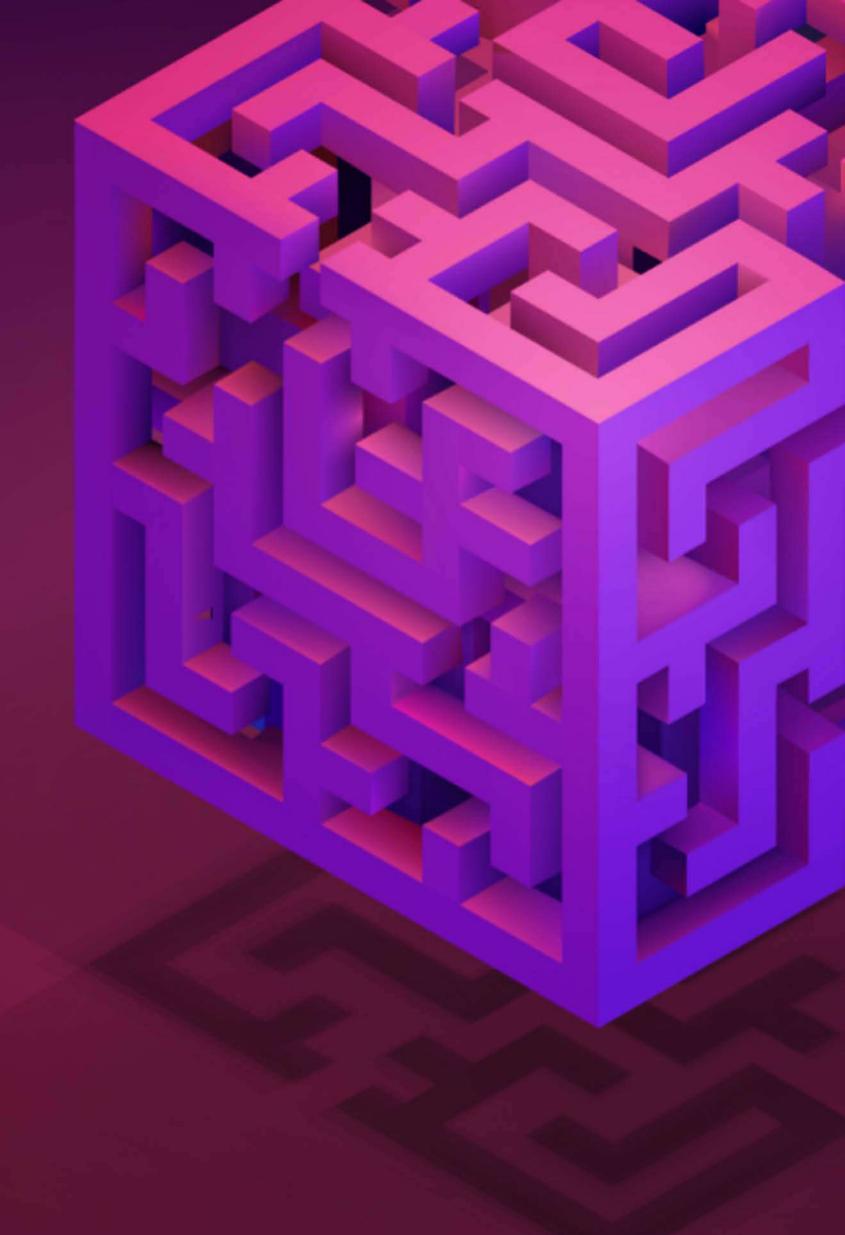


2023 REVIEW



Contents

- Gaming Trends We're Watching
- Mobile Games That Defined H1 2023
- Mobile Ad Monetization + User Preferences
- Key Themes + Takeaways

Today's Gaming Market & Its Challenges

- Mobile still stands as the largest opportunity in gaming, but ongoing updates to privacy
 regulations, macroeconomic instability, and rising competition has made acquisition and
 growth more challenging. Finding new users and setting expectations for revenue
 growth has become tougher.
- New competition is constantly entering the mobile space and with mobile consumer spend set to remain about the same in 2023 as the previous year, it's more important than ever to stand out from the market. In order to protect one's standing and not fall behind, staying ahead of trends is critical.
- It's no longer enough to ride the popular wave; mobile gamers are varied and demanding. Staying on top of popular features and revenue driving updates is the key to better DAU and stickiness. Without the right partners, getting visibility on competitors is time consuming and often unreliable.

Today's Gaming Market & Its Challenges

- With rising acquisition costs, **creative optimization is more impactful** than it has been in the past. Understanding how competitors are effectively converting and what's driving their creative strategy can **fuel your own asset and network strategy** for growth.
- There are more options around how to monetize than ever before, but maximizing revenue potential requires a more comprehensive approach to monetization. Ad revenue, subscriptions, battle-passes, promotions and many other options exist. Understanding what's performing in your genre for your users requires staying ahead of the market through monetization insights.

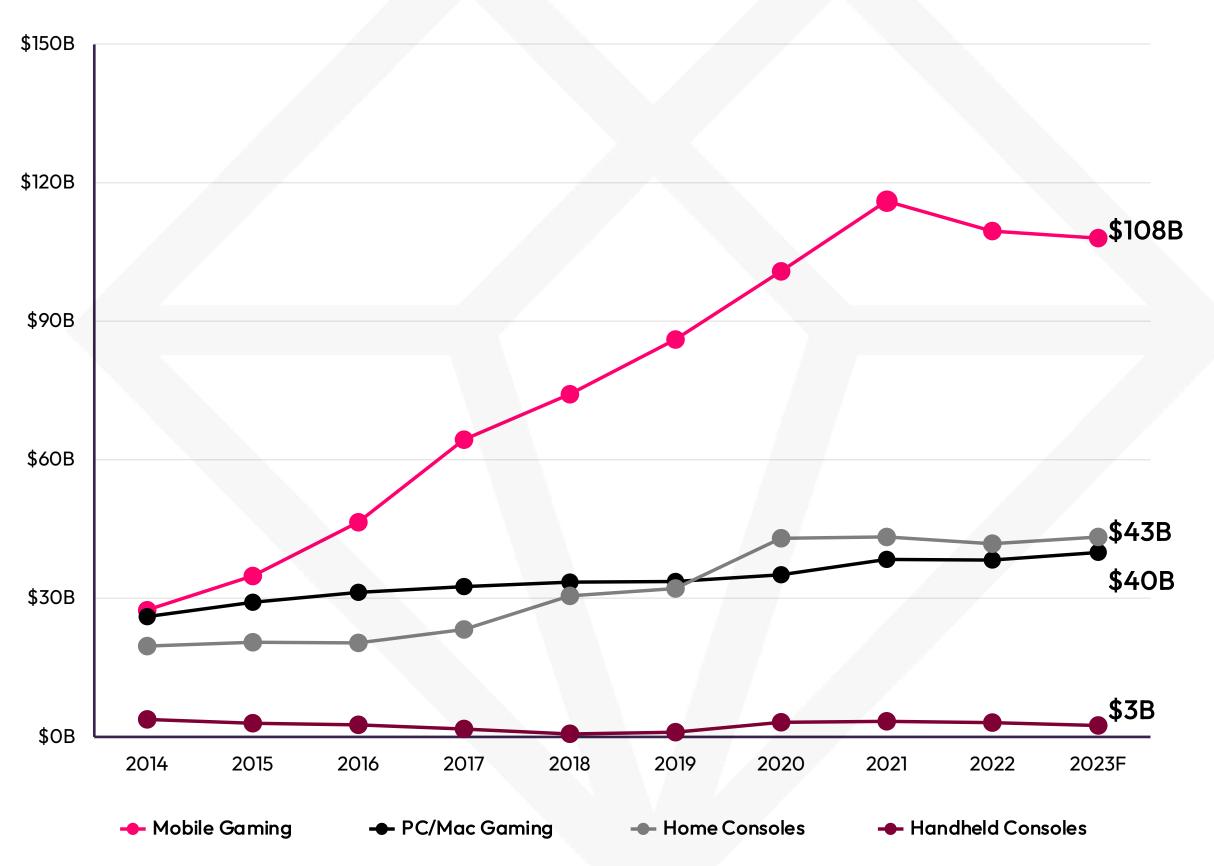
GAMING TRENDS WE'RE WATCHING

Mobile Spending Decline Is Leveling Out, But Privacy & Macroeconomic Concerns Still Loom

- Consumer spend in mobile games is set to reach \$108 billion in 2023. Such spending has historically been resilient during economic downturns; However, ATT (App Tracking Transparency) and a crackdown on fingerprinting make it more difficult to target spending "whales" and therefore monetize through IAP. As a result of this and perhaps more importantly the escalating limitations on adolescent mobile use in China, we expect a slight 2% decline year-over-year.
- Home console spending should rise 3% in 2023 to \$43 billion based on rising PS5 and Xbox Series X/S spending (and falling Switch spending).
- PC/Mac spending should rise 4% this year to \$40 billion, mostly driven by an increase in subscription-based game revenue.
- Handheld spending should drop 20% this year to less than \$3 billion due to waning interest in Nintendo Switch Lite, partly offset by rising interest in Steam Deck and other gaming handhelds.

Despite the softening in direct consumer gaming spend, mobile is still the largest market opportunity for games. In this fast-changing landscape it's critical to stay ahead of trends, streamline your acquisition and optimize your monetization strategy.

