

acmonsters

playbook:

Mobile App Advertising



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Audience
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When the iPhone App Store opened its metaphorical doors in 2008, it signaled a dawning age for digital media. Applications were by no means a new phenomenon—the majority of software on laptops, smartphones, tablets and other connected devices are applications.

But accessing online media through an application other than a browser was a bold move forward, offering content providers a more intimate and appropriate medium for reaching their audiences on the most personal of devices. It also proved a great channel for a variety of up-and-coming providers offering gaming (many times social) and utilities/services (with location data proving a key advantage).

Hence, Apple establishing a marketplace to manage third-party applications showed that the app was a force to be reckoned with in the burgeoning world of smartphones and other mobile devices. By the end of January 2011, more than 10 billion apps had been downloaded from the store. As of June 2015, that number had reached 100 billion—and that's just for a single mobile operating system.

Apps have only grown more popular over time. In the fourth quarter 2014, Nielsen says U.S. smartphone users accessed 26.7 apps monthly and spent 85% of their time on mobile devices within apps—for a total of 37 hours and 28 minutes per month on average.

Not only have apps brought new opportunities for user experience, they have also awakened a slew of advertising opportunities, many that utilize device capabilities and audience data without disrupting user experience—in fact, through employing relevant targeting (e.g., audience, location) and smart formats, advertising may even enhance the app experience. However, publishers are still struggling to drive revenue at scale from apps as their desktop traffic flees to mobile. Maintaining a high level of user experience while monetizing audience has proven quite the challenge.

This playbook will examine the nuances of mobile app advertising, including the central role of user experience in developing app monetization strategies and how this applies to deploying various formats. In addition, we'll examine mobile ad serving and technology partners, as well as the intricacies of tech integration. Finally, we'll examine best practices for using a variety of data (audience, location, etc.) in ad targeting within mobile apps.



What's A Playbook?

A playbook is an extension of what the AdMonsters community has been doing at our conferences for more than 14 years. A playbook solidifies what has made our events “must attend” for many digital strategists. By bringing people together to share learnings and best practices in a focused way, people can create a plan and avoid hours—if not days—of doing research on their own.

The AdMonsters playbook concept takes existing AdMonsters content (from conferences and AdMonsters.com) and, with the help of the AdMonsters community, “crowd sources” a document that outlines best practices on a particular topic. In addition, AdMonsters hosted an online survey of 76 mobile app revenue specialists to get details on preferred formats and other trends.

Our belief is that this will allow for a free exchange of ideas with the benefit of curation for accuracy. This document does not get into specifics around individual solution providers intentionally.

Great effort has gone into writing the playbook in a fashion that applies to as many publishers as possible without becoming too general. In a technology-driven industry like digital advertising, information quickly becomes obsolete. The intention is that, based on the feedback of the AdMonsters community, the next version of this playbook will start to take shape and, with additional contributors, grow in both depth and breadth. Publication of future versions will be scheduled based upon the needs of the community.



The phrase, “Mobile is the most personal of all devices,” gets thrown around rather haphazardly (even by AdMonsters), but we should take a moment to consider exactly what it means. A large part of the world’s population is glued to its smartphones—they are always nearby, even right next to the bed when the user is recharging.

Mobile devices, particularly smartphones, are personal extensions, or at least bridges that constantly connect an individual with their digital environment. The most popular mobile apps contain some kind of social element, encouraging users to share personal information, photos and even their exact location in the moment.

OK, but what does that actually mean—particularly when it comes to revenue efforts? For mobile app providers, it’s a giant blinking billboard that reads “USER EXPERIENCE IS ALWAYS CONCERN #1.”

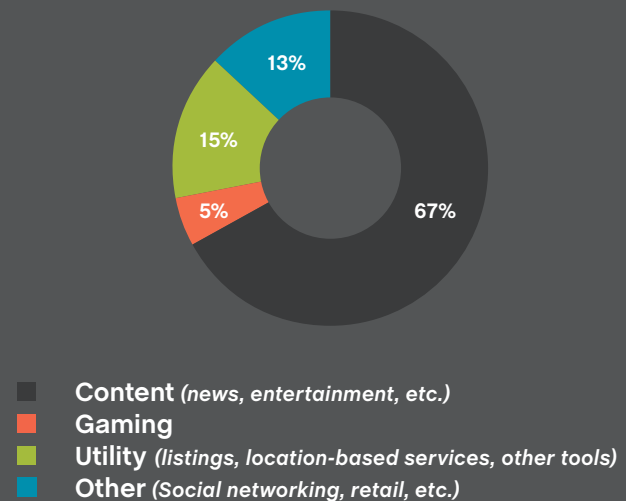
As the device literally held closest, users are hypersensitive about all that goes on in that handheld processor—alienating your audience is much easier compared to desktop. Of course, advertising has a bad reputation of bumping shoulders with user experience, sometimes (all right, a lot of times) being labeled “interruptive.” At the same time, advertising within mobile apps can be benign or even additive to user experience through formats that fit seamlessly with the environment and hyper-relevance via audience and other types of data. Finding the right formula for maintaining user experience while delivering smart, relevant advertising is no walk in the park.

First off, the smaller screen presents formatting challenges. While the latest iPhones have highlighted a trend toward smartphone screens growing larger, there’s still a lot less landscape to work with compared to desktop webpages.

Hence desktop publishers are hit with a quandary—there’s much less space for advertising, or at least less space available without thoroughly upsetting user experience or disrupting page content.

Less space equals fewer units, which in turn means lower revenue for a smartphone-delivered piece of content versus desktop. With tablets, the screen is bigger—sometimes as big as a small laptop—but the problem of limited space remains. So as traffic migrates from desktop web to mobile app, digital publishers are effectively losing monetization opportunities and will likely shed revenue—a situation sometimes referred to as “mobigeddon” (h/t Todd Sawicki).

