SPOTX FIELD GUIDE TO MOBILE VIDEO ADVERTISING





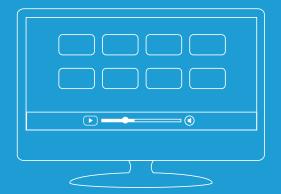
FIELD GUIDE TO MOBILE VIDEO

The Year (Decade) of Mobile...

If you've been in the digital advertising industry for some time, you'll remember hearing that 'this is the year of mobile' for more than a few years. In fact, a quick web search will find references to every year since 2007 being the year of mobile according to one media outlet, pundit or another. Looking back on the last 10 years, it's pretty clear that while there may not have been any one particular year that mobile owned, with hindsight you can argue that this has been the 'decade of mobile.'

Over this last 10 years, mobile has become the dominant digital advertising platform. Our TV screens still hold powerful, but relatively stationary positions on our living room walls or in a few other rooms at home. Our computers stay on our desks or in our offices for the most part (even if they happen to be laptops). But, our tablets and especially our smartphones move with us, even as we engage with those other screens. These are devices that rarely leave our side. While our TVs, computers, and even tablets tend to be shared at least with family members, our smartphones have become very personal devices, tied to one individual. Because of their ubiquity in our lives, their connection to us as individuals, and the data they provide, the smartphone has become the bridge that connects traditional linear television campaigns with larger cross-screen digital efforts. Mobile video advertising becomes part of a total video approach that engages audiences on every screen - and leverages the unique qualities of each screen experience to most effectively deliver the advertiser's message.

In this paper we'll take a look at the mobile advertising landscape - and specifically the mobile video advertising landscape - as it stands today and where we see it heading in 2017 and beyond.



A development that has helped blur the somewhat established lines of demarcation between TV, desktop and mobile is the rise of Connected TV. If you want to learn more about how Connected TV is impacting the video industry, check out our Field Guide to Connected TV.

Available on our website - www.spotxchange.com.

Today's Mobile Video Landscape

Consumers and advertisers continued to shift their attention to mobile video in 2016, a trend that shows no signs of slowing down. In Q3 2016, more than half (an estimated 52 percent) of all video views were initiated on mobile devices, much of it driven by millennial audiences. Their thirst for video content is being quenched by some premier digital publishers' video first programming strategy, along with traditional networks' linear content now regularly available in mobile friendly, over the top (OTT) formats. Advertisers have followed, pouring more money into the space. In 2017, brands are expected to spend more than \$5 billion on mobile video in the U.S. alone (up from approximately \$4 billion in

2016). Globally, advertisers will be heavily focused on mobile in general in 2017, spending <u>\$99.3 billion on mobile ads</u>, and forecasts predict steep growth through at least 2018.

These advertisers are increasingly investing in cross-screen campaigns, taking advantage of advances in cross-device audience targeting capabilities and leveraging firstand third-party data to target individuals with campaigns that live on linear, digital and mobile platforms.

Mobile made up

56%

of all SpotX ad calls in Q3 2016

Regional Growth

Publishers growing their mobile video offerings in the U.S. market are also engaged in expanding that capability to other regions. In a <u>report published by EY</u>, data suggests that 33 percent of U.S. media and entertainment companies want to grow their core business in international markets via expansion. Another 46 percent plan to achieve international growth through acquisition. As these publishers enter new markets in Europe, Asia, and South America they are being greeted by audiences already consuming more mobile video than consumers in the U.S.

The Asia-Pacific region currently boasts almost <u>4 billion mobile connections</u>, putting it far ahead of mobile Europe and Africa by almost 2 billion connections. A study by Ericson suggests that this number will continue to climb, representing 51.4 percent of the world's total mobile internet connections defined as the number of mobile devices active on a wireless network—by 2021. While China will lead the region in total number of users, India is projected to continue growing rapidly as well, increasing total mobile connections by 6.8 percent year-over-year in 2017. The EMEA region continues to show significant growth in mobile as well, with the UK and France setting the example as <u>smartphones and tablets have overtaken</u> <u>desktops</u> as the most popular devices for accessing the internet. This shift supports the fact that in the first half of 2016, investments in mobile advertising in France grew by 71% according to the Internet Advertising Bureau (IAB).

