In-game advertising the right way

Monetize, engage, retain

A report pooling feedback from
mobile players and developers

◁ unity Ads

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Inside this report

This report takes a deep look at the potential of ads as a tool for mobile game developers to meet with success, evolve as a business, and deliver high quality, popular games that retain and engage players.

And rather than talk to a handful of experts, we've surveyed thousands of developers and players to get a better understanding of their experience using ads, and their attitudes around the relationship between games and advertising. The result is a large quantity of highly insightful data, which this whitepaper summarizes and explores.

Read on and you'll get detailed insight into what does work, what doesn't work, and what type of ads might work for your studio, game, and audience. We've pulled out a few highlights here to give you a quick reference, and a taste of what's in store for those who digest this report in full.

Players

71%
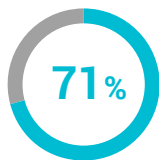
71% of players surveyed cite watching in-game video ads as their preferred way to 'pay' for a mobile game, trumping in-app purchases (IAP) and premium pricing

62%
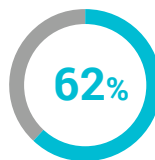
62% of mobile game players regularly choose to engage with a video ad for an in-game reward.

Developers

<10%

<10% – or less than 1-in-10 – developers saw retention drop at all after introducing rewarded video ads.

52%
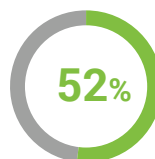
52% of mobile game developers identified video ads as providing the highest revenue per user compared to any other type of in-game advertising.

62%
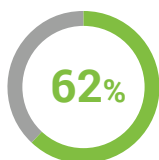
62% of developers introducing rewarded video ads to an existing game saw retention climb or stabilize.

86%
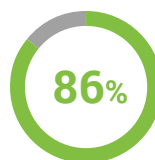
86% of developers saw IAP remain unaffected, or even climb, after integrating rewarded ads into a game.

Understanding myth vs. reality

The relationship games and advertising share is often and easily misunderstood.

Despite almost 40 years* passing since the first advertisement appeared in a video game, misinterpretation and misunderstanding abounds around what ads truly offer our beloved interactive medium. In part, it is because of the rapid progress seen in both game development and ad technologies, and a disconnect between the reality of mainstream advertising and the highly specialized world of game ads.

The rise of video across the gaming landscape has also reset the conventions of what ads mean to games, as well as the potential inherent in bolstering games' maximum revenues. And, of course, in the mobile view-to-play era, game advertising is intrinsically linked with a new backdrop for game design and distribution.

It's an exciting time ripe with opportunity, but clearly there are also a number of cautious assumptions around in-game advertisements, player attitudes towards them, and the impact they have on retention and engagement. Fortunately, the reality is much clearer than many game developers might expect. Recognizing that, the whitepaper you are reading now hopes to make things as simple as possible, using specially conducted research into attitudes to in-game ads – and the impact they have for games makers – as its foundation.

This whitepaper takes a detailed analysis of developer and player data, and offers readers a chance to understand if ads – and what kinds of ads – are a good fit for their games, audiences and business.

It also explores the impact ads can have, and touches on how they are best harnessed to improve everything from revenue to player experience. And we'll even see what place ads have in games already released, but without any integration yet in place.

Numerous case studies already demonstrate that recent critically and commercially successful games have integrated ads productively. To best understand what is possible, an informed insight into the reality of in-game advertising is essential. And that is exactly what this whitepaper – and the research it is based on – has been conceived to provide. So read on, and you're sure to find out how and if ads might compliment your game while keeping your players happy.

*Adventure International's 1978 game Adventureland (TRS-80, Apple II, etc.) contained an ad for the then forthcoming game Pirate Adventure.

A snapshot of the study

The data in this whitepaper was taken from two separate surveys asking both game developers and players for insights into their experiences of in-game advertising in mobile games. Over 2,000 developers and players were surveyed. Developers were eligible to provide data regardless of their middleware and engine choices, and players of games on every kind of mobile platform contributed. Dedicated analysts digested the resulting data, which is examined in depth in this report, with a view to understanding the true potential of ads, and their influence on a mobile release's success and popularity.

