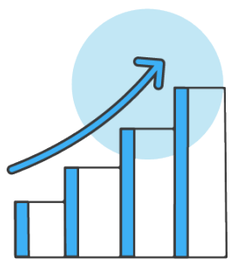
The State of Gaming App Marketing

2019 Edition

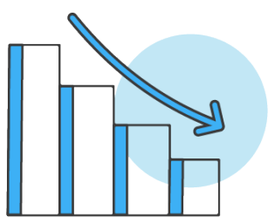
AppsFlyer

Key Findings



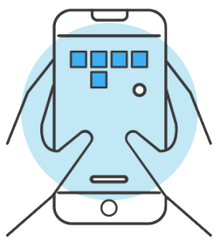
34%

Increase in the share of revenue generated from ads among core games: +40% and +32% in Hardcore and Midcore games, respectively.



-40%

Drop in the share of paying users in core games: -46% and -15% in Midcore and Hardcore games, respectively.



50%

The share of markets where Hyper Casual is the largest genre in terms installs, up 150% year over year.

51%

Average Revenue Per Paying User (ARPPU) increase among users exposed to retargeting campaigns.

AppsFlyer

Data Sample

38B

App installs

20K

Apps

4.5B

Daily active users

220M

Paying users

Genre groupings were comprised of the following app store categories:

Hyper Casual:	Apps with at least 90% of revenue coming from ads (category does not exist in the app stores)
Casual:	Casual, Puzzle, Card, Board, Word, Educational, Trivia, Family, Sports
Midcore:	Adventure, Simulation, Action, Arcade, Racing
Hardcore:	Strategy, Role Playing
Social Casino:	Casino (not real money)

* All data used in the report is measured by AppsFlyer, the leading mobile attribution and marketing analytics company that measures the effectiveness of its clients' app marketing campaigns. This is done via integrations with leading media partners, as well as its propriety SDK implemented in its clients' apps. All data is anonymous and aggregated.

Installs

Hyper Casual Hype Continues As Marketers Seek to Meet Demand

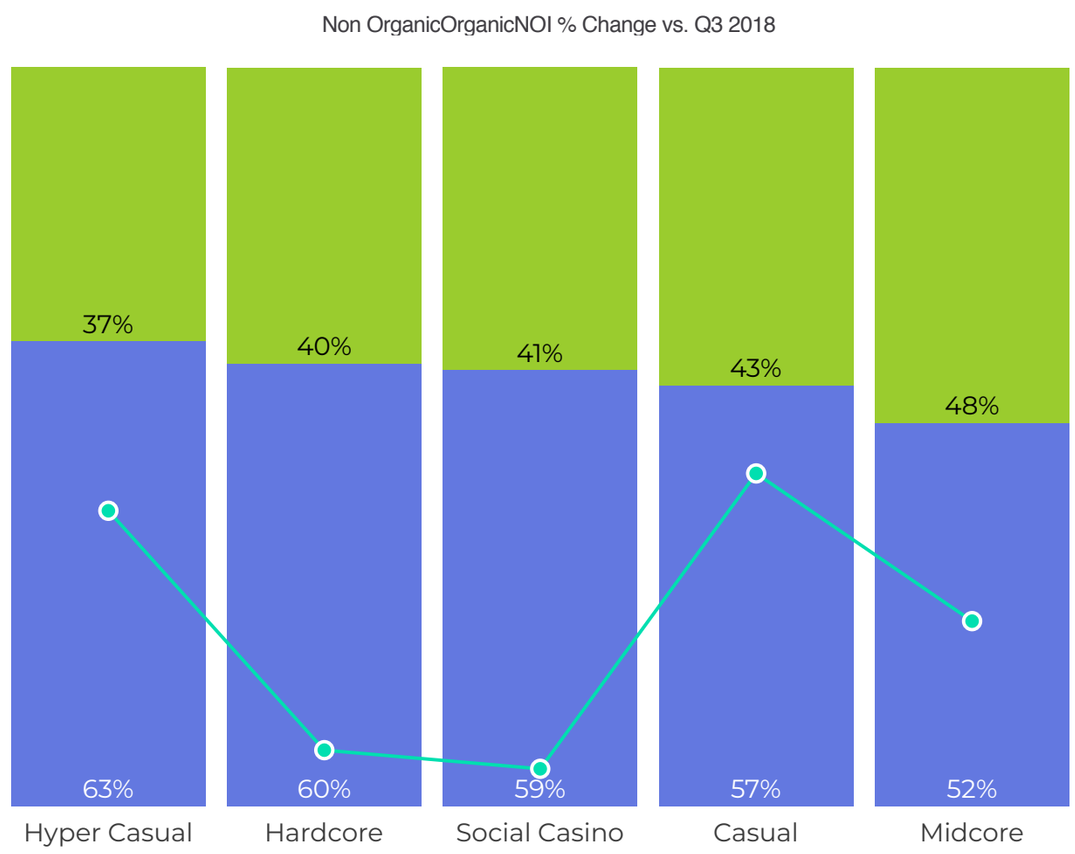
As Hyper Casual games are becoming relevant to an increasingly wider audience - from new to experienced players - apps in this genre are continuing their upward trajectory.

Indeed, there is continued growth in the genre's share of non-organic installs (16% year-over-year), which is also the highest among all genres at 63% of installs in Q3.

The success of Hyper Casual games has also driven a significant increase in the sheer number of these apps in the market (see page 10 for more), which in turn has led to heightened competition for every player. As a result, marketers are employing aggressive user acquisition strategies to drive scale. Despite the overall shift towards quality, quantity is the name of the game in this genre.

Across the board, we can see that driving organic users continues to challenge gaming apps. To stick out and meet the growing demand among endless supply, marketers are forced to increase their UA budgets and use multiple sources to extend their reach.

Average Share of Non-Organic Installs Per App Per Genre (Q3 2019) *



*Among apps with marketing budget - at least 2,000 NOI per month per country

Smaller Apps Cannot Rely on Organic Traffic

It is assumed that the larger your game, the larger your share of organic traffic. Well, this is mostly true.

In this chart, we have divided apps into four quartiles based on their overall install volume, and then calculated the average share of non-organic users in each quartile.

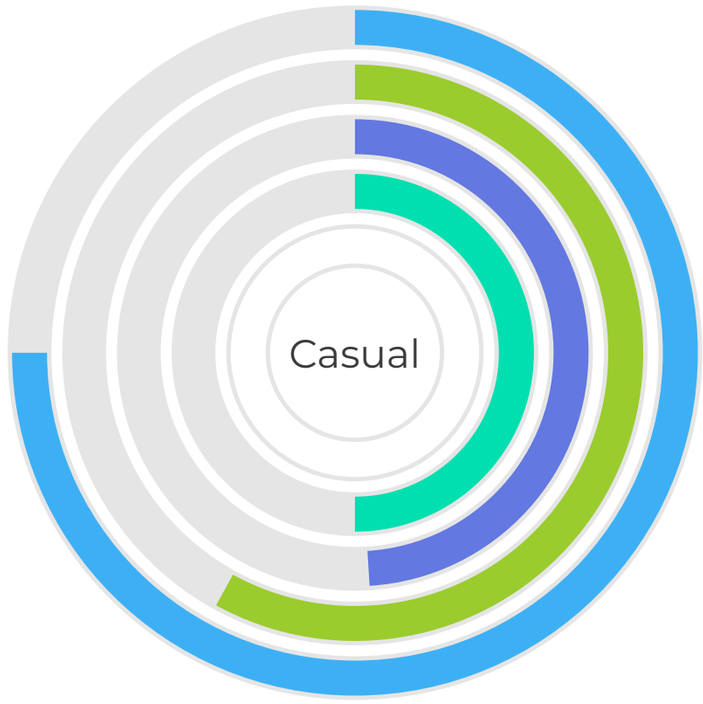
In all genres, the smaller apps were completely reliant on NOIs, particularly in Casual and Midcore games, where 75% of users were paid for.

