

*App Annie*

# State of Mobile Games:

## Robust Growth in 2019 & Beyond

**[appannie.com/insights](https://appannie.com/insights)**

@appannie | #AppAnnie

# Who We Are

## The Mobile Performance Standard

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App Annie provides the **mobile data** and **analytics** companies need to thrive in a mobile world.

1M+

Connected Apps

1M+

Registered Users

1100+

Enterprise Clients

\$100M+

ARR

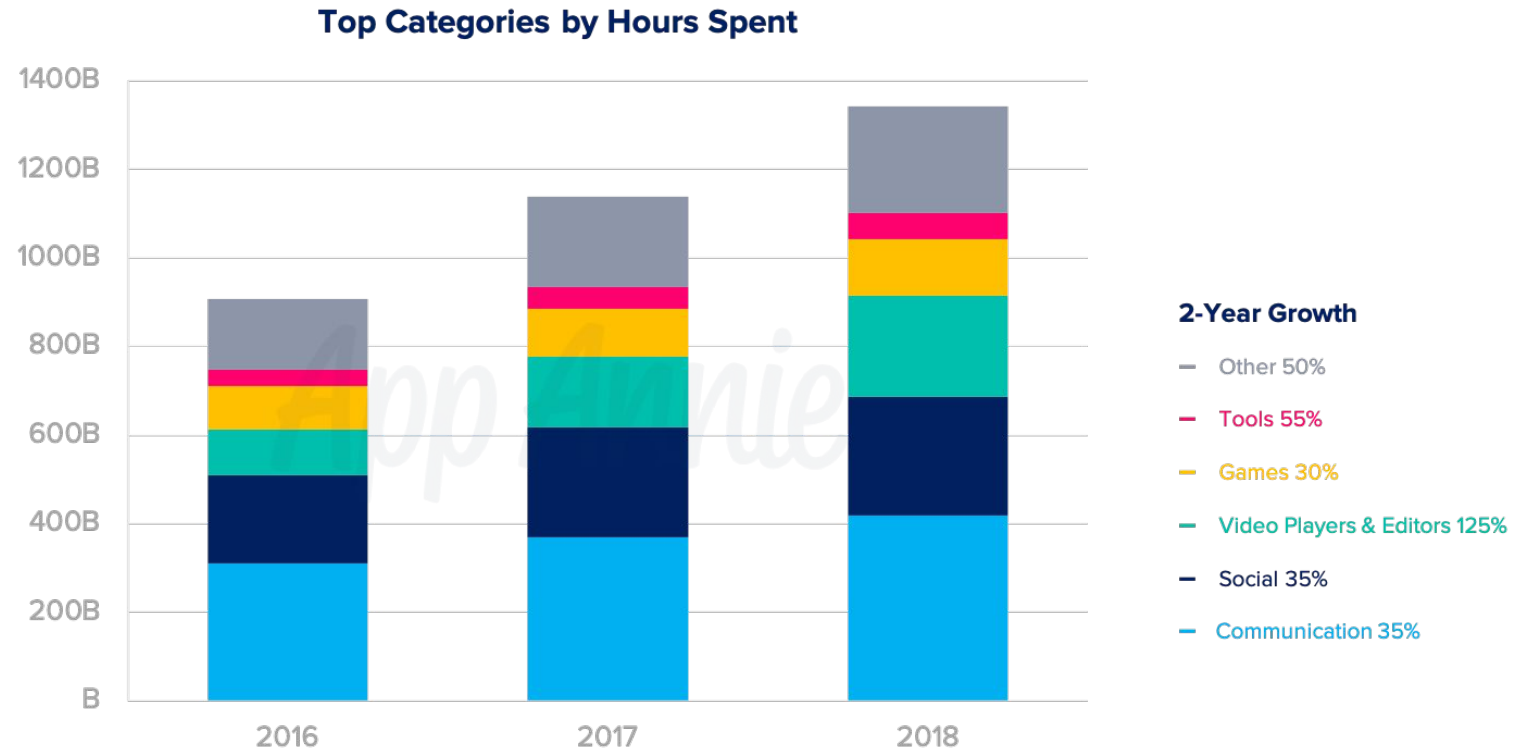
# Our Mission Is to Help Companies Deliver Winning Mobile Experiences



# Mobile Gaming Market Highlights

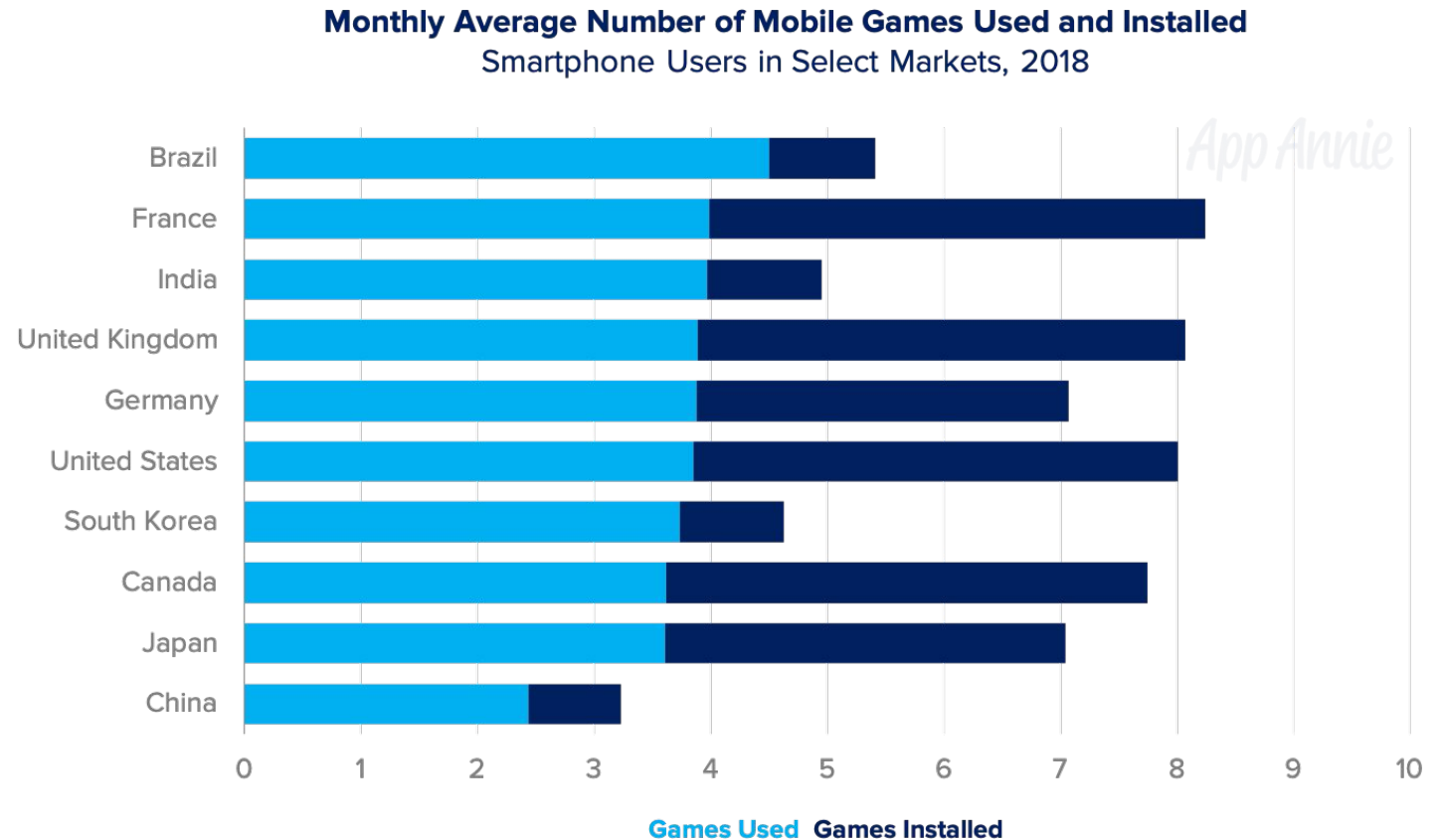
# Games Carve Out a Sizable Portion of Time Spent in Apps