Taking a deeper look into the data generated by those surveys, it is clear that in-game ads in mobile games are exceedingly popular with today's developer community. In fact, **almost two-thirds** of developers surveyed for this research have used ads in their mobile games already.

The reasons why so many choose to work with ads is a simple one to understand. A small share of players will actually pay using in-app purchases, placing a significant status on a tiny user-base to fund a game. In-game mobile ads, meanwhile, draw revenue even when players choose to spend nothing, never directly asking for cash, and without preventing those who choose to engage with IAP from spending in-game. The potential of ads to serve mobile games, then, is strikingly apparent, is important, and offers vast potential, not just to individual games, but to the longevity of the studios that make them.

But if ads are in fact unpopular with a game's users, they could be potentially harmful, regardless of what is possible. However – in spite of the sometimes negative assumptions around in-game ads – the survey of mobile players conducted for this whitepaper brought to light many figures that may surprise some readers.

An overwhelming 71% of players surveyed cite watching in-game video ads – 54% of the total choosing rewarded video specifically – as their prefered way to 'pay' for a mobile game.

That's in contrast to the 18% of users who prefer to put down money for a game up front as a premium purchase, and the remaining 11% that are happiest funding a game with in-app purchases. And one key takeaway here is clear - more players surveyed would prefer to engage with rewarded videos in particular over all the other revenues models combined. While 54% prefer rewarded ads, the combined 46% that remains includes premium pricing, IAP and interstitial ads.

71%

54%   **17%**   **18%**   **11%**

| Rewarded video ads | Interstitial video ads | Pay up front | IAP |
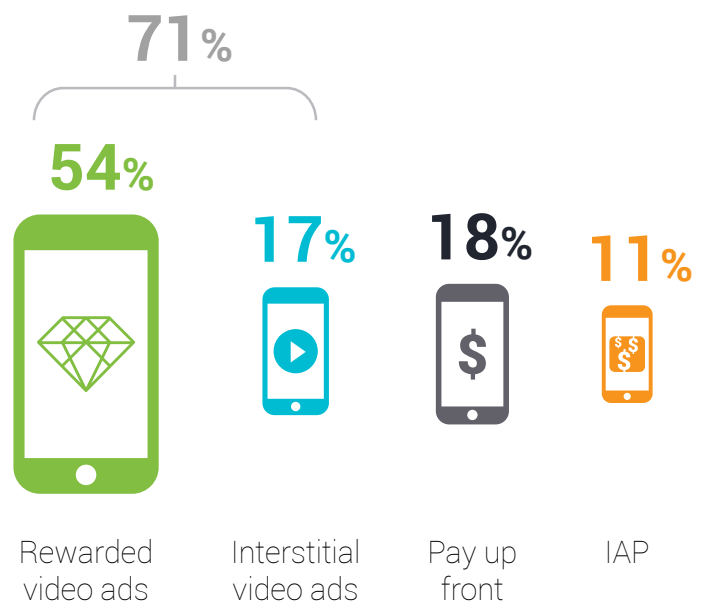
An evolution of mobile gaming:
The rise of rewarded video

Continuing to digest the high-level numbers, it is clear attitudes to in-game ads are changing out in the marketplace, as players become more familiar with the various monetization models mobile games now offer. That trend, in part, is down to technology and understanding of the advertising form's role in games progressing and undergoing refinement. Put another way, the games industry has learned a lot about getting mobile game ads right, and rewarded video ads are emerging as a powerful option for every kind of games maker.

As such, both picture ads and video ads continue to monetize a huge number of games. However, with the rise of video – and platforms that support it – it is notably apparent that static image ads today hold a less significant position in the evolution of mobile games. While the likes of banner ads are not entirely without merit, their habit of obscuring a game and consuming screen estate make them less popular with players, and they are arguably more difficult for developers to integrate into projects in a way that compliments the title in question. Meanwhile, rewarded in-game video ads present a rapidly rising force in monetization, retention and engagement that is proving to be increasingly powerful.