However, Midcore games have the largest gap between small and large apps - a 43% difference in the non-organic share in favor of the higher scale games. In addition, we can clearly see that the larger a Midcore app is, the lower its share of non-organic users.

Hyper Casual apps hold the lowest variance between quartiles, with only 6% difference between the higher and lower scaled apps. In this genre, aggressive UA strategies are used, regardless of app size.

Average Share of NOI Per App Per Quartile (Q3 2019)

Casual | Hardcore | Midcore | Social Casino | Hyper Casual



1st quartile 0%-25%2nd quartile 26%-50%3rd quartile 51%-75%4th quartile 76%-100%

Hyper Casual Takes Top Spots Across the Globe

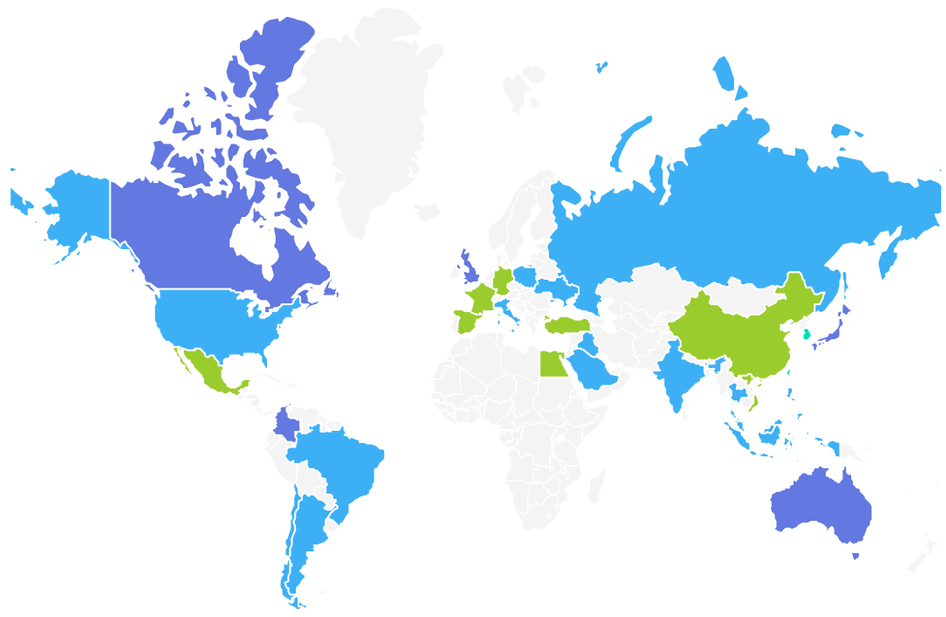
A category distribution by country shows that when it comes to the average number of installs per app, Hyper Casual games are dominating across the globe.

The category is the largest in half of the top markets, including the US and most of Europe and Latin America, as well as India and Southeast Asia. This represents a significant jump from 2018, when Hyper Casual was #1 in only 20% of markets. Most of its growth has come at the expense of Midcore games.

As expected, although the Hardcore category has many hugely successful Strategy and RPG games, it is still relatively niche - in 2018, it was the largest category in Japan, but in 2019, it did not reach the top spot in any market.

Top Genre by Average Number of Total Installs Per App in Top Markets

2019 | 2018



Hyper CasualMidcoreCasualSocial Casino

Find New Users Outside Your Comfort Zone

Mobile app marketers constantly seek new territories to grow their app and

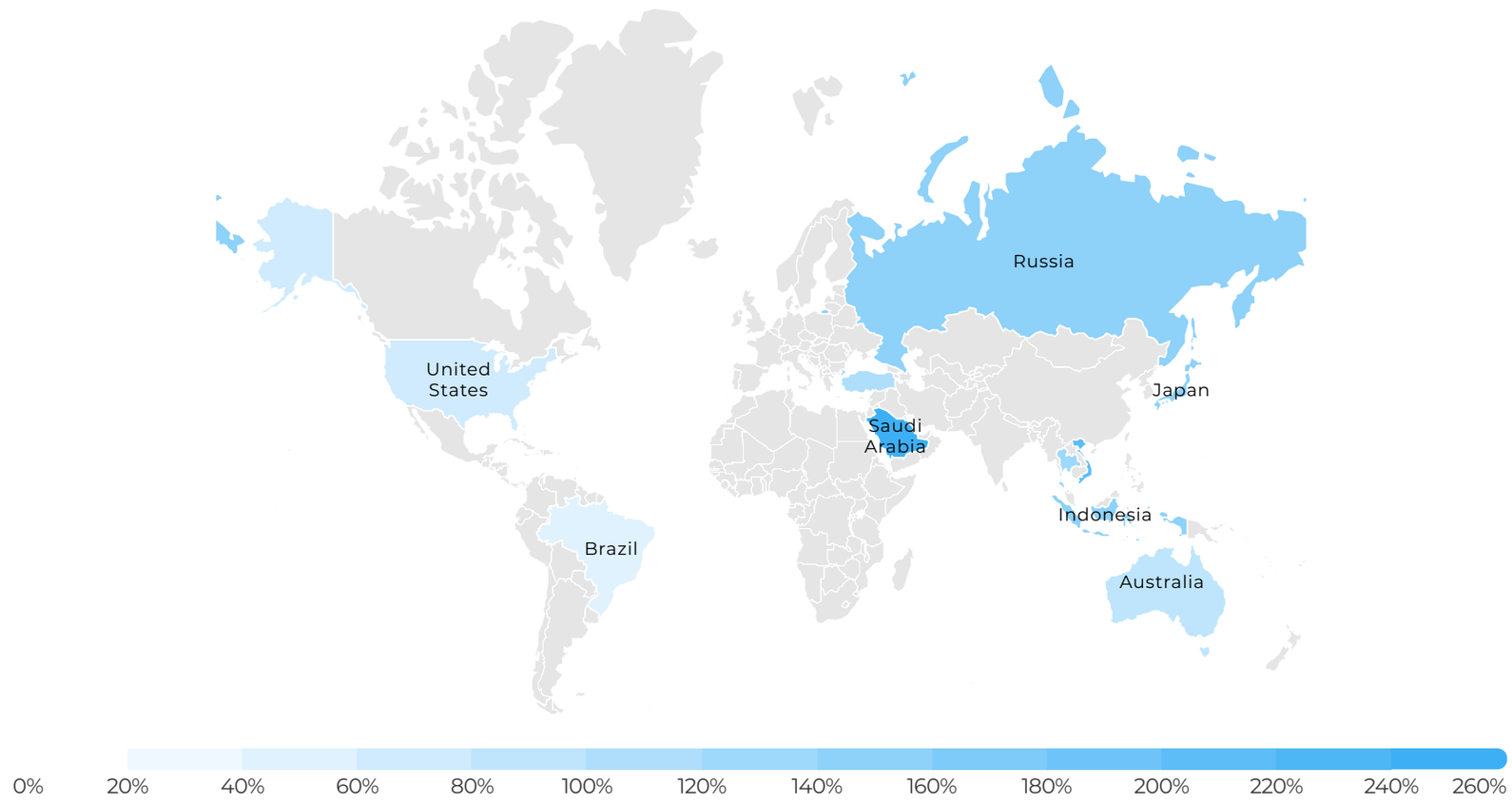
Top 10 Fastest Growing Markets by NOI Growth (2018 vs. 2019, Among Top 50 Markets)

Hyper Casual | Casual | Midcore | Hardcore | Social Casino

new territories to grow their app and include within their user acquisition plan.

Russia and Brazil are among the top growing countries in 4 of 5 categories, while Indonesia and Thailand are included in 3 of 5 categories and show the fastest growth in APAC.

Interestingly, the Middle East is showing great potential for gaming, with Saudi Arabia growing fastest in the Hyper Casual genre, and Egypt appearing in both core game genres.