- Games represent 10% of our time spent on apps.
- This percentage share has held steadily over the years, even as time spent on apps overall has grown 50% in the past two years.
- Social and Communications apps made up 50% of total time spent globally in apps in 2018, followed by Video Players and Editors at 15% and Games at 10%.



# We Have Many Games & Play 2–5 / Month

- On average we have 8 games installed per device in the US.
- Globally, we play an average of 2 to 5 per month.
- Clearly, there's real variety of gaming appetites from consumers, opening the door for a range of games from hyper casual to hardcore gaming.



# Games Unique Position in Mobile

- One-third of all worldwide downloads are games, which demonstrates a hunger from consumers to continue to engage with new gaming experiences.
- Time spent in games varies widely on a per country basis depending on the market.
- 74 cents of every dollar going through the app store are driven by games, with 95% of those purchases come as in-app purchases vs. paid.

In 2018:

**33%** of Downloads\*

**10%** of Time Spent\*\*

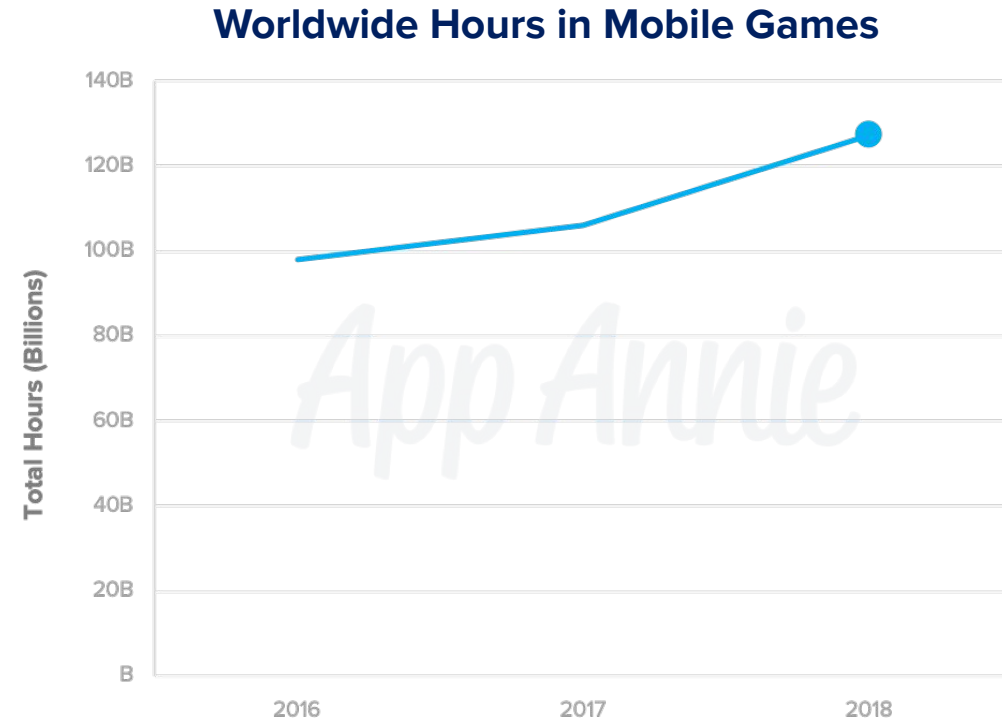
**74%** of Consumer Spend\*

\*Worldwide across iOS, Google Play and Third-party

\*\*Worldwide on Android phone; excluding China

# Engagement Continues to Expand

- Overall growth in mobile game engagement continues to increase at a rate of roughly 10% per year.
- This is thanks to increased engagement from existing gamers who are investing more time in games than in the past.
- But it also comes from a broadening user base, particularly in less mature markets who are using smartphones for the first time.

