



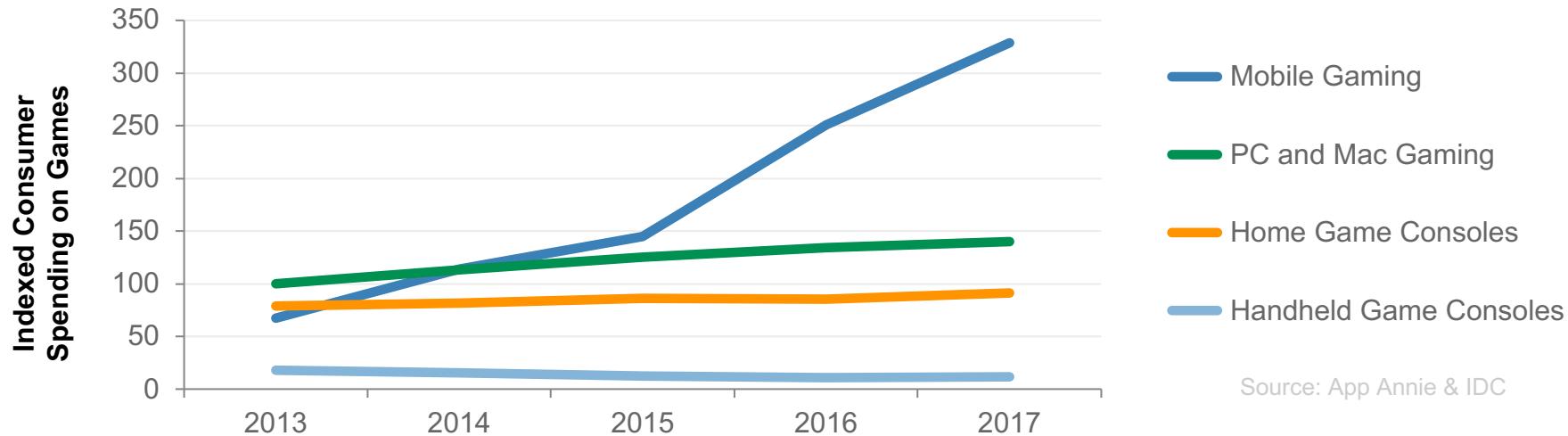
Gaming Spotlight 2017 Review

RELEASED MARCH 2018

Agenda

- 1. 2017 Gaming Trends**
2. US Gamer Deep Dive, 3Q 2017
3. Key Themes and Takeaways

Worldwide Consumer Spending on Games, by Device, 2013–2017

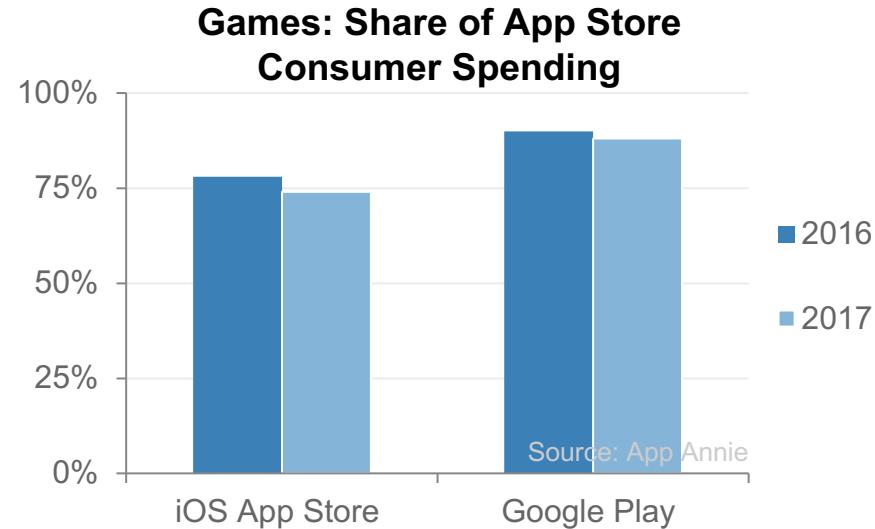
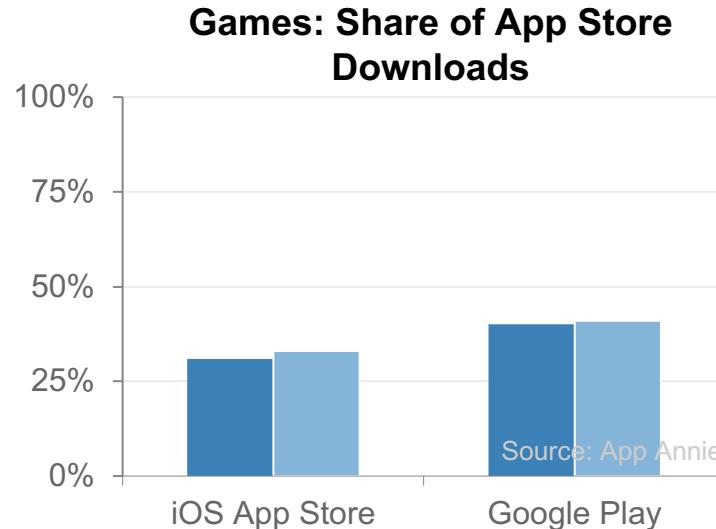