Worldwide Consumer Spending on Games by Major Device Group



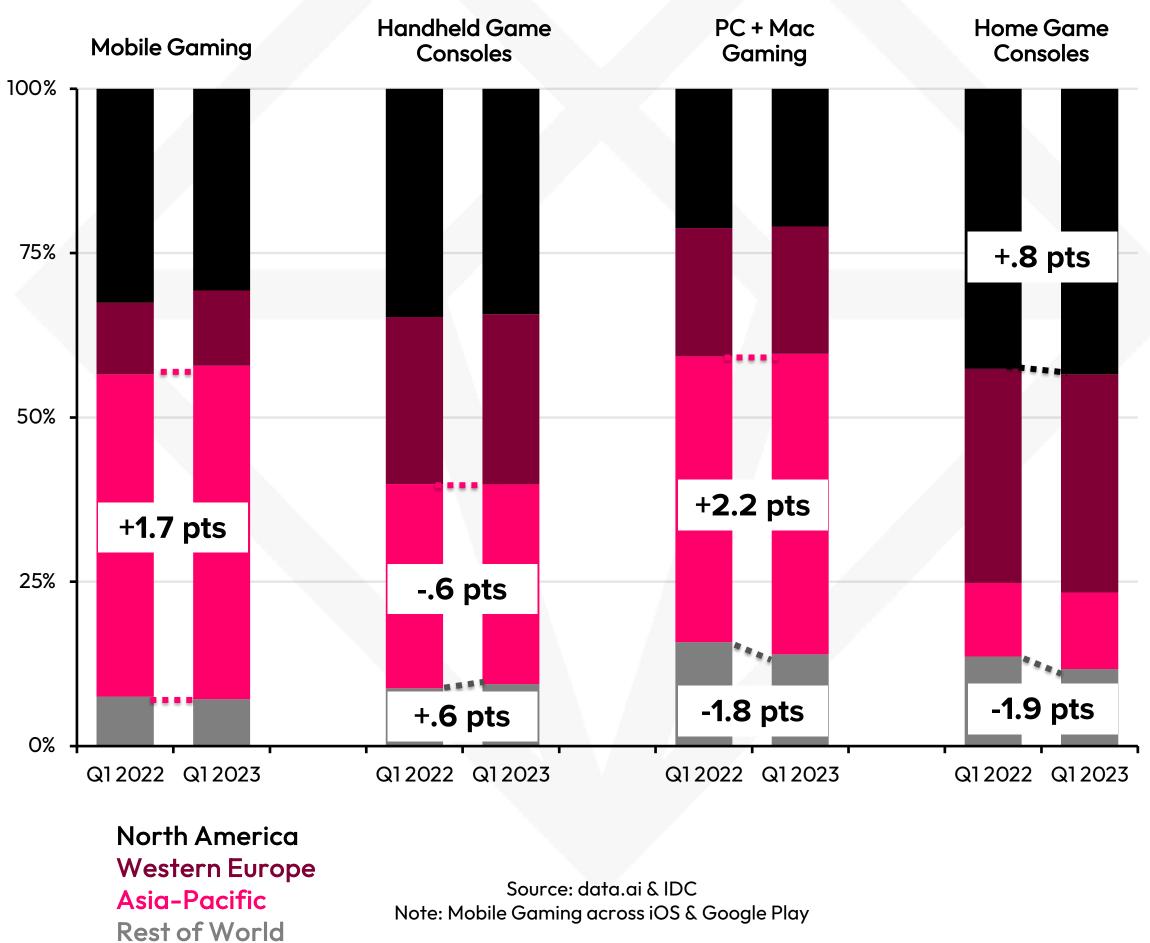
Source: data.ai & IDC.

All totals include applicable digital and physical game spending but exclude ad revenue. Mobile gaming includes all app stores (iOS App Store, Google Play and third-party Android stores in China combined). Home game console total includes discs, digital games and gaming-related subscription services (i.e., Xbox Live Gold, Game Pass, PlayStation Plus, Nintendo Switch Online, EA Play); handheld consoles are typified by Nintendo's Switch Lite and Valve's Steam Deck.

APAC Markets Are the Main **Drivers of Revenue Growth** Across Mobile, PC and Mac

- South Korea recently accounted for the gains in market share for mobile spending in APAC. Brazil, Turkey and Mexico led growth in Rest of World.
- Interest in Switch Lite declined significantly in Japan, largely due to the Nintendo Switch OLED version, which continues to account for a larger share of total Switch spending. Handheld console game revenue fell in all regions.
- PC and Mac gaming gained share YoY, partly because of an increase in subscription-based game spending. This rise also benefited from poor Rest of World results stemming from global conflict and inflation.
- Home console share changes were driven by stepped-up PS5 and Xbox Series X/S spending in North America and sub-par Rest of World results due to the war in Ukraine, inflation-related issues in some key markets, and related concerns.

Worldwide Consumer Spending Shares on Games by Region Q1 2023 vs Q1 2022



Gaming Trends We're Watching

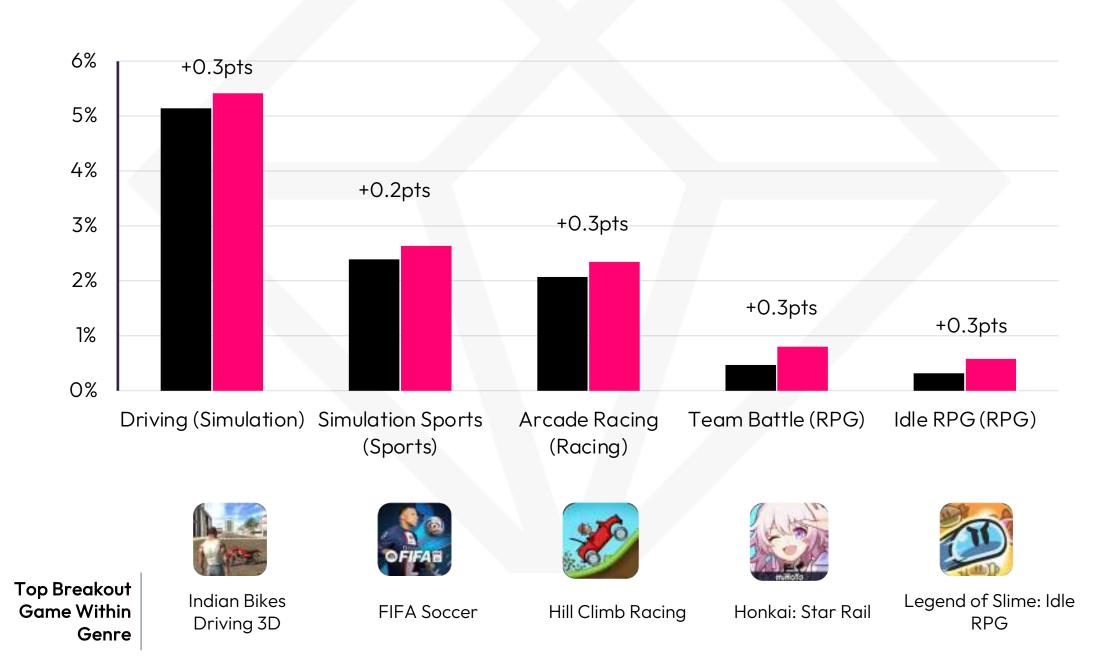
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Interest in Simulation Titles Surged in the First Half, While Team Battle RPGs Grew Their Share of Spending

Shifts in market share highlight which games are relatively more popular in the current environment. Taking over market share may not necessarily indicate an absolute growth in downloads or consumer spend if the market contracted overall. Rather, it shows their share of the market is larger.

Powered by data.ai Game IQ

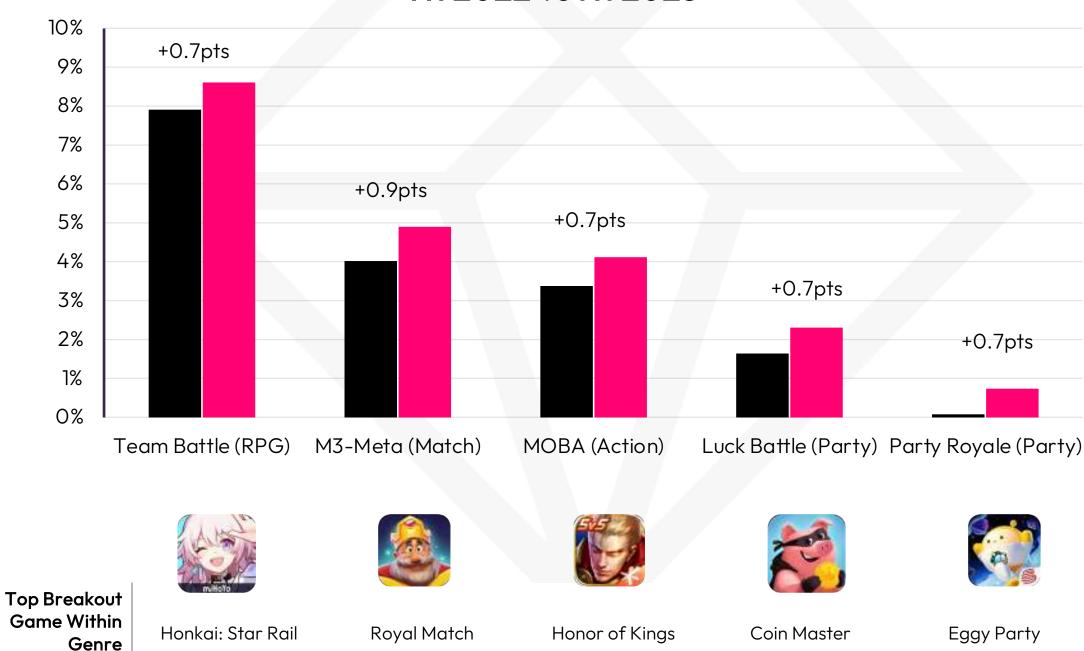
Top 5 Game Genres By Growth in Downloads Share H1 2022 vs H1 2023



This helps publishers understand pockets of growth or strongholds relative to peers that may otherwise go unnoticed — highlighting potential partnerships or competitors encroaching on mindshare.

Powered by data.ai Game IQ

Top 5 Game Genres By Growth in Consumer Spend Share H1 2022 vs H1 2023



See our powerful taxonomy tool in action, schedule a demo now!

Source: data.ai. Note: Downloads and Consumer Spend across iOS, Google Play. iOS Only for China

Gaming Trends We're Watching

Core Games Still Dominate, But Shifting Tastes Make Way for Emerging Genres

- Core Games with real-time online multiplayer features such as PvP (player-versus-player) are among the most popular across the spectrum, with Battle Royale and Shooting Games remaining among the top on mobile and PC/Mac.
- On Nintendo Switch Lite, **first-party** (\$60) games dominated. The highest-grossing third-party game in Q1 2023 was Sega's *Sonic Frontiers* at #15. Evergreen titles made a comeback: *Mario Kart 8 Deluxe* debuted in Q2 2017.
- On Steam, two first-party free-to-play games made the top five, CS:GO and Dota 2. Elden Ring and Dying Light 2: Stay Human sold very well in H1 2022, while Call Of Duty Modern Warfare 2 (2022) returned to Steam and performed solidly in Q4 2022. Battle/season passes also generally performed well.

