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Gaming Spotlight

H1 2024 Review

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Gaming Spotlight H1 2024

Today’s gaming market & its challenges

Mobile remains the largest opportunity in gaming; however, the ongoing tech industry contraction, economic uncertainty, and rising competition have added complexity to user acquisition and growth. This has made attracting new users and setting realistic revenue growth expectations more challenging.

Mobile game spending projected to grow by around 6% in 2024 compared to the previous year, driven by a series of successful hits and new launches across various genres. To maintain a competitive edge and avoid falling behind, it is crucial for mobile game publishers to stay ahead of emerging trends to understand what is, and may soon be, in demand.

While IP certainly plays a role in recent successful hits and mobile adaptations, gamers remain quite varied and demanding. Staying on top of innovative features and revenue-driving live operations updates is essential for increasing daily active users (DAU) and enhancing player retention. Without the right partners, gaining visibility on competitors can be time-consuming and unreliable.

Gaming Spotlight H1 2024

Today's gaming market & its challenges

With rising acquisition costs, creative optimization is more important 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.

To maximize revenue potential, it is crucial to adopt a comprehensive approach to monetization. With options like ad revenue, subscriptions, battle-passes, and promotions, understanding what works best for your genre and user base is essential. Staying ahead of the market through monetization insights ensures that you are employing the most effective strategies.

For mobile publishers looking to lower cost per install, establishing a captivating first ad impression is vital due to players' quick installation patterns. Experimenting with special incentives in ads can enhance campaign performance by increasing top-of-funnel conversions and impacting long-term engagement as gamers transition from initial novelty to sustained play.

Gaming Spotlight H1 2024

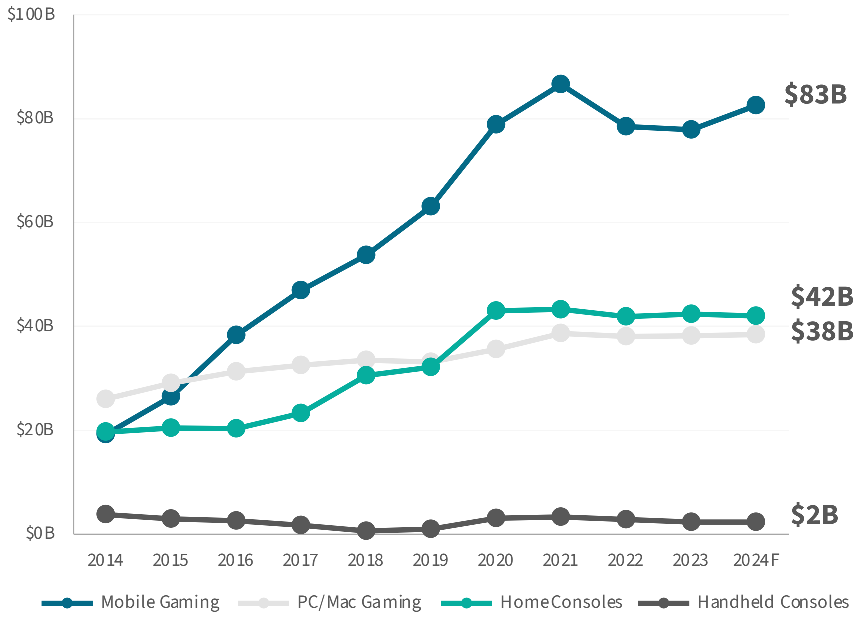
Gaming trends we're watching

Mobile spending showing signs of recovery amid tech industry contraction and economic uncertainty

- The **mobile gaming** market is set to grow to **$83 billion in 2024**, a **6% increase from the previous year**, driven by the success of recent hit titles like *MONOPOLY GO!*, *Royal Match*, as well as the continued global expansion of games from China such as *Honkai: Star Rail* and *Last War:Survival Game.* These games have successfully employed live-ops and innovative monetization strategies, combining in-app purchases, ads, and subscriptions to maximize revenue.
- **Home console game** spending should fall **1% in 2024 to $42 billion** based on lackluster first party lineups and Switch's transition year.
- **PC/Mac** spending should **rise 1% this year to $38 billion**, partly driven by strong paid game/DLC game revenue.
- **Handheld** spending should **drop 2% this year to less than $2.5 billion** due to flagging interest in Nintendo Switch Lite games, partly offset by rising Steam Deck game purchases.

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



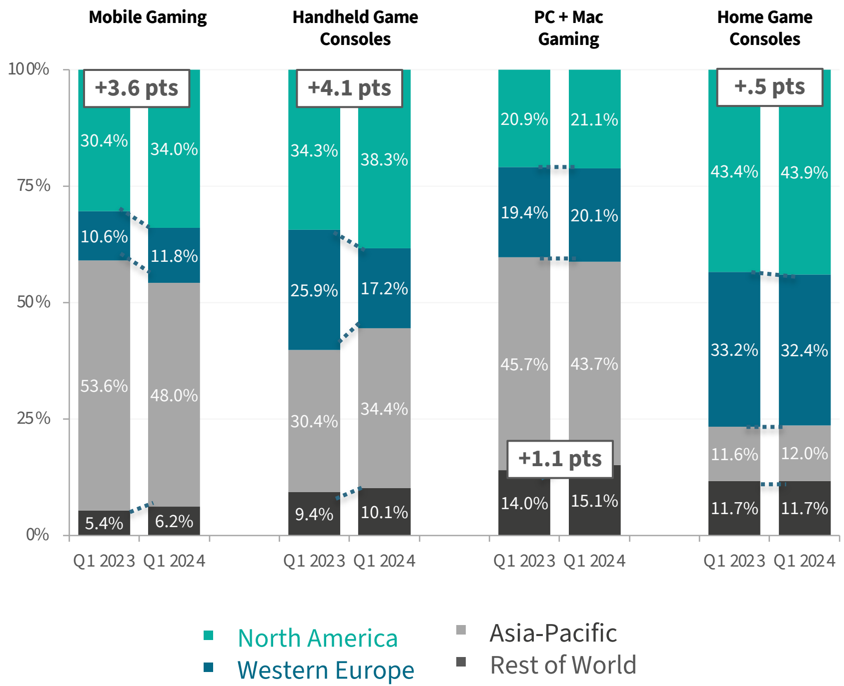
Source: Sensor Tower & IDC.

All totals include applicable digital and physical game spending but exclude ad revenue. Mobile gaming includes all app stores (iOS App Store, Google Play, excluding 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.

North American markets were the main drivers of revenue growth across Mobile, PC, and Mac

- Major APAC markets such as China and Japan experienced slight declines in spending, while emerging markets like India and Indonesia drove the gains in market share for mobile spending in the APAC region. Additionally, growth in mobile gaming spending was notably led by Mexico, Saudi Arabia, and Poland in the Rest of the World region. These shifts highlight the dynamic nature of the global mobile gaming market, with emerging economies increasingly contributing to overall growth.
- Demand for Switch Lite games held up relatively well in the U.S. and Japan YoY, but not so much in Western Europe, yielding a 4.1% revenue share rise in North America and a 4% rise in Asia-Pacific.
- Regional PC and Mac game spending shares were fairly steady YoY, with the ROW region (LatAm + MEA + CEE) picking up about a percent and Asia-Pacific losing 2% (due to ongoing regulatory pressures in PRC and broader macroeconomic softness).
- Home console share changes were also modest but North America led in terms of YoY share gains. As with handhelds, Western European console spending results were relatively weak, which could have been affected by macroeconomic factors (i.e., GDP in the EU in 1Q24 was a meager 0.3%).

Worldwide consumer spending shares on games
by region Q1 2023 vs Q1 2024



Source: Sensor Tower & IDC
Note: Mobile Gaming across iOS & Google Play

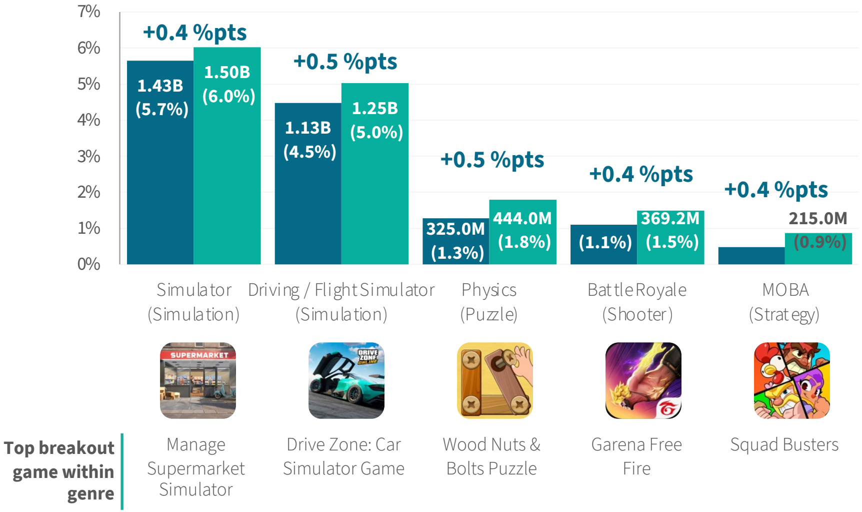
Growth in simulation games and MOBA leads mobile game surge

Simulators led by volume among the top five subgenres by downloads share, with **1.5 billion downloads** in the first half of 2024, capturing 6% of the market, up 0.4 percentage points from the previous period. **MOBA** games also surged, reaching **215 million** downloads, up from 121 million, driven by releases like *Squad Busters* and the global rollout of *Honor of Kings*.