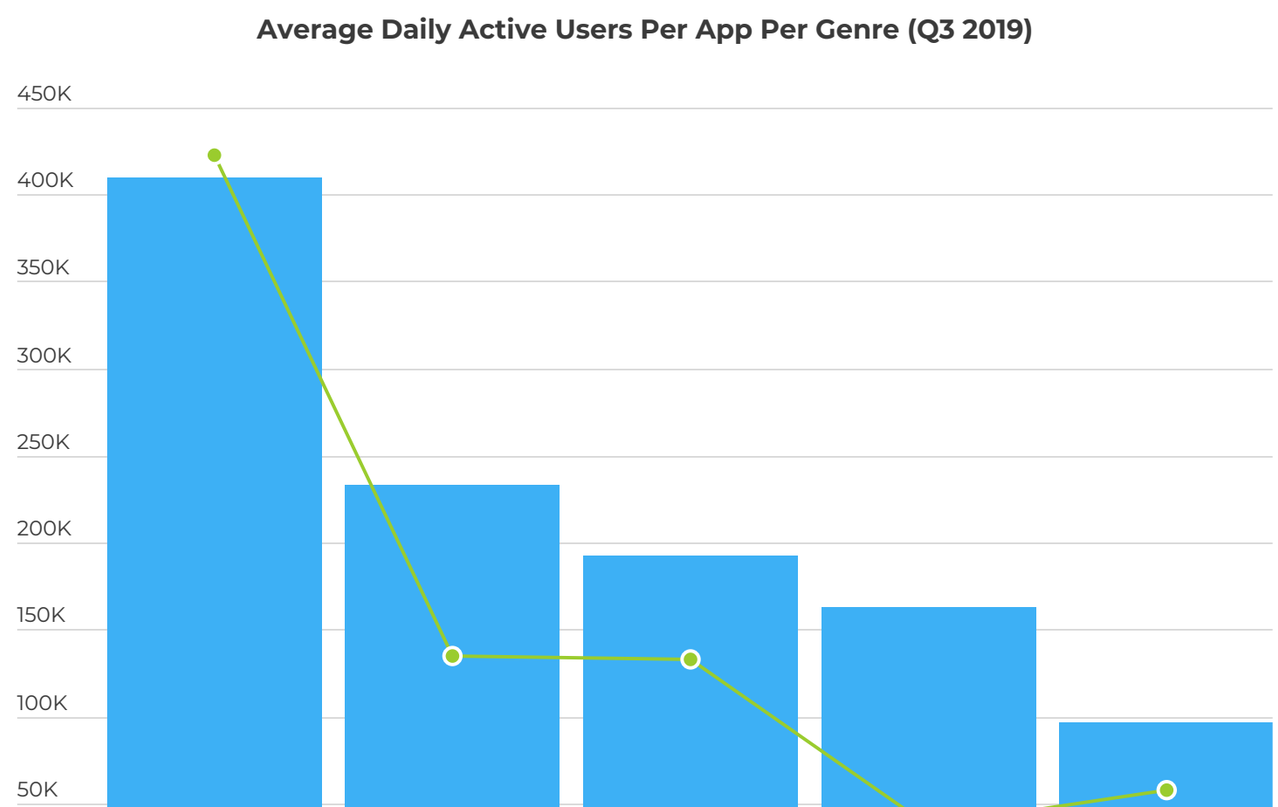


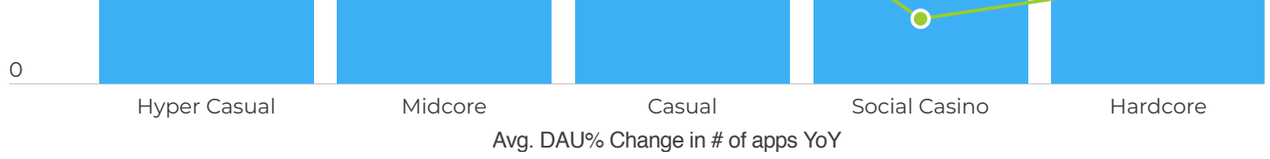
Engagement

Hyper Casual Dominates DAU Metrics

To support the continued hype around Hyper Casual games, we can see marketers in this genre have the highest number of daily active users, by far. This is not surprising considering the aggressive UA strategy we've seen in Hyper Casual games, and the relevance to a wider audience than other genres (appeals to experienced and new players alike).

However, it is important to add that, in a year-over-year comparison, Hyper Casual has also seen the largest drop (-58%) in the average DAU per app. It is a logical drop since we are talking about the hottest genre in gaming with a +169% YoY increase in the number of apps - more than 3x compared to the industry average. This increased supply leads to a natural decrease in the DAU metric of the average app.





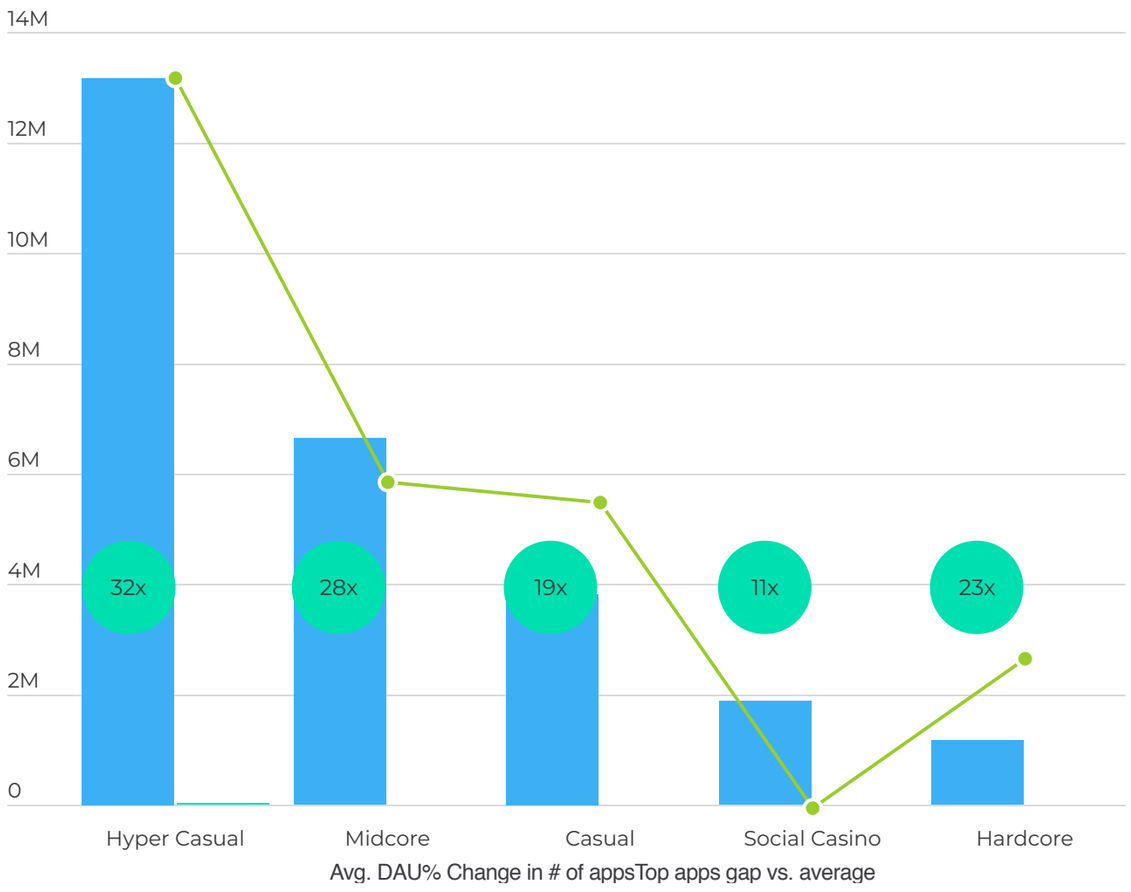
Top Apps in a League of Their Own

Interestingly, apps with the highest number of DAUs in the mobile gaming ecosystem - those that are usually removed when calculating benchmark averages, as they are statistical outliers - are miles ahead of the industry average.

The data shows that the number of top performers is on the rise (aside from Social Casino apps), creating fierce competition at the top and diversifying the top charts.