Learn More: Uncover the Most Popular Games By Market and how data.ai's Game IQ_taxonomy transforms how you publish games today. Schedule a Demo

Top 10 Worldwide Grossing Mobile, Handheld + PC Games by Platform H1 2023

Powered by data.ai Game IQ

Rank	Mobile Gaming	Nintendo Switch Lite	Steam (2022)	
1	Honour of Kings Tencent, China MOBA - Action	Pokémon Scarlet / Pokémon Violet Pokémon Co. and Nintendo, Japan RPG - Adventure	Counter-Strike: Global Offensive Valve Corp., US Team-based tactical shooter	
2	Candy Crush Saga King (Activision Blizzard), UK M3-Saga	Mario Kart 8 Deluxe Nintendo, Japan Racing - Multiplayer	Elden Ring Bandai Namco Ent., Japan Action RPG	
3	ROBLOX Roblox, United States Simulation - Creative Sandbox	Fire Emblem Engage Nintendo, Japan RPG - Strategy	Call Of Duty Modern Warfare II (2022) Activision, US First-person shooter	
4	Coin Master Moon Active, Israel Luck Battle - Party	Kirby's Return to Dream Land Deluxe Nintendo, Japan Action - Platformer	Dying Light 2: Stay Human Techland., Poland Action - Survival RPG	
5	Genshin Impact miHoYo, China RPG - Open World	Metroid Prime Remastered Nintendo, Japan Adventure - Action - Platformer	Dota 2 Valve Corp., US MOBA	
6	Game For Peace Tencent, China Battle Royale - Shooting	Nintendo Switch Sports Nintendo, Japan Sports - Party	PUBG: Battlegrounds KRAFTON, South Korea Battle Royale	
7	Royal Match Dream Games ,Turkey Match - M3-Meta	The Legend of Zelda: Breath of the Wild Nintendo, Japan Adventure - Action - RPG	Apex Legends Electronic Arts, US Battle Royale - Shooter	
8	Gardenscapes - New Acres Playrix ,Ireland Match - M3-Meta	Mario Party Superstars Nintendo, Japan Party	Destiny 2 Bungie, US First-person shooter	
9	Pokémon GO Niantic ,United States RPG - Location RPG	New Super Mario Bros. U Deluxe Nintendo, Japan Platformer - Action	Monster Hunter Rise Capcom, Japan Action RPG	
10	Monster Strike XFLAG (Mixi), Japan RPG – Puzzle RPG	Super Smash Bros. Ultimate Nintendo, Japan Fighting - Multiplayer Action	Lost Ark Amazon Games, US MMORPG	

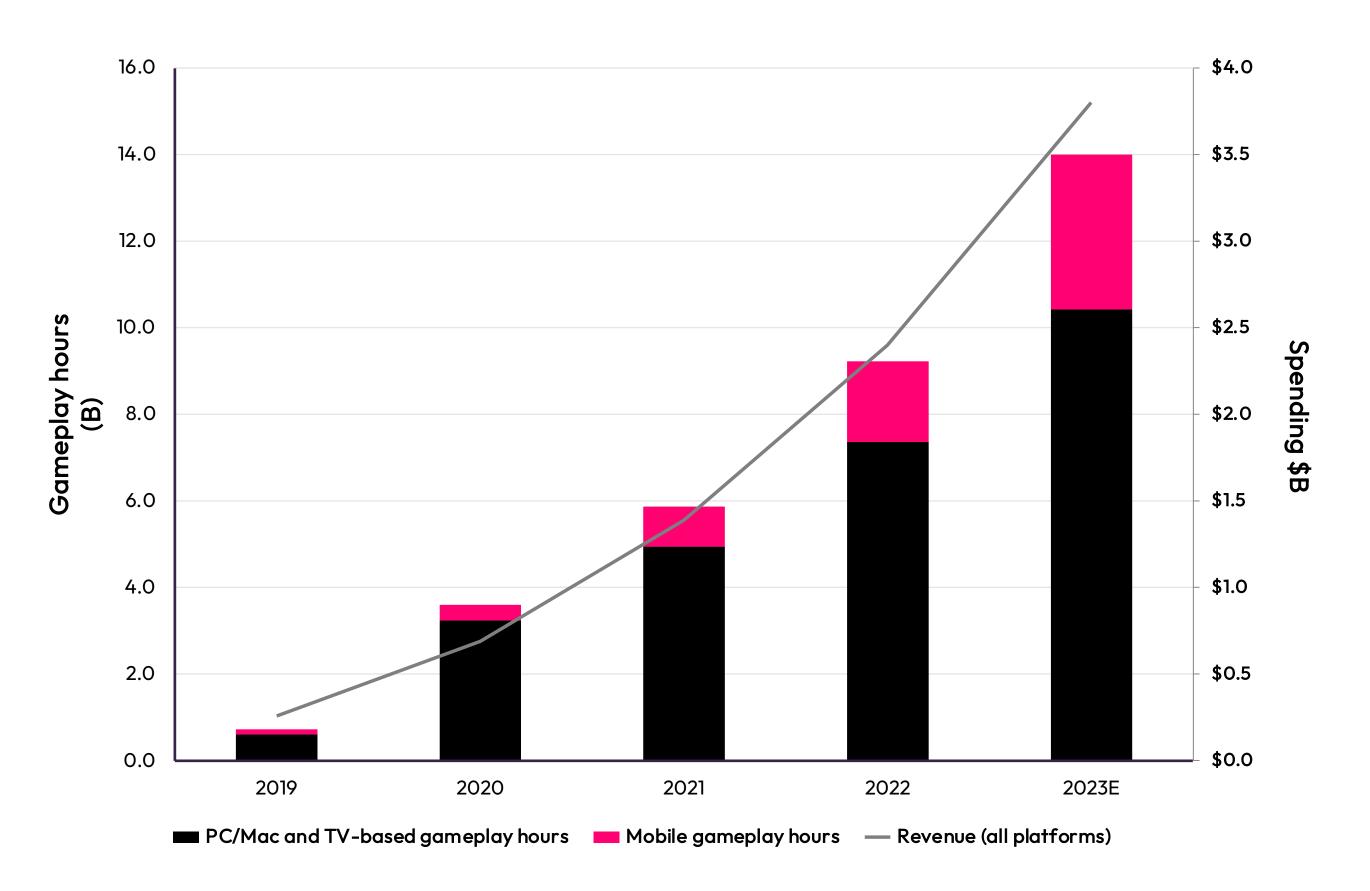
Source: data.ai & IDC.

Note: data.ai mobile gaming rankings based on H1 2023, Combined iOS and Google Play; China is iOS only; IDC Market-level rankings for Q1 2023.

Picking Up Stream: Gaming In the Cloud Makes Inroads on Mobile

- As a share of global hours, cloud-streamed gaming (CSG) on smartphones and tablets should represent 26% this year, up from 16% in 2019.
- Across all platforms, global consumer spending on CSG services should reach \$3.8 billion in 2023. This year's total revenue should be more than 50% higher than 2022's.
- The worldwide MAU base should be over 60 million this year and almost half this base this base should use mobile devices to access CSG at least part of the time, up from 21% in 2019.
- A partial list of B2C providers includes: Amazon Luna, Blacknut, Boosteroid, Microsoft Game Pass Ultimate, NVIDIA GeForce Now, Sony PlayStation Plus Premium, various telcos' offerings, Tencent Pioneer and START, Utomik Cloud.

Worldwide Cloud-Streamed Gaming Hours of Use and Spending



Source: IDC's "Worldwide Cloud-Streamed Gaming Forecast, 2022-2026: Mobile Gathers Momentum" study, Sept. 2022.

Gaming Trends We're Watching

Handheld Gaming Is Back, But Fragmentation Raises Concerns

- **Historical Nintendo domination**: Switch Lite shipments exceeded 21 million globally through Q1 2023.
- Nearly two million Steam Deck bundles appear to have shipped through Q1 2023.
- Geographic interest and availability varies: IDC's Q1 2023 Consumer Pulse: Home and Entertainment survey found that, considering Switch Lite and Steam Deck gamers only, 8 to 11% of respondents in the US, UK, and Germany had a Steam Deck while in Japan 98% had Switch Lite (4-country N = 1,770).
- Demographic Differences: IDC's Q3 2022 US Gamer Survey found 55% of Switch Lite gamers were female but only 27% of Steam Deck owners were female, and 52% of Switch Lite gamers were less than 35 years old and 83% of Steam Deck gamers were over 35 (Switch Lite N = 171; Steam Deck N = 12).

Handheld consoles compete directly with one of mobile gaming's core strengths: portability. While they provide an added benefit of tactile controllers, the additional price points create a barrier to entry unlikely to make significant inroads on the mobile gaming market.

Handheld Game Console Hardware Comparison, Q2 2023

Launch Quarter	Device	Operating System (OS) and Device Specs	Entry hardware price (\$) and notes	
3Q 2019	Nintendo Switch Lite	Proprietary 5.5 in. LCD HD (720p) touchscreen Max 60Hz refresh rate	\$200 Supports almost all Switch game cards and digital downloads Average battery life	
1Q 2022	Valve Steam Deck	Linux (SteamOS) 7 in. LCD WXGA (800p) touchscreen Max 60Hz refresh rate	\$400 Digital downloads supported, can play thousands of Windows PC games (via Proton compatibility) Average battery life	
4Q 2022	Logitech G Cloud	Android (with custom launcher) 7 in. LCD Full HD (1080p) touchscreen Max 60Hz refresh rate	\$350 Supports Google Play games/apps and CSG services over WiFi Good battery life	
1Q 2023	Razer Edge	Android 6.8 in OLED Full HD+ (2040p) touchscreen Max 144Hz refresh rate	\$400 Supports Google Play games/apps and CSG services over WiFi (or 5G for \$600) Good battery life	
2Q 2023	Asus ROG Ally	Windows 11 7 in. LCD Fill HD (1080p) touchscreen Max 120Hz refresh rate	\$700 Full Windows PC gaming options available, CSG services over WiFi Poor battery life	
4Q 2023?	Sony Project Q	Proprietary 8 in. LCD Full HD (1080p) touchscreen Max 60Hz refresh rate	\$300? PS5 required, streams PS5 games over WiFi via Sony's Remote Play app Good battery life?	

Source: IDC's analysis of public materials and IDC's "Worldwide Mobile and Handheld Gaming Forecast, 2023–2027: Mobile Gaming Adjusts to Its First-Ever Spending Drop" study, March 2023.