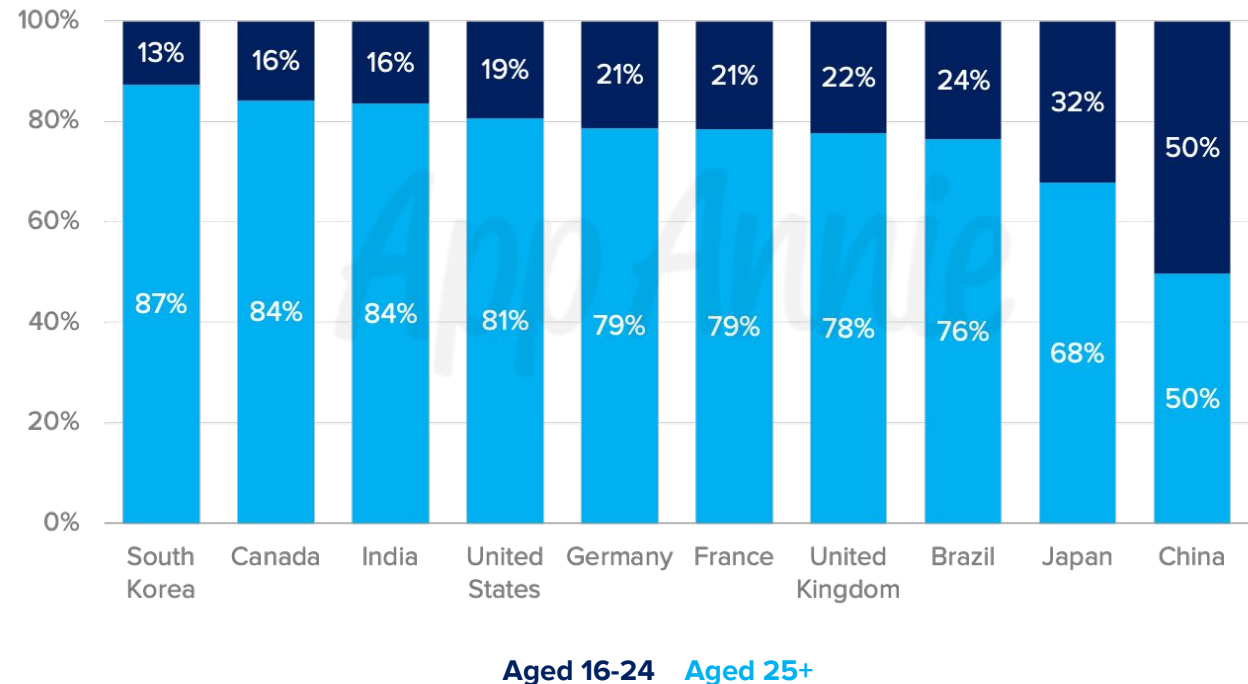


Note: On Android phones

# Gaming Maintains a Broad User Base

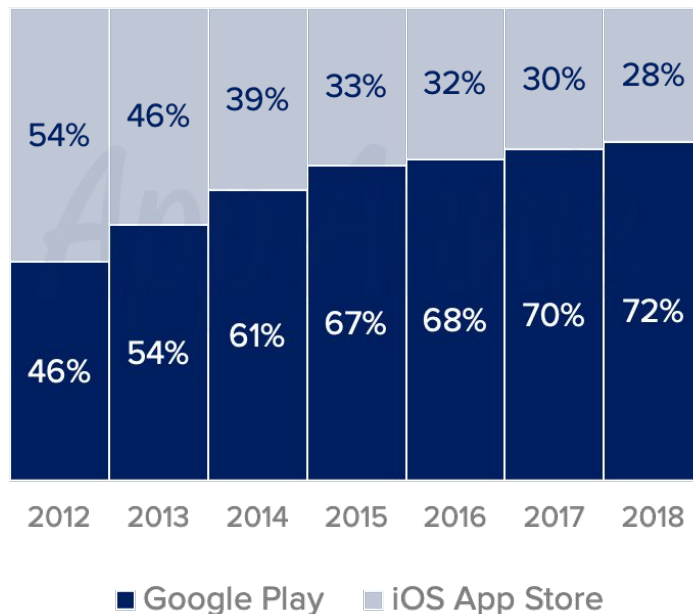
- Mobile has helped broaden the age range of gamers.
- This is due to both not needing dedicated gaming hardware devices and games often being free and easy to download.
- As a result, more and more people who do not identify themselves as 'gamers' are in fact, gaming on their smartphone devices.
- The majority of time spent in Games is by people 25+.

**2018 | Percentage of Time Spent in Games**  
by Age Group in Select Markets

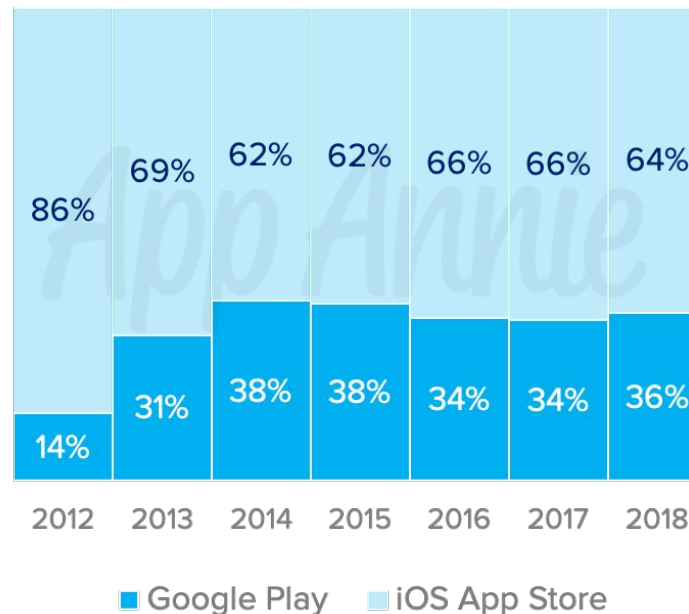


# Google Play Dominates Install Base, App Store Leads in Monetization

Share of Worldwide Downloads



Share of Worldwide Consumer Spend



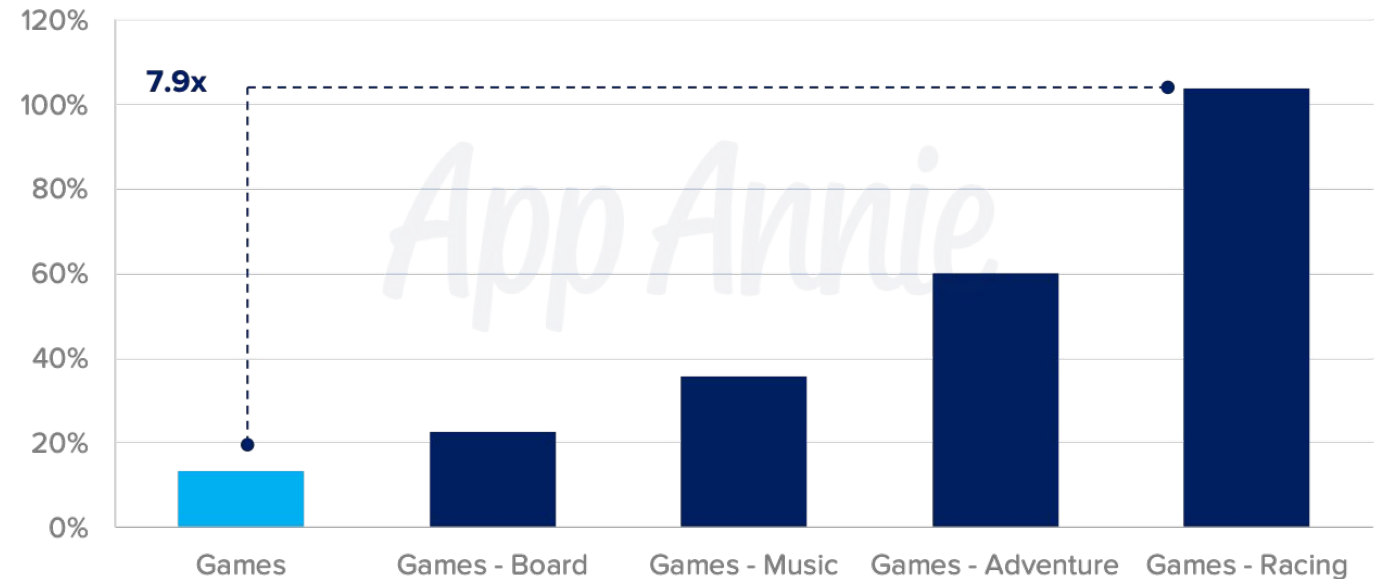
- 1.6+ million games were released on Google Play by 2018.
- 1.1+ million games were released on iOS by 2018.
- Google Play sees the lion's share of downloads worldwide, while iOS App Store leads in monetization — accounting for 64% of dollars spent worldwide.
- Google Play reaches more consumers while iOS has tapped those who are more willing or able to spend money on apps.