MOBA also saw substantial growth in revenue share, reaching **$2.34 billion**, or 5.8% of the market, up from 4.8% previously. This increase was partly driven by recent releases, and *Brawl Stars*'s impressive comeback, which boosted its revenue through new features and effective live operations. **Beat 'em Up (Action Games**) also grew significantly, hitting **$384 million** compared to $45 million in the previous period, driven by the success of *Dungeon & Fighter Mobile* in China.

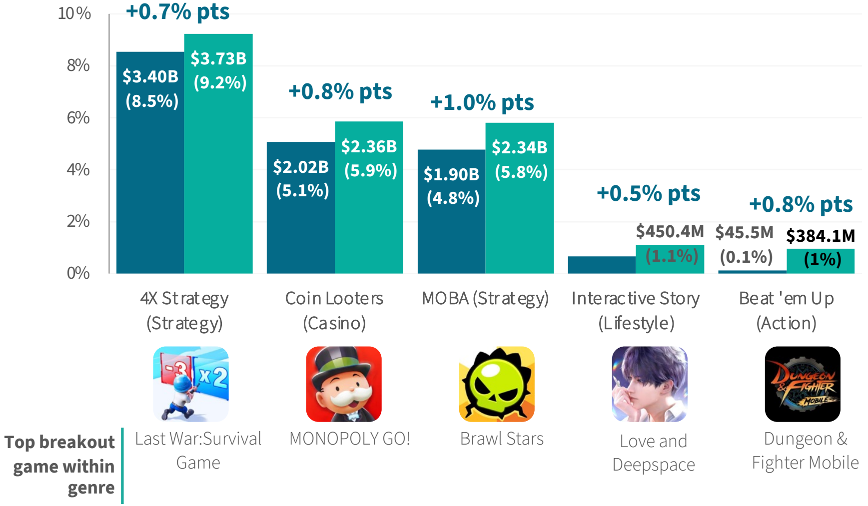
Top 5 game sub genres by growth in downloads share

H2 2023 vs H1 2024



Top 5 game sub genres by growth in gross revenue share

H2 2023 vs H1 2024



Source: Sensor Tower Store Insights, iOS & Google Play Combined

Core games didn't dominate mobile consumer spending: Emerging genres gained popularity

- The top 10 mobile games in 2024 are led by MONOPOLY GO! and include a mix of genres such as strategy, puzzle, and simulation, with notable titles like *Honor of Kings*, Royal Match, and Roblox, reflecting a diverse gaming landscape dominated by popular and engaging games across various categories.
- On Steam, three free-to-play games made the top 10 (*CS2, PUBG*, and *Apex Legends*) and the rest were paid games. Note: *Call of Duty* aggregates results from *MWIII, MWII*, and *Warzone* (the last of which is F2P). Core shooters and RPGs dominated the top 10.
- Only four of the paid Steam games launched in H1 2024 (*HELLDIVERS™ 2, Palworld, Dragon's Dogma 2*, and *Last Epoch*). *ELDEN RING's Shadow of the Erdtree* DLC appeared to boost base game sales (the game debuted in Q1 2022 & this DLC pack sold 5M copies across Steam and consoles in late 2Q 2024).
- Perhaps it's time to pump the brakes on "IP convergence" narrative between mobile and PC…but the popularity of online multiplayer games remained common.

Source: Sensor Tower & IDC, 2024.
Note: Sensor Tower mobile gaming rankings based on H1 2024, Combined iOS and Google Play; China is iOS only; IDC Market-level Steam rankings for H1 2024 contain a significant margin of error (up to 15% per title) and should be considered directional.

Top 10 worldwide grossing mobile & Steam Games
by platform H1 2024

Rank	Mobile Gaming	Rank	Steam (Windows PC)
1	**MONOPOLY GO!** Scopely Coin Looters(Casino)	1	**Counter-Strike 2** Valve Team-based FPS
2	**Honor of Kings** Tencent MOBA(Strategy)	2	**HELLDIVERS™ 2** Arrowhead Game Studios / PlayStation Third-person co-op shooter
3	**Royal Match** Dream Games Swap(Puzzle)	3	**Palworld** Pocketpair Open world survival and crafting
4	**ROBLOX** Roblox Sandbox(Simulation)	4	**PUBG: BATTLEGROUNDS** KRAFTON Battle royale shooter
5	**Candy Crush Saga** Activision Blizzard Swap(Puzzle)	5	**Dragon's Dogma 2** CAPCOM Action RPG
6	**Coin Master** Moon Active Coin Looters(Casino)	6	**ELDEN RING** Bandai Namco / FromSoftware Open world fantasy RPG
7	**Game For Peace** Tencent Battle Royale(Shooter)	7	**Call of Duty®** Activision FPS
8	**Last War:Survival Game** FirstFun 4X Strategy(Strategy)	8	**Last Epoch** Eleventh Hour Games Hack and slash action RPG
9	**Whiteout Survival** Century Games 4X Strategy(Strategy)	9	**Baldur's Gate 3** Larian Studios RPG
10	**Brawl Stars** Supercell MOBA(Strategy)	10	**Apex Legends™** Electronic Arts Battle royale FPS

Western Europe's top grossing games for Q1 2024 highlight mobile casino dominance while Steam spending remained core

- Coin Master and *MONOPOLY GO!* top the mobile gaming charts in Western Europe, both belonging to the Coin Looters (Casino) subgenre. This highlights the significant revenue-generating potential of casino-style games on mobile platforms.
- Apart from casino games, mobile titles like Brawl Stars (MOBA) and Candy Crush Saga (Puzzle) indicate a strong preference for strategy and puzzle genres among mobile gamers in Western Europe.
- On Steam, two of the top 10 were F2P (*CS2* and *War Thunder*) and the rest were paid, although the Call of Duty entry includes *Warzone*.
- If the two *HELLDIVERS™ 2* entries are combined, the new #10 was *Dragon's Dogma 2*. *Cyberpunk 2077's Phantom Liberty* DLC (from 3Q 2023) appeared to boost base game sales.
- Compared to Steam's global top 10, the "new" entries were *Enshrouded* and *War Thunder*. We didn't include it, but if Steam Deck was a game, it would have made the top three.

Source: Sensor Tower & IDC, 2024.
Note: Sensor Tower mobile gaming rankings based on Q1 2024, Combined iOS and Google Play.
IDC Market-level Steam rankings for Q1 2024 contain a significant margin of error (up to 20% per title) and should be considered directional.

Top 10 grossing mobile & Steam Games
Western Europe, Q1 2024

Western Europe (United Kingdom, France, and Germany)			
Rank	**Mobile Gaming**	**Rank**	**Steam Games**
1	**Coin Master** Moon Active Coin Looters(Casino)	1	**Counter-Strike 2** Valve Team-based FPS
2	**MONOPOLY GO!** Scopely Coin Looters(Casino)	2	**HELLDIVERS™ 2** Arrowhead Game Studios / PlayStation Third-person co-op shooter
3	**Royal Match** Dream Games Swap(Puzzle)	3	**Baldur's Gate 3** Larian Studios RPG
4	**Candy Crush Saga** Activision Blizzard Swap(Puzzle)	4	**Enshrouded** Keen Games Co-op survival action RPG
5	**Brawl Stars** Supercell MOBA(Strategy)	5	**Palworld** Pocketpair Open world survival and crafting
6	**ROBLOX** Roblox Sandbox(Simulation)	6	**Last Epoch** Eleventh Hour Games Hack and slash action RPG
7	**Gardenscapes by Playrix** Playrix Swap(Puzzle)	7	**War Thunder** Gaijin Vehicular combat
8	**Clash of Clans** Supercell Build & Battle(Strategy)	8	**HELLDIVERS™ 2 Super Citizen Edition** Arrowhead Game Studios / PlayStation Third-person co-op shooter
9	**Whiteout Survival** Century Games 4X Strategy(Strategy)	9	**Cyberpunk 2077** CD PROJEKT RED Open world action-adventure RPG
10	**Homescapes** Playrix Match Swap (Puzzle)	10	**Call of Duty®** Activision FPS

Asia Pacific's gaming titans: Strategy and RPGs reign on mobile, while Steam thrived on RPGs and shooters

- Games like *Honor of Kings* (MOBA) and Honkai: Star Rail (Turn-based RPG) lead the mobile gaming charts, highlighting the popularity of strategy and RPG genres in the Asia Pacific region.
- Tencent's titles, including *Honor of Kings*, Game For Peace, and League of Legends: Wild Rift dominate the mobile gaming list, showcasing the company's significant influence in the region's mobile gaming market.
- On Steam, four of the top 10 were F2P (*CS2, PUBG, Apex Legends*, and *NARAKA: BLADEPOINT*).
- If the two *HELLDIVERS™ 2* entries are combined, the new #10 was *Monster Hunter: World*. Compared to Steam's top 10 in Western Europe, the "new" entries were *Granblue Fantasy: Relink* and *NARAKA: BLADEPOINT*, which were both published by publishers based in Asia-Pacific. Between mobile and PCs, RPGs and Shooters heavily overlapped.
- Steam Deck didn't show up, but it also can't be bought on Steam.