MOBILE GAMES THAT DEFINED H12023

Mobile Games That Defined H12023

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Monopoly GO: Family Board Game

Party | Luck Battle Scopely (United States)



Mobile Performance

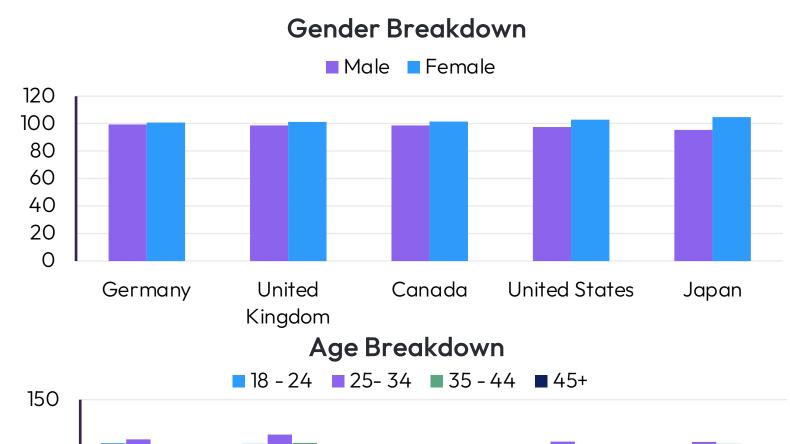
Score

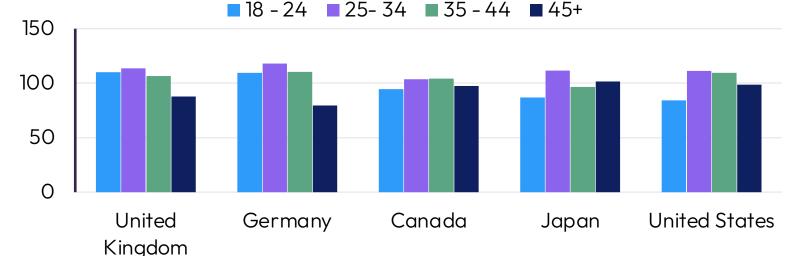


Based on the Worldwide performance of iOS and Android (Unified) apps in **Party** genre from May 28 to Jun 3

• Published by Scopely, *Monopoly GO* has surpassed **45 million downloads** and has been **#1 by daily downloads 54 out** of the first 60 days since launch in Italy and the UK, and **37 out of 60 in the US, Germany and Australia**.

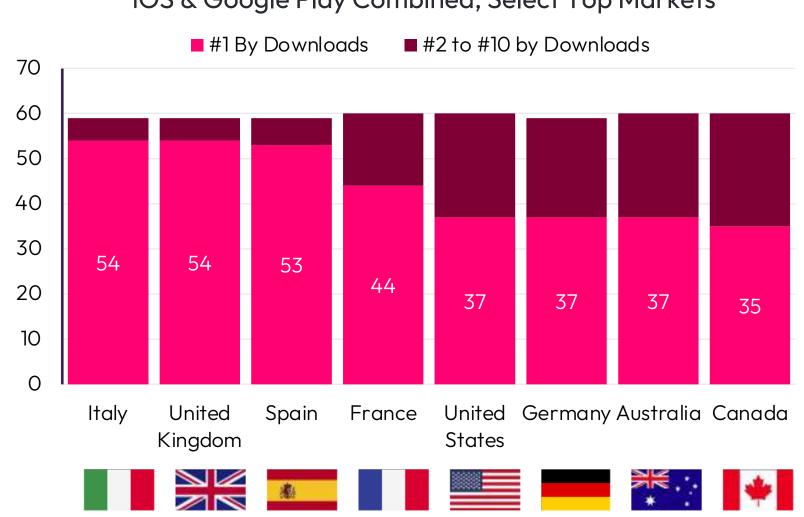
- Free-to-play with in-app purchases (IAP), it has generated more than \$232 million in consumer spend globally.
- The title combines the classic board game with innovative social features (play with family & friends) and frequent touchpoints for engagements (events, minigames, offers) that have elevated its stickiness with players.
- Among markets analyzed (Japan, South Korea, Canada, US, Germany and UK), on average, the game is 10% more likely to be played by female players and leans toward the 25 to 34 age group.





Demographic breakdown determined by average demographic usage across Android phones. Index values above 100 indicate proportionally more users for the app relative to the average

Number of Days Among Top 10 Games by Downloads First 60 Days (April 11th 2023 to June 9th 2023) iOS & Google Play Combined, Select Top Markets



Source: data.ai Note: iOS, Google Play Combined. Lifetime Downloads & Consumer Spend as of August 6th, 2023.

See how our Mobile Performance Score works now! Schedule a Demo

61%

51%

48%

Mobile Games That Defined H12023

Powered by data.ai Game IQ



Honkai: Star Rail RPG | Team Battle Mihoyo (China)



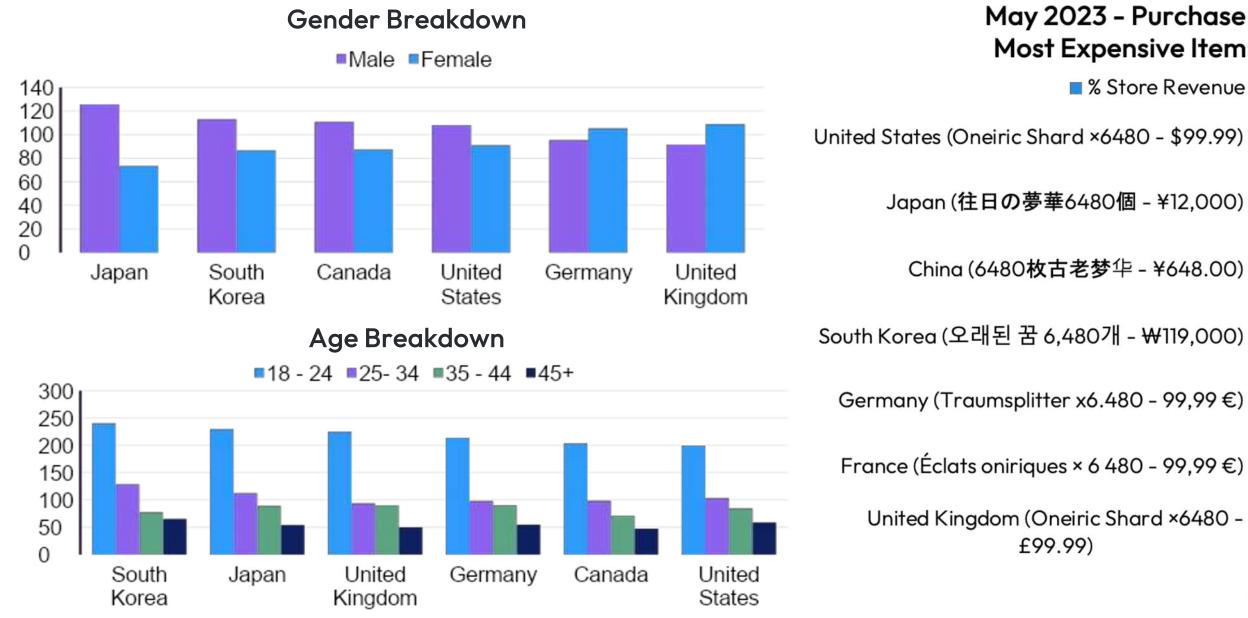
- Honkai: Star Rail is Mihoyo's second global success after Genshin Impact. Also a cross-platform title, it features high production values, story-driven gameplay, anime style art, team-battle RPG mechanics and free-to-play IAP monetization.
- It has generated nearly 62 million downloads and over \$457 million in spend, led by Japan, China and the United States.
- In the US, one in every seven sales was for "6480 Oneiric Shard IAP item", which costs \$99.99. This bundle of in-game currency players can use to jump-start their experience contributed 61% of the title's total revenue in May 2023.
- On average, the game is 10% more likely to be played by males (except in Germany and the UK where females saw a higher likelihood of use) and 110% more likely to be played by Gen Z gamers in the 18 to 24 age group.

Mobile Performance Score



Excellent score

Based on the Worldwide performance of iOS and Android (Unified) apps in **RPG** genre from May 28 to Jun 3



7% 47% South Korea (오래된 꿈 6,480개 - ₩119,000) 10% 44% Germany (Traumsplitter x6.480 - 99,99 €) 8% 29% France (Éclats oniriques × 6 480 - 99,99 €) 5% United Kingdom (Oneiric Shard ×6480 -25% £99.99) 3%

May 2023 - Purchase Volume & Share of IAP

Most Expensive Item: Oneiric Shard x 6480

% Store Revenue

Japan (往日の夢華6480個 - ¥12,000)

China (6480枚古老梦华 - ¥648.00)

% Purchase Volume

14%

11%

Demographic breakdown determined by average demographic usage across Android phones. Index values above 100 indicate proportionally more users for the app relative to the average

Source: data.ai Note: In App Purchase Items for iOS App Store. China is iOS only. Lifetime Downloads & Consumer Spend as of August 6th, 2023.

See how our Mobile Performance Score works now! Schedule a Demo

80%

Mobile Games That Defined H12023

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Royal Match

Match | M3 - Meta

Dream Games (Turkey)



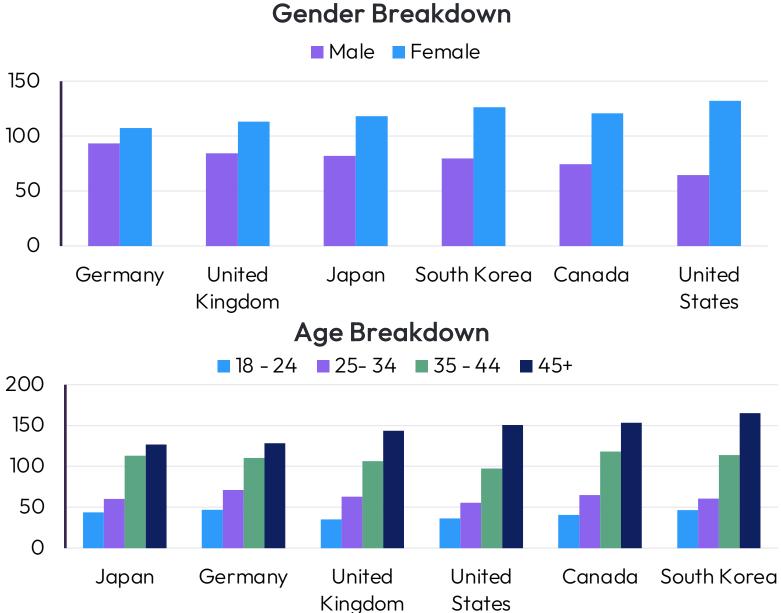
- Royal Match from Turkey's Dream Games is currently available in more than 174 markets around the world and has secured wide global appeal across varied markets through its theme's universal appeal.
- Offering a familiar but fresh take on popular Match-3 mechanics, the title has been downloaded nearly 149 million times.
- The game has also done well monetizing; IAP Premium Coins have generated \$1.7 billion in consumer spend to date.
- It was the #2 match game by consumer spend globally in H1 2023, trailing just behind *Candy Crush Saga*, up from #8 two years prior and #3 in 2022 showing a steady upward trajectory.
- The title is 20% more likely to be played by females and 40% more likely to be played by gamers in the 45+ age group.

