



2018 YEAR IN REVIEW

DIGITAL GAMES AND INTERACTIVE MEDIA

SuperData, A Nielsen Company

SuperData, a Nielsen company, was acquired by Nielsen in September 2018. With this acquisition, SuperData's clients will now have greater access to global market intelligence around digital video gaming use, sales and audiences, in addition to existing areas of expertise such as consumer research, video game tracking, esports sponsorship valuation and consulting services.

SuperData provides relevant market data and insight on digital games and playable media.

Founded by veteran games industry researchers, SuperData covers the market for free-to-play gaming, digital console, mobile, PC downloadable, gaming video content and esports.

Monthly analyses and industry reports using digital point-of-sale data. Using digital point-of-sale data received from publishers, developers and payment service providers, we base our analyses on the monthly spending of 185 million paying digital gamers worldwide.

Understand what people play, connect to and spend on. Our research combines transaction-level data with qualitative consumer insight. Our leadership team has experience spanning across major research firms, including NPD, Nielsen, DFC Intelligence, Comscore, Experian, Jupiter and Forrester.

A next gen approach for next gen entertainment. Our customer base includes legacy publishers (e.g. Activision/Blizzard, Ubisoft), digital-only publishers (e.g. Nexon, Tencent, Wargaming), media companies (e.g. Google, Coca-Cola) and industry service providers (e.g. PayPal, Visa, GameStop).



The **SuperData Arcade** is the world's most robust and only cross-platform business intelligence tool on the worldwide games market. Housing all of SuperData's gold-standard quantitative research on video games, the Arcade allows for insights ranging from high-level trends to granular data on over **500 games and 100 publishers**. The metrics contained here represent the largest and most comprehensive view of the vast and growing digital games market.

The SuperData Arcade allows users to:

- **Gain a comprehensive overview** of the digital games market, across platforms, titles and markets.
- **Create custom queries and segmentation** across all data and export to .csv or PDF format for full analytical control and presentations.
- **Spot opportunities early** and find out when key competitors struggle to maintain conversion rates and average spending.
- **Automatically receive custom data pulls** by email as soon as updates are available.

To arrange a demo of the SuperData Arcade, contact Sam Barberie at sam.barberie@nielsen.com.

EXECUTIVE SUMMARY

Games and related media earned \$119.6B¹ in 2018

Digital games

 **\$61.3B**
Mobile

 **\$35.7B**
PC

 **\$12.7B**
Console

Interactive media

 **\$5.2B**
GVC

 **\$6.6B**
XR

The games and interactive media industry grew 13% in 2018 as **Fortnite² disrupted the status quo**. The red-hot battle royale title generated the most annual revenue of any game in history and popularized gaming video content (GVC) among mainstream audiences.

Free-to-play titles amassed 80% of digital games revenue in 2018 but premium games still performed well in Western markets. Asian mobile games helped the region earn 62% of global free-to-play revenue, while North America and Europe generated 80% of premium games revenue.

Red Dead Redemption 2 earned \$516M³ in Q4, helping to grow premium games revenue 10% year-over-year. The title is expected to continue adding to the market in 2019 through further monetization of its multiplayer mode, Red Dead Online.

GVC earned \$5.2B as viewership hit 850M unique viewers. Popular streamers like Ninja introduced GVC to new audiences as *Fortnite* impacted how games are watched as much as how they are played.

XR revenue rose from \$4.4B to \$6.6B as new headsets offset declining earnings from existing platforms. Oculus Go and other standalone devices appealed to everyday consumers even as shipments of PC and mobile headsets like the Oculus Rift and Samsung Gear VR contracted.

¹ Total interactive media revenue is less than the sum of all segments due to overlapping earnings in games and XR segments (e.g. *Pokémon GO* revenue is included in both the mobile games and XR segments).

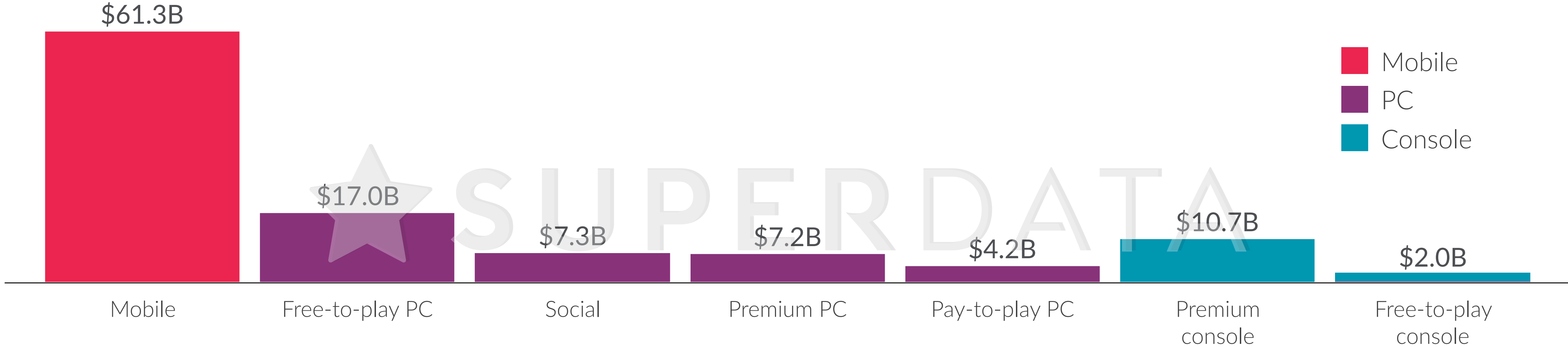
² *Fortnite* earning figures in this report do not encompass the game's *Save the World* mode or the Android version of the game. | ³ Annual title-level revenue estimates in this report include preliminary December data.