Source: Sensor Tower & IDC, 2024.
Note: Sensor Tower mobile gaming rankings based on Q1 2024, Combined iOS and Google Play. China is iOS only; IDC Market-level Steam rankings for Q1 2024 contain a significant margin of error (up to 20% per title) and should be considered directional.

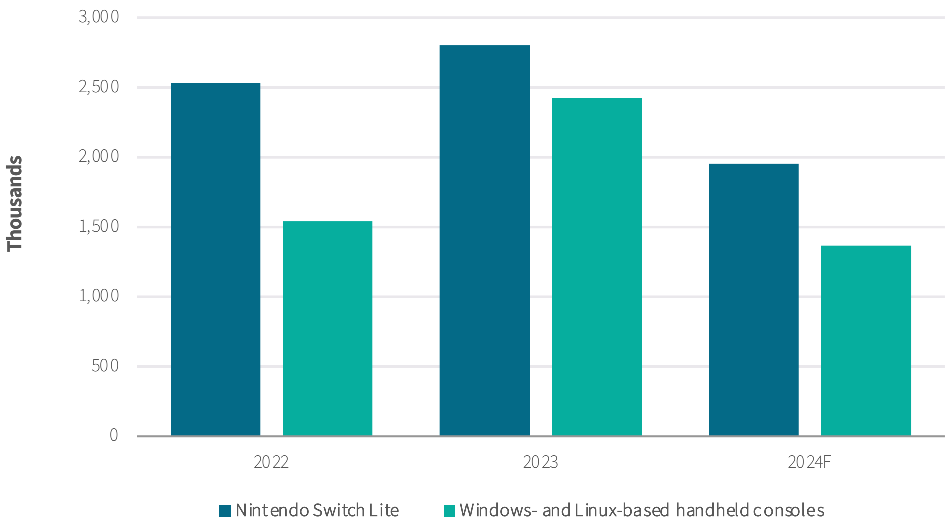
Top 10 grossing mobile & Steam Games
Asia Pacific, Q1 2024

Asia Pacific (China, Japan, South Korea, Taiwan, and Australia)			
Rank	**Mobile Gaming**	**Rank**	**Steam Games**
1	**Honor of Kings** Tencent MOBA(Strategy)	1	**HELLDIVERS™ 2** Arrowhead Game Studios / PlayStation Third-person co-op shooter
2	**Game For Peace** Tencent Battle Royale(Shooter)	2	**Counter-Strike 2** Valve Team-based FPS
3	**Honkai: Star Rail** miHoYo Turn-based RPG(RPG)	3	**PUBG: BATTLEGROUNDS** KRAFTON Battle royale shooter
4	**Teamfight Tactics** Tencent Real-Time Strategy(Strategy)	4	**Palworld** Pocketpair Open world survival and crafting
5	**Genshin Impact** miHoYo Open World Adventure(RPG)	5	**Apex Legends™** Electronic Arts Battle royale FPS
6	**Monster Strike** mixi Puzzle RPG(RPG)	6	**Cyberpunk 2077** CD PROJEKT RED Open world action-adventure RPG
7	**CrossFire** Tencent FPS / 3PS (Shooter)	7	**Granblue Fantasy: Relink** Cygames Co-op action JRPG
8	**Legend of Mushroom** Joy Net Games Idle RPG(RPG)	8	**Baldur's Gate 3** Larian Studios RPG
9	**Justice Online** Netease MMORPG (RPG)	9	**NARAKA: BLADEPOINT** NetEase Games Martial arts battle royale
10	**League of Legends: Wild Rift** Tencent MOBA(Strategy)	10	**HELLDIVERS™ 2 Super Citizen Edition** Arrowhead Game Studios / PlayStation Third-person co-op shooter

Handheld game console shipments may decline this year

- After rising 28% in 2023, IDC research suggests that combined Nintendo Switch Lite and Windows- and Linux-based gaming handheld bundle shipments are on track to fall 36% this year, to about 3.3 million. The latter category is currently typified by Valve's Steam Deck and Asus' ROG Ally.
- These estimates exclude Android-based gaming handhelds, which tend to focus on local or cloud-based game streaming. This segment is currently typified by Sony's PlayStation Portal and Logitech's G Cloud.
- It may be time to pump the brakes on how large a growth opportunity these devices represent for game developers.
- "Steam Deck 2" is rumored to be in the works for 2025 or 2026, and "Switch 2" may ship its own Switch Lite variant in the 2027 timeframe, so it's plausible shipments will reach a new high circa 2027, especially if the Android segment finds an audience.

Worldwide handheld game console bundle shipments in two segments, 2022-2024F



Source: IDC, 2024.

Gaming Spotlight H1 2024

Mobile games that defined H1 2024

Mobile games that defined H1 2024

MONOPOLY GO!
Scopely, Inc (United States)

Game Taxonomy

Class: Casino
Genre: Casino
Sub-Genre: Coin Looters
Product Model: Casual

Theme: Tabletop
Art Style: 3D Cartoon
Camera POV: Top-Down

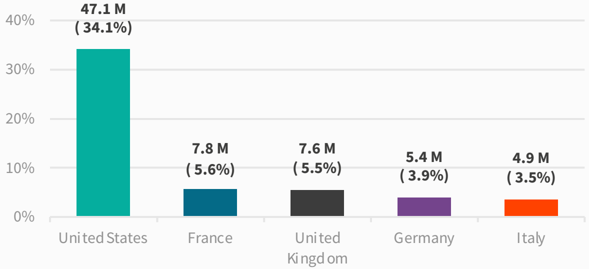
Monetization: Free to Play, Live Ops, Currency Bundles, Starter Pack,Loot Box

Game Tags: Character Collection, Co-op, Decoration / Renovation, Levels, PvP,Social Gambling

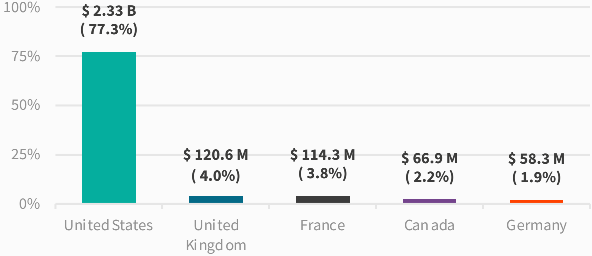
Licensed IP: Monopoly
IP Type: Board Game
IP Operator: Hasbro
Corporate Parent: Hasbro

- Scopely's *MONOPOLY GO!*, the made-for-mobile reimagining of Hasbro's beloved board game, has reached an extraordinary milestone, crossing $3 billion in gross revenue in July 2024. This achievement makes it the fastest mobile game ever to reach this mark. Since its debut in April 2023, *MONOPOLY GO!* has become a mobile sensation, captivating players worldwide and uniting a global community of MONOPOLY fans.
- *MONOPOLY GO!* distinguishes itself from other games with its incorporation of team events (co-operative), Coin Looters mechanics, vibrant 3D art, universal tabletop-themed gameplay presented from a top-down view, and more. Designed to captivate adult audiences of all ages, it emphasizes social and community interaction and regular updates, ensuring a consistently fresh and engaging experience for players.
- The game typically attracts a millennial and above demographic, with only one fifth of players under the age of 25. In fact, the average player age is estimated to be 35 years old. This unique blend of gameplay elements, frequent content updates, and enhanced social features attracts a broad audience, making it a standout in the mobile gaming world.