52% of mobile game developers surveyed identified video ads as providing the highest revenue per user compared to any other type of in-game advertising. Broken down, rewarded video ads provided more developers with their highest revenue per user, with interstitial ads just behind. Rewarded video ads, of course, provide the player with complimentary in-game items in return for watching a game, while interstitials automatically run during breaks in gameplay. The automatic nature of interstitials means that they are commonly skippable.

And the reasoning behind the power of rewarded video ads is very straightforward. With most forms of mobile content advertising, the advertiser gains promotion, and the publisher of a game makes revenue. Plainly put, it is a positive experience for those two parties. But for the player, who may find interstitial video, banner and full screen static ads little more than obtrusive and irritating, the experience is negative. Rewarded video ads, meanwhile, do just as their name suggests. They reward the player, meaning the customer, publisher and advertiser all enjoy positive gains. Turning again to the numbers, analysis of the survey data shows high levels of mobile game players today are choosing to back rewarded video ads. In fact:

| 46%	29%	20%	5%
Rewarded video	Full-screen picture	Banner picture	Interstitial video
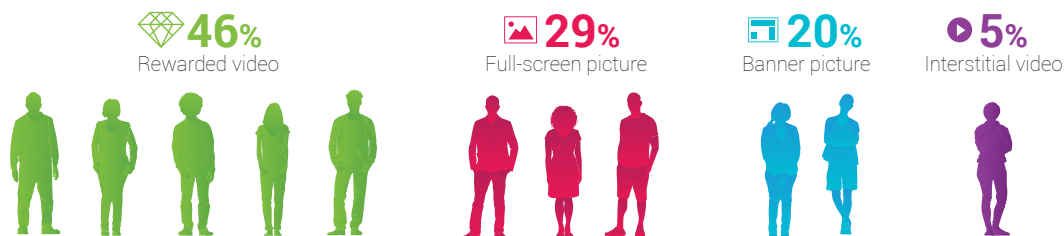
46% of players today prefer viewing rewarded video content over any other ad offering. Banner ads, by contrast, are prefered by just **20%** – so one-in-five – of mobile users.

And there's clear data that points to a definite spread of favor towards video ads in developer circles.

While 26% of developers surveyed would primarily recommend picture ads to fellow games makers as the mobile gaming sector currently stands, a dominant 74% would encourage their peers to opt to include video ads.

58% of the total surveyed prefer to back rewarded video ads specifically when offering advice to fellow studios.

It is important here, however, to ask 'why?'. The survey conducted for this whitepaper did gauge the popularity of ads in games, but analyzing the data sheds much light on the reasons behind the findings. It's very apparent that video ads perform well in terms of revenue generated per user. But why do they do so?

74%

11%

15%

16%

58%

Full-screen picture ads

Banner picture ads

Interstitial video ads
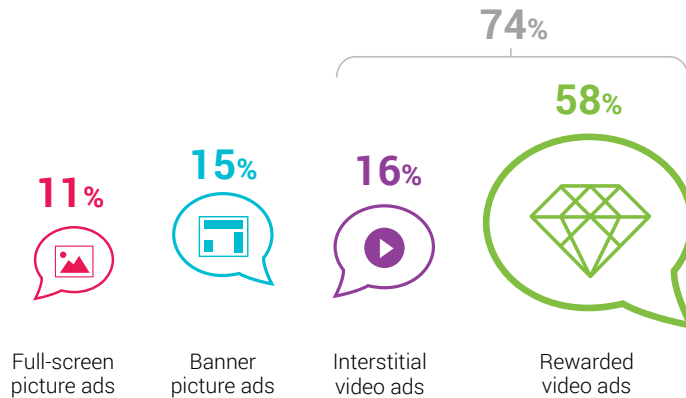
Rewarded video ads

The fact that most players favor video ads as a means to support a game is part of the reason. Rewarded video ads are the consumers' first choice, and thus one that monetizes well, especially since many consumers view static interstitials as intrusive. After all, happy players are staying players, and with rewarded video ads in mobile games higher retention means more viewed ads. That, in turn, boosts LTV and ARPU, which are explained in our useful glossary at the end of this whitepaper.