So, there will certainly be no shortage of mobile devices around the world. However, one of the biggest catalysts for mobile video growth in a given region is the ease of access to unlimited data—and high speed internet connectivity. In regions where data caps, pay-per-use plans and generally lower internet speeds are more common, mobile video growth (and mobile internet growth in general) can be slowed. Conversely, faster download speeds and inexpensive access to data have fueled mobile video's rise in many countries.

SpotX saw a

119%

increase in international ad calls year over year 2015-2016

With publisher expansions already underway, the presence of fast growing mobile saturated audiences presents a significant opportunity for mobile video marketers. While North American mobile audiences currently set the bar for quality and viewability, the sheer size of international audiences is likely to drive greater commitment to mobile formats over the next half-decade.

Industry Trends

"Ever since the industrial revolution, new products and technologies have turned to standardization in order to scale. To make any ad format work in the wide world of the web, it has to be standardized. Groups like the IAB have set down widely adopted technical standards to ensure that video ads can move through programmatic channels to appear on any number of players and devices without compromising viewability, functionality or user experience. In 2016, the industry saw updates to some of the most widely accepted standards, including VAST and VPAID from the IAB, as well as new standards designed to support the widespread use of vertical video formats, which are growing in popularity in mobile environments."

The Move Toward VPAID 2.0

Crafted by the IAB, the Video Player-Ad Interface Definition or VPAID enables an interactive or rich media ad to run on a video player by establishing a shared interface between the ad and the player. VPAID 2.0 helps display the more complex video formats supported by VPAID 2.0 and makes sure they appear as planned across various platforms and devices. This is one of VPAID 2.0's key benefits as mobile video advertising has grown, because it allows ad creatives to play on different screens inside different video players without the need to design separate ad creative for mobile web, mobile app, desktop, etc. This helps reduce the cost of creative development and also streamlines the ad serving process across different screens and players. VPAID 2.0 is important to the continued growth of mobile in a few other ways, as well.

The End of Flash

Over the past year, the ad tech industry continued its general shift away from Flash and toward HTML5. In particular, browsers like Chrome have discontinued support for Flash based creative. In mobile particularly, Flash has been on its way out since iOS stopped supporting it in 2011. But with similar moves coming from Chrome, this means that on the majority of mobile devices (those using iOS and Android operating systems) Flash is no longer supported by default. This shift has represented a challenge for media owners and advertisers alike, as Flash has been a typical format used to design ad creatives for many years. But, with its support waning, companies have had to adjust to accepting other creative formats-like HTML5. This plays directly into the strengths of VPAID 2.0, as it supports the creation of video ad units that play effectively across devices and players.

The Rise of Interactive Video Ads

By establishing a common communication protocol and expected functionality between video players and ad units, VPAID 2.0 is able to effectively facilitate and track granular interactivity in ways not previously available to the industry. In addition to offering advertisers the ability to provide rich ad experiences to viewers, VPAID 2.0 also allows them to collect ad playback and interaction details that help measure the effectiveness of their ads in new and interesting ways. So, across all environments (including mobile), VPAID 2.0 offers the ability to create ads that provide more interactivity options to viewers and then enables the tracking of those various interactions at a granular level. This allows advertisers to design more immersive video ads that can drive higher engagement from viewers.



The Introduction of VAST 4.0

Formally known as the Interactive Advertising Bureau's Video Ad Serving Template, VAST sets general standards for how video players should process ads. The template communicates between an ad server and a video player via an XML schema to tell the player how the ad should run. Instructions include how long the ad will run, in what format, and whether viewers can skip over it.

The idea behind VAST is to avoid forcing a publisher to change its video stack just to use different ad servers. 33

- Eric Boyd, Director of Product at JW Player

VAST 4.0 debuted in 2015 to support several new features aimed at tackling previous publisher and advertiser challenges. VAST 4.0 can serve more complex ad formats, including interactive API files and long-form content. There is increased standardization in terms of time stamping formats as well as ad verification and identification. Even advertising categories have been further cemented with VAST 4.0, and these categories help determine an ad's fit with the video it will run against. VAST 4.0 supports mobile video in a few key ways.