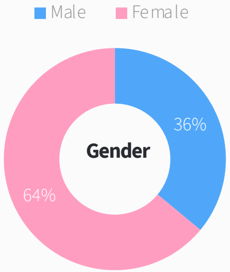
Downloads Breakdown
Source: Sensor Tower Store Insights



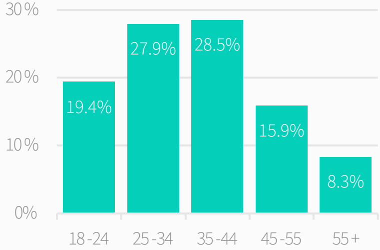
Gross Revenue Breakdown



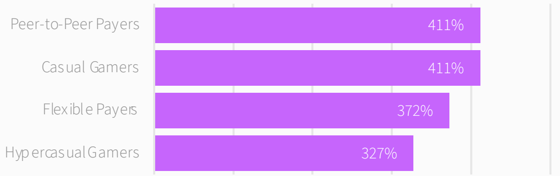
Demographics Breakdown – United States – iPhone
Source: Sensor Tower Audience Insights, Q1 2024



Age Distribution



Likelihood to Fall into Persona (vs. General Population % Difference)



Mobile games that defined H1 2024

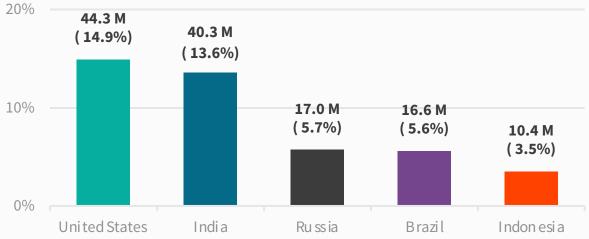
Royal Match
Dream Games (Turkey)

Game Taxonomy

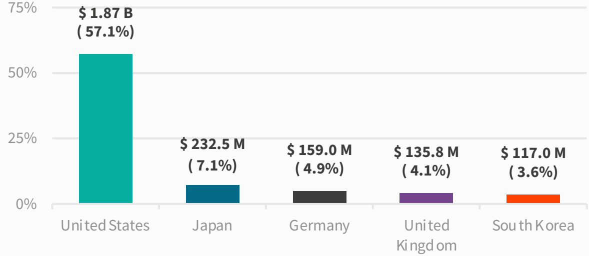
Class:	Lifestyle & Puzzle
Genre:	Puzzle
Sub-Genre:	Swap
Product Model:	Casual
Setting:	Historical
Theme:	Bubbles / Tiles / Colors
Art Style:	2D Cartoon
Camera POV:	Side
Monetization:	Free to Play, Live Ops, Season Pass, Currency Bundles, Starter Pack, Loot Box
Game Tags:	Decoration / Renovation, Levels, Match, Social Clans

- Dream Games' 2021 swap (puzzle) game, Royal Match, has reached an incredible milestone, surpassing $3.3 billion in gross revenue to date. This achievement underscores the game's widespread popularity and financial success, particularly in the United States, which alone has contributed 57% of the revenue, amounting to $1.87 billion.
- *Royal Match* is set against a captivating historical backdrop and features a vibrant bubbles/tiles/colors theme presented in a charming 2D cartoon art style. The game is designed to appeal to fans of lifestyle and puzzle games, offering a rich and engaging experience that keeps players coming back for more.
- *Royal Match* has resonated particularly well with a predominantly female audience, who make up 63% of the player base. The game also sees significant engagement from mid-aged adults, with the 35-44 and 45-55 age groups each comprising 28% of players. This demographic insight indicates that the game's design and mechanics appeal strongly to mid-aged adults, providing a satisfying and entertaining pastime.

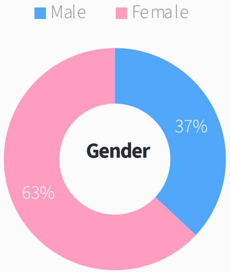
Downloads Breakdown
Source: Sensor Tower Store Insights



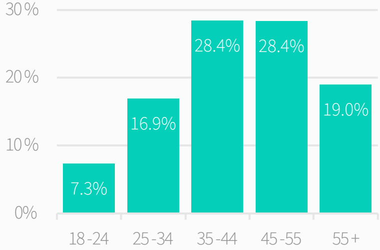
Gross Revenue Breakdown



Demographics Breakdown – United States – iPhone
Source: Sensor Tower Audience Insights, Q1 2024



Age Distribution



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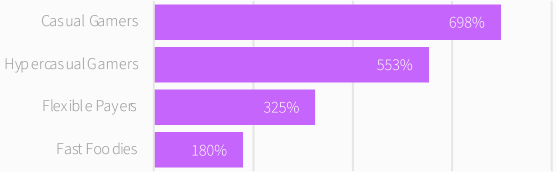


Mobile games that defined H1 2024

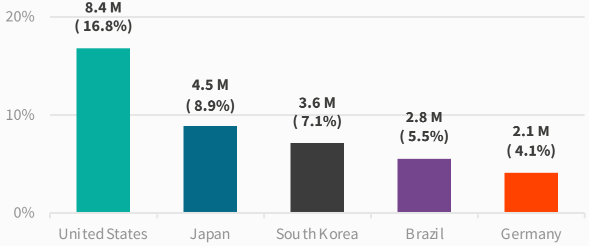
Last War: Survival Game
FirstFun(China)

Game Taxonomy

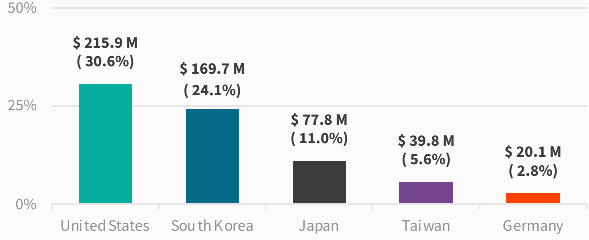
Class:	Action & Strategy
Genre:	Strategy
Sub-Genre:	4X Strategy
Product Model:	Hybridcasual
Setting:	Sci-Fi
Theme:	Zombie
Art Style:	Hypercasual
Camera POV:	Third Person
Monetization:	Free to Play, Gacha, Subscription, Currency Bundles, Starter Pack, Loot Box
Game Tags:	Character Collection, Decoration / Renovation, Levels, Resource Management

- *Last War: Survival Game*, developed by FirstFun, has become a standout in mobile gaming, surpassing $710 Million in gross revenue as of July 2024. The U.S. contributes 31% ($216 million) to total revenue, with South Korea following at 24% ($169.7 million). The game boasts 50 million downloads, notably from the U.S. and Japan.
- Set in a sci-fi zombie environment, *Last War: Survival Game* combines hypercasual art with third-person perspective, appealing to action and strategy fans. The hybridcasual model caters to casual and avid gamers, supported by diverse monetization strategies like free-to-play, gacha, and loot boxes that enhance gameplay and revenue.
- The game primarily attracts male players (75%), with significant engagement from those aged 25-44, especially the 25-34 and 35-44 age groups, reflecting its appeal to adults who enjoy strategic depth and action. Last War: Survival Game exemplifies the potential of mobile games to engage a global audience and achieve substantial financial success in the 4X Strategy genre.

Downloads Breakdown
Source: Sensor Tower Store Insights



Gross Revenue Breakdown



Demographics Breakdown – United States – iPhone
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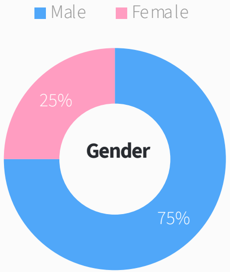
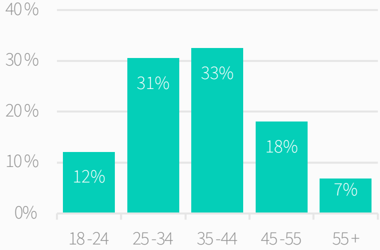


Age Distribution



Likelihood to Fall into Persona (vs. General Population % Difference)

Mobile games that defined H1 2024

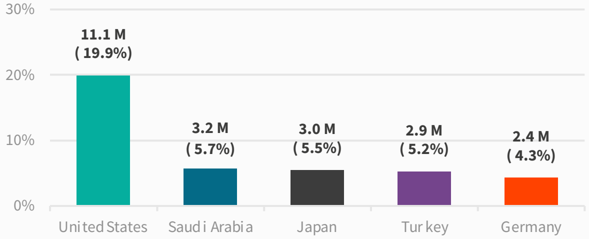
Whiteout Survival
Century Games (China)