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DIGITAL GAMES

Digital games revenue jumped to \$109.8B in 2018, up 11% year-over-year

Digital games revenue, 2018

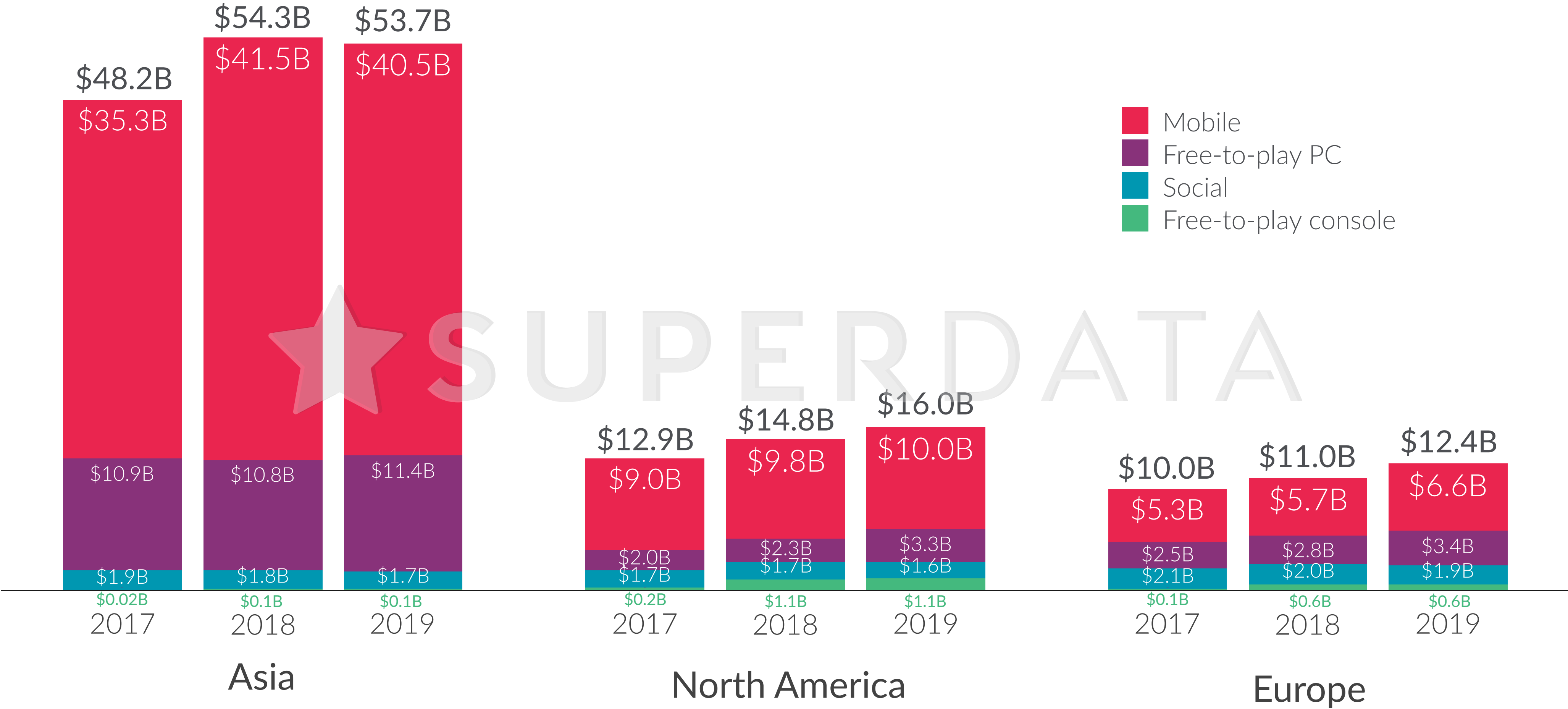


Free-to-play titles earned 80% of all digital games revenue in 2018, with Asia taking the lion’s share of the \$87.7B free-to-play market. Consumer spending in Asia contributed 62% of the overall free-to-play revenue in 2018 with seven of the top 10 games coming from Asian publishers or their subsidiaries.

There continues to be a strong demand for premium games (\$17.9B), especially from Western markets. North America and Europe accounted for four of every five dollars (80%) spent on premium games. Sales of console franchises like *Call of Duty* and *FIFA* continued shifting away from physical discs and toward digital downloads.

The rise of *Fortnite* greatly increased the visibility of free-to-play console games, causing their overall revenue to explode by 458% year-over-year. Free-to-play console revenue underwent the most rapid growth, but all digital games segments rose in 2018 with the exception of online social games.