Mobile Performance Score



Excellent score

Based on the Worldwide performance of iOS and Android (Unified) apps in **Match** genre from May 28 to Jun 3



Top 10 Match Games by Global Consumer Spend 2021 – H1 2023

2021			2022	H12023	
1	Candy Crush Saga	1	Candy Crush Saga	1 Candy Crush Saga	
2	Homescapes	2	Homescapes	2 Royal Match	
3	Gardenscapes - New Acr	es 3	Royal Match	3 Gardenscapes - New Acre	
4	Fishdom: Deep Dive	4	Gardenscapes - New Acres	4 Homescapes	
5	Candy Crush Soda Saga	5	Fishdom: Deep Dive	5 Fishdom: Deep Dive	
6	Project Makeover	6	Candy Crush Soda Saga	6 Candy Crush Soda Saga	
7	Toon Blast	7 🍇	Toon Blast	7 Toon Blast	
8	Royal Match	8	Project Makeover	8 Triple Match 3D	
9	Toy Blast	9 🥻	Merge Dragons	9 Project Makeover	
10	Merge Dragons	10 🎉	Toy Blast	10 Merge Mansion	

Demographic breakdown determined by average demographic usage across Android phones. Index values above 100 indicate proportionally more users for the app relative to the average

Source: data.ai Note: iOS, Google Play Combined. China is iOS only.

Lifetime Downloads & Consumer Spend as of August 6th, 2023.

Genre breakdown based on data.ai Game IQ Taxonomy as of July 18th, 2023.

See how our Mobile Performance Score works now! Schedule a Demo

Mobile Games That Defined H12023

Powered by data.ai Game IQ



FIFA Soccer

Sports | Simulation Sports

Electronic Arts (US)



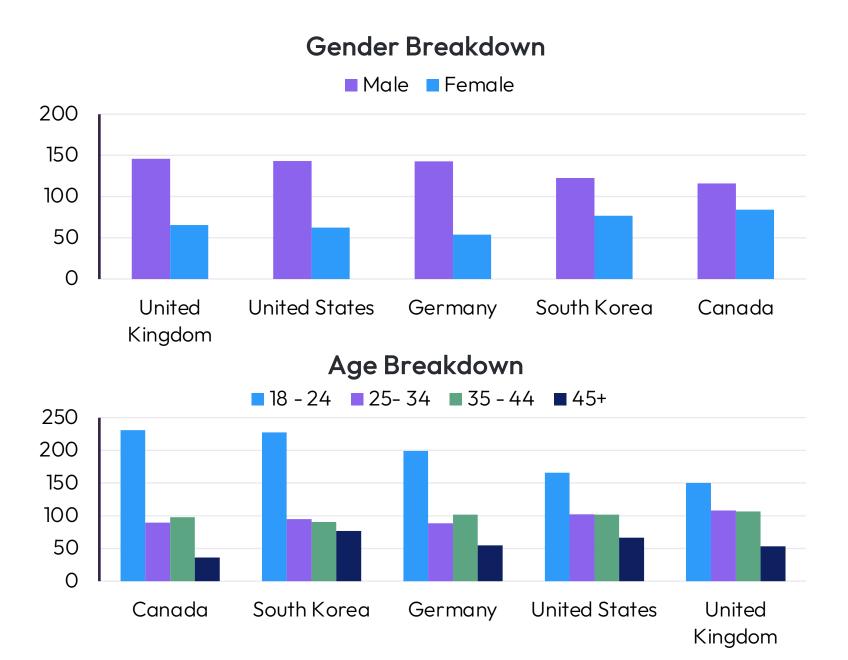
- FIFA Soccer was first released 2016 and is currently available in over 174 markets. The game has seen multiple
 revisions throughout the years, with the FIFA World Cup serving as an anchor for major updates and promotions.
- During the 2022 World Cup in Qatar, it saw 135% more downloads compared to the year prior. In H1 2023, it was the
 #8 game by worldwide downloads and #12 by breakout consumer spend showing strong growth.
- It has generated \$1 billion in consumer spend globally since launch. IAP are structured around unlocking premium players for gamers to build their Dream Soccer Team, as well as access to exclusive content, events and leagues.

Mobile Performance Score

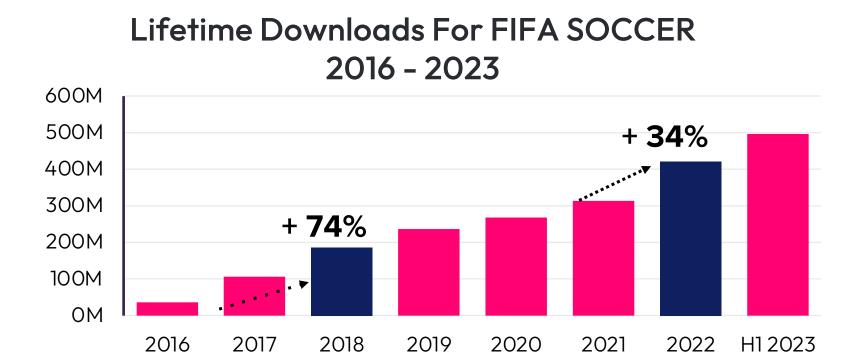


Excellent score

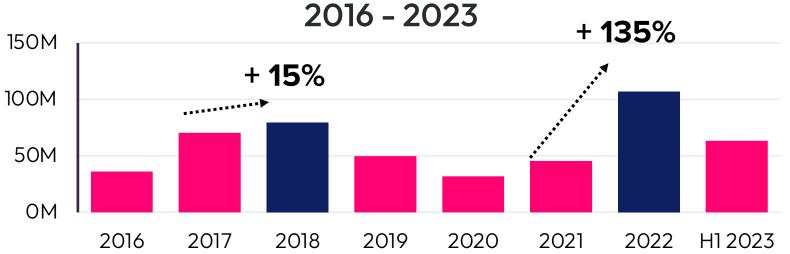
Based on the Worldwide performance of iOS and Android (Unified) apps in **Sports** genre from May 28 to Jun 3



Demographic breakdown determined by average demographic usage across Android phones. Index values above 100 indicate proportionally more users for the app relative to the average







Source: data.ai Note: iOS, Google Play Combined. China is iOS only. Lifetime Downloads & Consumer Spend as of August 6th, 2023.

See how our Mobile Performance Score works now! Schedule a Demo

MOBILE AD MONETIZATION + USER PREFERENCES

Paid User Acquisition: Match, Casino and Tabletop Games Lead in Paid Installs

Mobile Ad Monetization + User Preferences

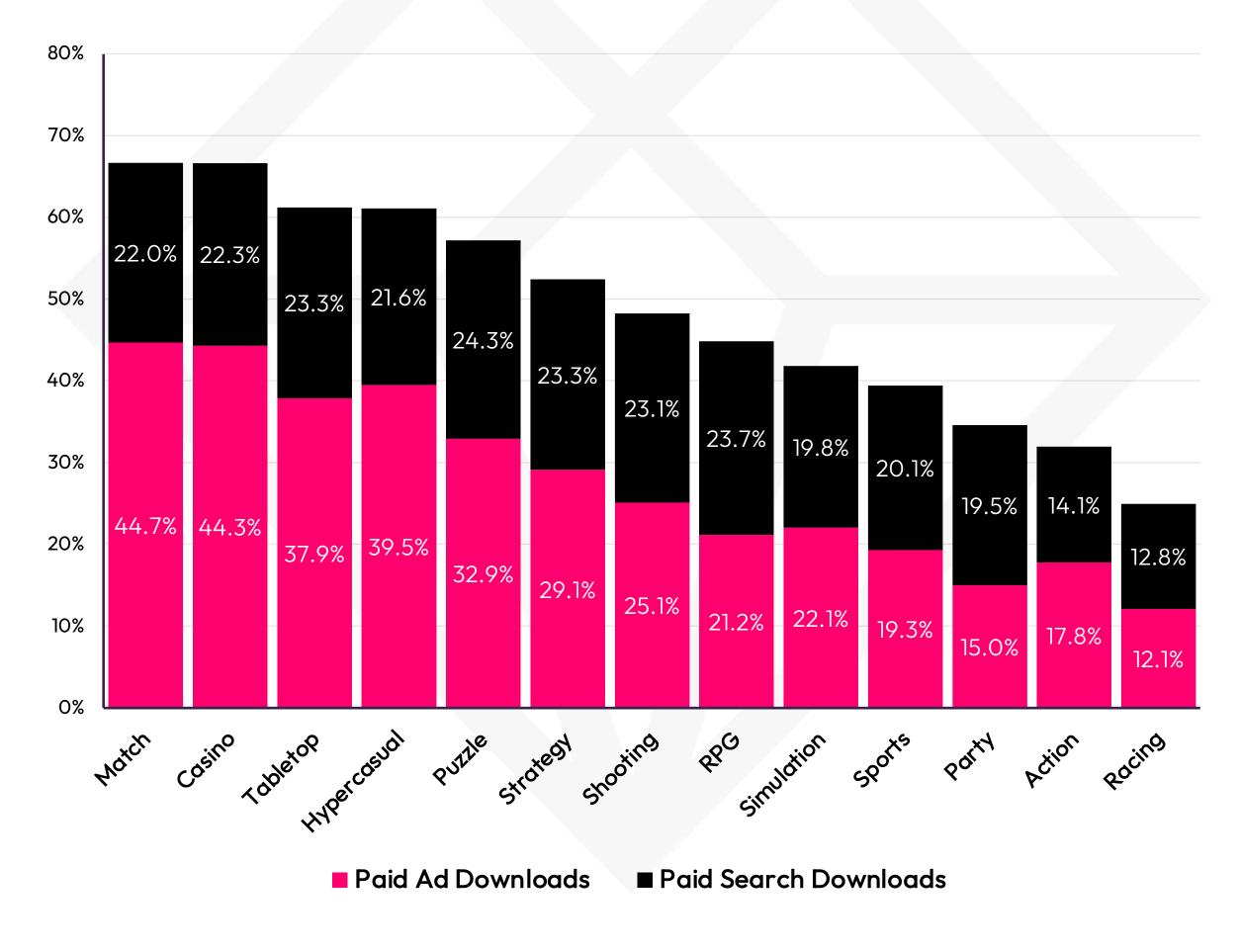
- The market benchmarks for paid downloads vary both by game genre and country.
- In addition, some genres are more likely to require paid promotion than others. Overall, Paid App Install Ads (vs Paid App Store Search) tends to contribute a larger portion of paid game downloads.
- Paid downloads indicate both the benchmark level of UA activity for a subgenre and channel and can illustrate when competitors are running burst campaigns.