Game Taxonomy

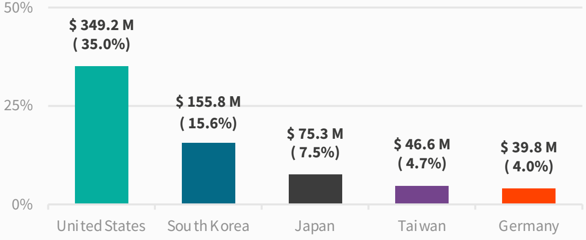
Class:	Action & Strategy
Genre:	Strategy
Sub-Genre:	4X Strategy
Product Model:	Mid-core
Setting:	Sci-Fi
Theme:	Post-Apocalypse
Art Style:	3D Cartoon
Camera POV:	Top-Down
Monetization:	Free to Play, Live Ops, Season Pass, Gacha, Subscription, Currency Bundles, Loot Box
Game Tags:	Character Collection, Co-op, Idle, Narrative Stories, PvP, Resource Management, Social Clans

- Century Games' 2023 release *Whiteout Survival* has reached an impressive milestone, surpassing $1 billion in gross revenue by July 2024. This post-apocalyptic, sci-fi game captivates players with its 3D cartoon art style and top-down perspective, appealing to both action and strategy enthusiasts. The success of *Whiteout Survival* is driven by its robust monetization model, which includes free-to-play elements, live operations, season passes, gacha mechanics, subscriptions, and in-game purchases. These diverse revenue streams ensure financial sustainability while offering players various ways to enhance their experience. The game has seen 56 million downloads globally, with the United States leading at 20% (11 million), followed by significant player bases in Saudi Arabia, Japan, Turkey, and Germany.
- Revenue generation is highest in the United States, contributing 35% ($349.2 million) of the total, with South Korea following at 16% ($155.8 million). In the U.S., the player base is predominantly male (55%) with a significant female audience (45%), primarily aged 25-34. Whiteout Survival attracts a diverse range of gamers, including core, hypercasual, and console gamers, highlighting its broad market appeal and strong financial performance.

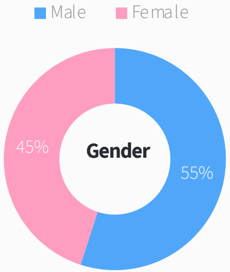
Downloads Breakdown
Source: Sensor Tower Store Insights



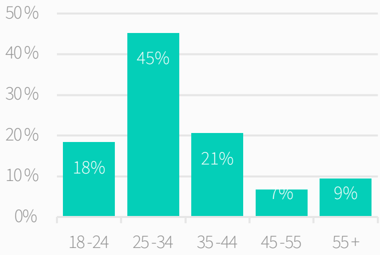
Gross Revenue Breakdown



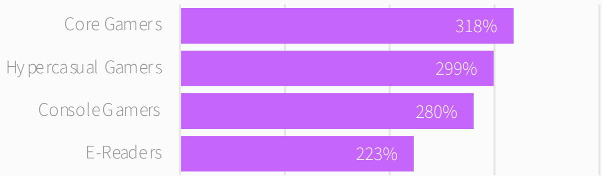
Demographics Breakdown – United States – iPhone
Source: Sensor Tower Audience Insights, Q1 2024



Age Distribution



Likelihood to Fall into Persona (vs. General Population % Difference)



Gaming Spotlight H1 2024

Mobile ad trends + "Native ads" in UGC games

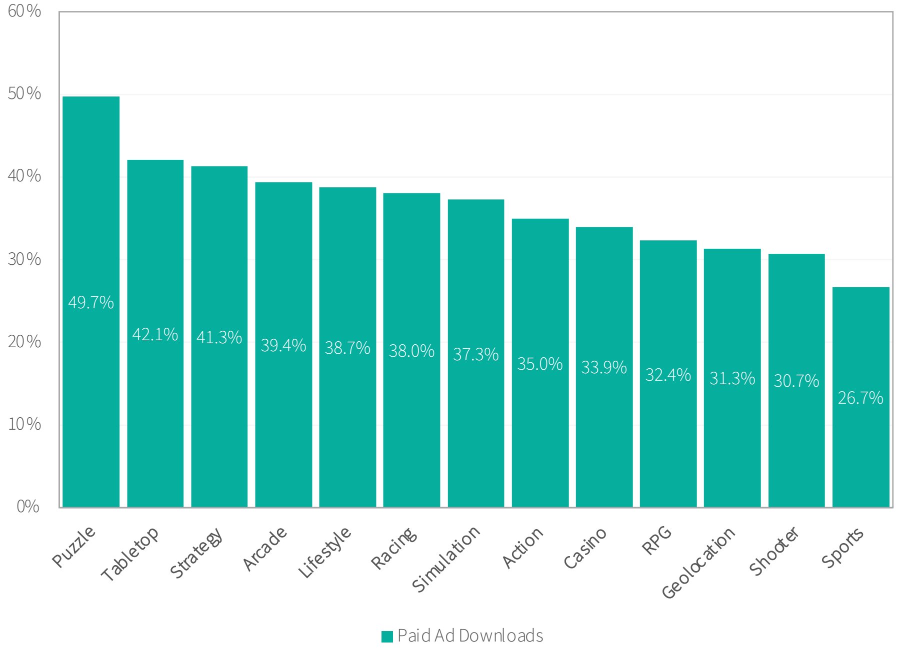
Paid user acquisition: Puzzle, Tabletop and Strategy lead in paid installs

- The market benchmarks for paid downloads vary by game genre and country. Casual genres, such as Puzzle, Tabletop, and Arcade, require more paid promotion due to crowded markets and low entry barriers. These genres also have shorter engagement periods and quicker monetization, necessitating continuous paid acquisition to attract new players and sustain revenue streams.
- Casual games often feature quicker monetization models, like ads and in-app purchases. Investing in paid acquisition can lead to immediate returns, making it an effective strategy for rapidly generating revenue.

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.

Share of game downloads from paid sources

Average of top 100 games per genre in Q1 2024, United States



Source: Sensor Tower
Note: Downloads across iOS, Google Play.

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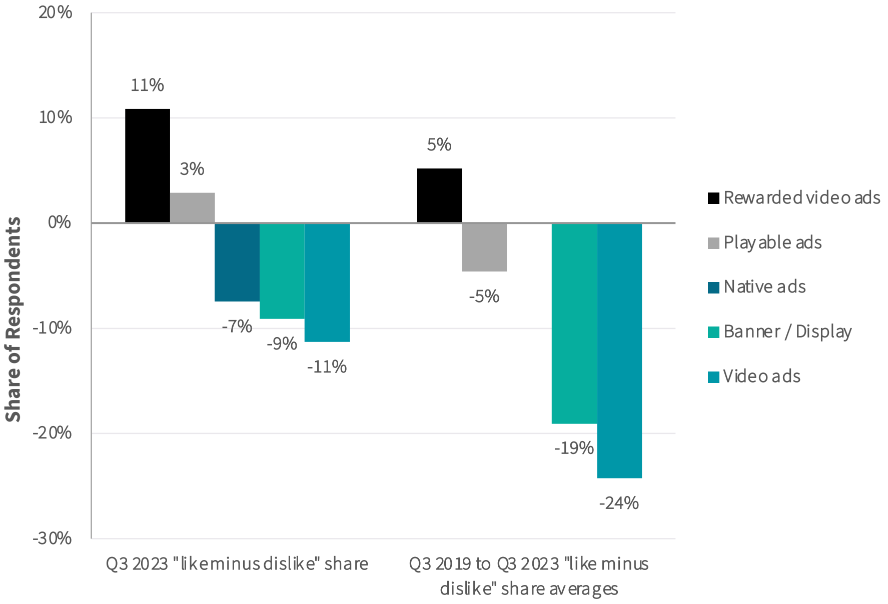
U.S. mobile gamer ad sentiment: **Sentiment towards in-game ads improved in 3Q 2023 but the broader pattern remained**

- Rewarded video (RV) ads remained the most popular overall format among the U.S. mobile gamers IDC surveyed in Q3 2023. Video ads were least popular. We recommend leaning into RV opportunities.
- At right, the share of respondents who indicated they “do not like” an ad format was subtracted from the share that said they “like” it. Neutral and N/A responses were excluded.
- RV ads were defined as ads that “I get virtual currency or items for watching,” and they’re nearly always interstitial.
- Playable ads were defined as ads that “that allow me to demo or trial another game,” and they’re nearly always interstitial.
- Native ads were defined as ads that “that are integrated right into the game itself.” We didn’t ask about this format prior to 3Q 2023.
- Banner/Display ads were defined as “picture or text” ads, and they nearly always take up a small portion of the screen.
- Video ads are almost always interstitial, and they may or may not be skippable.