Source: App Annie & IDC

- All totals include applicable digital and physical game spending, but exclude ad revenue.
- Mobile gaming includes all app stores (iOS App Store, Google Play, Windows Phone Store, Amazon, Samsung Galaxy and third-party Android stores).
- Home game console total includes discs, digital games and gaming-related subscription services (Xbox Live and PlayStation Plus).

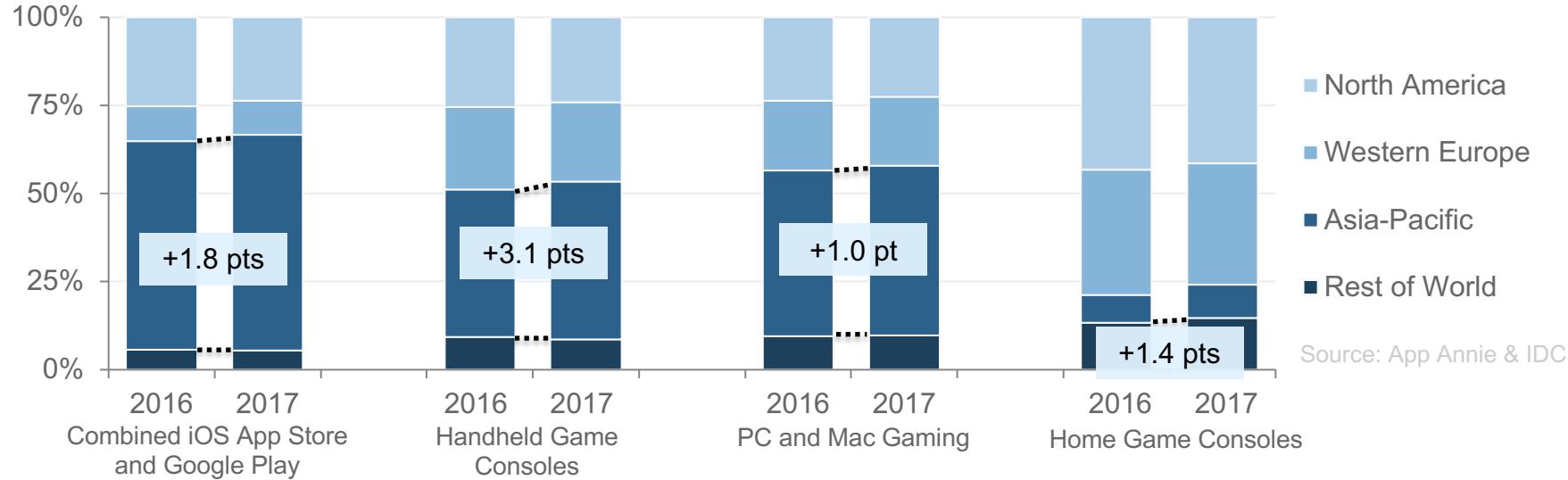
- Mobile gaming first overtook both home game consoles and PC and Mac gaming for highest consumer spend in 2014
- Mobile gaming's lead widened globally in 2017; mobile game spending was 2.3x PC/Mac gaming and 3.6x home game consoles last year