*Note: Google Play is not available in China*

# Consumer Spend in Racing Games Grew 7.9x as Fast as Market Overall

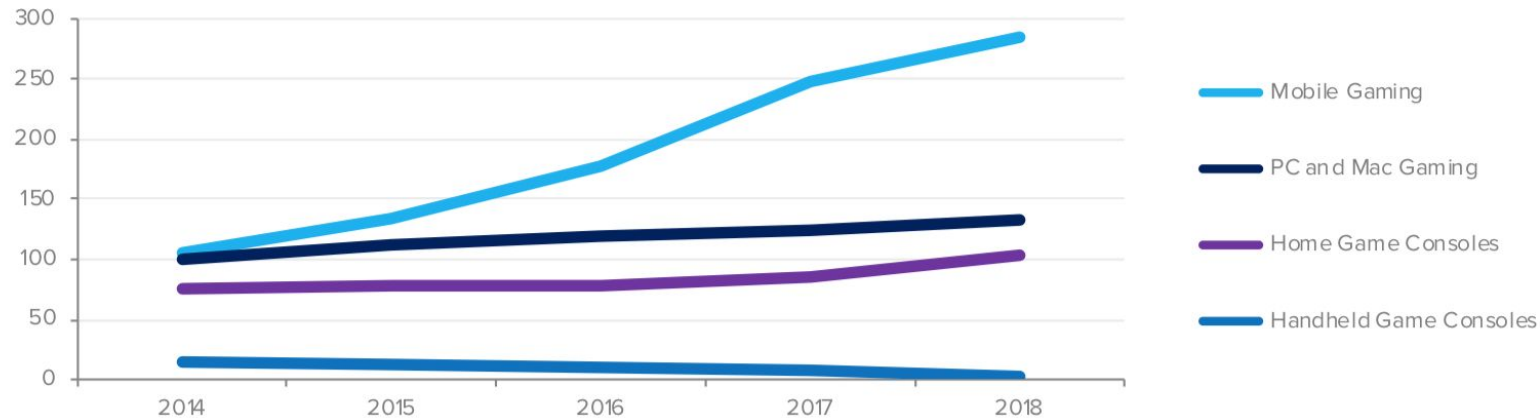
- Games saw a year-over-year growth rate in consumer spend in 2018 of 15% for iOS and Google Play.
- But that doesn't mean all genres of games stayed in this range.
- Consumer spend in racing games, for example grew 7.9x as fast as market overall.
- Adventure games saw similarly impressive growth, at roughly 5x the rate of games in general.

**Year-Over-Year Consumer Spend Growth Rates**  
iOS & Google Play, Worldwide, 2017 vs. 2018



# Mobile Is 1.2x of PC/Mac, Handheld, Console, Combined

Worldwide Consumer Spending on Games,  
by Device, 2014–2018



*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).*

- The growth of mobile gaming is impressive, but it's even more eye-opening to see how it compares to other gaming channels.
- Mobile gaming is bigger than every other channel — whether it be computers, home game consoles or handheld consoles.
- In fact, it's 20% larger than all these other channels combined.
- That's a dramatic shift from even just a few years ago, thanks to unprecedented access to every type of consumer who wants to play games.

# **Booming Genres, Regional Highlights & China's Impact**

# Battle Royale & Cross-Platform Gaming Are Huge

- We saw the growth of multiplayer cross-platform games in 2018.
- For the first time, mobile has held its own when it comes to cross-platform gameplay.
- [PUBG](#) and [Fortnite](#) were prime examples of this.

2018 | Top Games by Downloads

|   | Brazil         | Canada      | China                      | France     | Germany     | India            | Japan            | South Korea  | US          | UK          |
|---|----------------|-------------|----------------------------|------------|-------------|------------------|------------------|--------------|-------------|-------------|
| 1 | Free Fire      | Helix Jump  | PUBG: Exciting Battlefield | Helix Jump | Helix Jump  | Ludo King        | Knives Out       | PUBG MOBILE  | Helix Jump  | Helix Jump  |
| 2 | Helix Jump     | Hole.io     | Honour of Kings            | Love Balls | Happy Glass | Subway Surfers   | Happy Glass      | Black Desert | PUBG MOBILE | Happy Glass |
| 3 | Subway Surfers | PUBG MOBILE | PUBG: Full Ahead           | Pixel Art  | Love Balls  | Temple Run 2     | Identity V       | Helix Jump   | Fortnite    | Hole.io     |
| 4 | PUBG MOBILE    | Fortnite    | QQ Speed                   | Knife Hit  | Pixel Art   | Candy Crush Saga | Disney Tsum Tsum | Free Fire    | Happy Glass | Love Balls  |
| 5 | Pou            | Rise Up     | Identity V                 | Rise Up    | PUBG MOBILE | Temple Run       | Fill             | Will Hero    | Rise Up     | Fortnite    |

Battle Royale

Note: iOS and Google Play Stores

# Hyper Casual Games Take-off, Broadening Market

- Globally, gaming expanded to those who don't necessarily self-identify as "gamers."
- Hyper casual games — whose monetization usually comes through ads rather than gamers paying for an experience — grew rapidly.
- This signals an emerging opportunity for publishers who want to produce low cost, snackable games to monetize through digital advertising.

2018 | Top Games by Downloads

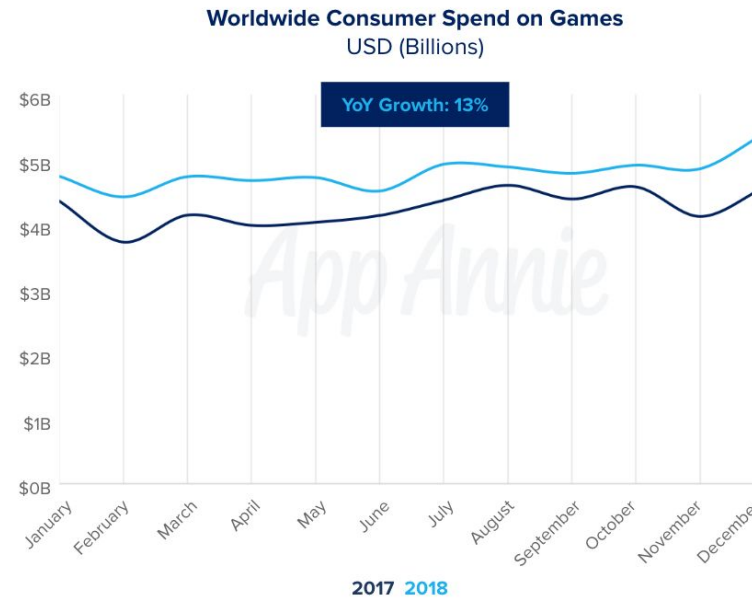
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Hyper-Casual

Note: iOS and Google Play Stores

# The Publishing Challenges of China

- China's growth was limited in the latter half of 2018 due to uncertainty around game license regulation.
- China's spend on games was depressed toward the end of 2018, sharply contrasting to overall worldwide consumer spend on games.
- These headwinds have continued into 2019 and disproportionately hurt Chinese game publishers.