We can also see by looking at the data, with most users choosing ads over IAP and premium payment, it's clear many preconceptions around rewarded video ads as predominantly unpopular or invasive are largely without any merit.

Even more significant as a demonstration of player attitudes, though, were the players' insights into how they actually engage with in-game ads. A substantial 62% always or sometimes choose to engage with a video ad for an in-game reward, given the chance.

78%

22%

16%

44%

18%

Never

Rarely

Sometimes

Always
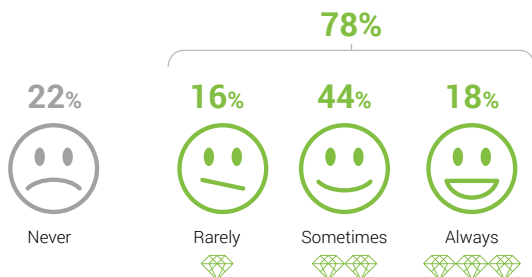
And almost **80%** of players confirmed they are open to engaging with video ads for in-game rewards, meaning only one fifth remain unsure about what ads offer.

Rewarded video ads:
First choice for revenue

It's clear from the survey results that video ads today are important, and provide developers with a powerful tool. But how can you be sure that this is a trend gaining momentum? After all, if video ads' potential to games makers isn't gaining traction, it may not warrant commitment. Crunching the numbers, though, confirms that video ads – and particularly the rewarded variety – are a rising force in mobile gaming.

As we have already seen, 52% of the developers surveyed were confident video provides their games with the highest generating ad revenue source. And 31% – meaning close to a third – of the total see rewarded video ads trumping interstitial video, banner ads and full screen picture ads in terms of revenue per user. What makes that particularly interesting is that today 26% of developers use rewarded video in their ads. Put simply, developer attitudes today demonstrate that many are looking to move to embrace a revenue stream that is already outperforming all others for games makers already on board.

Futureplay's *Farm Away!* integrated rewarded video ads seamlessly into the gameplay

Certainly, more are set to adopt rewarded video ads for their games. As we have seen earlier, 58% of games makers are most likely to recommend rewarded video ads over any other in-game ad form to their game development peers – including interstitial video. And it's very likely that the triple win for advertisers/game developers/publishers, along with the positive experience for players mentioned earlier, is the very reason rewarded video ads are growing in popularity.

What's more, interestingly just 20% of games makers would integrate picture ads into their next release. The remaining 80% are committed to harnessing video ads, and of those developers, 66% – almost two-thirds – will put rewarded video ads specifically into their next game.

20%

11% Full-screen picture ads

9% Banner picture ads

66% Rewarded video ads

14% Interstitial video ads

**80%**

Unexpected Allies:
How video ads and retention work as one

Up to this point we've looked at the remarkably positive impact of video ads on direct revenues, and seen that many of the negative assumptions around ads are, in fact, false assumptions. It turns out that players are very open to ads, and rewarded video ads in particular. And there's been some mention of how rewarded video ads can impact retention. But while it's become clear most players aren't anything like deterred by video ads, can they really have a positive impact on retaining the interest of your audience?

Again, here the figures speak for themselves. Rewarded video ads help elongate retention far more than alternative advertising options. That means revenue that lasts as your studio grows, or prepares its next release. And with video ads attracting higher average revenues per user (ARPU), there's little need to worry that lasting revenue means revenues diluted over time. But that raises another question: how does it happen?

It may come as a surprise to some, but the mobile developers surveyed witnessed a direct correlation between chosen in-game ad types and player retention. Integrating full screen picture ads is — based on analysis of the data pooled from current developer experience — seen as the least sensible option by those making games.

When implementing full screen picture ads into an existing game, 39% of developers experienced users leaving their game either a little faster, or even a lot more quickly than normal. While only 6% of developers saw their players staying increased amounts of time after integrating such static ads.