Among Mobile Apps Worldwide, Games Continued to Generate a Significantly Higher Share of Revenue than Downloads



- Games represented nearly 80% of total worldwide consumer spend for combined iOS App Store and Google Play in 2017, while accounting for roughly 35% of total worldwide downloads
- Games made up a larger share of Google Play's consumer spending compared to iOS; in terms of amount spent on games, however, consumers spent nearly 2x more on iOS than Google Play

Worldwide Consumer Spending Shares on Games, by Region, 2017



- Asia-Pacific gained in share of game spending for iOS App Store and Google Play combined last year, mostly due to massive growth in China and Japan on iOS, and in South Korea on Google Play
- Relative strength in Japan also lifted handheld game consoles' spending share in Asia-Pacific substantially
- North America and Western Europe dominated from a home console angle, but RoW grew fastest in terms of total game-related spending based on developing economy growth; PC/Mac game spending also ticked up in Asia-Pacific

Top 5 Worldwide Grossing Portable Games, by Platform, 2017

| Rank | iOS App Store | Google Play | Handheld Game Consoles |
|------|---|--|---|
| 1 | Honour of Kings Tencent, China  | Lineage 2 Revolution Netmarble, South Korea  | Pokémon Ultra Sun / Pokédex Ultra Moon N3DS; Game Freak / The Pokémon Co., Japan  |
| 2 | Fantasy Westward Journey NetEase, China | Lineage M NCSOFT, South Korea  | Dragon Quest XI N3DS; Square Enix, Japan  |
| 3 | Monster Strike Mixi, Japan | Monster Strike Mixi, Japan | Monster Hunter Double Cross N3DS; Capcom, Japan  |
| 4 | Fate/Grand Order Sony, Japan  | Fate/Grand Order Sony, Japan | Mario Kart 7 N3DS; Nintendo, Japan |
| 5 | Clash Royale Supercell, Finland | Candy Crush Saga Activision Blizzard, United States  | New Super Mario Bros. 2 N3DS; Nintendo, Japan  |

 = New entrant to the top 5 in 2017 (compared to 2016)

Source: App Annie & IDC

Both Live Player vs. Player (PvP) and Co-Op Games Advanced in 2017



In mobile gaming, live PvP expanded its presence in top 5 grossing games on both iOS and Google Play

- Top two games on both stores featured live PvP – a first for mobile gaming – and all four come from a PC gaming heritage
- Lineage games' strength on Google Play was driven by popularity in South Korea, a key Android market
- The growing popularity of battle royale games on mobile, like PUBG: Exhilarating Battlefield and PUBG: Army Attack, should drive further maturation and live multiplayer engagement in 2018



On handheld consoles, four of the five top-grossing titles in 2017 supported live PvP or co-op gameplay

- *Pokémon Ultra Sun/Moon* features live PvP battles
- *Dragon Quest XI* is single-player (no PvP or co-op)
- *Monster Hunter XX* supports up to 4-player live co-op
- *Mario Kart 7* has supported races with up to 8 players since its debut in 2011
- *New Super Mario Bros. 2* has a two-person co-op mode (although it's only local, not online)