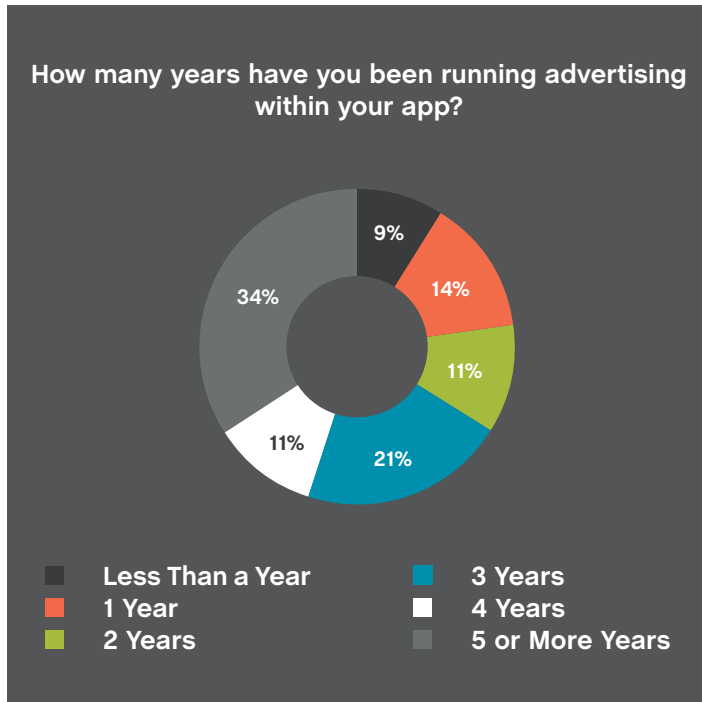
What is the primary focus of your app?



While mobile-first apps do not face the same declining revenue challenge, they're also in a bind. Advertising that negatively affects experience could chase away a user base before it sprouts. The way to get around this would be to charge a premium for mobile ads, which some companies have done through highlighting mobile's best attributes, including location and audience targeting; intimacy; and clever formats.

However, many content and app providers instead have deployed advertising efforts in a similar way to the desktop web: quantity over quality. The result is endless tiny banner ads obscuring content and getting in the way of gameplay; constant interruptions thanks to an overabundance of interstitials; and other travesties.

Lukewarm advertiser interest can also be tied to difficulties in demonstrating the value of mobile advertising, as aligning metrics across channels has proven difficult (though the relatively recent introduction of GRP-based metrics bears promise). Attribution is hard to quantify unless there's a mobile purchase.



Sidebar:

Why Are Ads Disruptive to the Mobile Experience?

- “ Our mobile experience forces ads in front of people who are on a clear path...
- “ Interstitials are by design disruptive.
- “ Ads slow loading time.
- “ Some interstitials that come in through the exchange do not function in a way that gives users a good experience.
- “ We are shoving desktop formats within a device.
- “ The creative stinks.
- “ Visual distraction from core site functionality.
- “ Difficult to control quality of ads through programmatic channels.
- “ Privacy is a key concern.

| Source:

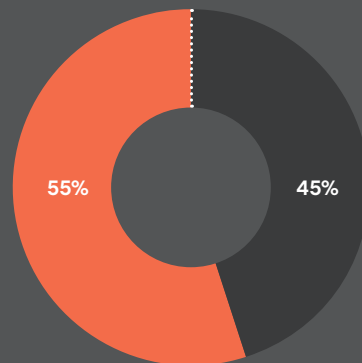
AdMonsters' Mobile App Advertising Survey 2016

So before you start flinging ads of all formats onto your app, you have to consider why people use your app—this will make a big difference in how you approach monetization. Mobile apps are quite different than desktop web because they aren't primarily used for content consumption. Instead, gaming, location-based utility services and social media take up a great deal of mobile time.

Users on utility and gaming apps in particular are sensitive to interruptive advertising—they're "on mission," and ads can make them lose focus. Advertising relevance (e.g., audience or location-driven) is extremely important, as well as ad timing and quantity. For media-based apps, native and in-feed advertising follow the flow of content, integrating advertising seamlessly into consumption.

Developing the right mix of formats will take time and experimentation, but user experience must always be top of mind. You need to study your daily active users as well as the average time spent on page. A "spray and pray" monetization strategy will ultimately prove detrimental to your app. If mobile is the most personal of all devices, the advertising must demonstrate it recognizes and respects this relationship. And this understanding must connect to the purpose of the app itself.

Do you feel your current mobile advertising strategy negatively affects users' app experience?



- No
- A Little
- A Lot (0%)

Sidebar: Smartphone vs. Tablet

Consumer use of smartphones and tablets differs greatly—smartphones are typically on or near a person at all times, while a tablet may primarily be used around a household. Content viewing on smartphones may be quick hits (e.g., quickly viewing email, sports scores, news notifications) while tablets are used for viewing longer-form content such as magazine features or TV shows. Some even distinguish this divide as mobile (smartphone) vs. portable (tablet).

For both, though, apps are the chief way users interact. So although smartphone and tablet apps can be very different experiences, it makes sense to loop them together in detailing advertising efforts. At the same time, your analytics partner and ad server should help you analyze user behavior and campaign performance by device type. As your mobile monetization strategy becomes more advanced, you will likely find certain types of units—and even creative—work better on one versus another, likely due to user behavior.

Sidebar: Biggest Challenges

At times, advertising in mobile apps may seem like a real uphill battle. Here is just a sampling of the challenges app providers are currently witnessing according to our 2016 Mobile App Advertising Survey.