U.S. mobile gamer net sentiment towards five Ad formats, Q3 2023, and 3Q 2019 to Q3 2023 Averages

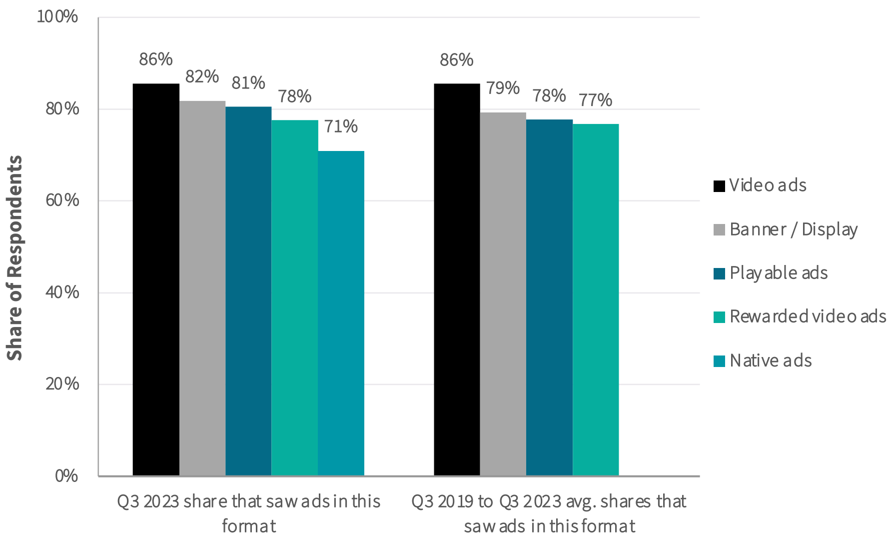


Q3 2023 N=3,580
Source: IDC’s Q3 2019 – Q3 2023 US Gamer Surveys

U.S. mobile gamer ad viewing rates: **Video ads remained the most common format experienced, native ads were lowest**

- According to the same U.S. survey, the three relatively popular ad formats were the least commonly used. We recommend leaning into these three formats.
- IDC didn't ask about native ads prior to 3Q 2023, so that format is missing in the righthand set of columns.
- The "2024 Unity Gaming Report," which was released in March, found that worldwide IAA ARPDAU rose from $0.03 in 2022 to $0.038 in 2023 and worldwide IAP ARPDAU slid from $0.018 to $0.015. These results varied significantly by genre, however: the year-over-year shift toward IAA was far more pronounced in the Simulation, Puzzle, and "Other casual" genres, for example, than in the Shooter, RPG, and Hypercasual genres.
- We suspect more studios leaned into the IAA business model in 2024 and that their success was partly a function of how well they aligned genre, formats, placements, and creatives.

U.S. mobile gamer net sentiment towards five Ad formats, Q3 2023, and 3Q 2019 to Q3 2023 Averages

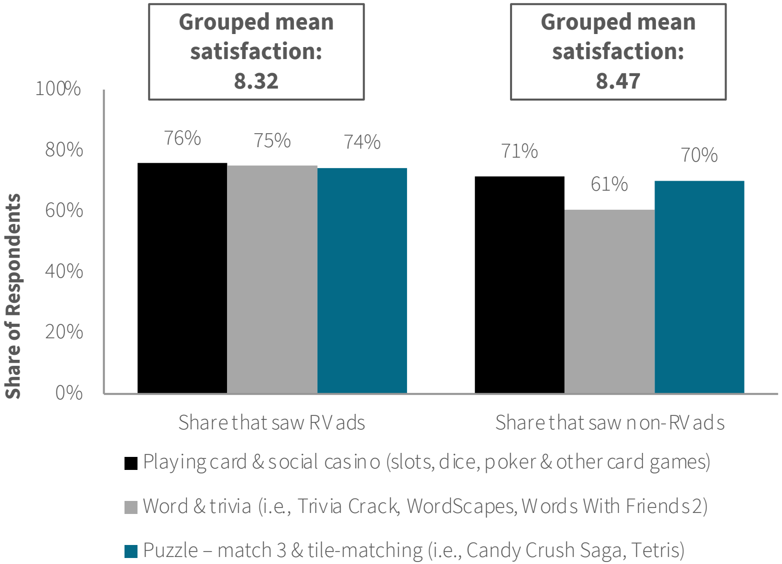


Q3 2023 N=3,580
Sources: IDC's Q3 2019 – Q3 2023 US Gamer Surveys.
Unity data leveraged Unity Levelplay and Unity Analytics data (data analyzed >200 games using Unity Ads, IAP, and analytics solutions).

U.S. mobile gamer satisfaction among RV and non-RV ad viewers: **RV ads didn't seem to boost overall mobile gamer sat scores vs. other ad formats**

- We tested whether RV ads were associated with higher overall mobile gamer satisfaction scores compared to gamers that experienced other ad formats, but we didn't find this was the case in 3Q 2023.
- Satisfaction here was measured on a scale of 0 to 10, where 0 was "Not at all satisfied" and 10 was "Completely satisfied" with the respondent's "overall [mobile] gaming experience."
- RV ads may boost retention rates, however: March's "2024 Unity Gaming Report" found that games that used both RVs and offerwalls had a 12% average D7 retention rate while games that showed neither (but included other ad formats) had an 8% average D7 retention rate. The comparable D30 retention rates were 5% and 3%.
- These results must be taken with a grain of salt, but they imply RV ads can deliver material upsides, so lean into this format especially.

U.S. mobile gamer RV and non-RV viewing rates and overall satisfaction scores in three genres, Q3 2023



Q3 2023 N=1,251 (left group) and N=241 (right group)
Sources: IDC's Q3 2023 US Gamer Survey.
Unity data leveraged Unity Analytics BigQuery and TapJoy BigQuery (data analyzed games with >5,000 DAU in H2 2023).

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Speaking of "native ads"… They made inroads on UEFN (Unreal Editor for Fortnite) in H1 2024

- A top ten PC and console game by worldwide MAU in 2H 2023 and 1H 2024, "Fortnite" has splintered into 6+ variants.
- LEGO Fortnite launched in December 2023. This co-branded island (highlighted yellow at right) was consistently on UEFN's top 10 list by current players in 1H 2024, according to Fortnite.gg.
- Three other LEGO-branded islands launched in March: *LEGO Prop Hunt*, *LEGO Battle Arena*, and *LEGO Cat Island Adventure*. They're currently ranked between 1,400 and 1,750 (and are much less successful by the same measure).
- How long before we see Star Wars, Marvel, and Pixar islands based on Disney's $1.5B investment in Epic in February?
- In March, Epic announced that non-first party UEFN creators had collected $320 million over the preceding 12 months.
- The top 3 UGC creators (highlighted blue at right) were 7% of top 10 current players in late June and early July – a higher share than Ranked Battle Royale. That appears to be many $M each for these creators.
- We believe the combination of UGC and "native ads" on UEFN represents a significant opportunity for game studios in 2024+.

Source: Fortnite.gg, 2024.

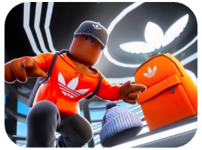
Top 10 worldwide UEFN games by current players

Late June – Early July 2024

Rank	Game Title, Creator, and Subgenre	Notes
1	**Reload** Epic Games Fast-paced 40-player Battle Royale	UGC: No (first party) Uses licensed nonendemic brand: No
2	**Battle Royale** Epic Games Classic 100-player Battle Royale	UGC: No (first party) Uses licensed nonendemic brand: No
3	**Zero Build - Battle Royale** Epic Games 100-player Battle Royale without Building	UGC: No (first party) Uses licensed nonendemic brand: No
4	**Reload - Zero Build** Epic Games 40-player Battle Royale without Building	UGC: No (first party) Uses licensed nonendemic brand: No
5	**Ranked Battle Royale** Epic Games 100-player Battle Royale against like players	UGC: No (first party) Uses licensed nonendemic brand: No
6	**LEGO Fortnite** Epic Games Open world survival and sandbox	UGC: No (first + third party) Uses licensed nonendemic brand: Yes
7	**GO GOATED! Zone Wars** theboydilly 4-team zone wars	UGC: Yes Uses licensed nonendemic brand: No
8	**The Pit - Free For All** geerzy Practice PVP free for all	UGC: Yes Uses licensed nonendemic brand: No
9	**CRAZY RED VS BLUE** rvb Practice PVP free team deathmatch	UGC: Yes Uses licensed nonendemic brand: No
10	**Ranked Zero Build** Epic Games Battle Royale against like players without Building	UGC: No (first party) Uses licensed nonendemic brand: No

The opportunity isn't limited to UEFN: Roblox is the "OG" of UGC (User Generated Content) "native ads"

- *Roblox's* DAU was >77M in Q1 2024; *Roblox* is 100% UGC games.
- Telanthric Development's Toilet Tower Defense (highlighted green at right) was consistently on Roblox's top 5 list by revenue and player visits 1H 2024, according to Spaceport – and the game used an officially licensed IP franchise, Skibidi Toilet. (Spaceport connects brands to UGC creators by easing IP licensing processes.)
- The next 3 Roblox games that used licensed brands that came from outside of gaming ranked between 20 and 150 by revenue and they ranked between 50 and 250 by player visits in H1 2024, according to Spaceport.
- Combined, the top four Roblox games with licensed IP generated approximately $13.8M in H1 2024 for their developers, nearly as much as the top four comparable games made in 2023 ($16M).
- In 2023, Roblox's top four games with licensed IP generated 2.6 billion player visits and H1 2024's total for the top four comparable games was 1.8 billion, per Spaceport.
- The "native ad" opp isn't limited to UGC games: licensed IP is already being sold in Roblox's and Fortnite's avatar and item stores and making $M. Nonendemic brands should let game dev's lead.



