finding a “right balance” is key, especially with shorter content.



THE BOTTOM LINE

As Bob Dylan so aptly put it, “The times, they are a changin’,” and nowhere, perhaps, is that more obvious than in the video advertising business. What does the future hold? A little bit of everything, probably.

If you’re an ad-supported platform, or if you’re considering it, programmatic is almost certainly a (big) part of your future, as it continues to gain ground and see increased spending across all regions. eMarketer, for example, expects U.S. programmatic to grow at a compound annual growth rate exceeding 143% through 2018 as the technology’s benefits, including ease of transactions and its ability to target audiences, become better known.

Consumers are willing, sometimes grudgingly, to accept advertising in exchange for entertainment. The key to maximizing your monetization will be to optimize their user experience not frustrate them with failed delivery, a challenging user interface or content that’s hard to uncover.

It’s really all about the experience.

And, as you begin to plan your future strategy, make sure it’s a flexible one because there’s little doubt that there are more changes ahead. Consider, for example, maximizing mid-rolls in exchange for pre-rolls, as they’re likely to be tolerated better, and use data to help determine what’s the preferred ad-length for different devices.

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.

Vudu, Sky Sports, 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.