- Inventory not scalable
- Testing ad products
- Cross-platform creative
- Low demand/fill rates
- Geo-targeting
- Driving similar revenue to desktop/low CPMs
- Latency in loading
- Small creative sizes/lackluster creative formats
- Lack of development resources
- Inflexible tech platforms
- Ad tech updates require app re-submission to marketplaces
- Making ads look natural with content
- SDK implementation/de-bugging
- Lackluster mediation solutions/reporting discrepancies
- No cookies!
- Fast-changing technology
- Protecting user experience
- Proper tags and Javascript standards

Part of the allure of mobile for advertisers is the “captive audience” factor. On a desktop browser, banner ads tend to be adjacent to content (though in-feed ads are growing in popularity) and easy for users to ignore. A user can tab away when an interstitial video appears on top of their desired content or a pre-roll kicks off before the main act.

But on mobile, and particularly in apps, “tabbing away” isn’t really an option—the ads are almost always viewable, right in front of the user’s nose on his/her small screen. There are no distractions from other windows (well, maybe a notification from another app).

This actually puts more pressure on the ads. Instead of simply ignoring the advertising nearby, there’s a higher chance for a user to be irritated by ads stuck on their little screen. Choosing the right ad formats for your app will go a long way in protecting user experience, and could possibly prove beneficial.

For desktop digital media advertising, we tend to split formats into the grander categories of display and video—plus text, search and others, but the big kids are display and video. With mobile apps, viewing things a little differently provides clarity into the value of each format.

Banners

Our old faithful friend, the banner, never seems to die no matter how many trade headlines swear it’s about to perish. Yes, the banner was an easy transport from desktop, only now they tend to be smaller for a smaller screen. 300x50? That’s so precious!

Banners are also the ads that tend to most annoy users and draw the lowest CPMS—a winning combination, for sure. Users with clumsy thumbs (read: all of us) are likely to

accidentally hit them and interrupt their app experience—not just an annoyance to the user, but also a practice that makes click-through rate a completely unreliable metric on mobile.

Sticky banners hold the unit at the top or bottom of the screen to stay viewable, but that effectively cuts off part of the view pane, a place where content, utility or gaming could be occurring. Non-sticky banners are likely to be whizzed by faster than a desktop leaderboard.

Still, little units scattered across an app’s various sites can build incremental revenue. For gaming, utility or other apps where a user may spend a long time on a single page, providers can employ refreshes on sticky display units to draw additional revenue.

Also, the MRAID standard (see sidebar) allows for expansion and resizing of banner ads—when applied smartly, this can create eye-catching creative that may move as the user scrolls. Imagine that—beautiful advertising. Finally low prices make banners appealing to advertisers searching for quantity plays, particularly in programmatic channels where they can also leverage data for targeting.

In the end, you will have to calculate whether the revenue you pull in through banners is worth the potential dip in user experience.

Pre-Roll Video

In its most recent Global Video Index, Ooyala predicts that mobile will account for more than 50% of all video plays by the end of 2015. That makes for a lot of mobile pre-roll spots out there, but probably not enough to satisfy advertisers’ ever-growing demand. Many mobile app

providers with premium video report being continually sold out of pre-roll.

When it comes to mobile video ads, some app providers fear user revolt over data drain, but actually most video ads are highly compressed files thanks to HTTP live streaming (HLS). In addition, the price of mobile data has fallen dramatically while carrier data plan limits are on the rise.

It's a good rule of thumb that all video ads on mobile should lean on the short side—many app providers limit creative to 15 seconds or less. Also, offering the ability to skip is widely suggested to remain on users' good sides. Video creative transported from TV or desktop does not perform as well as that created specifically for the channel. Finally, app providers can improve the allure of mobile video—particularly if it isn't deemed “premium”—by leveraging location or audience targeting.

Incentivized Video

Your user was so nice to watch this video ad, why not reward him/her in return? To some extent this is what you're doing with pre-roll video in general—giving a user desired content after indulging in a word from your sponsors. However, incentivizing video can be taken in other directions, particularly for gaming. For example, an app may offer a user some kind of game enhancement (an extra life, a new level, armor, etc.) for watching a video ad. Though for a short time Apple banned the use of incentivized video advertising, that ruling was reversed and the format is gaining popularity.

Interstitials

While desktop interstitials tend to draw the ire of users, mobile interstitials draw more mixed reactions. Typically this depends on how they're deployed—high frequency is likely to annoy, as is an interstitial that interrupts a gaming experience. But interstitials delivered in between levels on a game may be benign as it's a logical pause; same for an interstitial after viewing several article pages.

Interstitials may feature rich media and/or video. The latter has gained wide popularity over the last few years as it is effectively creating video inventory from nothing. Advertisers' insatiable craving for video has made this quite a lucrative stream, particularly for gaming apps that cannot or do not want to employ banners. In addition, these units can be sold programmatically, enabling advanced targeting.

The video file sizes are small thanks to HLS, but the ads themselves should also be short and/or feature the ability to skip. Once again, frequency is the key to maintaining high user experience—while interstitials may be interruptive, they also tend to pay very well.

Outstream Video

Speaking of creating inventory from scratch, outstream video providers use HTML5 technology to open up video ad placements within text or other page elements. The verdict is not in yet on how much these detract from user experience and they seem rather easy to scroll past. It could be the next generation of interstitials or a passing fad.

Which advertising formats do you use to monetize your app?

- Display banners 88%
- Interstitial 54%
- Pre-roll (& mid/post-roll) Video 53%
- Native Placements 34%
- Native-Sponsored Content 30%
- Custom Creative 26%
- In-app purchases 21%
- Incentivized Video 9%
- Search/Text Ads 9%
- Outstream video 4%
- Audio Ads 4%

Native-Sponsored Content

Native has two branches: sponsored content and native placements. The idea of sponsored content is an old one, but the digital media revolution has given it a new spin. Defining native-sponsored content can be a bit of a futile exercise, but we'll give it a shot: some type of branding seeped into content that does not overtly affect user experience in a negative way. Vague enough, right?