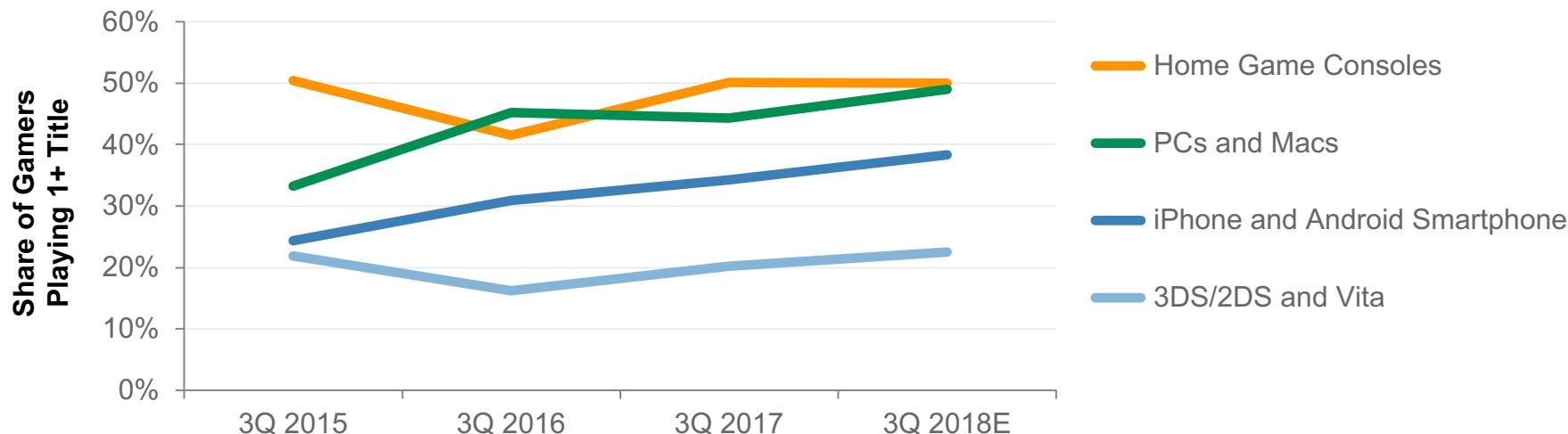
Key Gaming Themes and Takeaways, 2017

- Games generated nearly 80% of combined iOS and Google Play app spending in 2017 even though games garnered less than 40% of total app downloads worldwide. Mobile gaming was both larger and grew faster than PC/Mac gaming or home console gaming
- The top two grossing games on both iOS and Google Play in 2017 featured live PvP gameplay, demonstrating that hardcore-leaning multiplayer elements aren't just possible on mobile devices, they've already proven popular and lucrative
- Most of the increase in mobile, PC/Mac and handheld console game spending in recent years has been driven by rising demand in Asia-Pacific, most notably in China, Japan and South Korea
- Among the top five grossing titles across iOS, Google Play and handheld games consoles last year, *all but two* came from companies headquartered in Asia-Pacific, further demonstrating the region's large and growing influence (not just in aggregate spending, but in game origination and gameplay innovation)
- In a sign of the changing times, future Pokémon titles won't be delivered on Nintendo 3DS/2DS: the extremely popular RPG, which has been a core 3DS/2DS franchise, will target Nintendo Switch and mobile devices in future releases

Agenda

1. 2017 Gaming Trends
2. **US Gamer Deep Dive, 3Q 2017**
3. Key Themes and Takeaways

U.S. Live PvP or Co-Op Monthly Gameplay Penetration Rate by Major Device Category, 3Q 2015 To 3Q 2018E



- Live PvP or co-op gameplay is rising in popularity on all major platforms
- This trend is consistent with the rise of esports-related games and tournament streaming and viewing
- Penetration of live PvP or co-op gameplay on smartphones and handheld consoles (e.g., Nintendo 3DS/2DS, Sony PlayStation Vita) lagged behind home consoles and PCs/Macs in 2017, but the gap narrowed, and should this year too