Source: Spaceport.xyz, 2024.

Top 5 worldwide Roblox games, and next three branded games, by revenue and visits

H1 2024

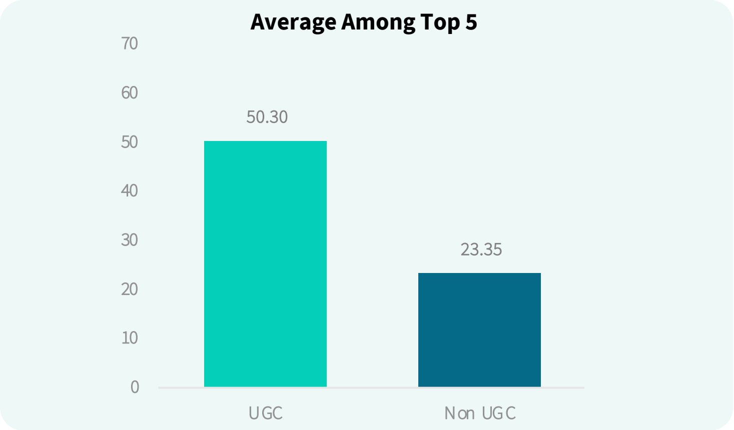
Rank	By Revenue: Game Title, Creator, and Genre	Notes	By Visits: Game Title, Creator, and Genre	Notes
1	**Blox Fruits** Gamer Robot Adventure	UGC: Yes Uses licensed nonendemic brand: No	**Brookhaven RP** Wolfpaq Town and city sim	UGC: Yes Uses licensed nonendemic IP: No
2	**Pet Simulator 99!** BIG Games Pets Obby and collection	UGC: Yes Uses licensed nonendemic brand: No	**Blox Fruits** Gamer Robot Adventure	UGC: Yes Uses licensed nonendemic IP: No
3	**Toilet Tower** Telanthric Development Tower defense	UGC: Yes Uses licensed nonendemic brand: Yes	**The Strongest Battlegrounds** Yielding Arts Fighting	UGC: Yes Uses licensed nonendemic IP: No
4	**Blade Ball** Wiggity Fighting	UGC: Yes Uses licensed nonendemic brand: No	**Toilet Tower Defense** Telanthric Development Tower defense	UGC: Yes Uses licensed nonendemic brand: Yes
5	**Adopt Me!** Uplift Games RPG	UGC: Yes Uses licensed nonendemic brand: No	**Murder Mystery 2** Nikilis Horror and fighting	UGC: Yes Uses licensed nonendemic IP: No
...				
Next 3 branded:				
...	**Driving Empire Car Racing** Voldex Adventure and racing	UGC: Yes Uses licensed nonendemic brand: Yes	**Driving Empire Car Racing** Voldex Adventure and racing	UGC: Yes Uses licensed nonendemic brand: Yes
...	**Sonic Speed Simulator** Gamefam x Sonic Adventure	UGC: Yes Uses licensed nonendemic brand: No	**Barbie DreamHouse Tycoon** Gamefam x Barbie Building/RPG	UGC: Yes Uses licensed nonendemic brand: Yes
...	**My Hello Kitty Café** Rock Panda Games Town and city sim	UGC: Yes Uses licensed nonendemic brand: Yes	**Sonic Speed Simulator** Gamefam x Sonic Adventure	UGC: Yes Uses licensed nonendemic brand: No

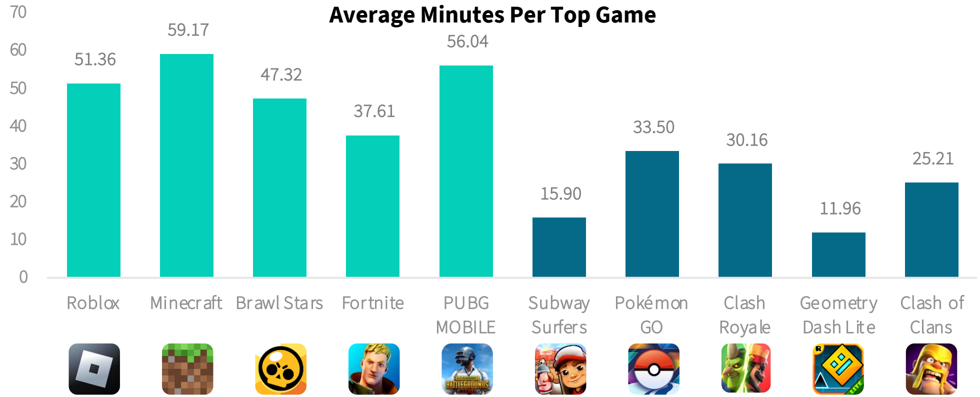
User-generated content doubles player engagement in mobile games

- We looked at the impact of inclusion of User Generated Content (UGC) on player engagement within mobile games by examining the top five games by monthly active users, both with and without UGC. Our focus was on the average minutes per day spent by players in the United States.
- The results were striking: on average, users of UGC enabled games spend about 50 minutes per day on their games, while users of non-UGC games spend just 24 minutes per day. This means that players engaged with UGC content spend roughly twice as much time gaming compared to their non-UGC counterparts. These findings highlight the significant role UGC plays in enhancing player engagement and extending game sessions, underscoring the value of integrating UGC features in mobile games.

Source: Sensor Tower
Note: Active Users across iPhone & Android Phones. Average Minutes Per Game on Android Phones.

Average minutes per day among top 5 games by MAU
UGC vs non UGC, Q1 2024, United States





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Gaming Spotlight H1 2024

Understanding mobile gamer ad engagement and churn factors

Mobile ad behaviors: **US gamers are quick to install after ad impression, but many ignore in-app ads overall**

- 42% of gamers disengage from ads in mobile games, while 22% pay attention no matter the genre being advertised. Users of Puzzle games are the least engaged, while users of Lifestyle games are the most engaged with ads.

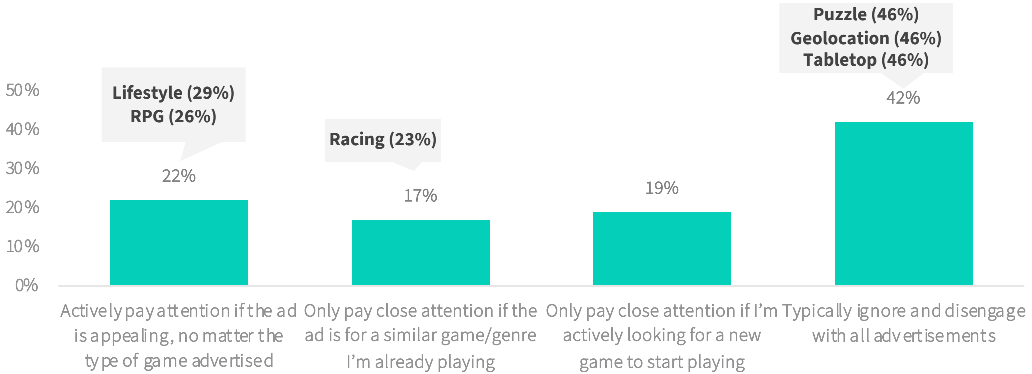
- 28% of players install a game within 24 hours of seeing an ad they like, 27% within a few days – nearly one in five (19%) will not install at all. Users of Racing games are among the quickest to convert rate after ad impressions.

In effort for mobile publishers to lower cost per install, establishing a captivating first ad impression is crucial not only due to players' quick installation patterns, but also to capture maximum engagement from both core and broad audiences.