6%
Retention up

39%
Retention down

Full-screen
picture ads
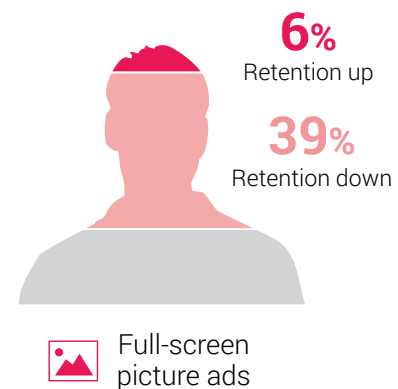
With rewarded video ads, however, 62% saw retention climb or stabilize. Of all those integrating rewarded video ads, 39% saw retention increase, with 19% of the total benefiting from retention climbing 'a lot'.

39%
Retention up

9%
Retention Down

Rewarded
video ads

## When introducing rewarded video ads, less than 1-in-10 developers saw retention drop at all

Ultimately, lifetime value — or LTV — can prove to be a defining factor for a studio and it's games, and with rewarded video ads offering high revenue generation and increased player retention, they can clearly form a robust foundation for meaningful LTV, all without negatively impacting your game or the user experience.

Better Together:
Ads and in-app purchases

The data generated by the survey absolutely reveals the power of ads to increase revenues and retain players, and numerous examples exist that demonstrate how rewarded video ads can be integrated into mechanisms appropriately, to the point that they compliment a given title's gameplay strengths. Yet it would be unreasonable to dismiss the role IAP can provide, even if greater numbers of players today prefer video ads. After all, some of the commercial giants of mobile gaming built their empires on IAP, and the form continues to prosper.

14%
Of users
spent less

16%
Of users
spent more

70%
No impact

86%
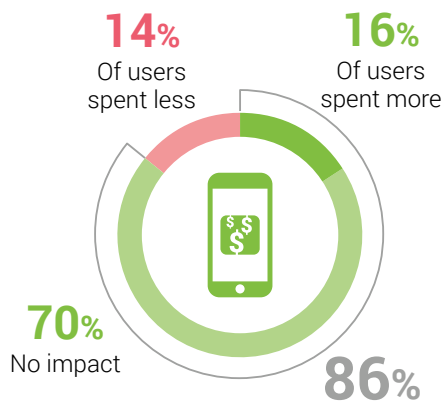
Fortunately, as suggested above, rewarded video ads need not come at the expense of IAP. Doing both lets you please and monetize both player groups; those that prefer IAP, and fans of 'paying' through rewarded ad consumption.

And looking at the ad models collectively, an overwhelming 86% of developers integrating rewarded ads into a game with existing IAP saw in-app purchasing remain unaffected, or even climb.

That's over four-fifths of spending players undeterred by ads, with many spending more as a result.

There's also good reason to be confident that rewarded video ads are the best form of advertising to compliment a healthy level of IAP in a given mobile game. Developers who primarily use IAP are most likely to pick rewarded video ads as their favored advertising option – 26%, in fact – demonstrating a larger group than any other.

Importantly, however, it's worth noting that interstitial video ads are far less reliable for developers with live games that also offer IAP. In fact, almost two-thirds of developers saw interstitial video ads negatively impact users' engagement with IAP, demonstrating the importance of choosing the right ads for your game. As a rule of thumb, the data demonstrates rewarded video ads are today – and looking forward – the best match for games that use IAP, as well as those that don't.

There's a golden rule of game design that many will know through gut instinct rather than quantitative data, and it extends far beyond the remit of ads. Whether you're considering casting a voice over actor or mapping out your DLC plans, 'start early' is always good advice. And the same, unsurprisingly, also applies to best integrating ads into your game.