Live and Long-Form Video

The current installment of VAST sets the table for advertisers with its support for larger mezzanine level files allowing greater flexibility in serving video assets. As mobile has become the prominent screen for users to view video content in all forms (far beyond funny cat videos) media owners have developed a need for the ability to leverage longer form video and live/streaming video on mobile devices as well as desktop environments. VAST 4.0 enables these capabilities for publishers and also provides a better user experience because the video content and ad content can both be played through one video player, reducing buffering or other time lags in video playback.

Server-Side Ad Insertion

Server-Side Ad Insertion (SSAI) involves stitching video ad content directly into the video content stream, rather than having an ad play separately from the content a user has selected to view. SSAI delivers a handful of benefits to media owners. First and foremost, it provides a way to bypass ad blocking software that users may install on their devices. Because the ad is literally a part of the entire video content stream, there is no identifiable ad for the ad blocking software to suppress. As ad blocking initiatives have grown in recent years, this capability offers publishers a way to counteract the impact on their revenue. Additionally, SSAI helps deliver a smoother user experience in general, since the ad is not a separate video file that needs to start, run and end before the user's selected content can play or continue playing. This reduces potential load time issues that may cause video buffering or other delays.



Viewability Requirements

In April 2016, the Media Rating Council (MRC) put forward new standards for mobile ad viewability. Like the standards for desktop viewability, mobile ad guidelines specify that a "view" means seeing half of the playing video ad's pixels for at least two uninterrupted seconds. These two seconds do not have to be from the beginning of the ad, but can come from any part of the video, and the pixels must come from the ad itself (as opposed to the video player).

Furthermore, the two-second time requirement (which reduces to one second when it comes to still advertisements) stays the same whether the video ad appears in or out of a news feed, though the MRC does acknowledge that in-news feed might beg shorter view time requirements.

"The viewability problem is a little easier to crack on mobile," said Robert Gelick, SVP and GM of Digital Platforms at CBS Interactive. "With less real estate available and video being such an engaging format you can serve a viewable ad far more easily and trackably than you could in traditional desktop video or display." However, there are exceptions. If significant user interaction with the ad takes place (for instance, if the ad is clickable) but the pixels and view time are under the requirements, the view can still result in a "mobile viewable impression." This means that those counting views on mobile video ads need to pay special attention to whether a click on an ad was meant to close the ad or engage with it, as the former obviously does not connote engagement. Another caveat—clicking to start a video does not translate to a viewable impression. Only clicks made after a viewer initially clicks to play the video represent meaningful engagement.

Beyond measurement standards, mobile video carries one significant advantage over desktop formats. While the majority of desktop video players exist in-stream or within a framework, most mobile video content is served to the full screen. With full-screen takeover, attention rates dramatically increase and the ability to navigate away to a separate window declines, making mobile a more engaging and viewable format.

The effective use of VPAID and VAST 4.0 provides publishers with a streamlined process for integrating ad verification and viewability measurement capabilities.

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- Robert Gelick, SVP and GM of Digital Platforms at CBS Interactive

Vertical Video

As more content creators focus on making video that easily plays in mobile environments, they're turning to vertical as the standard format for mobile screens. The format, long reviled by creatives and video purists, holds the unique advantage of being native to mobile devices, which are typically held vertically. Publishers are also taking cues from popular social video apps including Periscope and Snapchat, that have helped popularize mobile video consumption but largely in a vertical format.

"Our video experiences show much stronger performance when switched to vertical formats" said Todd Haskell, Chief Revenue Officer at Hearst Magazines Digital Media. The print and digital publisher switched its video focus to vertical formats in early 2016. "Engagement and watch time are higher because you have one less behavior you need to change: turning the phone. Vertical video is less interruptive that way, it feels native."

Currently, the vast majority (over 90%) of the top 100 iOS apps embrace vertical formats, and viewers are completing vertical videos on mobile at higher rates than their horizontal counterparts. Advertisers are following suit and embracing vertical video so that their ads appear native to mobile platforms. The latest incarnation of the IAB's VAST standards include provisions for standardized vertical instream formats, bringing the one-time outlier into the mainstream.