Because user experience is key to mobile app advertising, native-sponsored content is a promising channel—when done well, these kind of campaigns can actually improve user experience, potentially building brand uplift for both the app and the advertiser.

For media-based apps, native-sponsored content can be articles, posts or videos created in the editorial voice of the site/app it appears in. The subject matter tends to be material relevant to said app and the advertiser. When it comes to media-based sponsored content, The New York Times' collaboration with Netflix for a piece on women in prison is considered a high-water mark. Funny or Die's sponsored videos bring branding into the company's raucous humor in what can be seen as the evolution of product placement.

Such advertising can translate over to gaming: Angry Birds has worked with the NBA to produce levels of its classic game that prominently feature basketballs and hoops in gameplay. As for utility, map apps have had corporate spokespeople say directions aloud. Brands can even sponsor whole apps—branded versions of games, branding within utilities, media sections relevant to a brand's product, etc.

These campaigns have high revenue potential for app providers, but there are downsides. The “creative” is labor intensive—potentially for both the app provider and the advertiser. Developing an iteration of a video game is a much bigger job than packing some brand elements into a banner. In addition, advertisers tend to have a difficult time judging return on investment, which is bad considering that these campaigns have high price tags.

Finally, native-sponsored content must be properly labeled not to irk users ... or the Federal Trade Commission, which already has its regulatory eye on native content. Wording that implicitly depicts the sponsored nature of the content must appear around the content itself as well as links and advertising to it. (Another vague statement—pretty much the word “Sponsored” or the term “Brought to you by” need to be visible in proximity.) Many media apps take this a step further and shade said content in a different color in menus and content lists. The altruistic goal is not to confuse the user into clicking on an ad, but offer them a valuable piece of content—article, video, game—that they can plainly see is sponsored.

Native Placements

An up-and-comer in the mobile app format field, native placements are display units typically served within the app environment (e.g., in content feeds) that mimic the characteristics of an app—font, shape, graphic style, etc. Once again, the aim is not to fool users into clicking on ads, but to deliver an advertising experience that is cohesive with app content.

As mentioned before, many desktop web ad formats are inspired by print and placed adjacent to content. The lack of screen space on mobile devices makes this kind of placement harder to pull off, so the next placement candidate is within the feed itself. Banners within the feed are not ugly per se, but they are visually jarring—they disrupt a user's flow and are more likely to leave a negative impression (pun intended!).

Tech providers can take certain advertiser elements—logos, taglines, images—and arrange them so they do not look out of place within the app environment. At the same time, the user knows he/she is viewing an ad due to a disclosure. When properly executed, an app generally looks better and the flow is natural with the ads, not despite them.

A typical example of a native placement is a display unit that fits in seamlessly within a content feed, but such units can also work in gaming and utility apps. Recommendation widgets also fall in this camp, and increasingly video

appears in native placements. Adding a level of targeting furthers the relevance of these units and may prove a boon to the overall app experience.

Native placements have already proved a heady revenue driver for social networks, which are trying to bring the style to third-party sites and apps. While native ad networks and mobile native ad networks provide ads for placements across many apps, increasingly ad servers and SSPs are joining the act with their own native support. In addition, the latest version of OpenRTB (2.3) provides support for native creative, allowing app providers to sell native placements through RTB to any demand source supporting OpenRTB 2.3.

Our mobile app advertising survey found that while a small percentage of app providers were currently employing mobile native placements, interest was high and many app providers were currently gearing up to launch the format. Failure to adopt was blamed on lack of support from tech partners, dissatisfaction with partner offerings, hesitancy from product team, lack of standards and advertiser unwillingness.

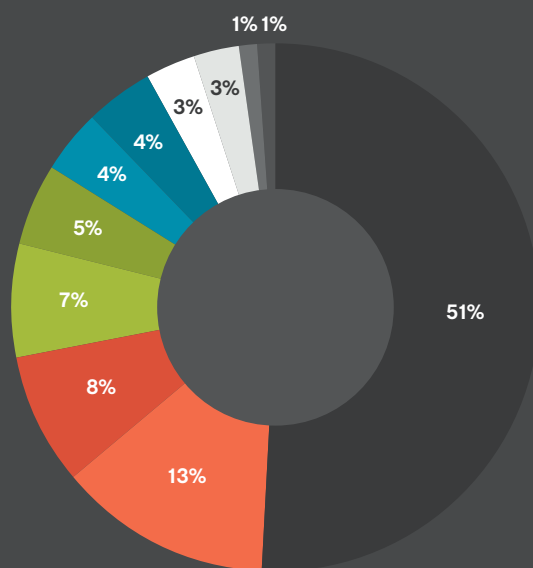
Custom Creative

Typically custom campaigns are built by the app provider for specific advertisers—they may feature rich media beyond MRAID (e.g., advanced HTML5 animations or interactions); creative that takes advantage of mobile capabilities (e.g., location targeting, touchscreen actions like swiping); or even mini-apps within apps. Like native sponsored content (which it sometimes can be mistaken for), such campaigns are labor-intensive and come with a high price tag. Because ROI is hard to show, custom creative is not for all advertisers.

Search/Text Ads

For media-heavy apps, these are always decent backups if there's a timeout on loading a banner or other unit. Also, they may be easy revenue drivers for utility apps worried about annoying users with banners.

Which format drives the most revenue for your mobile app?



- Display Banners
- Pre-roll Video
- Interstitial
- Custom Creative
- Native-Sponsored Content
- Native Placements
- Presenting Sponsorships
- In-App Purchases
- Audio Ads
- Incentivized Video
- Other

Sidebar: MRAID

Just how is an ad supposed to act when served into a mobile application? So advertisers don't simply serve image and text files into apps, those sticklers for standards at the IAB came up with the Mobile Rich Media Ad Interface Definition.