Another strength of rewarded ads is that they need not come at the expense of IAP
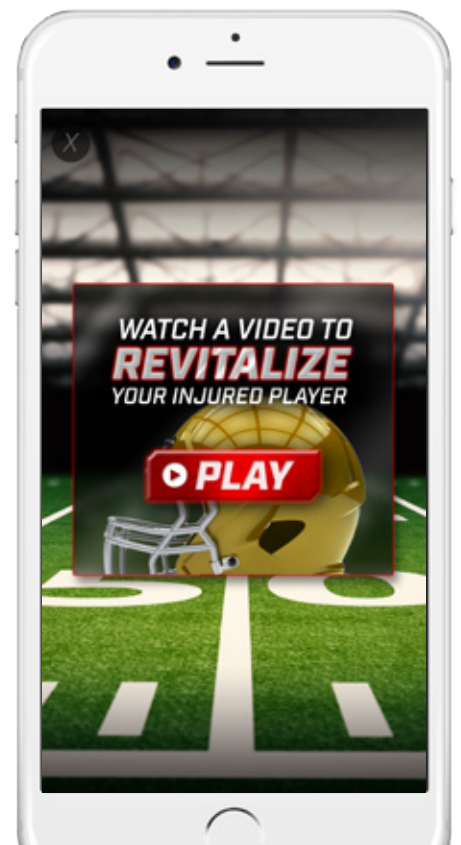
Perfect Timing:
When to implement ads

Integrating ads early remains the best option, and that is always the prime recommendation. It's likely the reason most larger companies of five-to-twenty staff are already planning on introducing ads to their next mobile game project. In fact, 67% of studios with that headcount surveyed have selected rewarded video ads for their next mobile project. With wages to pay and a company to keep afloat, sustainable development and live game servicing are essential, meaning deciding early – as nine-out-of-ten of those larger studios have in choosing video ads for their next project – is the way to go with optimized ad integration.

80% of those surveyed chose to integrate ads *before* making their game live in an app store.

It's a figure worth bearing in mind, especially if you subscribe to the wisdom of the crowd. And the reasons to implement before release are compelling. If you are lucky enough to get featured by an app store – which happens far more commonly to new releases – having ads integrated already will see your revenues benefit from all the attention your release is getting early on. Players, press and app store editors alike are beguiled by new releases, and every day that passes with your game yet to have ads implemented is a day of missed potential revenues.

However, in the era of 'games as a service' where the work on a title can feel like it really starts after release day, the development effort continues long after launch. That can mean many changes after a game's release, and a perfect world where everything is nailed down long before launch is simply unworkable for many studios; particularly those enjoying seeing their game thrive over many months, perhaps outliving a trend in the sector.

Fortunately, for those reading this considering putting ads into an existing, live game, they can be introduced post-launch to great effect. In fact, **70%** of those surveyed that integrated ads to a game post-launch saw revenues climb significantly or raise slightly.

Breaking down the numbers, of all developers in the position of post-launch ads integration, 58% saw revenues climb somewhat as a result of the work, while 12% saw revenues jump 'a lot' in the same situation.

That said, integrating early is always best as you can seamlessly design into the core loop of the gameplay. But it's never too late to integrate ads into your game. The numbers fall in your favor; your game's revenues are still likely to climb, even if you game has been live for some time.

Looking forward:
The future of in-game ads

Looking at all the data in detail, it's hard to ignore the fact that in-game ads offer a powerful tool for mobile games. And it is equally apparent that rewarded video ads – as opposed to interstitial video ads – are likely to be the best choice for mobile games makers.

Player attitudes are increasingly positive towards in-game ads, and particularly rewarded video ads; a fact that may surprise many. Though with consumers increasingly familiar with the workings of the F2P mobile era, they have chosen their favorite way to fund the games they play.

Rewarded video-ads, in turn, offer improved revenues, do not come at the expense of IAP, and compliment or even extend retention and LTV.

Rewarded video ads are not only the most popular option for players, but they are commonly the highest earning monetization method for developers at studios of every size. And even if your game is live, it is not too late to harness the potential of ads.

Choosing the right ad platform for your game will be important, as will exploring the best means to design rewarded video ads into your game. But absolutely, the option is there, and the numbers suggest more developers continue to move to embrace such ads, or plan to make it a focus of their next release's financial plan.