With that said, the gap between the top apps and the average illustrates just how centralized the space is. On the plus side, it points to the massive potential of the gaming space and the sheer size of the target audience that developers can strive to reach.

Average Daily Active Users Per App Per Genre, Top 10% of Apps by DAU (Q3 2019)



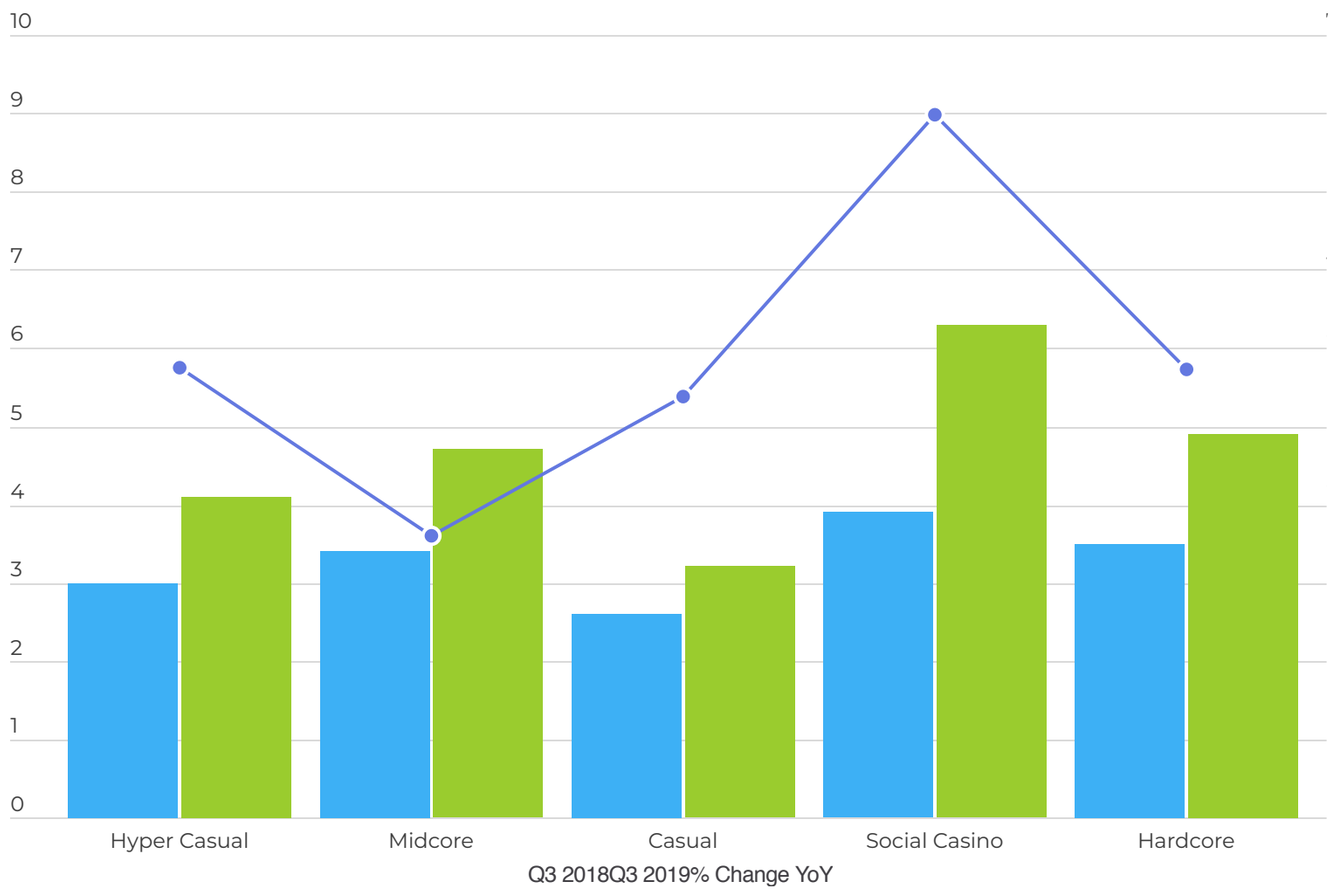
Stickiness Rising - Users Are Playing More Often

The ratio between daily and monthly active users informs us about the frequency in which users play a game. Specifically, the number represents the average number of days a user opens the app per month.

The findings show that the average user plays a game more often this year than last year, particularly in the Social Casino genre. Other genres achieved significant growth as well.

Increased stickiness is connected to the rise in the supply of games, offering players a never-ending variety that allow users to find games designed for their exact taste, and play them more often before moving on to the next game.

Average DAU/MAU Trend Per App Per Genre



iOS Retention Reigns Supreme, But Overall Rates Remain Unchanged

Retention is perhaps the most important KPI for measuring a game's quality. However, the low rates, and the fact that they have not changed much in the last couple of years, is causing quite a headache for developers in all genres.

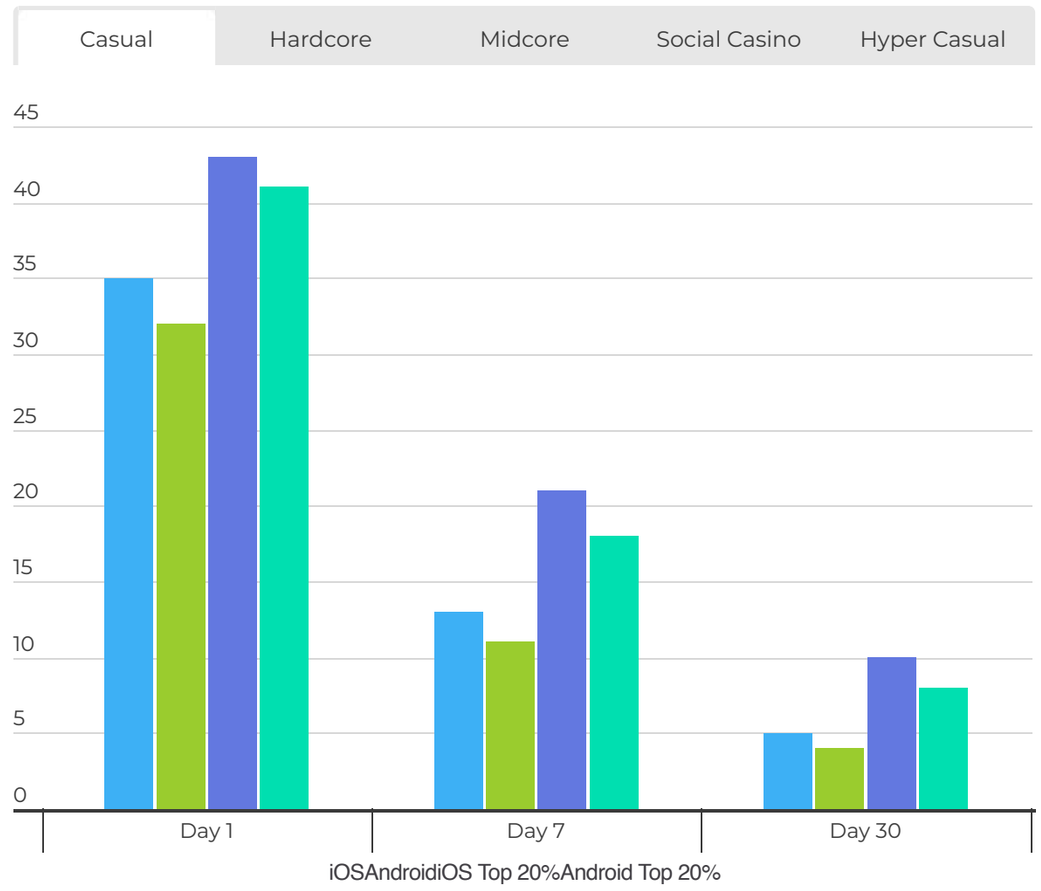
We would expect to see that the overall growth in mobile gaming will have more of an effect on retention, but the fact is that not much is changing, pushing developers to improve their monetization strategies and pursue faster ROI and incremental revenue growth.