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- Todd Haskell, Chief Revenue Officer at Hearst Magazines Digital Media

Challenges in Mobile Video

Role in Performance-Based Campaigns

Video advertising has traditionally been viewed as a branding and awareness play — <u>a December 2015 survey found</u> that 47 percent of marketers saw branding as the leading benefit of mobile video. However, developments in cross-screen attribution, interactive ad units and the constant growth of the video viewing audience have pushed mobile video formats toward stronger positions in performance marketing. Digital marketers have seen success with the format in driving specific actions, like app downloads.

A study conducted by Business Insider's Intelligence unit suggests that 25 percent of mobile video advertising revenue in 2016 will have been generated by mobile app installs. Additionally, **86 percent of mobile developers report using mobile video advertising to drive performance** (typically installs), a sharp departure from previous years where standard display and interstitials were heavily favored. Experts attribute this increase to the rise in popularity around mobile video consumption and the availability of new install formats made available by ad tech platforms. "If we're looking to drive installs then our first dollar is usually spent on mobile video" said Drew Wahl, GM of Media and Data at international digital agency, AKQA. "More people are watching mobile video, but it's bigger than that. Of course, new formats allow easy clickthrough to the app store, but mobile video viewers are also way more immersed in the same behaviors that mark app consumers so that's also helpful."

Privacy

As mobile video plays an increasingly critical role in cross-device and cross-screen campaigns, the issue of user privacy has taken center stage. The willingness of audiences to provide personal data in exchange for value is a conversation that shapes mobile capabilities by region. Users authenticated through a platform like Facebook or Google allow their information and online activities to be tracked. In exchange, they receive tailored recommendations, personalized interactions and advertising geared toward their specific needs and tastes.

This transaction of data for value varies widely by region. While the United States allows for the collection and retention of personally identifiable information as long as users haven't expressly opted out, other countries favor a higher degree of privacy. In France, the repeal of the <u>European Union's Privacy Safe</u> <u>Harbor</u> bill has changed the legal definition of what is and is not private information. Individual IP addresses are now considered private and therefore no longer lawful to track. This move may materially inhibit the ability of advertisers in the region to launch targeted mobile video. A similar challenge exists in Germany where a high degree of online privacy is enshrined both legally and culturally. The new <u>General Data Protection</u> <u>Regulation</u>, scheduled to take effect in 2018, will have additional impacts on the entire online advertising industry.

"Globally, these challenges won't really disappear until users understand the value exchange," said Drew Wahl. "In the US, people value privacy, but there hasn't been a big push to lock up personal data online because people enjoy having the web personalized."

Ad Blocking

Ad blocking has dogged display advertising for some time, contributing to a drop in price and prestige for desktop ad formats. Mobile, by contrast, was largely shielded from the phenomenon until 2015, when Apple officially opened the iOS app store to ad blocking purveyors. Ad blocking on smartphones stands at a <u>comparatively low 7.8 percent</u> as of mid-2016, but that number is expected reach 11 percent by end-of-year- 2017.

But there's hope. Though Apple may sell ad blocking software in its app store, those blockers typically target ads served via the mobile web. With an increasingly large segment of mobile web activity shifting to apps and walled garden platforms, the adoption of mobile ad blocking poses less of a threat than in the desktop arena.

"That's one reason that we're seeing spend shifting to platforms like Facebook and to owned apps," said Susan Kellerman of the IAB. "Those spaces are already [the primary way in which] many mobile users experience the web, and they are currently unaffected by mobile ad blockers."



Mobile Tracking

While North America is generally more friendly to the tracking and data collection practices that make integrated crossdevice campaigns successful, there are still challenges to consider. With the launch of iOS 10, Apple gave users the option to opt-out of the device ID tracking that powers most crossscreen campaigns. Users previously needed to download separate software in order to prevent themselves from being tracked.