Source: Mistplay July 2024 Mobile Gamer Survey, 8,000+ respondents from the US, 18+

Mobile gamer behavior during ads in mobile games

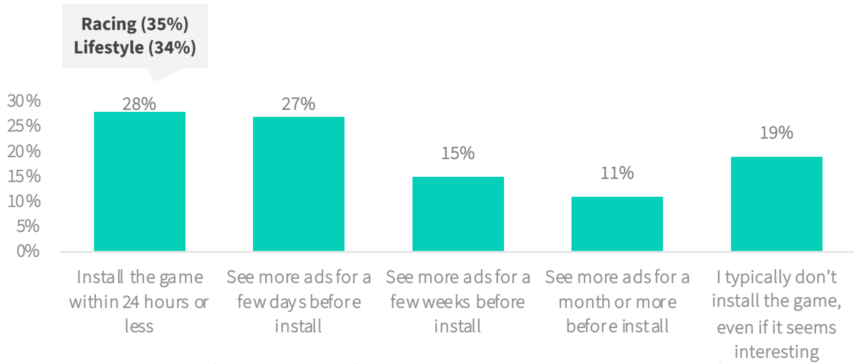
Among all genres & select standout genres



Q: Which best describes your behavior when experiencing an ad in a mobile game?

Frequency of ad impression to Install

Among all genres & select standout genres



Q: If a new game looks appealing, how many times do you generally need to see ads for it before you download?

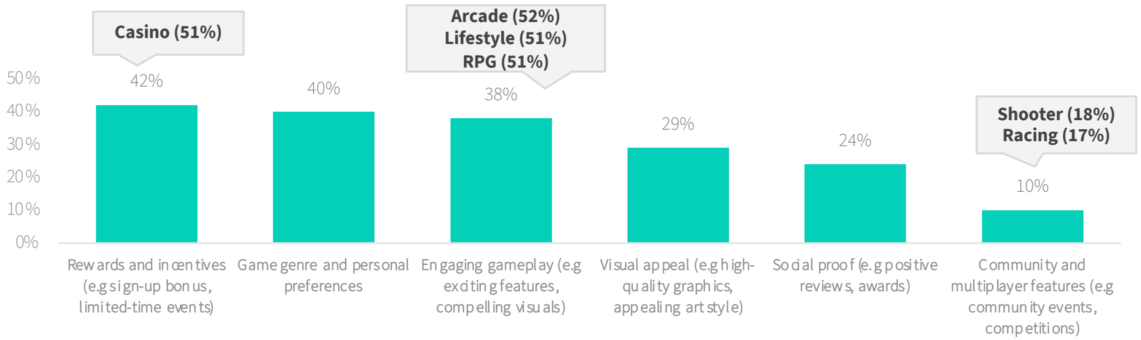
Mobile ad engagement and churn: **Rewards and game relevance drive ad engagement for gamers**

- Leading motivations for ad interaction are rewards and incentives (42%), relevance to game genre (40%), and engaging gameplay (38%). Users of Casino games are among the most responsive to ads driven by rewards and incentives.
- "Too many ads" is a top 3 reason to churn for nearly 50% of players, 14% claim to churn after they see an ad and install a different game to play. Users of Geolocation games have a lower tolerance for bugs and issues, with half citing them as the primary reason for churn.

Beyond relevant and engaging gameplay, try experimenting with special incentives in ads to increase campaign performance. Inclusion of offers can yield higher top of funnel conversion while also impacting deeper funnel value as gamers progress from initial novelty to long-term engagement.

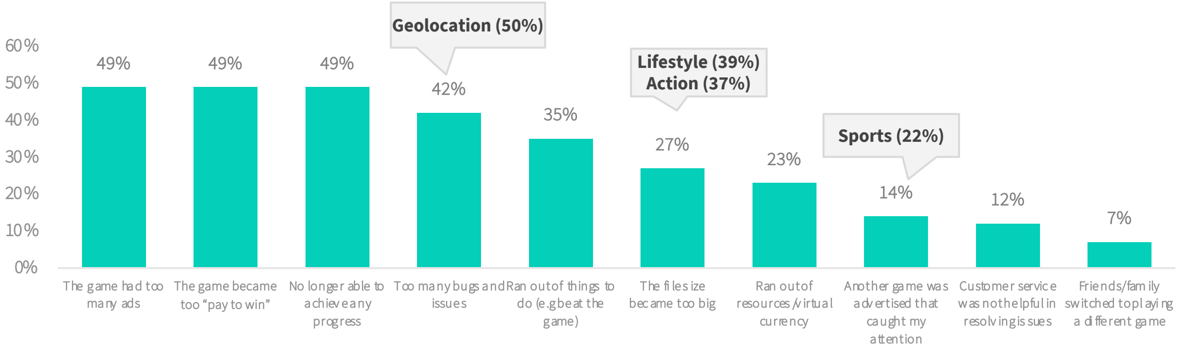
Source: Mistplay July 2024 Mobile Gamer Survey, 8,000+ respondents from the US, 18+

Motivations to engage with an ad and install a game
Among all genres & select standout genres



Q: What motivates you to click on an ad and install a different game? (Select all that apply) (10% "none of the above," 4% "other" not shown)

Reasons for mobile game churn
Among all genres & select standout genres



Q: What are the reasons you would stop playing your current favorite game(s) and fully switch to playing a different game? (Select all that apply)

Gaming Spotlight H1 2024

Key themes + takeaways

Gaming Spotlight H1 2024
Key takeaways to drive growth in 2024

- Mobile remains the primary driver of growth in digital games consumption, showing signs of recovery in 2024. This resurgence cements mobile gaming as the world's preferred form of gaming and a key component of a robust cross-platform experience. As a result, standing out in this competitive market has become even more critical and challenging.

- Mobile gaming has enabled the democratization of gaming, allowing every type of gamer to access their own niche. Whether it's a specific subgenre like driving simulators and interactive story games or core genres like MOBA and 4X strategy titles, mobile gaming caters to all preferences. This trend is setting the stage for the "new gamer," the most inclusive cohort yet.

- Mobile games that have performed well in H1 2024 are diverse, including a familiar board game turned into an on-the-go mobile experience, a savvy Match-3 game blending puzzle and lifestyle mechanics, and a 4X strategy game set in post-apocalyptic themes. Leveraging strong IP, capitalizing on market momentum, and utilizing live operations are common themes driving their success.

Gaming Spotlight H1 2024
Key takeaways to drive growth in 2024

- Sentiment towards in-game mobile ads improved in Q3 2023, according to US mobile gamer survey results, but a broad pattern showing the relative unpopularity of video ads remained. Rewarded video and playable ads were gamers’ preferred ad types in the US. However, native ads have emerged as another option that appears to be relatively popular with gamers.

- 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. Diversify the types, formats, and placements of ads shown in-game as pragmatism allows.

- Ad interaction is primarily driven by rewards, game relevance, and engaging gameplay. However, too many ads can lead to player churn, with 14% of players claiming they churn after installing a different game.

- Games with UGC significantly enhance player engagement, with mobile users spending about twice as much time on these games compared to non-UGC games. This highlights the importance of integrating UGC features in mobile games to boost engagement and extend game sessions.

About Sensor Tower

Sensor Tower is the source of truth for mobile app, digital advertising, and audience insights. Since 2013 our digital data estate has grown into the largest and most trusted among the biggest brands, media companies, investment firms, and mobile game and app publishers across the Americas, Europe, Africa, Asia, Middle East and the Pacific. We deliver the most robust picture of the mobile app and digital advertising ecosystems in the most privacy safe way possible.

Sensor Tower mobile app insights help mobile marketers and app and game developers capture consumer mindshare where they spend their time – their mobile devices.

Pathmatics by Sensor Tower Digital Advertising Insights help demystify the digital ad ecosystem – helping marketers drive waste from their budgets and better position their campaigns.

Press Inquiries: press@sensortower.com

IDC Offers Unmatched Global & Local Expertise

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Significant primary demand-side research with over 350,000 end users surveyed annually

Global, regional and local expertise on technology + industry trends in 110 countries

IDC's Gaming and eSports service advises video game development studios, publishers, distributors, retailers, hardware system and peripheral manufacturers, and related brands and advertisers about the video game industry from a global and regional perspective.

The Mistplay platform

Mistplay is the #1 loyalty app for mobile gamers.* Headquartered in Montreal and launched in 2016, Mistplay has climbed the ranks as a media source for game publishers, most recently achieving #8 overall on the Appsflyer Performance Index for Android Retention and Top 10 for ROI and Retention on the 2024 Singular ROI Index.

Here's how publishers succeed with Mistplay:

- **A growing community** of millions of gamers means publishers can reach a massive audience of engaged players looking for their next favorite game.
- **An AI-driven recommendation** engine suggests games based on player habits, ensuring users play and spend in games they're most likely to enjoy.
- **Play-and-earn** fosters increased user retention and LTV as users redeem loyalty points for tangible rewards like gift cards from top brands.

To learn more, contact us at media@mistplay.com or visit www.mistplay.com/advertising

*Based on 2024 Sensor Tower data

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