Free-to-play market and forecast by region



The rise of *Fortnite* shook up the \$87.7B free-to-play games market in 2018

Top free-to-play games by revenue, 2018¹

Rank	Title	Publisher	Genre	Revenue
1	<i>Fortnite</i>	Epic Games	Shooter	\$2.4B
2	<i>Dungeon Fighter Online</i>	Nexon	RPG	\$1.5B
3	<i>League of Legends</i>	Riot Games, Tencent	MOBA	\$1.4B
4	<i>Pokemon GO</i>	Niantic	Adventure	\$1.3B
5	<i>Crossfire</i>	Neowiz Games	Shooter	\$1.3B
6	<i>Honour of Kings</i> ²	Tencent	MOBA	\$1.3B
7	<i>Fate/Grand Order</i>	Aniplex	RPG	\$1.2B
8	<i>Candy Crush Saga</i>	King, Activision Blizzard	Puzzle	\$1.1B
9	<i>Monster Strike</i>	Mixi	RPG	\$1.0B
10	<i>Clash Royale</i>	Supercell, Tencent	Strategy	\$0.9B

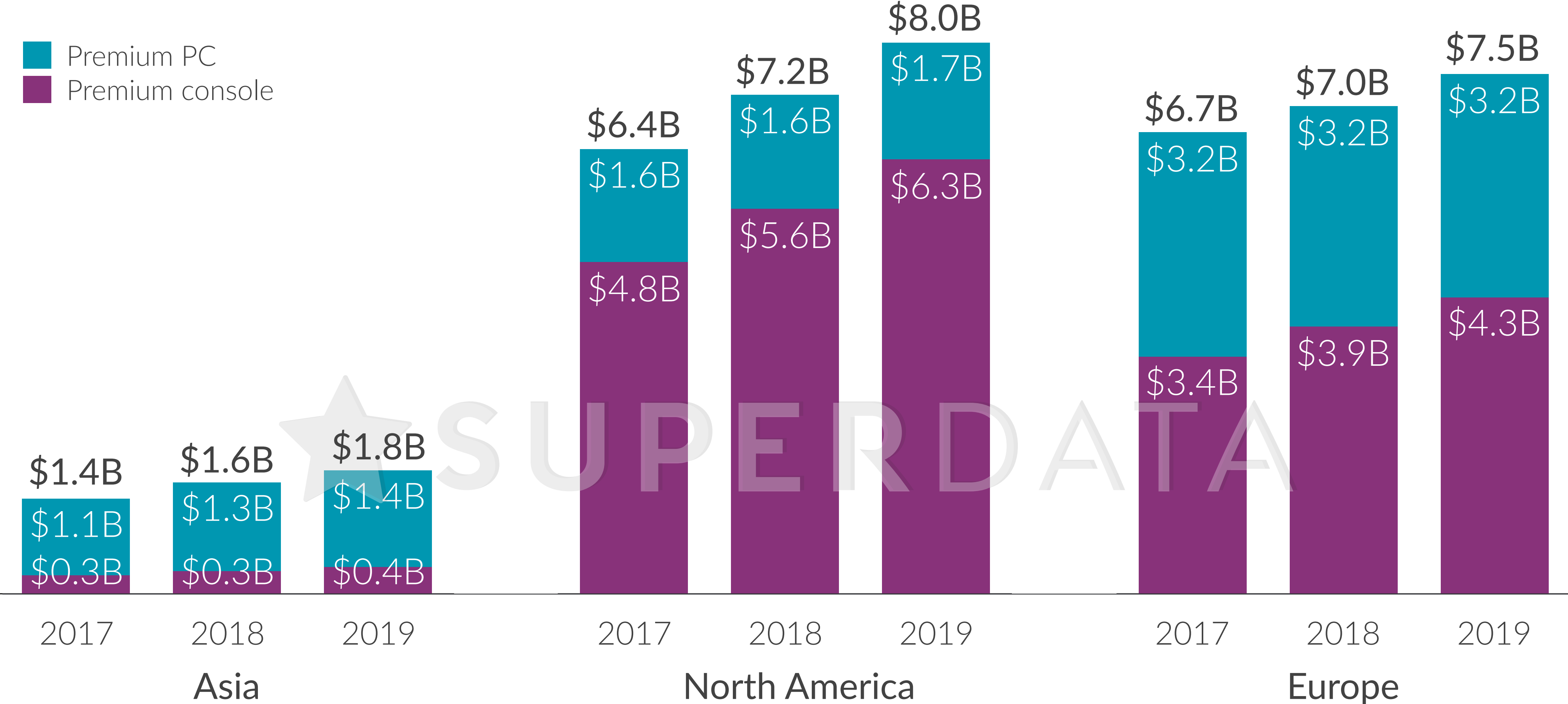
Fortnite earned \$2.4B on its way to becoming a global phenomenon. As a multiplatform release on PC, console and mobile, *Fortnite* reached a massive addressable audience. To continue its momentum, Epic Games regularly updated the game with new modes, weapons and environments, giving players a reason to log in regularly.