To make sure you're not missing out on valuable new users you need to uncover the right user acquisition channels for your game: those that will bring in the most revenue and capture growing, engaged mobile markets.

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Share of Game Downloads From Paid Sources

Average of Top 100 Games Per Genre in Q1 2023, United States



Source: data.ai Note: Downloads across iOS, Google Play.

Mobile UA Ad Formats: Action and Tabletop Games Lead Playable Ad Impressions

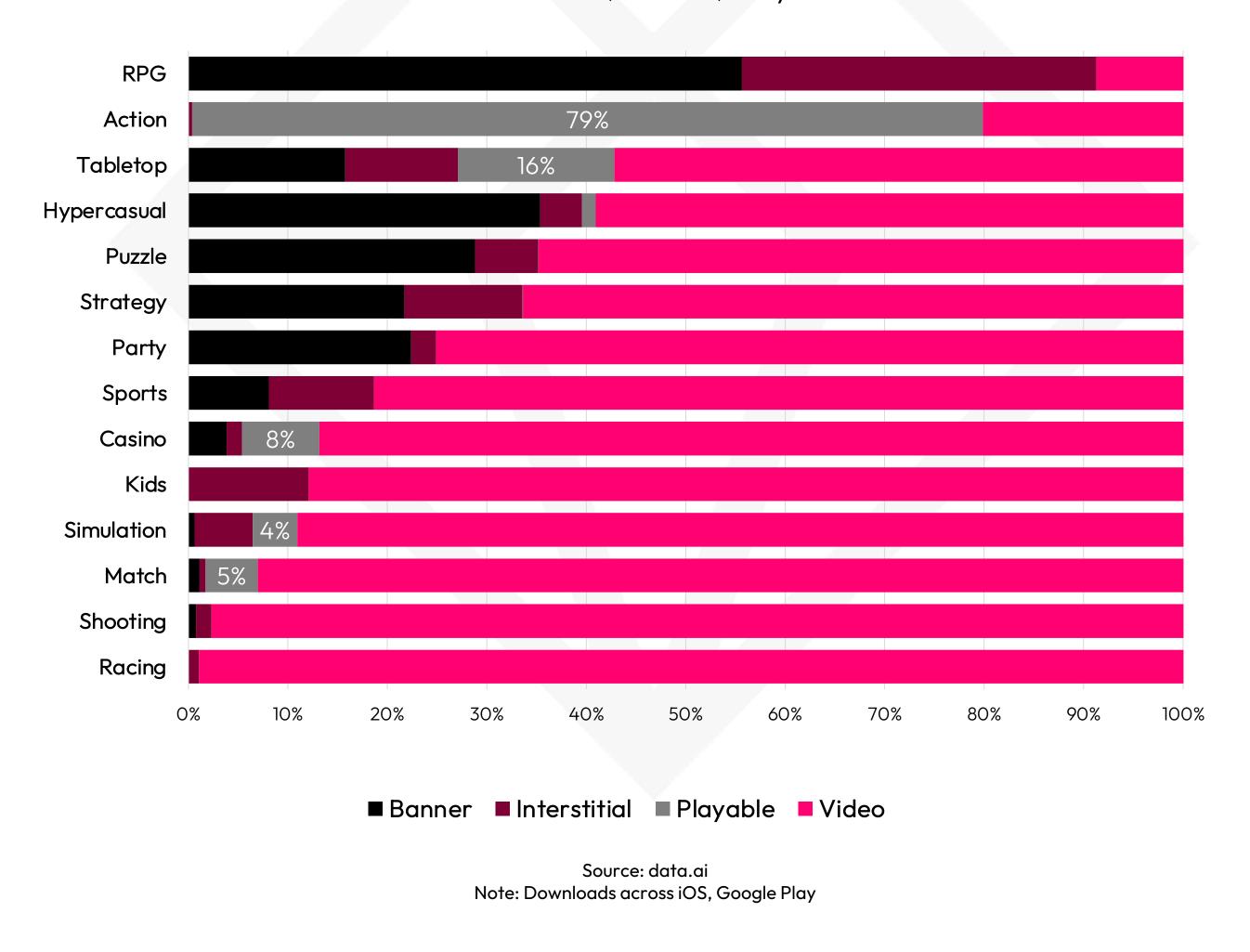
- In terms of user acquisition ad formats, Video Ads dominate most game subgenres apart from RPG and Action games. Playable ads have nearly 80% of Share of Voice (SOV) for advertisers of Action games, indicating a successful ad type for that subgenre.
- Tabletop games also bucked the trend with the second highest share of Playable Ads representing 16% of all SOV indicating they tend to perform well with viewers and lead to game downloads, likely due to their simple gameplay mechanics. Viewers can achieve the satisfaction of a tabletop title in a playable ad to quickly get a sense of the game, then subsequently download it quickly (the main metric of a successful ad).

Discover which creatives and ad formats perform best across varying ad networks and markets in order to drive down acquisition costs and maximize your daily average users.

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Share of Advertising SOV by Format Among Top 20 Games By Downloads per Genre

United States, iPhone, May 2023



Mobile Ad Monetization + User Preferences

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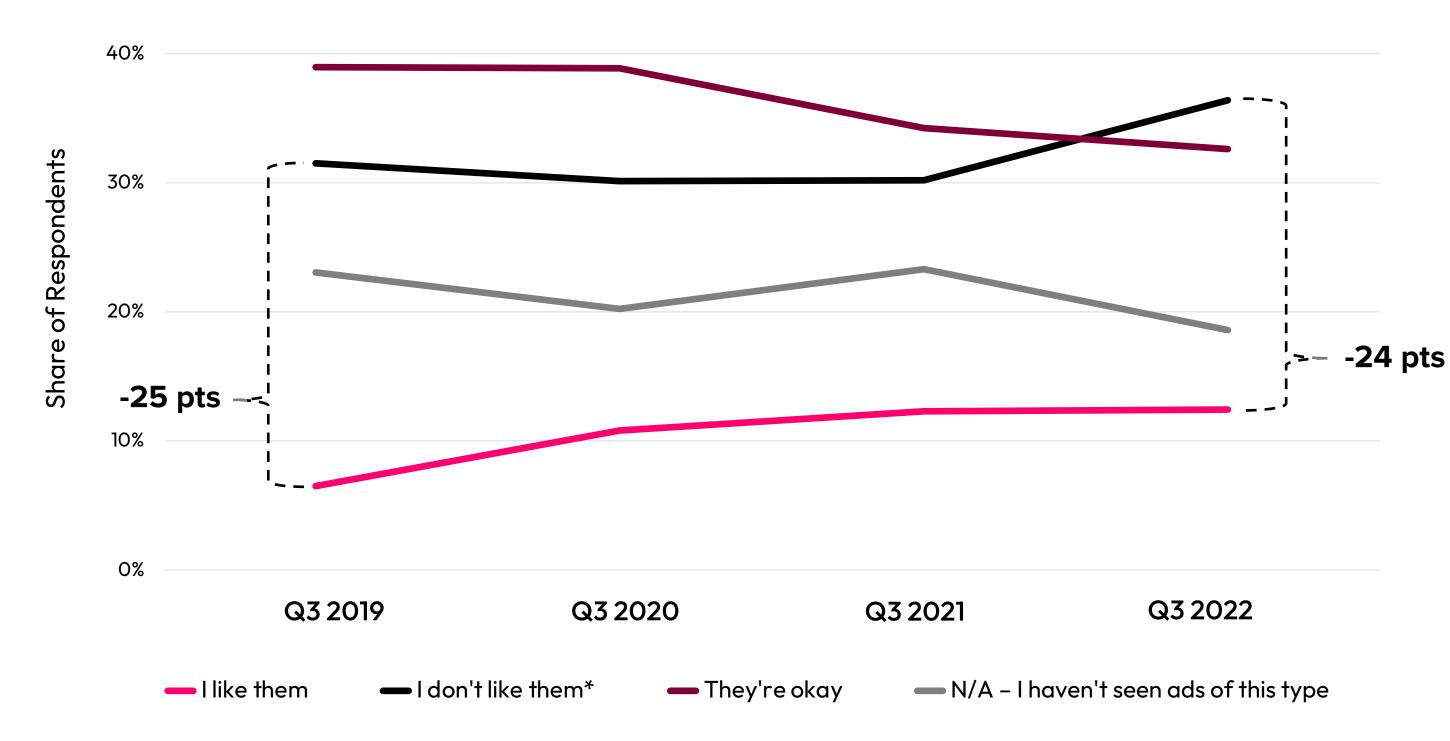
Banner/ Display Ads

US Gamer Sentiment Towards In-Game Banner Ads Has Fallen

- About 24% more US gamers said they "don't like"
 banner/display ads than those who said they "liked" them in Q3 2022.
- The gap between these two sentiments rose 6.1% between Q3 2021 and Q3 2022.
- Roughly 81% of respondents reported seeing in-game banner/display ads in Q3 2022.

Bad performing ads waste money and drive up the cost of new users. Stay informed on top performing ad types and see how changing your creative mix can improve your cost-per-click and accelerate your conversion to download.

US Mobile Gamer Sentiment Towards Banner/Display Ads Q3 2019 to Q3 2022



* Response option in Q3 2019 – Q3 2021 was "I can't stand them".

Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them?

[Option selected:] I've seen static banner (picture or text) ads and...