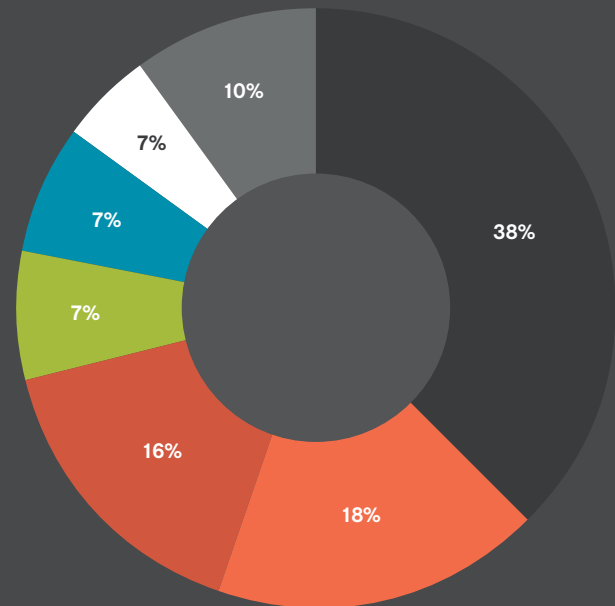
Currently at version 2.0, MRAID is an industry standard API for rich media running in mobile apps. Similar to other IAB standards like VAST and VPAID, MRAID is basically a communication layer between the app and the ad that lays out rules about common functions: expansion, resizing, video player access and even device-specific features like the accelerometer. The standard allows advertisers to build creative with features that can be realized on any app that supports the same version of MRAID, allowing an advertiser to serve a uniform campaign across many apps.

For rich media capabilities beyond MRAID—say creative that takes advantage of other mobile device features—app providers will have to look to mobile rich media companies and likely [GASP] install an API or SDK.



Which format type has proved most popular with your advertisers?

(e.g., high retention rates)



- Display Banners
- Pre-Roll
- Interstitial
- Native-Sponsored Content
- Custom Creative
- Native Placements
- Other

Other includes in-app purchases, incentivized video, outstream video and more.

| Source:
AdMonsters' Mobile App Advertising Survey 2016

The Art of Mobile Ad Serving

Since accessing media and content is wildly different on desktop web versus mobile app, it won't surprise you that the ad serving process isn't alike either. Still, it's important to understand just how an ad appears on an app, particularly for figuring out where potential hangups might be.

In display ad serving on desktop web, the browser does most of the heavy lifting—calling, fetching and redirecting. (For instream desktop video, the player takes over this responsibility.) The browser may send and receive calls from the publisher-side ad server, an SSP or two, the marketer-side ad-server, a content delivery network, etc.

The key is that the browser communicates with each platform. (In an RTB situation, the browser does not message the exchange or DSP.) Using the browser as a “communication hub” between the various servers enables the different parties in the process to drop, read and write cookies, and facilitates a marketer's ability to track and measure performance as well.

But since most mobile connections are relying on data networks that are not as fast as their desktop cousins, advertising cannot lean so heavily on the mobile browser or app. In effect, ad calls on mobile (browser and web) are relayed from one server to another—for example, the app server will call the supply-side ad server, which then calls the marketer ad server.

The marketer ad server replies to the publisher ad server, which then reaches out to the user on the app. The app then connects to the marketer ad server to share information for tracking and the content delivery network

for the creative; both of these reply back.

In an RTB situation, add an SSP(s) after the supply-side ad server, which communicates with DSPs and/or exchanges. Typically, the SSP relates the winning bidder's information to the supply-side ad server, which then calls back to the user. From there the user calls to the winning bidder's ad server as well as the CDN. In the case of instream mobile video, the mobile video player would actually be calling the supply-side ad server.

Ad Servers

First off, do you need a mobile ad server? Many ad networks can serve right into your app. However, just like on desktop, a server is a control hub for managing a variety of channels, most famously direct and indirect. (Note that SSPs increasingly can manage direct-sold inventory.) Having a variety of channels to leverage when monetizing your inventory will help you drive pricing to the level it belongs.

Next, the other age-old ops question—“Do I need another ad server?” Major integrated ad servers hit up display and video across channels, including mobile. A multiplatform ad server is a vastly helpful tool in streamlining cross-screen campaign delivery. In addition, creative is increasingly built to be served on a variety of devices, sometimes using a single cross-device tag. HTML-5-created ads may contain multiple creative sizes or responsive coding that adapts to the size of the screen it lands on.

So why bother with a standalone mobile ad server, or an ad server that specializes in mobile? First, that option makes a lot of sense if you're delivering ads only/mainly to mobile applications—chances are you're going to want

a partner that's laser-focused on your channel. You also might need a mobile ad serving specialist if your mobile apps are radically different from your web properties.

Also, if you want to serve highly custom mobile campaigns—that perhaps take advantage of device functionality like a camera or microphone—a mobile ad server might be better suited. These providers also may have tighter connections to demand partners, and smarter piping that reduce ad delivery times and ensure better user experience via ads best suited for mobile (e.g., mobile rich media). Mobile ad servers may also have access to unique data sources for enhanced audience targeting.

A mobile ad server should have many of the same features of its desktop cousin: order and line item priority control, real-time impression and click reporting, frequency capping, pacing control, discrepancy monitoring, etc. But there are some mobile specialties to consider:

- **Support For All Major Mobile Formats:** banner, interstitials, native placements and custom creations.
- **Targeting:** Location, location, location! Gotta get down with the geo-targeting. However, there are other important targeting parameters to consider: device type, operating system, carrier, and IP address. In addition, some ad servers may offer data services helping identify demos like age and gender.
- **Mobile-Specific Customer Support:** If you haven't caught on, this in-app advertising thing is pretty tough; you could really use to lean on your provider for help on monetization strategies and updates on the latest formats and features.