The only interesting finding worth noting in this context is the clear advantage iOS has over Android, at least in its ability to deliver higher quality users in all categories.

Despite the challenges of retention, marketers should, of course, always aim higher. Their goal: the retention of the top performers in their category (in this case, the top 20%), which have achieved a rate that is up to 60% higher than average on Day 7 and up to 100% higher on Day 30.

For complete category/country retention benchmarks, click here.

Average Retention Rates by Platform and Category (Q3 2019)



Games Uninstalled in Droves

Uninstalls are an unfortunate fact of life in the app marketing space. They are widespread, particularly for gaming apps, and particularly on Android.

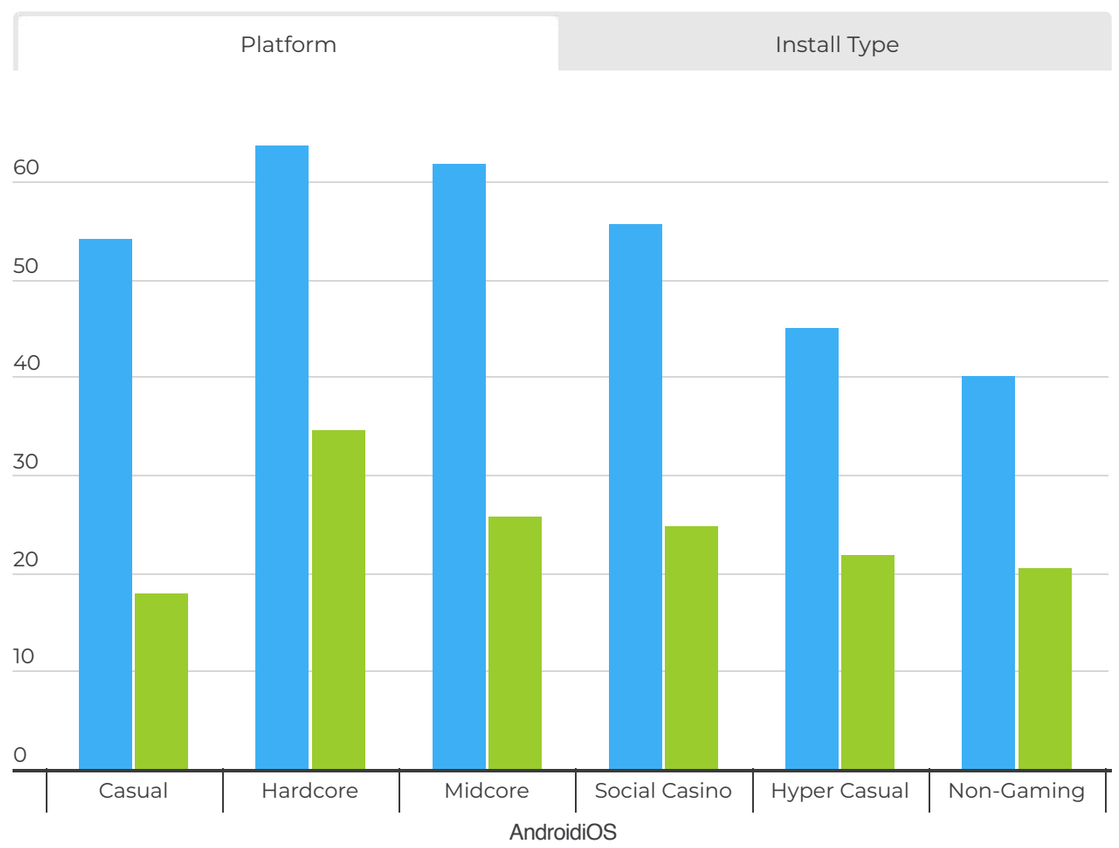
Therefore, marketers must add this KPI to their custom data flow, as it offers a complete view of acquired users, making it a key variable in the UA strategy equation.

The analysis of over 250 million installs found that gaming apps suffer from a 34% higher uninstall rate than non-gaming apps. No doubt its a big gap, but it is also somewhat expected when considering the massive growth of gaming apps and player bases. It also goes hand in hand with the exploratory player mindset of trying out new games and uninstalling them if they are not the right fit, or moving on to the next game, which is extremely common due to the short lifespan of the average game.

A platform comparison shows Android's uninstall rate is 125% higher than iOS, mainly the result of the diversification of Android devices and the average storage space.

Install type breakdown shows organic users have a 14% lower uninstall rate compared to acquired users - a much lower gap compared to non-gaming apps.

Average Uninstall Rate Per App (Q3 2019) *



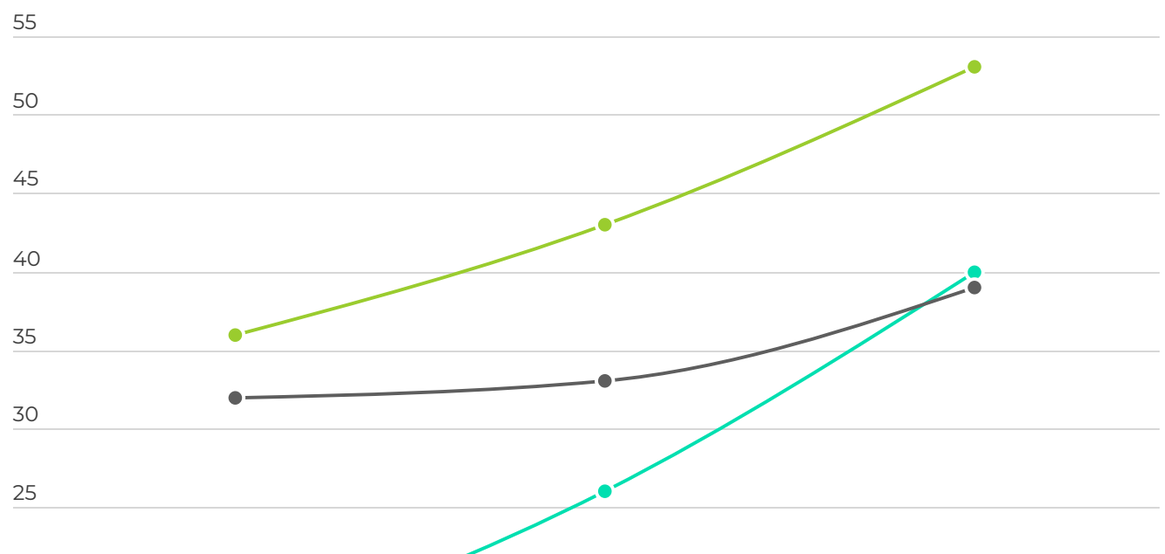
* Within 30 days of an install

Re... What? Retargeting Adoption in Gaming Lagging

Perhaps the biggest miss for gaming apps this year is retargeting.
This activity, which is much more affordable than user acquisition, is already widely used in other categories. In general, gaming app marketers are considered ahead of the curve, but when it comes retargeting, the opposite is true.

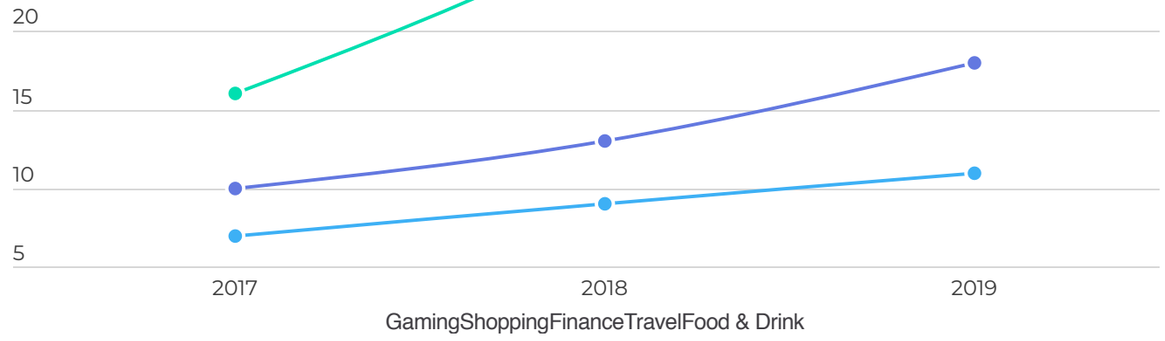
The value of retargeting for non-gaming categories whose sole purpose for users is making purchases is clear. The purpose of a game is to play rather than to buy, but when taking into account a) retention struggles, b) the much lower cost of retargeting vs. UA, and c) the advanced utilization of

Percentage of Apps Running Retargeting Campaigns (2017-2019)



data among gaming apps to generate ROAS from UA, the fact that so few are running retargeting is somewhat surprising.