Mobile Ad Monetization + User Preferences

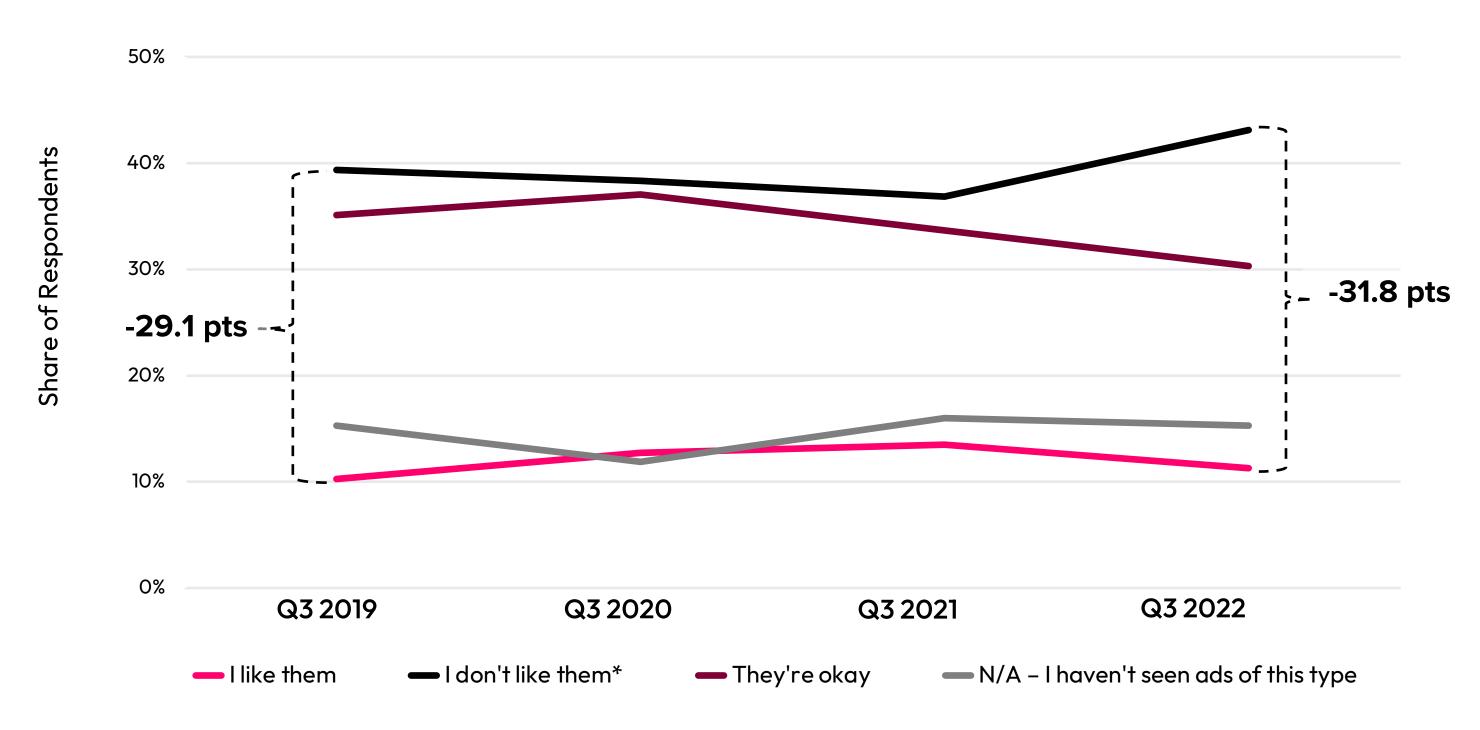
Video Ads

In-Game Video Ads Remained the Furthest Underwater In the US

- About 32% more US gamers said they "don't like" video ads than said they "liked" them in Q3 2022; this gap also increased 8.5% year-over-year.
- Video ads have the highest presence of all formats: about 85% of mobile gamers reported seeing an ad of this type in a game during Q3 2022.
- Video ads had the highest negative sentiment among the in-game ad formats considered; their sheer prevalence (as seen on slide 19) partly explains this outcome.

User preference is constantly evolving and metrics like clickthrough-rates and install conversion can change day by day. Stay informed on how different creative content is driving growth in the market.

US Mobile Gamer Sentiment Towards Video Ads Q3 2019 to Q3 2022



* Response option in Q3 2019 – Q3 2021 was "I can't stand them".

Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them?

[Option selected:] I've seen video ads and...

Mobile Ad Monetization + User Preferences

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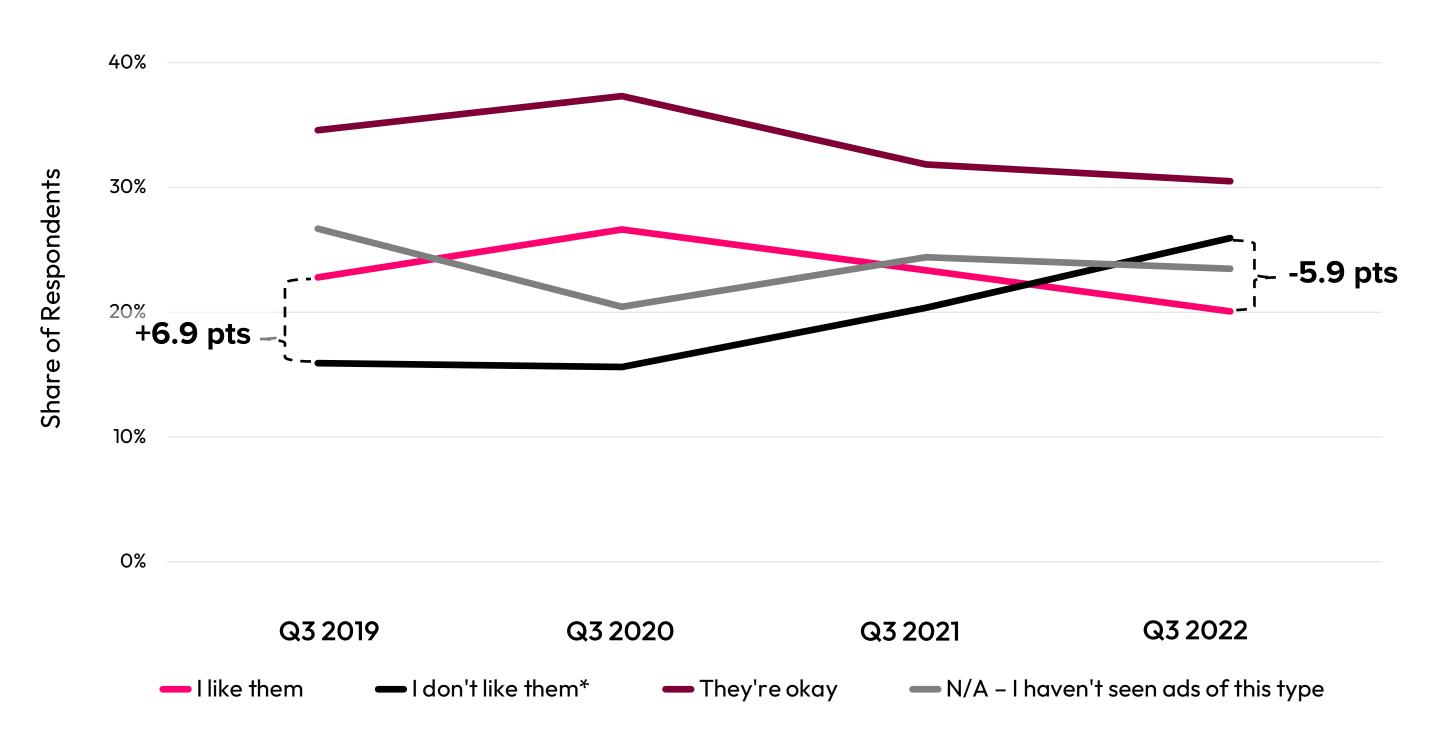
Rewarded Video Ads

Rewarded Video Ads Still the Most Popular with Gamers, But US Sentiment Dipped

- About 6% more US gamers said they "don't like"
 rewarded video ads than said they "like" them in Q3 2023,
 indicating users remain willing to part with their attention
 if it benefits their gameplay, but sentiment toward these
 ads also declined 8.9% year-over-year.
- 77% of gamers reported seeing at least one ad of this type in a mobile game in 2Q 2022.
- Rewarded Video Ads had the highest positive sentiment among all ad types with 20% of all gamers reporting that they "like them"; the value exchange remains direct and immediate for rewarded video ads.

Staying on top of high performing creative types is key to an efficient user acquisition strategy. Save money on impressions, clicks and installs by optimizing your creative mix based on trending formats.

US Mobile Gamer Sentiment Towards Rewarded Video Ads Q3 2019 to Q3 2022



* Response option in Q3 2019 – Q3 2021 was "I can't stand them".

Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them?

[Option selected:] I've seen rewarded video ads (that I get virtual currency or items for watching) ads and...

Mobile Ad Monetization + User Preferences

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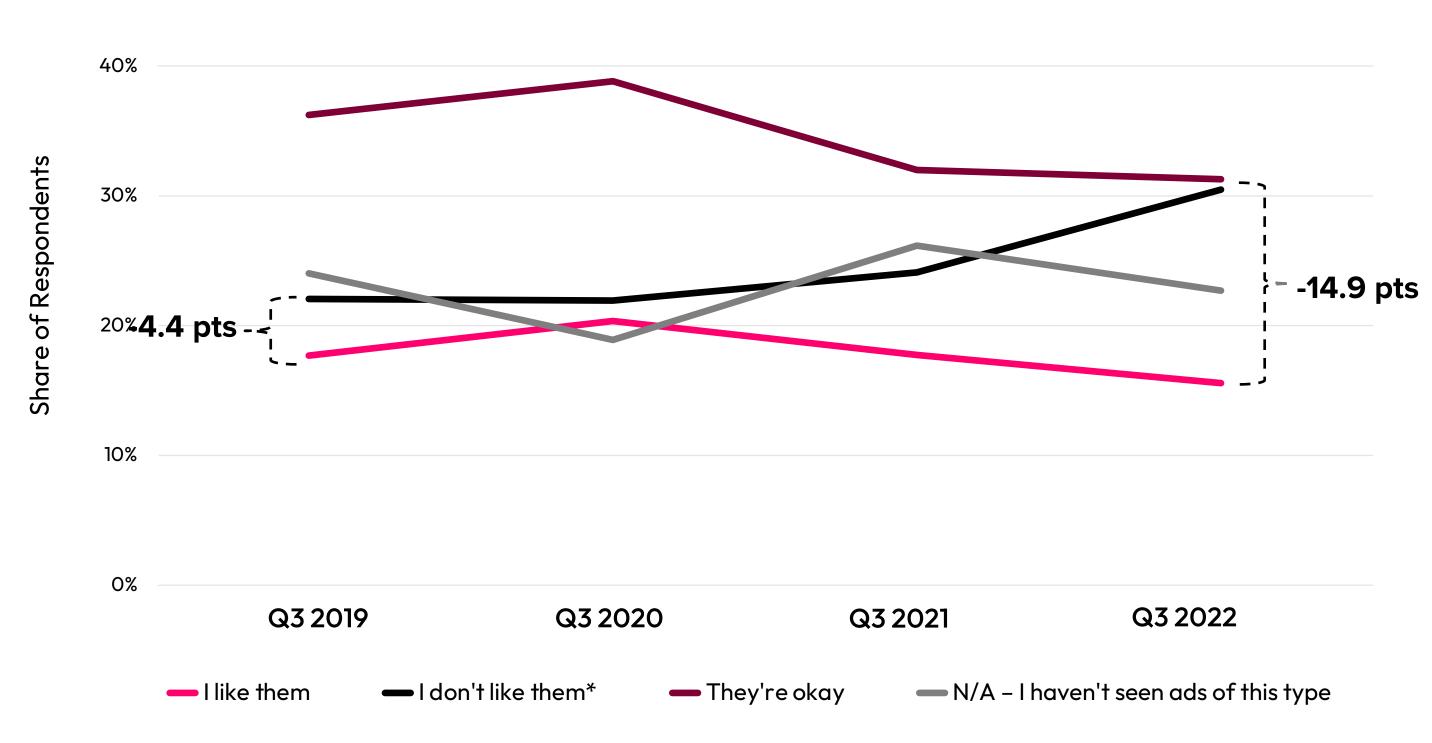
Playable Ads

Playable Ads Are #2 Among US Gamers, With Waning Popularity

- About 15% more US gamers said they "can't stand" Playable Ads (which are designed to let users "test drive" game levels before a potential download) than said they "liked" them in Q3 2022.
- The negative sentiment toward these ads rose 8.6% yearover-year, similar to Video Ads.
- Playable ads had the second highest "like" share at 16% of all gamers.