SSPs

The SSP situation in mobile is similar to ad servers—all your SSPs should be able to deliver into mobile, but an SSP that specializes in mobile can offer particular advantages in the channel. This includes relationships with mobile DSPs that ensure smoother transactions and ad delivery, as

well as exclusive data resources—both for audience and other mobile-related data (e.g., audience and location). In addition, a mobile-focused SSP will offer access to a variety of demand sources, many of which will be unique or mobile-based. And of course, SSPs open the door to...

Mobile Programmatic

Particularly when it comes to banners, mobile display is hard to sell directly. Measurement and attribution can be tough to quantify as only recently have audience verification metrics appeared in the channel.

Mobile ad networks offer an easy way to fill up unsold inventory, but mobile programmatic—specifically RTB-based—gives app providers more control over pricing and advertisers while offering transparency into inventory value. When deployed smartly, programmatic also brings speed and efficiency to the transaction process.

What kind of inventory do you sell programmatically?

- **Banner 71%**
- **Pre-Roll Video 15%**
- **Interstitial 8%**
- **Native Placements 5%**

On the other side, advertisers can use a variety of methods, including first-party data and a host of identifiers, to better target their audiences. Similar to desktop, Deal IDs enable private marketplaces, allowing priority access to an app provider's inventory for advertisers willing to pay a premium. Mobile private marketplaces give app providers another level of control when it comes to the advertisers buying their inventory, as well as further leverage over pricing. The next step is experimenting with provider first-party data segments, or second-party segments based on data matching between provider and advertiser (or multiple providers).

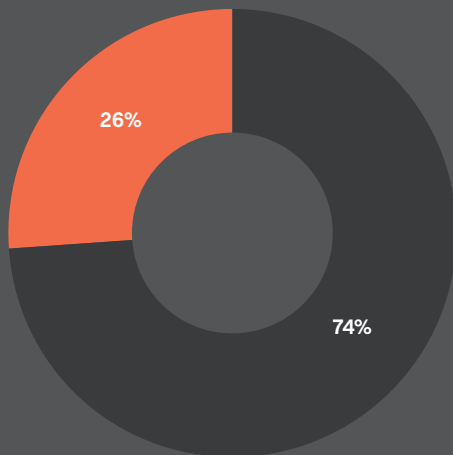
eMarketer predicts that U.S. mobile programmatic display ad spend will hit \$9.33 billion in 2015, an 89% increase over 2014's \$4.44 billion and 60.5% of total US programmatic display ad spending. It's not surprising that it's grown so fast—mobile programmatic display allows advertisers to hunt down their audiences in an efficient manner. However, app providers responding to our story noted that ad quality can be difficult to manage through mobile

programmatic. You will have to keep a keen eye on what your demand sources are sending through and crack down on those that deliver low-quality ads.

Programmatic mobile video is also a growing field, particularly when it comes to interstitials and outstream—in both these cases, video inventory is pretty much invented. However, most premium mobile pre-roll is still being sold directly—programmatic demand for this inventory is high, but the supply is low and advertisers worry about quality.

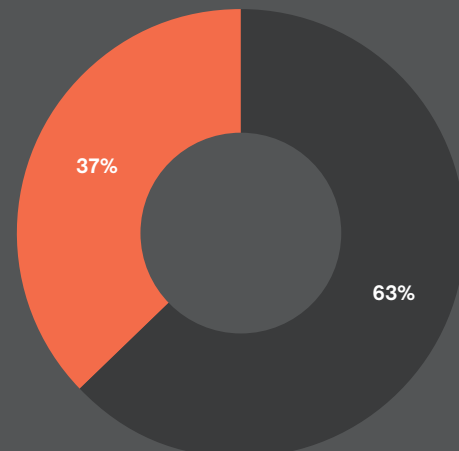
A great deal of premium mobile video inventory is transported from the web and TV, and advertisers are eager to pay for mobile viewers who skew younger. Some providers are experimenting with putting their premium mobile video through programmatic channels (namely, private video marketplaces) to see if they can further drive up CPMs by offering real-time targeting. Expect this space to grow, particularly as advertisers increasingly show a preference for buying desktop video programmatically—mobile will likely follow.

Do you sell inventory through mobile programmatic channels ?



■ Yes
■ No

Do you also employ private marketplaces?



■ Yes
■ No

Good news, everyone! Ad tech integrations for mobile apps bear a lot of similarities to desktop integrations. However, those pesky nuances—particularly when it comes to code updates—can prove to be bitter pills.

First off, integrations start with an application performing interface (API). An API is like an operations manual, or the rules for playing a board game: it's a set of protocols for using certain applications in building your own programs. Say if you decided to use a certain mobile ad network, its API would be an instructions guide for the supply-side ad server to signal ad requests.

However, typically more than one API is needed to integrate with a major partner (e.g., an ad server), which is where software development kits come in. Why do you need more APIs? Well, there's probably more than one ad request you probably want to make off a demand partner, but that's just the beginning. If an API is an operations manual, then a software development kit (SDK) is a series of how-to guides slapped together in giant binder, likely with extra documentation, troubleshooting (i.e., debugging) tools and some helpful examples to boot.

SDKs enable more control over placements and targeting, while facilitating the passage of standardized information. In-app ad tags actually appear within the SDK code. The kits also enable how rich media ads appear over site content or whether apps can play sound or video. SDKs will use mobile operating system advertising identifiers like Apple's IDFA or Google's AdID for tracking and targeting purposes.