A concern about measurement has surfaced, but this is largely based on a misconception or lack of education (click here to learn about how to measure retargeting, and here to watch a video showing how gaming apps can make it work!)



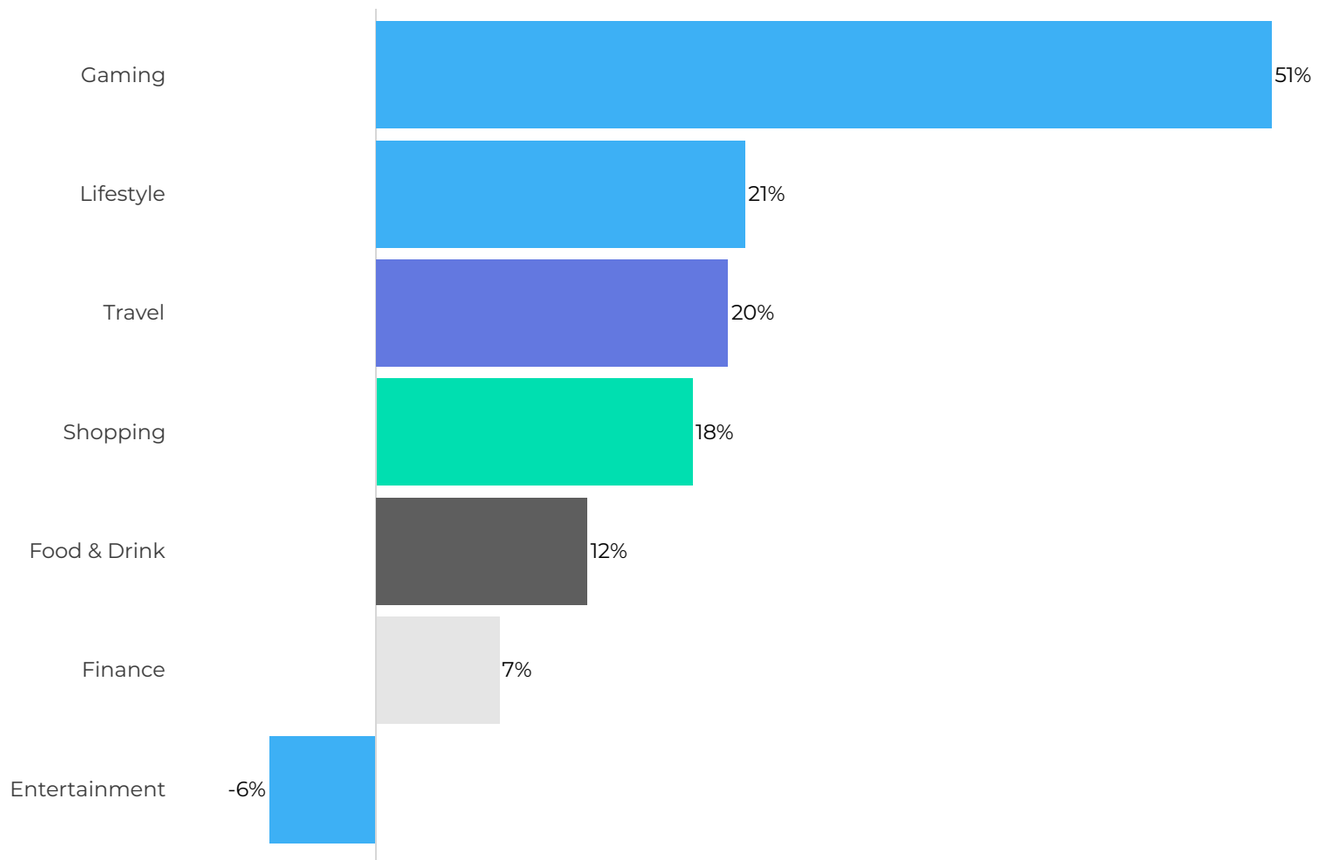
The Data Has Spoken: Retargeting Works for Gaming Apps

Despite the low adoption rate of retargeting among gaming apps, an analysis of apps running this activity shows interesting findings.

In fact, we found that the average revenue uplift among paying users who were exposed to a retargeting campaign was over 50% in gaming apps, more than double the industry average (click here to read the full research).

The success of retargeting is largely dependent on the full utilization of deep linking, which drives users to appropriate and customized landing pages within the app. In turn, it increases retargeting campaigns' relevancy, decreases churn, and ultimately improves overall profitability.

ARPPU Increase Among Apps Running Retargeting (Q3 2019)*



* Comparison made between same app users divided into two groups: those who were exposed to a retargeting campaign and those who weren't