For now, rewarded video ads offer a way for mobile game developers to thrive commercially while sitting on the cutting edge of monetization, and increasingly, they look set to become the norm, just as once paying for a game upfront – and in a box – was a standard that defined the industry.

As for where to go next, you'll have to make your own decisions. Unity and its community already provide plenty of insights, which you can start to explore here. Whatever road you take and however you decide to monetize, remember one thing; in-game ads have come a long way in 40 years, and today they provide a way to court player's devotion as well as a means to pay the bills.

You will want to decide how your game and advertising can work together to maximize your game's revenue and grow your business. As we've seen throughout this whitepaper, there's plenty of potential for success if you do embrace the rising trend that is rewarded video ads. And Unity can help you, with its powerful, scalable and accessible Unity Ads monetization platform. You can also contact the Unity Ads team, who will be happy to help you with best practice insights so you can implement ads that compliment your game, extend retention, engage players, and boost monetization.

Thank you for reading.
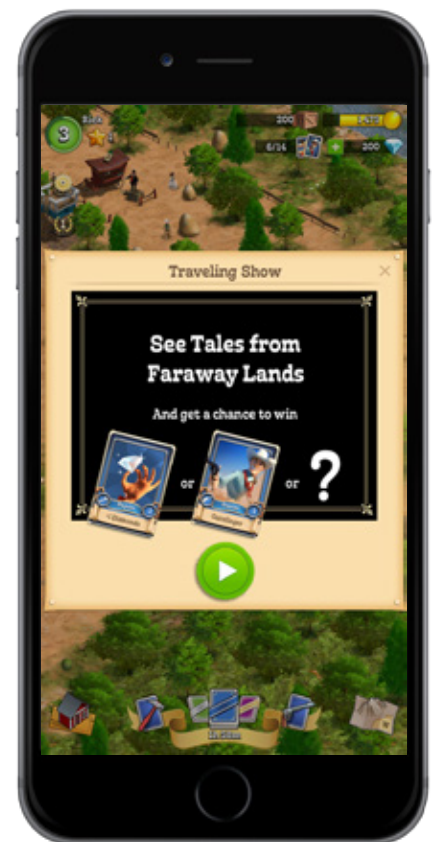
Strategic integration, as seen in Next Games' *Compass Point: West* can serve to extend the theme of a game with its revenues

A mobile advertising glossary

ARPU - Your 'Average Revenue Per User' offers a picture of how much you are taking from each player, gathering the figure from your paying and non-paying customers. Not to be confused with ARPPU.

ARPPU - As above, but this time the acronym denotes 'Average Revenue Per Paying User'. An important figure in tracking how much paying users alone contribute to your game's success, while ignoring those that pay nothing.

ARPDAU - A game's 'Daily Active User' rate is highly significant, as it tallies only those playing your game regularly, rather than the total downloads, which may include many who have lapsed from using your game. ARPDAU, then, is you 'Average Revenue Per Daily Active User'. 'MAU' or 'Monthly Active User' data is also common.

Ad Exchange - An Ad Exchange is a service and marketplace that automates the buying and selling of ads for advertisers and game publishers/developers.

Ad Network - An Ad Network is provided by a company that specialises in connecting advertisers to websites that want to host their advertisements. An ad network's function is to aggregate ad space supply from publishers and match it with advertiser demand.

Banner Ad - One of the longest-serving mobile game advertising forms, banner ads place static image ads above or around your game, typically occasionally, but sometimes continuously.

CPI - 'Cost Per Install' covers the ways you can effectively 'pay' for completed downloads of your game, for example through paying another company to reward players of their game with free in-game resources if they download your game.

CPA - Very similar to CPI, CPA is the less specific 'Cost Per Acquisition' and covers all methods for acquiring users, including those that are not direct 'pay per install' schemes, and CPI methods.

eCPA - Arguably more important than CPA, 'effective Cost Per User' is considerably tough to track. It includes not just direct costs of acquisition, but also indirect costs, such as social media campaigns and PR activity, and also counts users acquired virally, through word-of-mouth, from media coverage and so on. Typically then, eCPA is lower than CPA. eCPA must be lower than the LTV of your players for you to make money.

eCPM - Here we are talking 'effective Cost Per Mille', which brings a little Latin to the mobile game advertising glossary. With 'mille' meaning 'thousand', eCPM details the effective cost of the advertising revenue generated by every 1,000 impressions.