SDKs are used for a variety of services beyond ad tech: analytics, social integrations, defense against malware, customer service, etc. According to Datanyze, apps with more than a million downloads use an average of 14 SDKs; less downloaded apps still average around 10 SDKs each.

As we explained in another Playbook, managing so much third-party code can become a hassle fast. Too many SDKs loading libraries and such may result in latency, and disagreeable code can mess with user experience, or even worse, crash the app. Therefore thorough testing and auditing is required before an SDK can go live.

In addition, when your partners update their SDKs, you'll have to re-test to make sure everything is still hunky-dory and release a mobile update. On the other side, when you update your mobile app, you'll have to make sure nothing conflicts with their third-party code.

Since many technology providers (e.g., ad servers and SSPs) have their own integrations with ad networks, DSPs and other demand sources, choosing the right partner is essential. The right mobile advertising SDK(s) can hook you into all the outlets you desire—make sure you perform due diligence on your potential partner's world of integrations.

There is an alternative to SDKs—server-side (or server-to-server) integration. An SDK is a form of client-server integration, which is a fast and relatively easy integration. A server-side integration requires more time and labor in the initial setup, but this effort pays off in terms of fluid communication between servers and lower latency. As we've been saying, time is of the essence when it comes to mobile apps.

In particular, SSPs are increasingly pushing app makers for server-side integrations to receive additional data about users and better monetize inventory through programmatic channels. If you're concerned about latency and think you can drive more revenue through mobile programmatic efforts, this might be the path for you.

Mobile devices have a lot of unique targeting parameters—device type, operating system, carrier, etc. Each of these can be employed smartly: for example, iOS users tend to earn higher incomes, which will appeal to certain advertisers. But the one parameter that really gets advertisers excited is location, which can be discerned through many methods including beacons or geo-fencing. For example, a real-world retailer may use a beacon to later retarget a visitor with a banner on their smartphone.

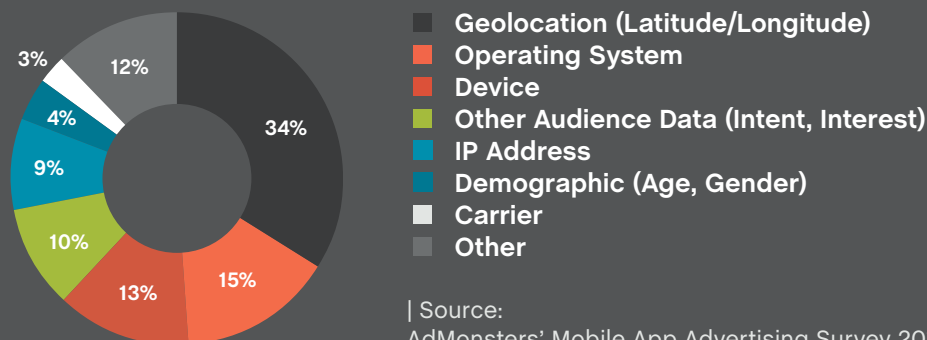
Mobile devices also collect accurate latitude and longitude data, but an application may only access that—and potentially share with advertisers—if it has permission from its users.

Which highlights the secret to gathering great user data on mobile apps: simply asking for them. Of course, getting users to agree to share data requires having reasons for needing them other than “Advertisers will pay me a higher CPM.”

Personal (including demographic) data can and should be applied not just to the advertising but also to content, gameplay and overall app experience. Where location is concerned, a weather app needs your location to give an appropriate forecast; a restaurant recommendation service needs it to share the best food options near you; a social game could use it to find rival players in your neighborhood and a news app could use location to deliver the latest updates in your vicinity.

Personalization of content and participation in social activities like commenting are great reasons for users to log in and supply demographic data—namely age and gender. Users are willing to share personal data with you because they want a highly relevant experience, including the advertising. Also, age and gender happen to be what many advertisers crave.

Which of these data types is employed most frequently within your app(s)?



| Source:
AdMonsters' Mobile App Advertising Survey 2016

This is particularly handy as mobile GRP measurement is gaining steam; the ability to tie target demo performance across marketing channels will boost mobile ad spend. Finally marketers have a comparable, cross-channel digital metric. In addition, logins can also link users across platforms and allow for cross-screen targeting.

With great functionality comes great opportunity—you should work with development to figure out what data is and could be available from users and what you could potentially pass on to advertisers. At the same time, user experience comes first—highly relevant advertising based on demo data (perhaps employed in seamlessly integrated native placements) will help this.

IDs

While everyone's favorite desktop tracking tool, the http cookie, can be used in mobile browsers, it does not work at all in the mobile app environment. Instead, app providers and advertisers must work with IDs to provide frequency capping and audience targeting. These fall into two camps: deterministic and probabilistic. Deterministic IDs are based on some kind of identifiable information: typically a log-in. These include:

- **Software-/platform-based IDs: Facebook, Google, Twitter.**
- **Mobile software IDs: Apple's IDFA & Google's AdID**
- **Publisher-based IDs: Amazon, The Weather Company, AOL.**

These IDs can be targeted and retargeted, but they can only be read by the company that set them—the company that actually holds the identifiable information. Data can be attached to mobile software IDs, which can also be examined and segmented for audience targeting. Social platforms are increasingly leveraging their IDs and data tied to them to offer targeting services to advertisers and app providers alike.

Probabilistic IDs, on the other hand, use hundreds of publically available signals—including device type, operating system, non-private JavaScript commands and ad-serving data for starters—to build cross-channel user profiles. They're called probabilistic because their accuracy is limited—good tech companies land in the 80% range when compared against deterministic IDs.

There is much less flexibility in writing and matching deterministic IDs, but they can be tied together using probabilistic matching. Technology firms such as DMPs build device graphs for advertisers, publishers and app providers that link users across their various devices for targeting. Only the DMP client is able to use these for targeting, which protect user identity.