Revenue

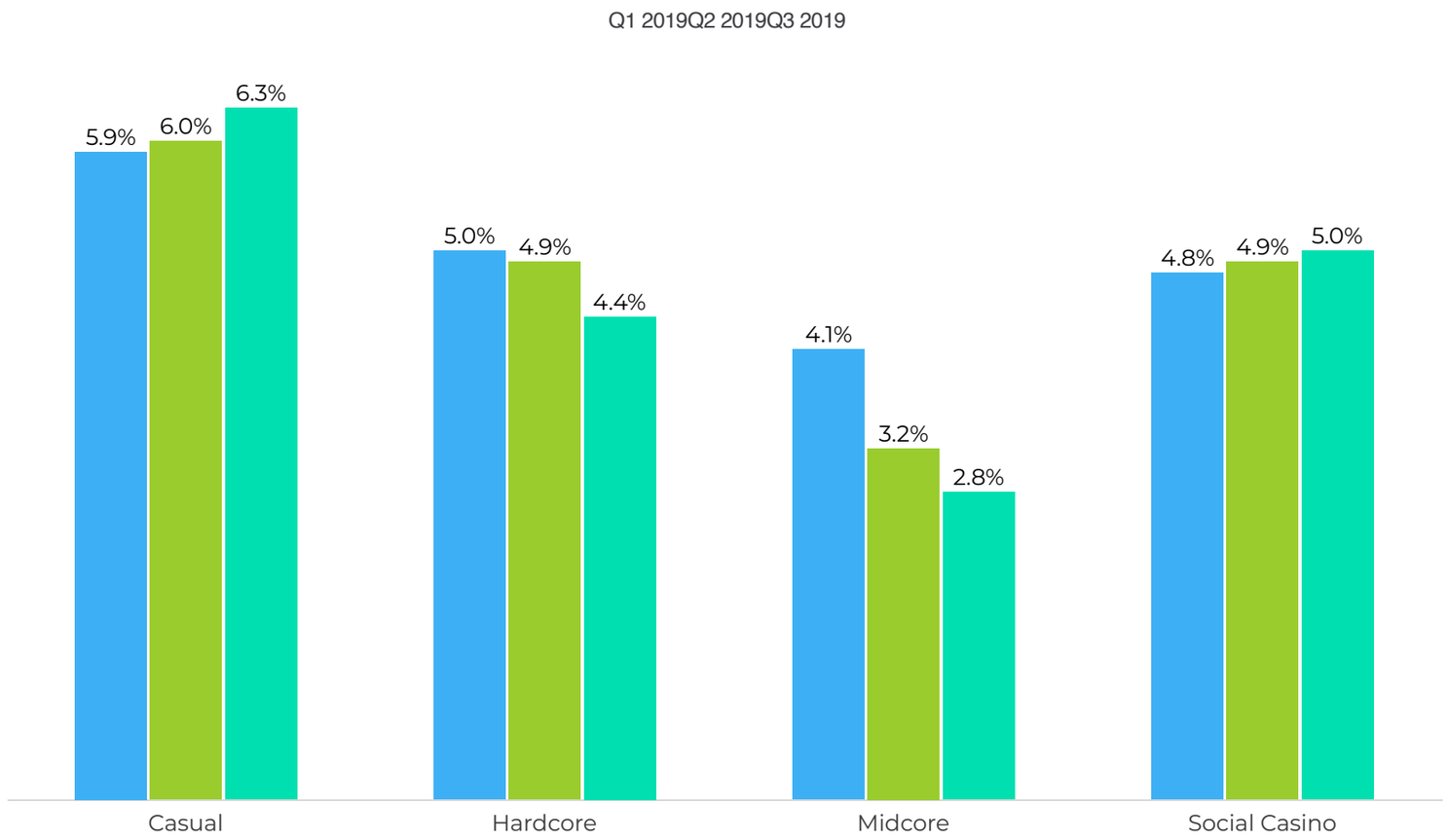
Paying Users: Core Games Take a Hit

Significant trends in monetization are changing the way games are making money. One of the reasons behind the rise of in-app advertising is the decline in the number of paying users, particularly in Midcore and Hardcore games, where we see a sizable 46% and 12% drop (respectively) in the share of paying users during 2019.

A survey commissioned by Facebook found that 61% of US mobile gamers had regrets after making an in-app purchase (IAP), citing lack of value. Over 80% of payers noted they were less willing to make a future purchase due to the negative experience.

This is a concerning trend for core games that heavily rely on IAPs for revenue. As a result, they should ensure that the product delivers real value, while integrating more ads into their games (see next page).

Average Share of Paying Users Per App Per Genre*



* Within 90 days of install

Ads Are Becoming an Integral Part of Game Monetization

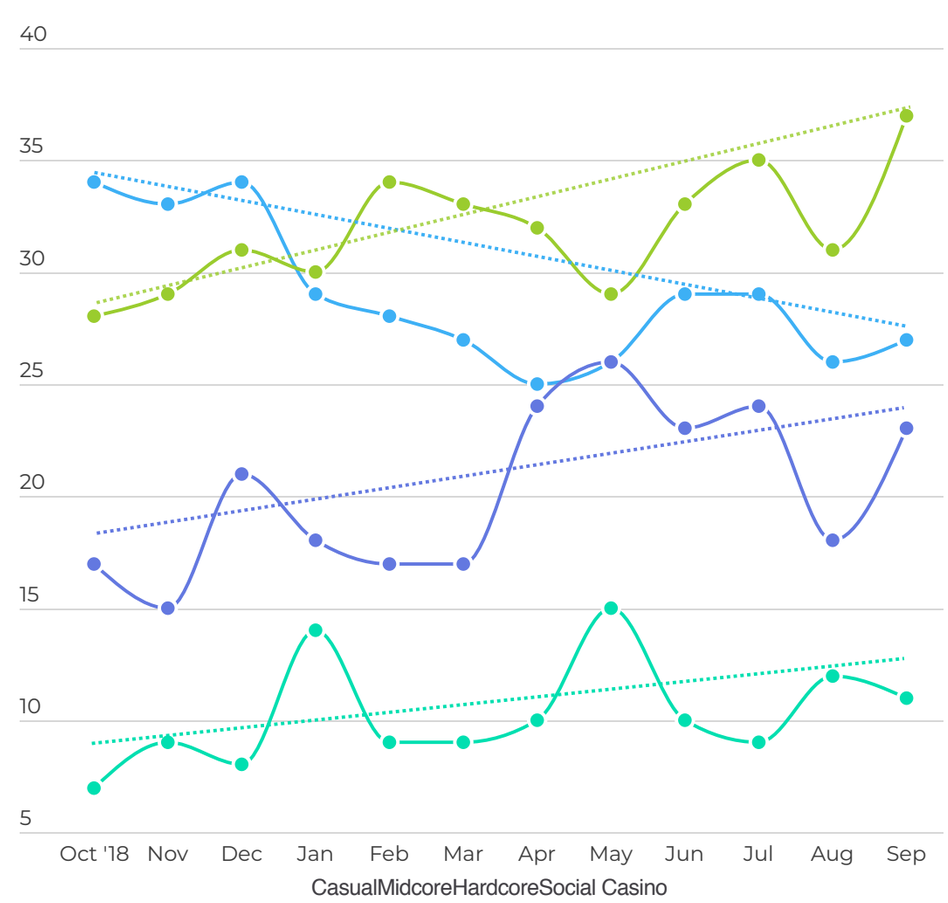
The shift from an IAP-based monetization strategy to a more blended mix with in-app advertising is in full swing. As we see the share of paying users dropping in Midcore and Hardcore games, a clear trend is emerging in these genres with the rise in the share of ad-driven revenue (+32% and +40% respectively).

Clearly, the success of Hyper Casual games has changed the perception of developers in other genres. Since only a handful of players actually make in-app purchases in games, the opportunity to generate revenue from all users is highly attractive, even for genres that have previously been hesitant to fully integrate ads within their game flow (for more on this, read How Hyper Casual Apps Are Changing the Way Games Monetize).

The downward trend we see in Casual games is actually the result of an increase in the IAP-based piece in the revenue pie, not a decrease in IAA revenue. In fact, total IAA revenue generated by Casual games in absolute terms increased.

With that said, we shouldn't assume that these genres are completely changing their monetization strategy, at least not yet. They are exploring and blending other monetization aspects. Time will tell if this trend becomes the new norm.

Average Share of IAA Revenue Per App Per Genre



Fraud

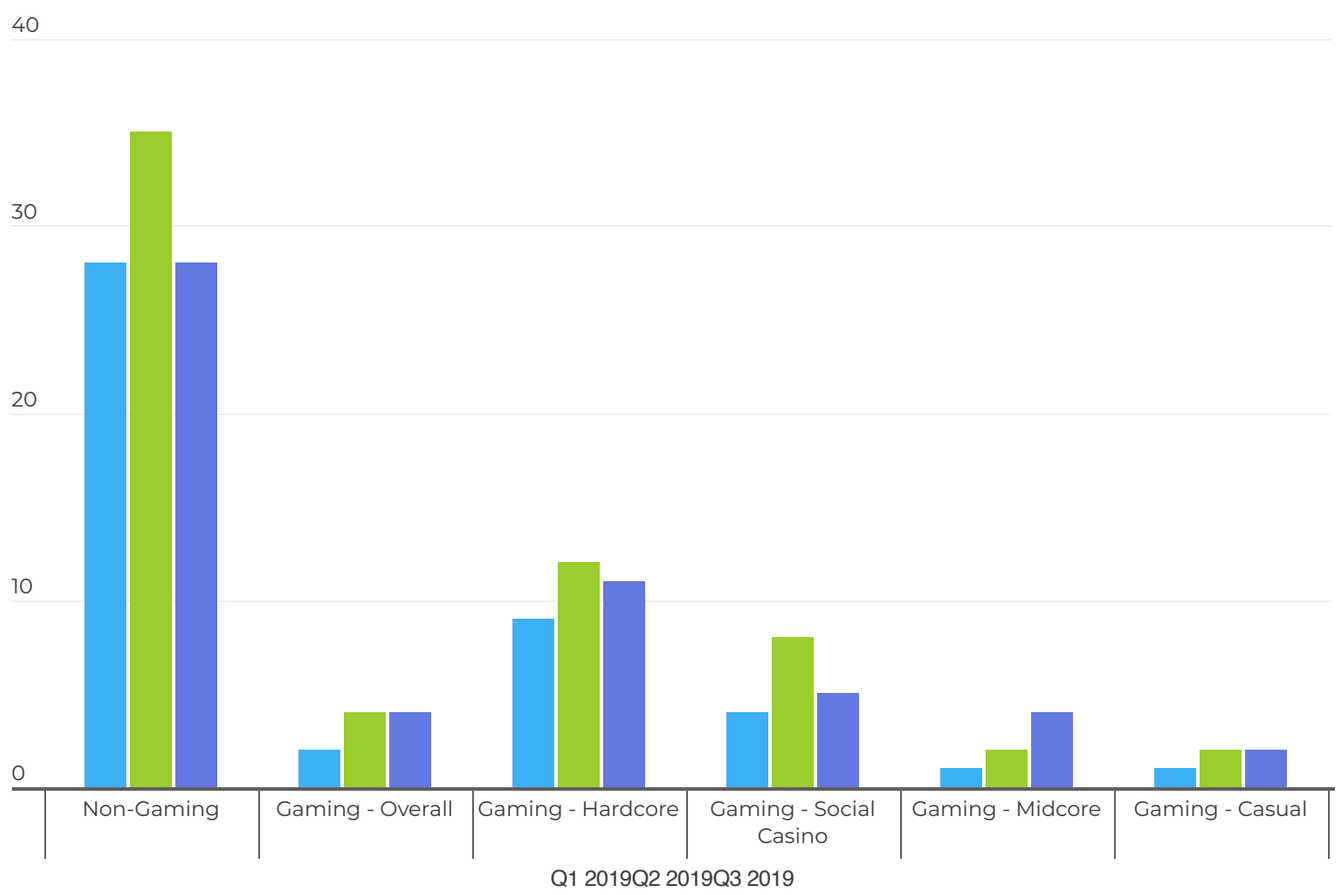
App Install Fraud Not a Major Threat to Most Games