Apple's move puts the option to opt-out at people's fingertips, but as of late in 2016, adoption of the new feature had not made a significant impact on the <u>percentage of</u> <u>iOS users who have enabled ad tracking</u> <u>limitations on their iPhones.</u> Outside of device ID tracking, the mobile ecosystem has presented significant user tracking challenges. This is due to the fact that cookies, which are the traditional method of tracking users on desktop, are not supported in mobile app environments. In addition, while cookies are supported in Android mobile web environments, cookies are not enabled by default in iOS mobile web environments. Even when mobile browser settings allow for cookies to be placed, there are still limitations, such as the fact that mobile browsers typically store far fewer cookies than desktop browsers. In this case, even if a cookie is placed in a mobile browser, it may be pushed out of the smaller mobile 'cookie jar' by newer cookies very quickly.

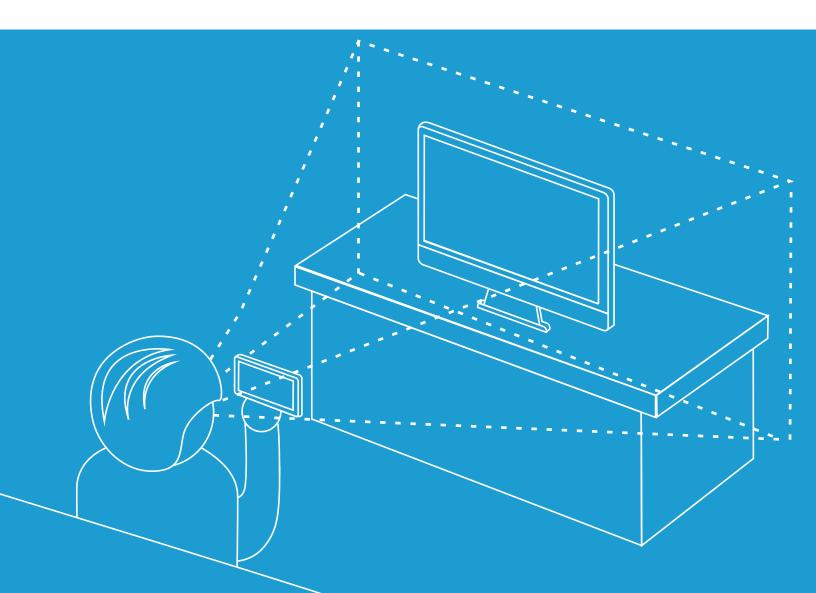


Opportunities

The Little Big Screen

We've already discussed some of the impacts of viewability for mobile advertisers. Here the industry's biggest opportunity is to leverage the paradoxically increased visual real estate provided by a smaller mobile screen. While a typical 42" TV screen in the living room may seem like the gold standard in screen size, it actually occupies less of a viewer's range of view than a typical smartphone screen. The reason being, the mobile screen is much closer to the viewer, reducing the peripheral range of vision and effectively making the smaller screen much larger. A screen that takes up a larger percentage of a viewer's field of vision has the advantage of reducing visual distractions as well, meaning the eye stays on the screen rather than drifting over to look our that living room window.

From an advertiser's perspective, it's important to remember this counterintuitive screen size relationship when developing video creative for a mobile device. Thinking of it as 'the little, big screen' can help.



Highly Engaged Viewers

Along with the effectively larger viewing screen provided by a mobile device, user attention also tends to be highly focused on what they are watching. Watching a video on a mobile device involves a 'lean forward' position (both physically and mentally) as the user focuses intently on the content, tuning out distractions.

A highly engaged viewer is more likely to closely pay attention to the content on the screen. When you start watching a video on your smartphone, how often do you set the phone down, with the videos still playing, to get a quick snack or get something from the next room? If you do set your mobile device down, you probably pause that video and continue in a moment when you come back. More likely, you simply carry the phone with you, continuing to watch the content.

This increased level of focus means that viewers are more likely to see and hopefully pay attention to the video content on the screen - including advertising content. Exactly the goal marketers have in mind.