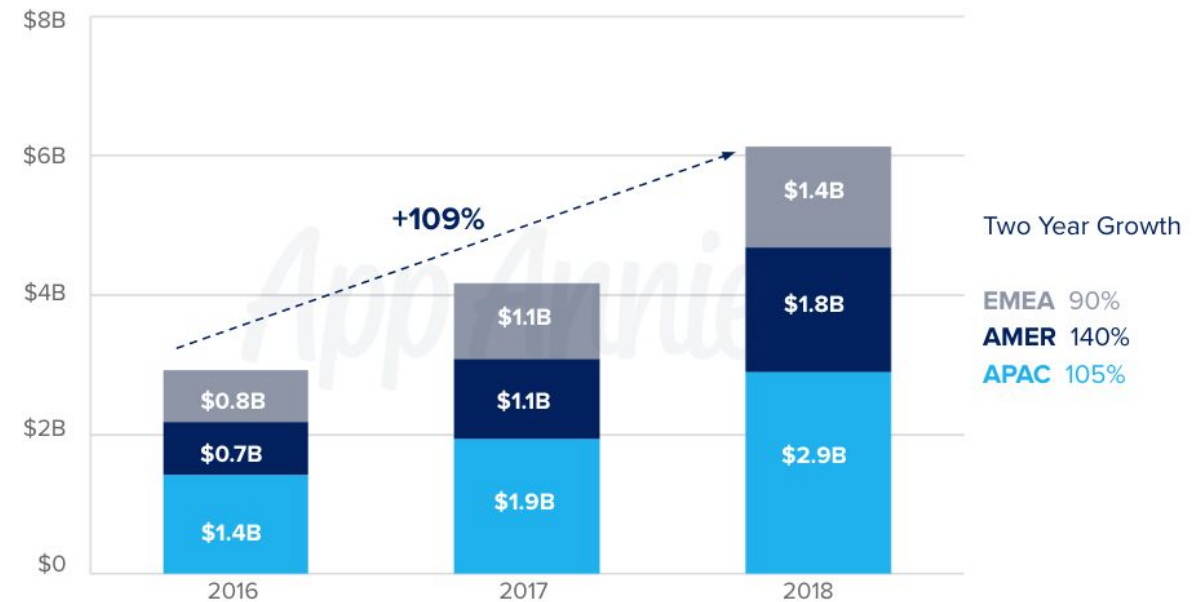


Note: All totals include applicable digital and physical spending, but exclude ad revenue. Mobile gaming includes iOS App Store and Google Play. Does not include revenue from third-party Android stores.

# China – HQ'd Publishers Look Overseas to Accelerate Growth

- Chinese game publishers have more market share in China.
- But due to the gaming license obstacles in China, these Chinese game publishers have had to look abroad to invest and expand traction.
- As a result, these publishers have aggressively gone into new markets like Japan and North America.

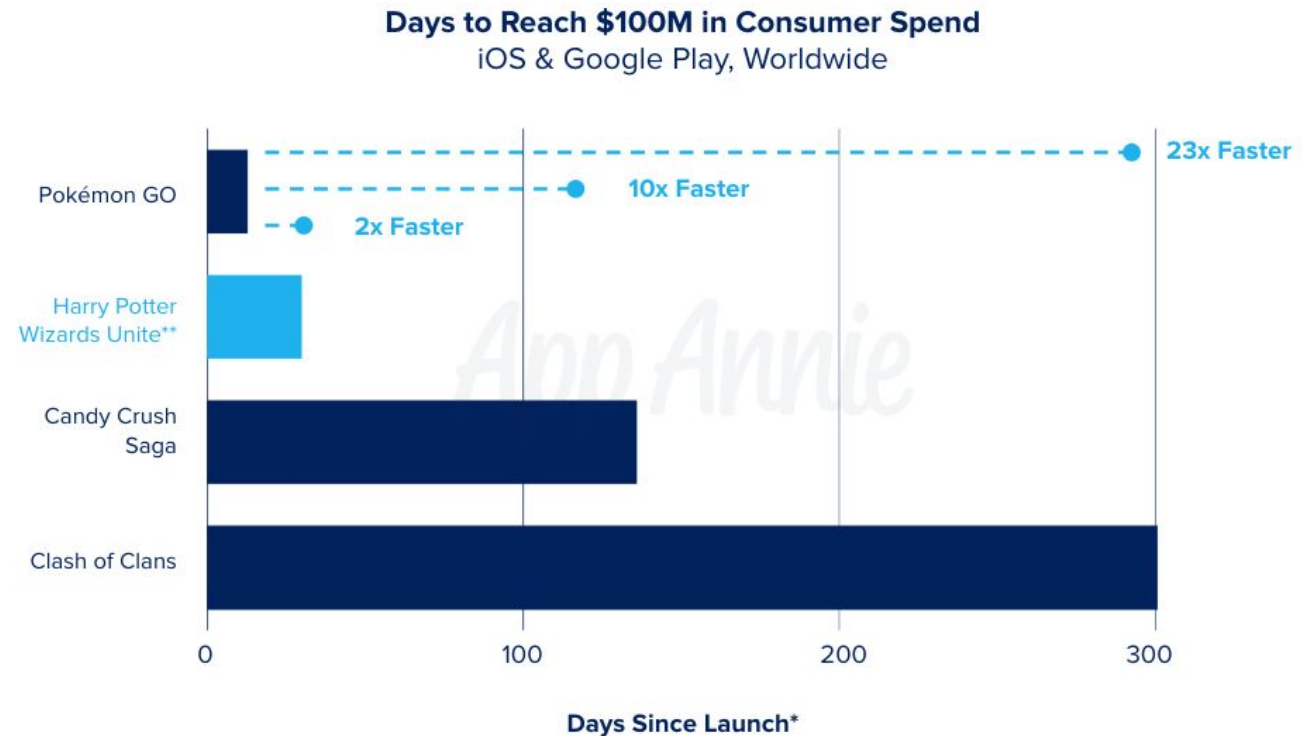
Overseas Consumer Spend on Games From  
China-Headquartered Publishers  
USD (Billions)



*Note: Overseas is represented by all markets outside of mainland China; China-headquartered publishers only includes publishers headquartered in China whose parent company is also headquartered in China. Excludes foreign subsidiaries of China headquartered publishers.*