DSP - A DSP is a "Demand Side Platform", meaning a tool that automates ad buying across a number of networks and exchanges, while providing data and other assistance in targeting and optimizing ads.

Engagement - At its most simple, engagement is about how captivated a player is by your game: how into it they are. As a technical term, engagement is connected to how frequently a player returns to your game, and for how long. The more engaged the better, because highly engaged players are more likely to pay or view more ads.

Full-Screen Ad - 'Full-Screen Ad' typically refers to static image ads that cover the whole game screen, appearing at set breaks in gameplay. This more traditional method can be deemed particularly obtrusive by the player.

IAP - 'In-App Purchases' are items bought in-game with real money, or with in-game currency that can itself be purchased with real money, as well as earned through gameplay.

LTV - 'Life Time Value' is the amount an average player will spend over their entire time with a game. This figure is very directly linked to your retention, because the longer a player stays, the more money they put into your game, be it through IAP or viewing ads.

Picture Ad - A broad term, 'Picture Ad' details non-video or static mobile game ads, such as banner ads and full-screen ads.

Premium - Games paid for entirely upfront, as with traditional boxed games and many early mobile games. Premium still has its place in the modern mobile landscape, and premium games can still generate aftersales revenue through downloadable content expansions – distinct from IAP – such as new level packs. Premium is a very rigid model, but does still court higher credibility with some player demographics.

Retention - Whether you use ads, IAP, or any method where the player pays or generates revenue after they have started your game (rather than paying upfront), retention is perhaps the most important factor. Retaining players means keeping them coming back and engaging with your game. Retained plays make your game money, whereas leaving players do not.

RTB - RTB stands for 'Real Time Bidding', and concerns the practice of buying and selling ads live, on a per-impression basis. Many platforms and services support and host RTB.

SSP - A 'Supply-Side Platform' or 'Sell-Side Platform' is a technology platform that enables web publishers to manage their advertising space inventory, fill it with ads, and receive revenue.

User Acquisition - Broadly speaking, user acquisition covers the many methods for gaining players. Often its use refers to the likes of CPI schemes, but advertising and marketing your game is also an act of user acquisition. Some would even include designing a game to be popular as an act carried out in pursuit of user acquisition.

Video Ad (Interstitial) - A video ad that interrupts gameplay at a predetermined break. These videos are often skippable, and can be deemed more intrusive than their rewarded cousins.

Video Ad (Rewarded) - Video ads in games that are rewarded grant the player access to in-game items and content in return for watching an ad. They can most readily be integrated into a game's design and gameplay mechanics, for example through being fused with GUI and flowed into the core loop of a given title's gameplay.

About the research

Unity Technologies conducted detailed surveys completed by over 2,000 mobile game developers and players to gather the data used in this whitepaper. While the developer pool could include Unity users, the survey was completed by developers using a wide array of middleware and game engines, and was shared in a platform-agnostic manner, with no use of Unity-specific contact lists. Figures related to developer feedback in this whitepaper are taken from those developers that indicated experience of mobile development when completing the survey. Percentages are rounded up to the nearest non-decimal figure. The survey of developers ran from November 10th to November 16th, 2015. The survey of players ran from November 12th to November 16th, 2015.

About Unity Ads

Unity Ads is designed to become a natural part of your game that actually enhances your players' experience and monetizes your entire player base with video ads. In fact, Unity is one of the most trusted companies in gaming with staying power backed by a network of over 1 billion gamers across the globe. Whether you offer your gamers a chance to earn more currency, extra lives, or double their score in exchange for watching a short video, the power is in their hands. Your players can choose to watch the ad at the right place and time in their game experience - putting more money in your pocket over the gamer's lifetime with the highest ARPU of any global rewarded video ad network. Contact us at unity3d.com/ads