See how to analyze and find the top performing creatives in your market and refine your creative strategy for efficiency. Schedule a demo now!

US Mobile Gamer Sentiment Towards Playable Ads Q3 2019 to Q3 2022



* Response option in Q3 2019 – Q3 2021 was "I can't stand them".

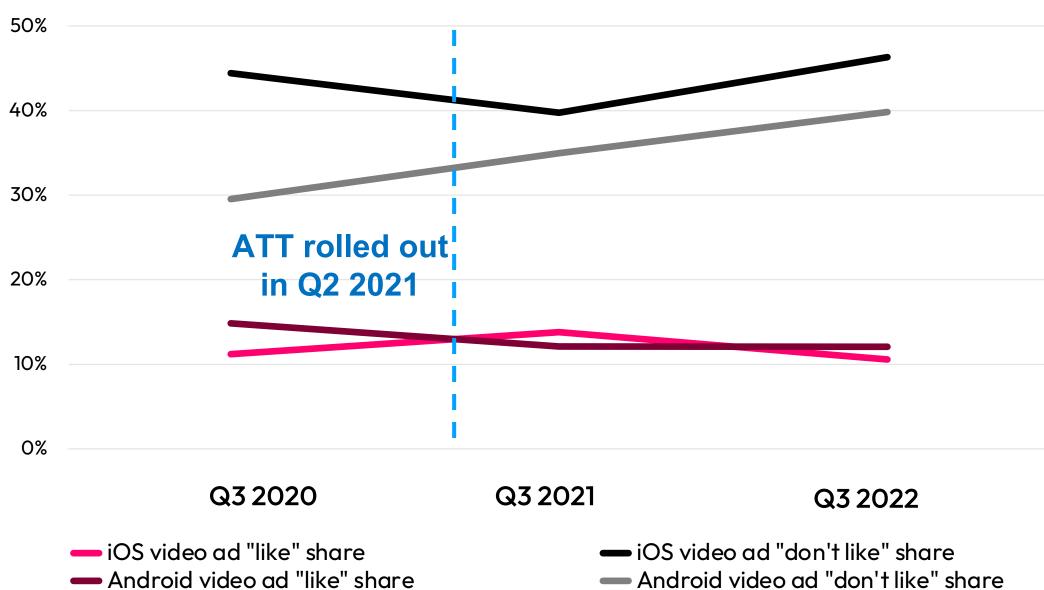
Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them?

[Option selected:] I've seen playable ads (that allow me to demo or trial another game) and...

Video and Rewarded Video Ads

There's No Clear Evidence ATT Negatively Impacted iOS Ad Sentiment in the US



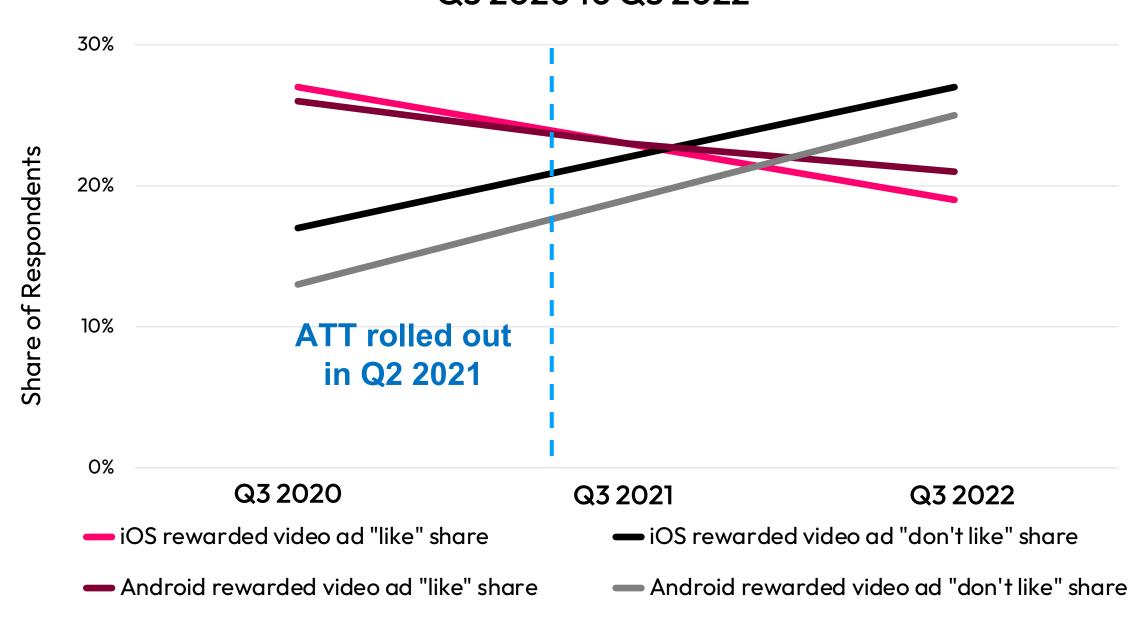


^{*} Response option in Q3 2019 – Q3 2021 was "I can't stand them".

Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them?

[Option selected:] I've seen video ads and...

US Mobile Gamer Sentiment Towards Rewarded Video Ads Q3 2020 to Q3 2022



^{*} Response option in Q3 2019 – Q3 2021 was "I can't stand them".

Q: If you've seen in-game ads in the mobile games you've played in the past three months, can you indicate what type you've seen and your attitude towards them? [Option selected:] I've seen rewarded video ads (that I get virtual currency or items for watching) ads and...

KEYTHEMES + TAKEAWAYS

Key Takeaways To Drive Growth In 2023

- Mobile is still the primary driver of growth for digital games consumption despite a softening in 2022, cementing its role as the world's preferred form of gaming, and central to a robust cross-platform experience, making it more critical and challenging to stand out.
- Mobile has enabled the **democratization of gaming** allowing for every type of gamer to gain access to their own niche, whether it's a specific subgenre from hypercasual to match-3 to core games like open world adventure titles. **Mobile gaming appears to be setting the stage for the** "new gamer", which is the most inclusive cohort yet.
- Games that have performed well in H1 2023 are varied, including the launch of **a board game turned on-the-go mobile experience**, a highly anticipated RPG release building on the popularity of genre-defining *Genshin Impact*, a savvy title disrupting a stable Match-3 market in under three years, and a cross-platform IP franchise based on the world's most popular sport seeing renewed fervor from tentpole live sporting events. Strong IP, capitalizing on market momentum and leveraging events are common themes for success.

Key Takeaways To Drive Growth In 2023

- Sentiment towards in-game mobile ads generally deteriorated in Q3 2022, especially compared
 to Q3 2021, according to US mobile gamer surveys. To find new users, it's important to stay
 informed on top performing ad networks and formats. Rewarded video and playable ads
 were gamers' preferred ad types in the US. Capitalizing on creative trends is challenging
 without the right partner.
- Oversaturation may be a problem for games that primarily monetize through ads. In the US, consumer opinion of in-game ads tended to fall as the prevalence of different types of ads has risen, so we recommend diversifying the types/formats of ads shown in-game.
- We further recommend using demographics to assess the type and format of ad that has the most favorable sentiment among a given game's user base to help combat "ad fatigue" a challenge that creates expensive installs, lower retention for new users and has grown tougher since Apple's ATT Framework was rolled out (and we expect Google's comparable Privacy Sandbox will arrive in early 2024). Contextual market data is important for advertisers to succeed in this dynamic environment.



Illuminating the Digital Landscape

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SEGA	SONY	Microsoft	ebay	D DiDi	ELEVEN
OUTFiT7	III ByteDance	<i>∞</i> Meta	Rakuten	Gett.	Pizza Hut
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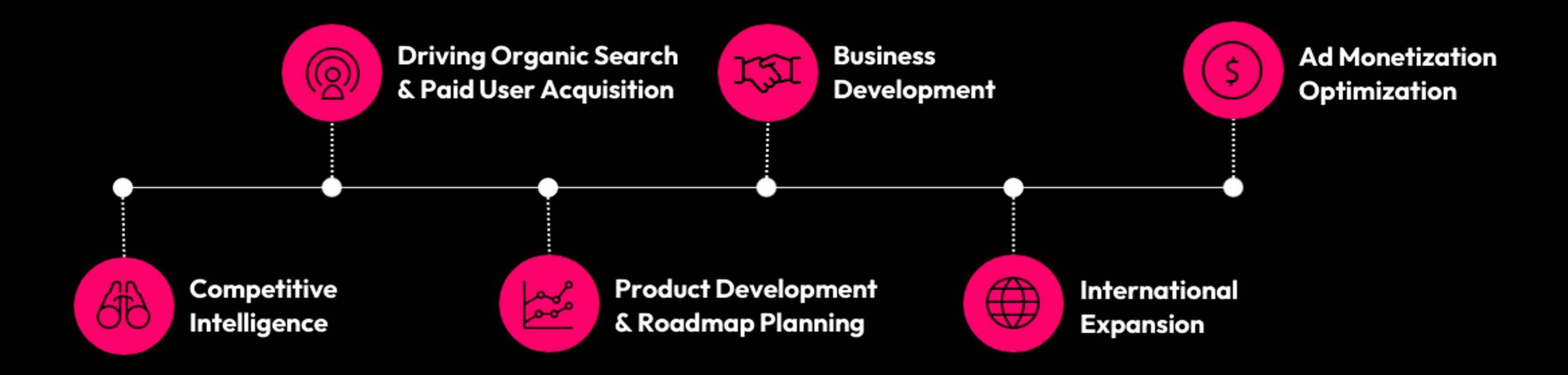
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