# AR Gaming's Next Surge — Harry Potter: Wizards Unite to Hit \$100M in 30 Days

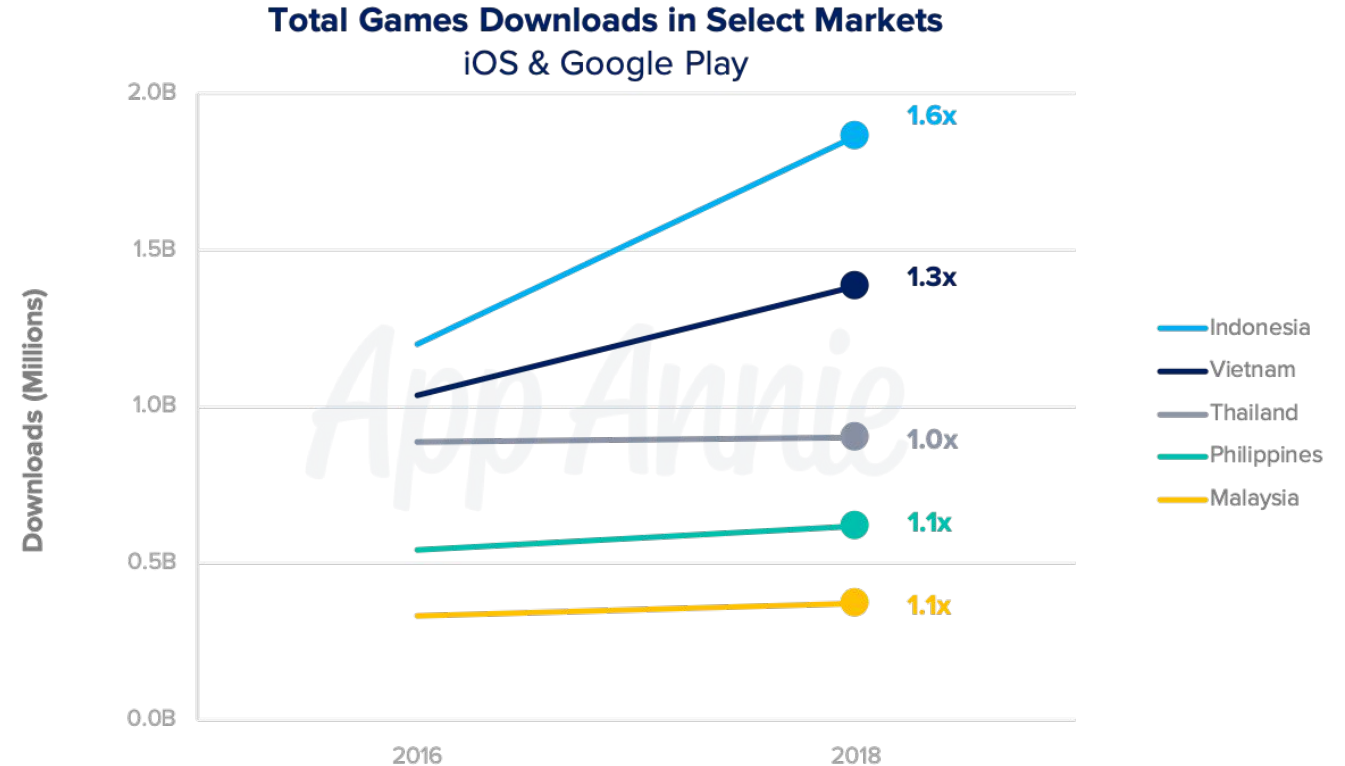
- We think the biggest title from a launch perspective will be the release of [Harry Potter: Wizards Unite](#) game.
- That's due to the amount of resources put into this game as well as the Harry Potter series global popularity.
- We're expecting an exceptional amount of paid and organic traction with regards to this game, and think it has the potential to break records when it comes to downloads and spend.



\*Based on earliest release date on either store  
\*\*Forecasted

# Southeast Asia Booming, India +35% to 5.1B

- India has been the biggest market after China in the past two years in installs.
- It continues to see remarkable growth compared to the overall global market.
- As markets mature, they shift from seeing high install rates convert to more monetization; we expect this trend to play out in Southeast Asia.
- This growth has attracted the attention and focus many publishers looking to capitalize on Southeast Asia.



# Emerging Markets Driving Download Growth

- India, Brazil, Russia and Indonesia lead the emerging markets when it comes to game downloads.
- But even the US and China is still seeing high absolute numbers.
- This illustrates the breadth of the opportunity for new titles even in mature markets to engage consumers.

**2018 | Top Markets by Games Downloads**  
iOS & Google Play



# The Monetization of Mobile Games

# Revenue Opportunities Not Limited to Top Games

- There's still been really strong growth in the number of games that have generated \$5M in annual customer spend.
- No longer do games have to be the top 10, 20, or 50 games in order to to be successful.
- That doesn't even include the amount of revenue generated thanks to digital ad spend on games.
- Advertising has played an even further role in creating ROI and monetizing gamers.