Fortnite had a major impact on games monetization with the battle pass, a limited-time in-game purchase that rewards players with digital items as they complete challenges. Games like *Dota 2* have sold battle passes in the past, but *Fortnite* made them a core part of its monetization strategy, with 34% of US *Fortnite* players buying them regularly. Titles such as *PlayerUnknown's Battlegrounds*, *Rocket League* and *Call of Duty: Black Ops 4* were keen to recreate *Fortnite's* success, adding their own versions of the battle pass soon after.

Despite a regulatory freeze of new game launches in China, Asia's mobile games market grew by 18% year-over-year thanks to endemic hardcore titles. Revenue from Tencent's mobile MOBA *Honour of Kings*² nearly rivaled the publisher's own PC title *League of Legends*. In North America and Europe, casual and midcore games like *Pokémon GO* contributed to global mobile games revenue rising by 13% overall.

¹ Annual title-level revenue estimates in this report include preliminary December data. | ² Also known as *Arena of Valor* in the West.
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Premium games market and forecast by region



Premium games revenue rose 10% to \$17.8B in 2018

Top premium PC and console games by revenue, 2018¹

Rank	Title	Publisher	Genre	Revenue
1	<i>PlayerUnknown's Battlegrounds</i> ²	Bluehole	Shooter	\$1,028M
2	<i>FIFA 18</i>	Electronic Arts	Sports	\$790M
3	<i>Grand Theft Auto V</i>	Take-Two Interactive	Action-adventure	\$628M
4	<i>Call of Duty: Black Ops 4</i>	Activision Blizzard	Shooter	\$612M
5	<i>Red Dead Redemption 2</i>	Take-Two Interactive	Action-adventure	\$516M
6	<i>Call of Duty: WWII</i>	Activision Blizzard	Shooter	\$506M
7	<i>FIFA 19</i>	Electronic Arts	Sports	\$482M
8	<i>Monster Hunter: World</i>	Capcom	RPG	\$467M
9	<i>Tom Clancy's Rainbow Six: Siege</i>	Ubisoft	Shooter	\$440M
10	<i>Overwatch</i>	Activision Blizzard	Shooter	\$429M

PlayerUnknown's Battlegrounds was the year's highest-earning premium title despite competition from other entries in the battle royale³ genre. The game earned 19% more in 2018 than in 2017 even as player numbers and revenue fell behind rival *Fortnite*.

The decision to give *Call of Duty: Black Ops 4* a battle royale mode paid off for publisher Activision Blizzard. The game's launch-month player base was roughly the same as predecessor *Call of Duty: WWII* on console, but PC user numbers more than doubled (1.4M versus 594K).

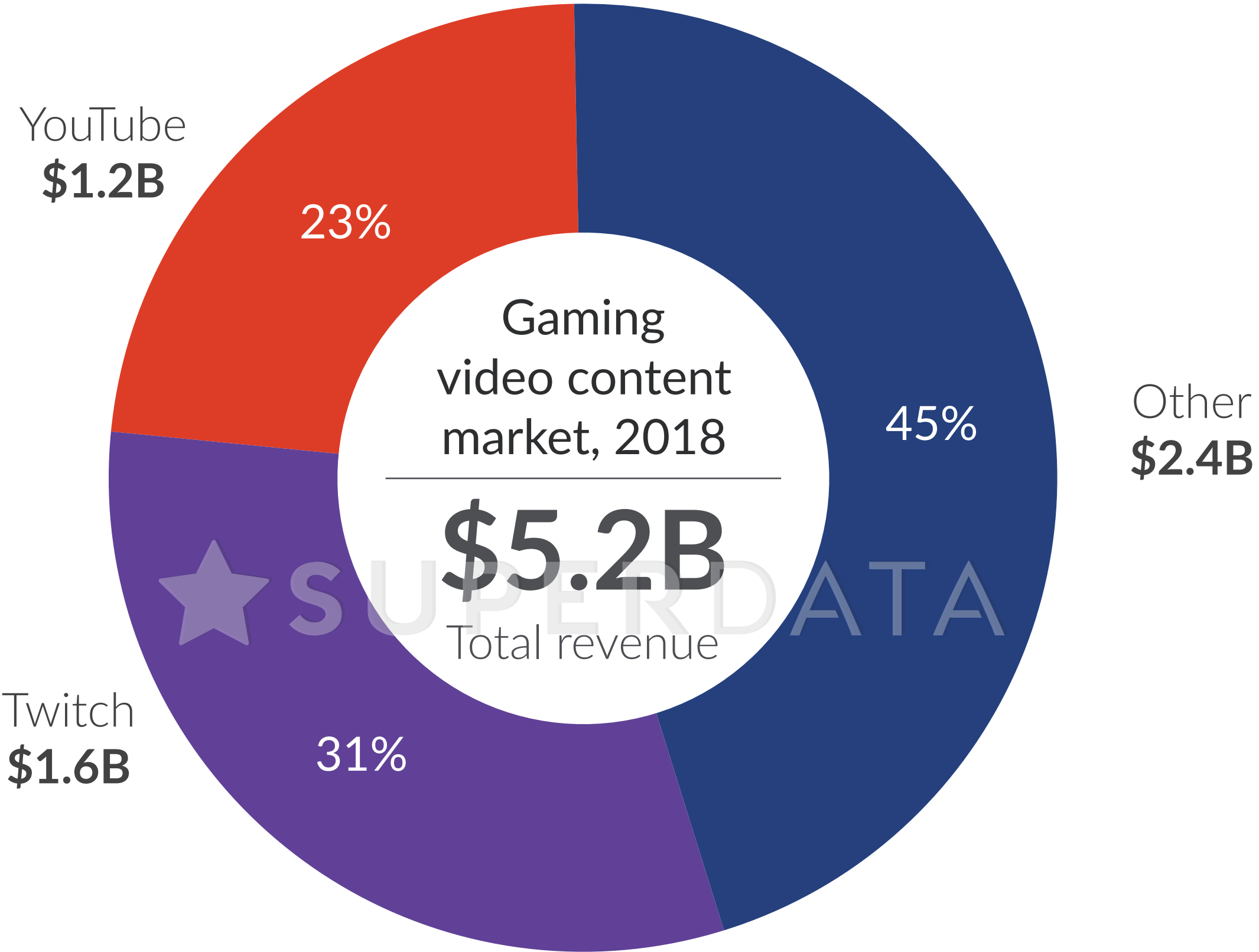
Red Dead Redemption 2 and *Monster Hunter: World* were the only 2018 releases in the top 10 that were not part of an annual franchise. Anticipation for *Red Dead Redemption 2* translated to a record for digital download revenue in a single quarter, and the *Monster Hunter* franchise found a new mainstream audience in the west as publisher Capcom emphasized the newest entry's visually spectacular battles.