In short, IDs highly enhance audience targeting in the mobile app while also presenting a more secure form of data passage. Deterministic IDs may be highly precise, but probabilistic methods offer flexibility and the ability for various partners to match deterministic IDs while ensuring user privacy. A good mobile data program will employ both depending on campaign strategy and goals.

What types of data are used for mobile targeting within your app(s)?

- **Operating System 63%**
- **Device 63%**
- **Geolocation (Latitude/Longitude) 56%**
- **IP Address 40%**
- **Demographic (Age, Gender) 36%**
- **Carrier 36%**
- **Other Audience Data 29%**
- **Other 15%**

- In developing your mobile ad strategy, keep in mind why users flock to your app in the first place. The formats and monetization channels you choose to employ should respect your users while being congruent to the overall purpose of the app. Know your purpose and tie the ads to it.
- Make sure to consider app flow—that is, how the user interacts with the app—when plotting out mobile ad strategy and deciding on formats. Minimize interruptions to the app experience (e.g., showing an interstitial when a user selects a notification tab).
- User experience should always be your first concern. Monitoring ad frequency is critical—not just the number of intrusive ads but also the regularity of creative.
- Instead of viewing advertising as interruptive, consider that formats like native (sponsored or placements) can fit seamlessly into the app experience. Layering audience data on top can further deliver better advertising and may enhance the overall user experience. Investigate tech providers' mobile native offerings.
- Mobile banners may be easy to add and use for incremental revenue, but keep in mind the user experience tends to be very poor. Calculate whether their revenue potential is really worth the detriment to app experience.
- While interstitials can basically create high-value video inventory out of thin air, frequency must be taken into account lest users become annoyed by constant interruptions. Don't be blinded by the cash—use interstitials carefully.
- Video can bring quick returns. Will users watch video on their mobile devices? Asked and answered. With higher CPMs than standard display units, look to get on the video bandwagon.
- Leveraging programmatic channels can help scale demand and attract a wider set of advertisers. While banners are currently the most abundant format here, interstitials, pre-roll and native placements are all coming along. Embrace programmatic early on.
- Be choosy in what SDKs you actually incorporate, especially when ad servers and SSPs will have their own integrations into various ad networks and demand partners. Do your homework on who is integrated to whom.
- SDK and API integrations should be straightforward—demand that they are.
- Mobile has great targeting parameters, from geo-location to audience data. Give your advertisers the ability to leverage as much as possible.



- Partner, but partner wisely. With everything going on, you may need multiple tech solutions to complete your mobile ad tech stack. Focus on speed and integration capabilities. Look for providers that understand your space and allow you to position your inventory best in the marketplace.
- When evaluating partners, determine their access to audience data that your advertisers desire to target against—namely age and gender.
- For now watch and learn. It's too early to tell which format will emerge as the best mobile advertising, but build your strategy and tech stack with the flexibility to try new things out such as native or outstream video.

How do you plan to improve your in-app advertising in the coming year?

- Increasing inventory (particularly video)
- Driving traffic and increasing interest in native formats
- Better ad placements
- Implementing/increasing native (placements and video)
- Moving to server-side stream stitching
- Connecting with data partners to boost CPMs
- Enhance targeting capabilities
- Redesigning app and rethinking ad placements

| Source: AdMonsters' Mobile App Advertising Survey 2016



You probably already had an idea that advertising in mobile apps is a very different world from desktop or mobile web. Hopefully this overview of the channel has also highlighted the similarities and boosted your comfort with the ever-growing and increasingly important space.

This playbook aimed to give you a foundation for a mobile app advertising strategy, or ideas for bolstering your current efforts. We have stressed the fundamental importance of user experience on the smaller screen while illuminating the pros and cons of the many available ad formats. In addition, we've dived into the roles of technology partners and the tricky nature of integrations, as well as issues around targeting and data.

The next best resource is your peer app providers, looking to make the most out of advertising. Everyone in mobile app advertising is learning as they go—and the environment keeps changing fast—so now is as good a time as any to collaborate on best practices for the benefit of the industry... For the benefit of all digital media, really.





AdMonsters is the global leader in strategic insight on the future of digital media and advertising technology. Through our conferences, website, original research and consulting services, we offer unparalleled in-person experiences and unique, high-quality content focused on media operations, monetization, technology, strategy, platforms and trends. Founded in 1999, AdMonsters began serving the advertising operations professional through live media and its online community. We provided a forum to share best practices, explore new technology platforms and build relationships. Today's expanding ecosystem now includes publishers and content creators, agencies, SSPs, DMPs, DSPs, RTB and service providers, technology and platform developers, advertising networks, brands, and investors.

This vibrant community is forward-looking and results-oriented. Their success depends on strategic insights about technology and monetization, and the exchange of actionable peer-to-peer best practices. AdMonsters has built its reputation on providing objective editorial leadership based on deep, real-world expertise. We have continued to evolve our editorial strategy to address the changing needs of the market and as a result, AdMonsters has attracted a highly focused audience who are at the forefront of the industry, and leading marketing partners have found AdMonsters to be a powerful channel to reach these decision makers. Today, our portfolio of integrated media solutions includes industry leading live events, our innovative Connect content solutions, email marketing programs, and more.

As of March 2015, AdMonsters is part of the [Access Intelligence](#) family of companies.

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Audience Network

Facebook's Audience Network helps mobile publishers monetize their content through access to 2.5 million global Facebook advertisers. The Audience Network uses powerful people-based targeting to make it easy for publishers to show their audience relevant ads while driving results for advertisers. Featuring real-time optimization capabilities, the Audience Network supports a variety of innovative display and video formats, including native units that preserve the user experience while maximizing ad revenue.

To learn more about how to get started on the Audience Network, contact audienetwork@fb.com

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