Location, Location, Location

From their inception, mobile devices have delivered a benefit unmatched by any other

video medium. They stay with users wherever they go. It's an entirely different advantage for a marketer to know not just where a viewer lives (and the city where their living room TV resides), but where that individual user is at a given time. Add the opportunity to deliver advertising content based on that physical location (at the shopping mall, near a restaurant just before lunchtime, or even in a particular store) and it opens up a world of potential for targeted messaging. As more and more people use those devices to watch video content on-the-go, the opportunities for targeted video ads only increases.

All Screens, All Streams = Total Video

We've mentioned perhaps the single biggest opportunity that mobile provides at the beginning of this paper. A mobile device and the data that marketers can glean from it can act as a bridge to recognizing and targeting viewers across every screen. Mobile data and usage is key to unlocking the full potential of desktop, connected television and other digital advertising. The data sets that the mobile device produces are highly personalized in a way that these other shared mediums are not, and mobile is the connecting tissue that enables a cross-device user profile of preferences and habits.

If you are an advertiser in today's expansive media world, your audience is everywhere and

your video advertising should be too.

Mobile video advertising brings together the total video strategy to engage audiences on every screen, while optimizing each unique screen experience to most effectively connect with viewers and drive home an advertiser's message. Whether it is moving a viewer through the customer journey or telling a relevant and coherent brand story as a user transitions from one screen to another, an approach that incorporates all relevant screens takes audience engagement to new heights.

Unlocking the Full Value of Mobile

There are several keys to unlocking the complete advertising ecosystem's full potential for any given audience, you must consider the following:

 Media owners should focus on first party data collection strategies that incorporate as much data about the user as possible (device ID, geographic, demographic, behavioral, contextual) and the environment in which they are viewing an ad (in-app or mobile web, short form or long form). This data makes each ad impression more valuable to advertisers, but also allows media owners to create valuable user segments that can raise the yield of inventory available in the future.

• Use data beyond the impression. For example, with SpotX, publishers use this historical first party data to create private and Curated Marketplaces that have higher CPMs and garner more advertiser interest by providing a unique data set not available anywhere else. This provides ongoing value to cross device data strategies.

• Recognize that mobile should not be viewed in a vacuum, nor should any other screen. Taking a holistic view of mobile and how it fits into a fully realized, multi-screen strategy, is actually part of the key to deriving the most value from mobile itself.

APPS AREN'T JUST FOR MOBILE

While the mobile app arena continues growing dramatically (some estimates predict it will reach 210 billion yearly installs by 2020), the OTT space is similarly experiencing exponential growth, significantly based on a similar app model. While growth varies by country, already as many as 78% of U.S. consumers subscribe to at least one OTT service (according to PwC). OTT may not reach the dizzying number of mobile apps available in different app stores (approaching 6 million by some counts), but expect to see even more apps from more media owners on connected TV devices as even more consumers access video content though connected TV in 2017.

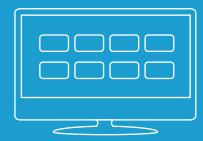
In the U.S. here's how various Connected TV devices are taking over our homes.







31% have multi-media device



26% have a smart TV

Where to Next?

Consumers are soaking up more video content than ever before, and they are doing so in most regions primarily via mobile devices. The opportunity for advertisers is clear. Mobile video audiences are engaged, increasingly trackable and less resistant to advertising due to the relatively ad-lite mobile experience. The desire to move marketing messages from static screens to mobile devices is powering an increase in spending on video formats and the recent shift to include performance based marketing as well as branding in mobile video advertising is opening new doors for marketers.

Challenges remain, as ad blocking initiatives will persist, even if the growing shift of video consumption from the open mobile web into apps and walled platforms has mitigated this threat significantly. Meanwhile, regulatory developments around the collection and retention of personal data will remain a concern in every region to at least some extent. However, experts have noted that in the U.S. most consumers have expressed at least a tacit appreciation for the targeting and personalizing capabilities of the data driven web, suggesting that efforts to regulate will not curb advertisers' ability to operate crossscreen and cross-device.

We may be reaching the end of the initial decade of mobile, but mobile's future continues to unfold, and it is very clearly a future driven by video. With faster connections and cheaper data, mobile video will continue to grow—and where there is more video content, there will be more video advertising.



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