Number of Games that Generated More than \$5M in Annual Consumer Spend\*

1200

in 2016



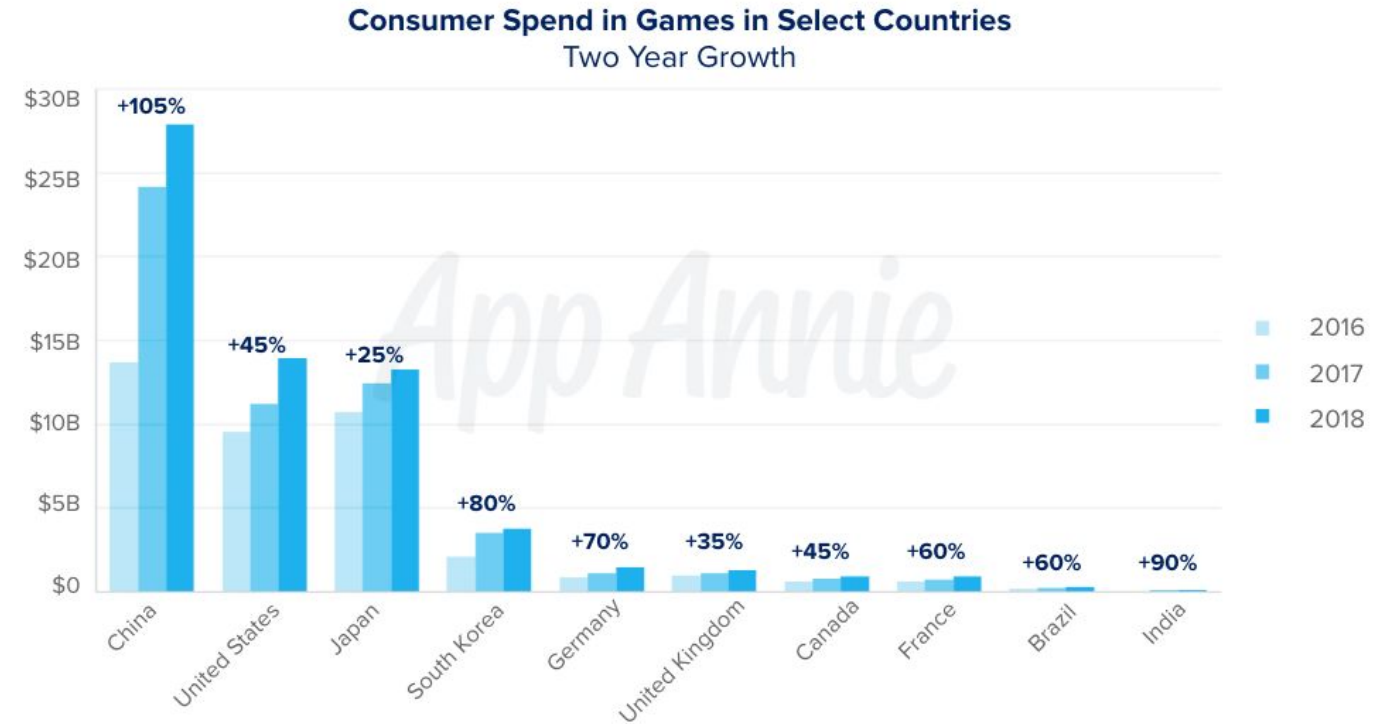
1900

in 2018

\*Google Play and iOS App Store Combined

# Monetization Potential for Gaming Is Still Climbing

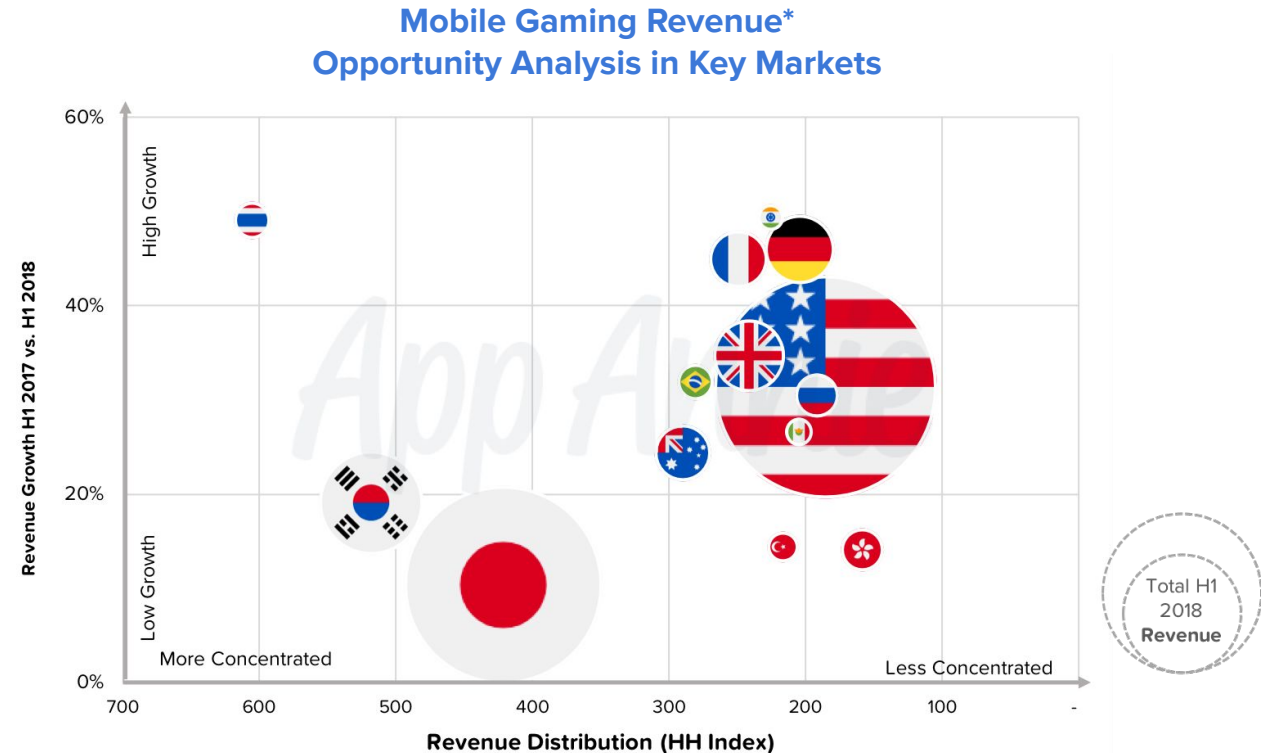
- The China market was by far the largest market.
- Japan performed the highest on a per-user basis, both with regards to gaming and apps in general.
- The US plays more hyper casual games, which drives more digital ad revenue.



Note: Spend is gross, the cut taken by app stores has been removed; iOS, Google Play, Third-Party Android in China combined

# Revenue Opportunity Fueled by Growth, Competition in a Number of Markets

- While there has been M&A and consolidation, there are more publishers and less concentration than one might expect.
- These numbers have stayed the same in recent years, indicating that there is diversity among publishers.
- Thailand, South Korea, and Japan saw the highest concentration of publishers.

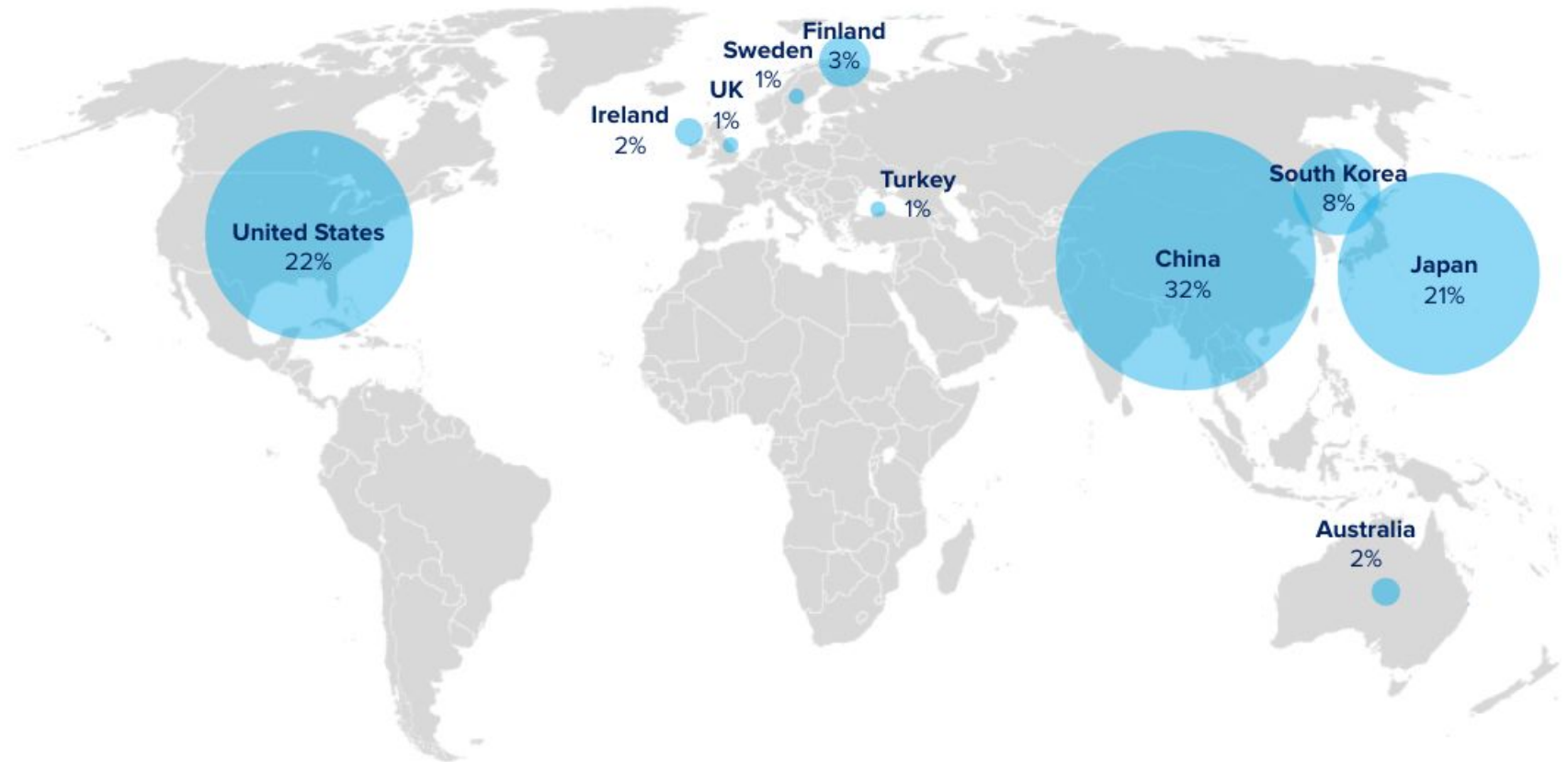


\*Google Play and iOS App Store Combined  
Herfindahl-Hirschman Index - relative concentration of revenue