U.S. Smartphone and Handheld Console Gamers: Live PvP or Co-Op Gamers vs. Non Live PvP or Co-Op Gamers, 3Q 2017

| | Smartphone and Handheld Console Gamers That Didn't Play Live PvP Or Co-Op Games | Live PvP Or Co-Op Smartphone Gamers | Live PvP Or Co-Op Handheld Console Gamers |
|-----------------------------------|---|-------------------------------------|---|
| Avg. Age (Years) | 38 | 30 | 26 |
| Gender | | | |
| Share Female | 64 | 44 | 25 |
| Share Male | 36 | 56 | 75 |
| Avg. Household Income, 2016 (\$K) | 63 | 63 | 76 |
| Avg. Hours Of Weekly Gameplay | | | |
| Share <5 Hours | 48 | 33 | 38 |
| Share 6-15 Hours | 33 | 35 | 42 |
| Share >16 Hours | 20 | 32 | 20 |
| Share That Spent Money On 1+ Game | 25 | 49 | 79 |
| n= | 2,496 | 1,284 | 211 |

- Live PvP or co-op gamers skewed younger and male, and were more likely to play >5 hours a week
- Live PvP or co-op smartphone gamers were nearly 2x more likely to have spent money on a mobile game in 3Q 2017 than the non-PvP or co-op gamer sample; handheld console gamers were over 3x more likely to have spent money

Key Themes and Takeaways: U.S. Gamers

- A vital, and perhaps underappreciated, trend within mobile gaming in 2017 was the rise of titles that feature live interaction between gamers (either PvP competition or a co-op gameplay mode)
- This trend was evident across all major platforms and is linked to the rising popularity of esports-related titles, associated tournaments and related video content, as well as celebrity gamers on social media platforms
- 3Q 2017 U.S. survey data showed that a lower share of smartphone and handheld console gamers played a live PvP or co-op title (34%) than did PC/Mac and home console gamers (over 44%), but this gap also narrowed
- Live PvP or co-op gamers on smartphones and handheld consoles skewed younger and male compared to the balance (and clear majority) of smartphone and handheld gamers that didn't play such games, according to the same 3Q 2017 U.S. Gamer Survey
- Live PvP or co-op gamers were also more likely to play smartphone or handheld console games >5 hours a week in 3Q 2017, and these gamers were far more likely to have spent money on related titles
- The survey results suggest games with live PvP or co-op features will tend to outperform their peers in 2018

Agenda

1. 2017 Gaming Trends
2. US Gamer Deep Dive, 3Q 2017
3. **Key Themes and Takeaways**

Key Themes & Takeaways

- In 2017, direct spending on mobile games exceeded the combined spending total on home console, PC/Mac and handheld console games by more than one-third. This is up from a single-digit margin (by the same measure) in 2016, an outcome that underscores how quickly mobile games have moved front and center globally
- Rapid growth in a few key markets, most notably China, Japan and South Korea, helped fuel mobile gaming's ascent in 2017. Although all regions experienced growth, over 60% of mobile game spending in 2017 occurred in Asia-Pacific, a region that continued to gain share
- Mobile games with live PvP features made particular inroads in 2017, and for the first time took the top two spots for consumer spend on both iOS and Google Play. Given that four of the five most lucrative handheld game console titles also offered live multiplayer features, it appears that live multiplayer (as opposed to turn-based multiplayer and single-player) games will be a vital subtheme in the broader mobile gaming growth story moving forward
- With a clear majority of revenue from the top PvP mobile games coming from Asia-Pacific, it will be interesting to see if PvP titles can significantly increase their popularity in North America and Western Europe in 2018, following the success of titles like Clash Royale, ROBLOX and Hearthstone: Heroes of Warcraft
- With battle royale games like PUBG: Exhilarating Battlefield and PUBG: Army Attack becoming increasingly popular on mobile devices, this specific mode of live multiplayer gameplay is expected to have a growing impact on mobile, particularly in Asia-Pacific

Questions?



[@AppAnnie](https://twitter.com/AppAnnie)

[@LewisAWard](https://twitter.com/LewisAWard)



press@appannie.com

lward@idc.com