In 2018, Netflix-like game subscriptions rose to prominence as publishers sought dependable recurring revenue. Xbox Game Pass and Origin Access Premier from Electronic Arts gave paying subscribers access to brand-new games, and the top three game subscription offerings⁴ earned \$273M worldwide in Q3 2018.

¹ Annual title-level revenue estimates in this report include preliminary December data. | ² *PlayerUnknown's Battlegrounds* revenue does not include the mobile version. | ³ Games where participants fight on a map where the playable area shrinks. Players usually have one life and the last individual or team alive is the winner. These titles usually emphasize scavenging for weapons and equipment. | ⁴ Xbox Game Pass, PlayStation Now and the EA/Origin Access family of services.

GAMING VIDEO CONTENT

The audience for gaming video content (GVC) grew 10% to reach 850M unique viewers in 2018



Twitch was the highest-earning GVC platform despite having a much smaller audience than YouTube (183M versus 594M). Donations and channel subscriptions accounted for 32% of GVC revenue on Twitch compared to only 9% on YouTube. Twitch supports a wide range of monetization options and attracts devoted viewers who are willing to spend to directly support their favorite content creators.

Online videos influence what 46% of US PC and console gamers under the age of 25 play, making GVC pivotal to a game's success. Publishers like Epic Games are incentivizing streamers to play their games by giving them referral bonuses for others' purchases of *Fortnite* in-game currency and titles in the Epic Games Store.

Ninja and other *Fortnite* video creators rose to the top of the Twitch charts in 2018

Tyler “Ninja” Blevins was watched more than the second- and third-most popular channels combined. Ninja rose to prominence by establishing himself as one of the best *Fortnite* players when the game was still new. Thanks to his tireless streaming regimen and brand-friendly image, he popularized the concept of game streaming to mainstream audiences by playing with rapper Drake and appearing on *The Ellen DeGeneres Show* and *The Tonight Show*.

Two in five *Fortnite* viewers (44%) are under 25.¹ The title’s reach has been particularly large among kids and teens. In response to his channel’s young audience, Ninja decided in 2018 to limit his swearing during most livestreams.