# Companies HQ'd in China, US & Japan Capture Majority of Spend; Fueled by Gaming

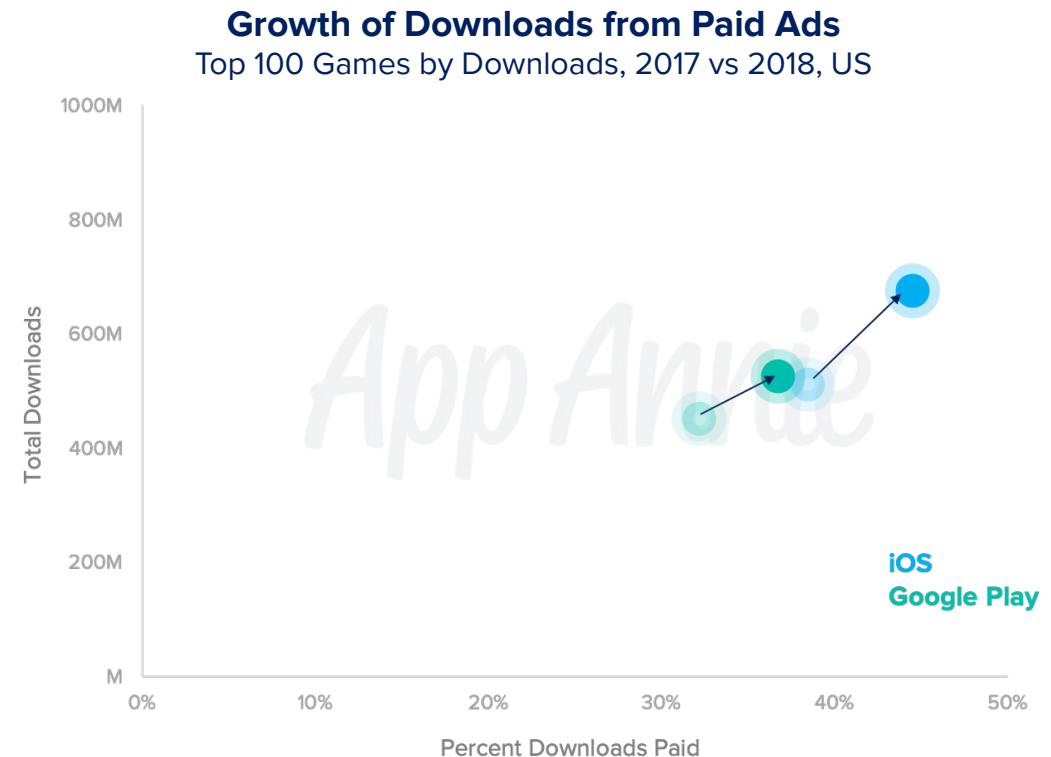
## Top 5 Parent Companies by Global Consumer Spend:

1. Tencent
2. NetEase
3. Activision Blizzard
4. BANDAI NAMCO
5. Netmarble



# Mobile Gaming User Acquisition: Paid Ads Drove 15% More US Game Downloads

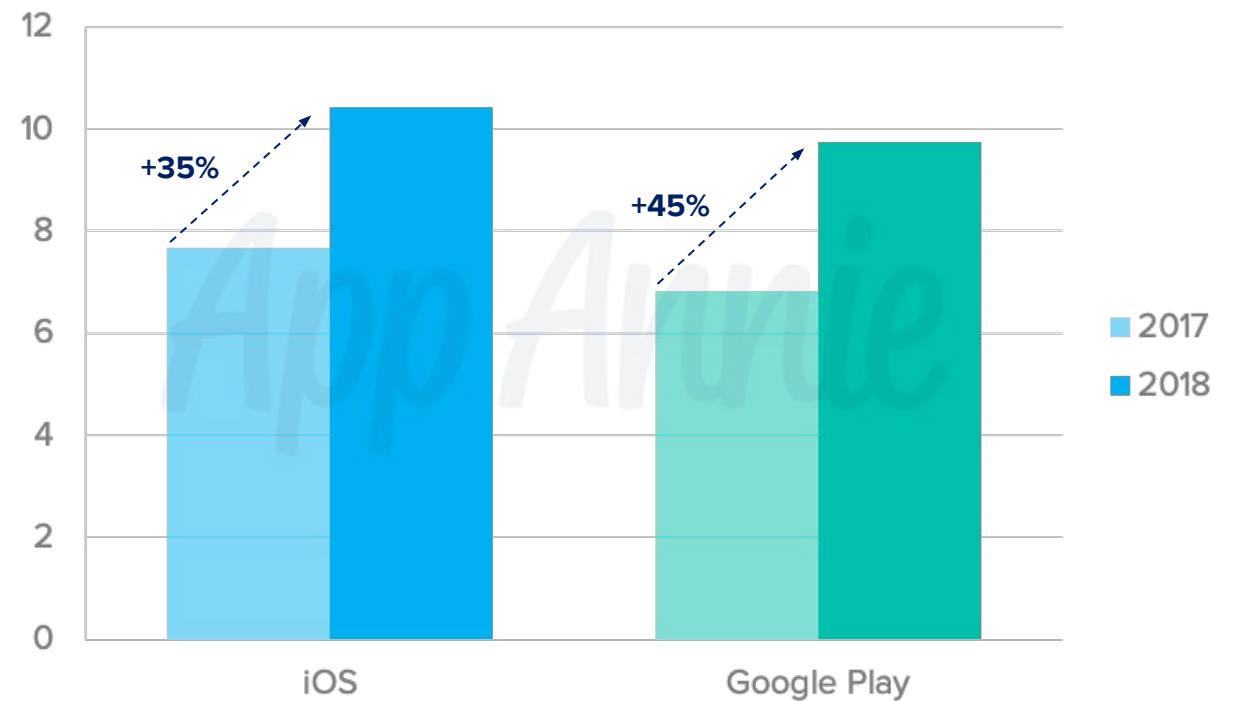
- Organic and virality is critical to growth.
- Games that have network effect and are cross platform have a huge advantage to driving engagement.
- Spending on paid installs, meanwhile, continues to grow — as it becomes a strategic component to also fuel this virality.



# Mobile Gaming User Acquisition: Advertisers Leverage More Ad Platforms

- Advertisers are spending on more ad networks than in the past on a per title basis.
- We've found that many publishers once they get over six ad networks on a given title, that they actually see a better cost per install.
- Spreading those dollars out often gets more material results than concentrating on a select few.

**Average Number of Ad Networks Used**  
Top 100 Games by Downloads, United States



# In Summary

- Americans play **4+ mobile games per month**
- Games account for 33% of installs, 10% of time, **74% of spend**
- Mobile leads all other platforms, combined, in **consumer spend by 1.2x**, and this gap is expected to increase

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