App install fraud is rampant in non-gaming apps, but when it comes to gaming apps, the threat level is significantly lower.

It seems savvy gaming marketers are able to better protect their apps from this form of fraud, leaving fraudsters to seek easier prey. We have seen that the first thing bad actors look for when choosing their targets are loopholes in an app's defense mechanisms - far more common among non-gaming apps.

Because of higher payouts, Hardcore games have more cause for concern than other gaming genres. Still, they are fairing much better than non-gaming apps.

App Install Fraud Rate Trend By Category



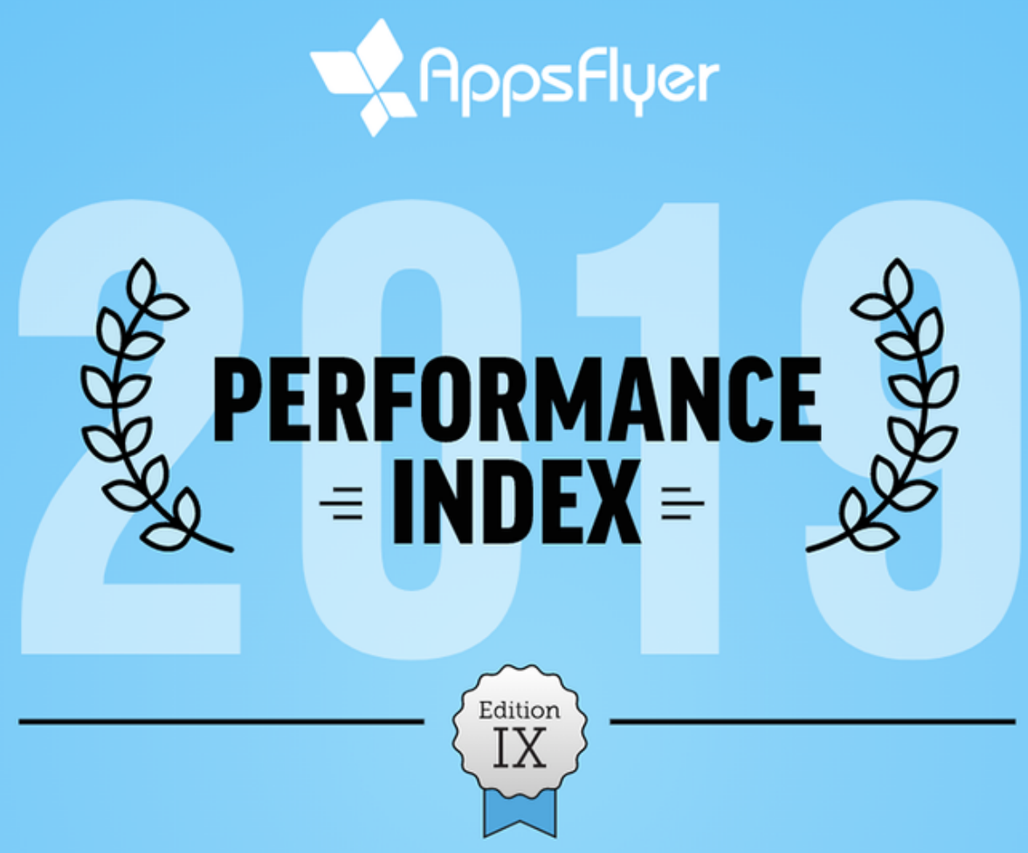
...But In-App Fraud Sure is

The fact that game developers are largely successful protecting themselves against install fraud is forcing fraudsters to adapt. After all, mobile gaming is a 68 billion dollar business that is too good to pass up.

The complexity and diversity of post-install events are fertile ground on which fraudsters can be creative and manipulate developers in ways that are harder to detect.

The rise of in-app fraud, particularly in Casual and Midcore games, can also be tied to increased adoption of CPA pricing models that connect an in-app action to payment. Among these genres, in-app actions are often engagement-related because of the value highly engaged players offer to these games; for example, level 10 achieved, or number of coins amassed.

Install to Fraudulent In-App Event Ratio Trend



Media Rankings: A Change at the Top

Edition IX of the AppsFlyer Performance Index, the industry-standard ranking of the best mobile media sources, marks the first time Google has surpassed Facebook in the total number of attributed gaming installs globally (see volume ranking in the table). The substantial rise of Google's App Campaigns (AC, formerly known as UAC) has led to increased reach, and can be attributed to its domination on Android, specifically with Midcore games.

However, Facebook remains the #1 media source in the universal power ranking thanks to its top quality in most regions and categories. Furthermore, it is the undisputed leader in the gaming retargeting index.

While it's clear that Facebook and Google are still in a league of their own, AppLovin (with the launch of LionStudios), ironSource (with their strong mediation platform), Unity, and Vungle are pushing their offerings to advertisers, increasing their share of the gaming install pie at the expense of the duopoly (25% vs -10%).

With a 10th spot in the volume ranking (#1 in the overall growth ranking), Chinese giant TikTok Ads is experiencing massive growth, and is expected to be a top competitor in the near future.

Global Gaming Power Ranking (Top 10)

	Media Source	Rank
facebook	Facebook Ads	1
Google Ads	Google Ads	2
APPLOVIN	AppLovin	3
ironSource	ironSource	4
unity Ads	Unity Ads	5
Search Ads	Apple Search Ads	6
Vungle	Vungle	7
Chartboost	Chartboost	8
ADCOLONY	AdColony	9
CROSSINSTALL	Crossinstall	10

Key Takeaways

- The use of in-app ads as a source of revenue is on the rise, driving growth across gaming genres. If you are not using them already, we recommend to initiate testing; if you are, increase the share of IAA until you find the right balance of revenue streams.

- Unlike install fraud, in-app fraud is becoming a threat to gaming apps, rapidly increasing month over month. Awareness and rapid response can prevent significant damage in the future.

- Because of the exploratory nature of game discovery, uninstalls are rampant in mobile gaming; therefore, the uninstall rate is a critical KPI to measure in order to understand user quality.

- Potential to scale up can be primarily found in developing markets in Latin America, Eastern Europe, Southeast Asia, and the Middle East.

- Only a small percentage of gaming apps are running retargeting campaigns. However, it is worth exploring considering it is a proven method in gaming, cost effective compared to UA, and measurable via incrementality testing.

About the Authors

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About AppsFlyer

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