Top Twitch channels, 2018

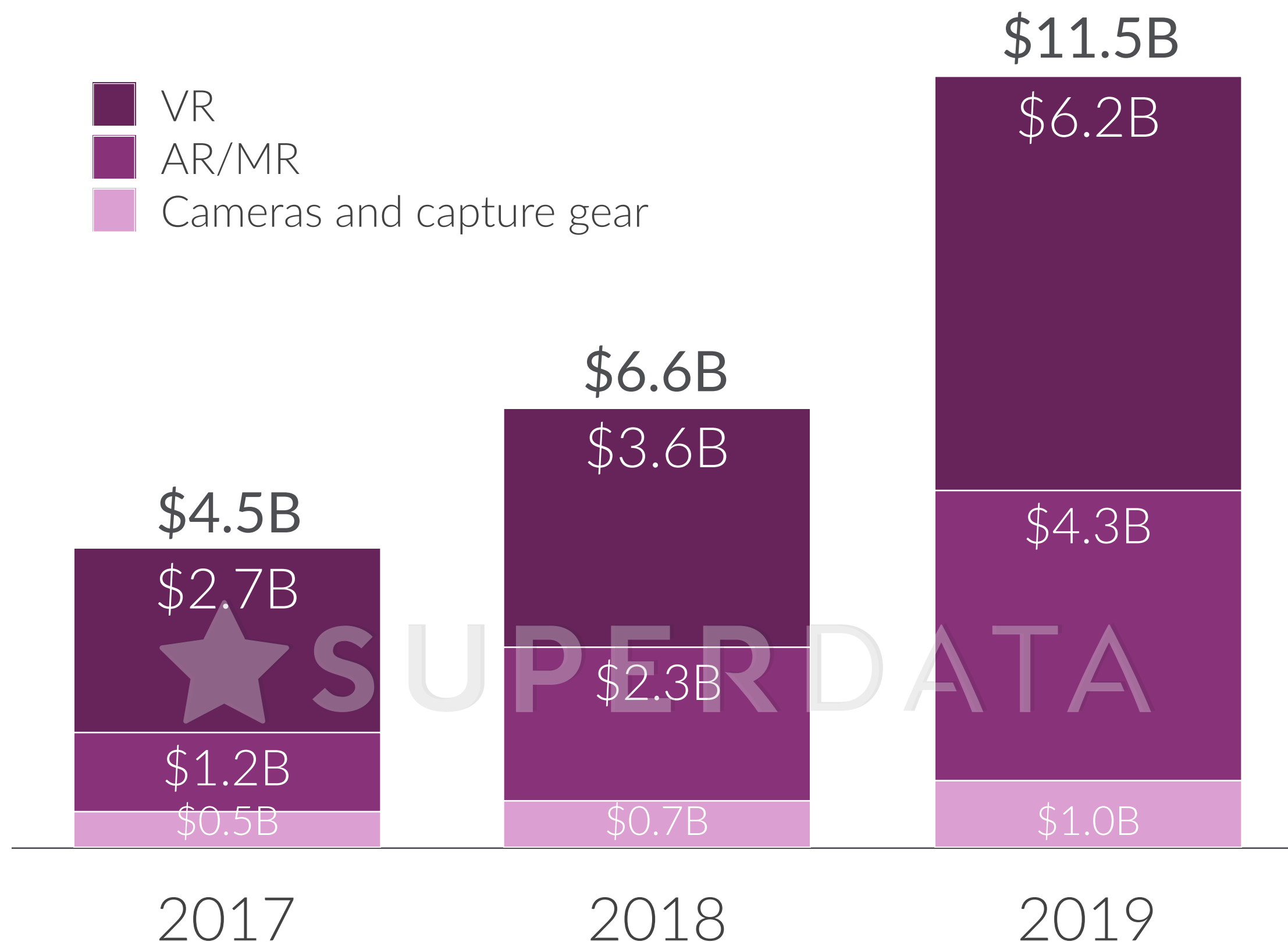
Channel	Hours Watched	Channel	Hours Watched
1 Ninja The most talked about streamer of the year who has made forays into mainstream media such as streaming with rapper Drake and appearing on <i>The Ellen DeGeneres Show</i>	218M	6 sodapoppin American variety streamer that originally gained fame from top-ranked <i>World of Warcraft</i> play	44M
2 Riot Games The official account that the <i>League of Legends</i> developer uses to broadcast esports	95M	7 ELEAGUE TV The official channel for ELEAGUE, an esports series owned by Turner Broadcasting which broadcasts key matches on the TBS TV station	43M
3 shroud Canadian streamer and former <i>Counter-Strike: Global Offensive</i> pro player that primarily plays first-person shooters	86M	8 Tfue Professional <i>Fortnite</i> player for FaZe clan	43M
4 OverwatchLeague The official channel for Blizzard’s esports league	71M	9 summit1g Former <i>Counter-Strike: Global Offensive</i> pro player that has streamed <i>Call of Duty</i> , <i>Sea of Thieves</i> and battle royale titles in 2018	39M
5 dakotaz Top streamer known for <i>Fortnite</i> content	47M	10 Ioltyler1 Controversial <i>League of Legends</i> streamer that made a comeback in January 2018	38M

¹ Based on surveys of US viewers available in the SuperData Arena.
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VIRTUAL, AUGMENTED AND MIXED REALITY

The share of immersive technology revenue coming from augmented and mixed reality (AR/MR) grew from 27% to 35% in 2018

XR hardware and consumer software¹



Oculus Go sold 1M units after its May 2018 launch, paving the way for standalone VR headsets. The \$200 device appealed to mainstream users by not requiring a physical connection to an external device. Growing revenue from standalone VR headsets more than made up for lower sales of other VR devices.

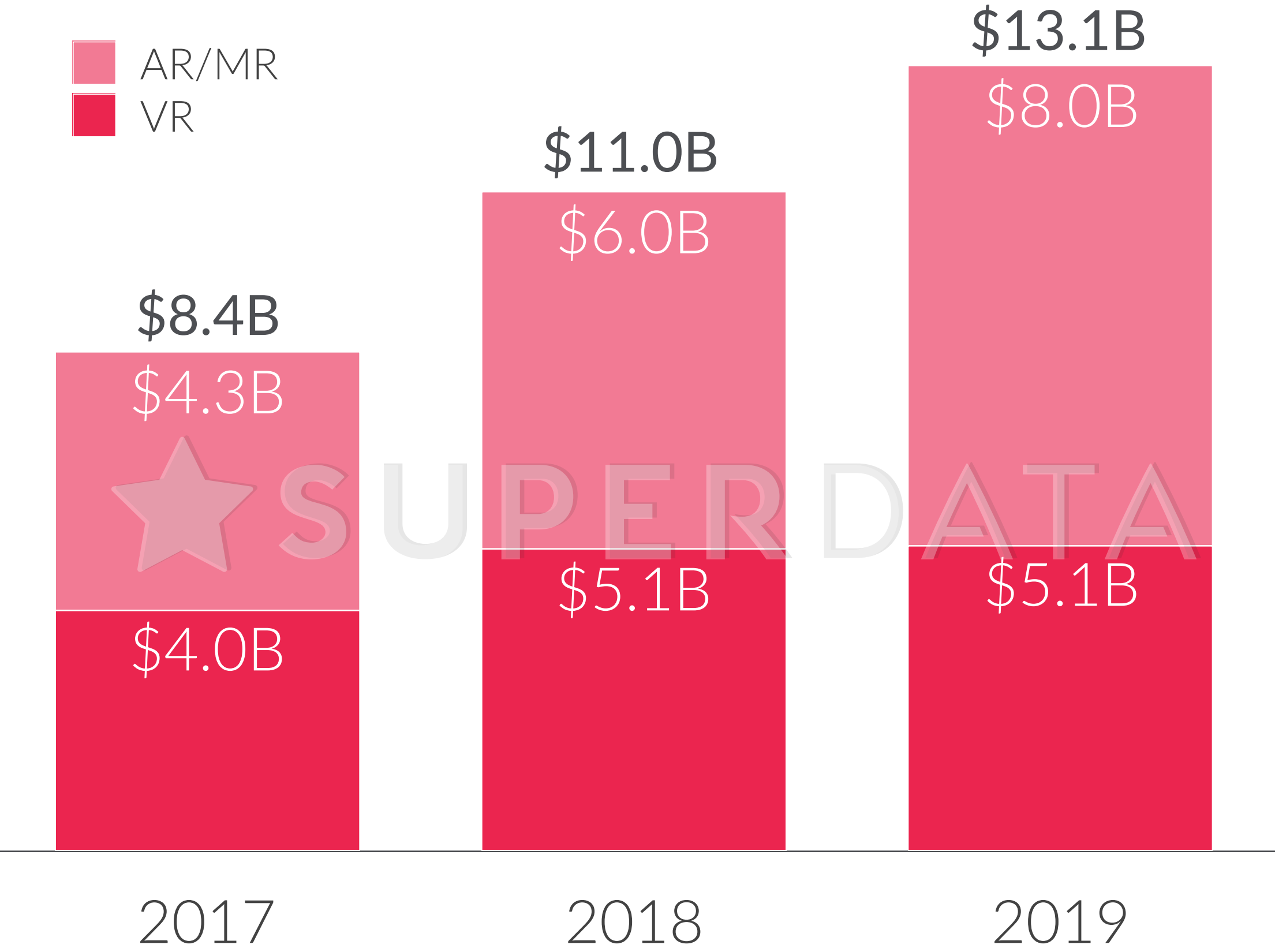
Social media apps drove mobile augmented reality (AR) user numbers to 1.1B and helped push augmented and mixed reality (AR/MR) revenue to \$2.3B. Chinese social media app TikTok² was primarily responsible for a massive influx of new AR users which grew the audience by 110% during the year. In the US, 84% of mobile AR audiences use the technology in social media apps like TikTok, Snapchat and Instagram.

The market for location-based VR grew 37% to \$413M despite slower-than-anticipated adoption of high-end consumer VR headsets. The launch of VR attractions like *Star Wars: Secrets of the Empire* from The Void and *Jurassic World VR Expedition* in 2018 proves the appeal of location-based VR installations, which are expected to gain further momentum in 2019. These introduce everyday consumers to high-end VR by offering experiences in locations with high foot traffic like airports, restaurants and malls.

¹ Revenue figures refer to spending on hardware and consumer software and services. | ² Known as Douyin in China.
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Enterprise spending on immersive technology surpassed \$11B as businesses see the potential for ROI

Enterprise XR investment¹



Training is the biggest driver of enterprise VR adoption, with 71% of firms using VR to develop their workforce.² VR training is expanding beyond the teaching of hard skills, like performing surgery and operating vehicles, and into areas like customer service. Walmart agreed to purchase 17,000 Oculus Go headsets to train retail employees in September 2018.

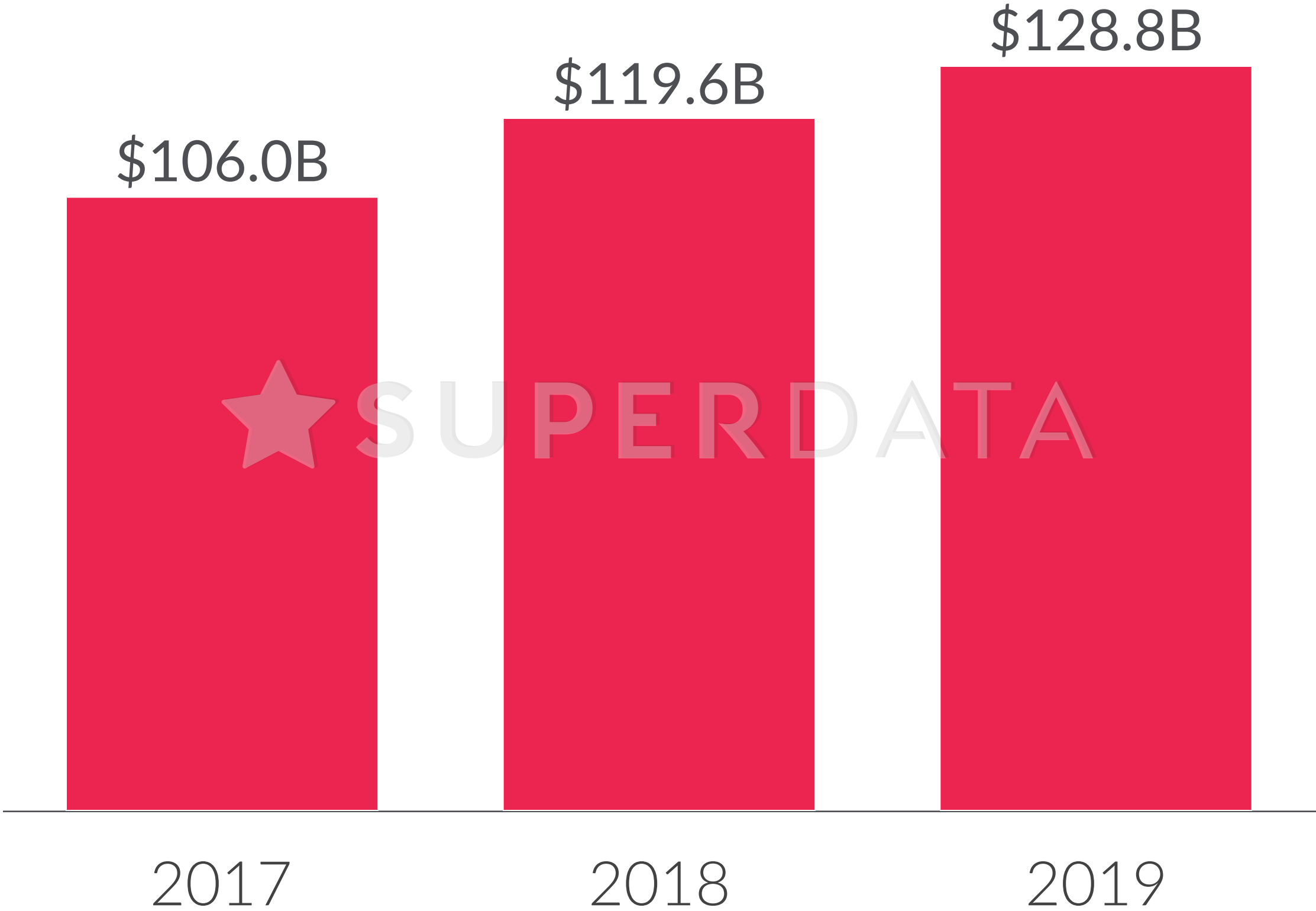
Enterprise clients are set to account for 85% of AR/MR headsets sold in 2019 and will continue to represent the majority of demand through 2022. Current headsets like the Microsoft HoloLens and Magic Leap are bulky and cost over \$2000. However, price and fashion are less of a factor for enterprise customers who are already showing an interest in the emerging technology. In late 2018, Microsoft signed a deal worth \$479M with the US Army to provide HoloLens devices for use in combat.

¹ Includes spending on internal R&D and on external firms offering XR services, hardware and software. | ² Among firms that utilize VR in their business.
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TRENDS TO WATCH IN 2019

Games are set to go multiplatform in 2019

Worldwide digital games and interactive media revenue



Competition among storefronts means publishers and developers will receive a greater share of the \$38.3B spent on PC games in 2019. The status quo of digital storefronts getting 30% of game revenue earned on their platforms is being challenged. Epic Games (emboldened by the success of *Fortnite*) and Discord (which 27% of US PC game consumers already use) are both offering developers a larger cut of revenue than Steam, the current market leader.

Improvements in internet infrastructure will clear cloud gaming for takeoff. Four in five (81%) US gamers already have an internet connection of at least 25 Mbps¹ – the minimum speed required for the test of Google Project Stream. A continued rollout of 5G mobile networks by carriers like AT&T and Verizon will also expand where and when users can play games in the cloud. This ongoing improvement in internet infrastructure has led companies like Google, Microsoft and Electronic Arts to invest in cloud gaming as the next big thing in interactive entertainment.

Consumers will expect to have access to the same games across PC, mobile and console. The popularity of *Fortnite* and its cross-device gameplay has redefined how consumers want to play their games. Cross-platform multiplayer is now very desirable to 57% of *Fortnite* players compared to 35% of US gamers overall. With the rise of cross-platform and cloud gaming, powerful hardware will increasingly take a backseat to the games themselves.

¹ Among those who know their internet speed.
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