

2020 YEAR IN REVIEW

DIGITAL GAMES AND INTERACTIVE MEDIA

SuperData, a Nielsen company

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 195 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).





SuperData Arcade is the gold-standard business intelligence platform providing high-level trends and granular insights across the global digital games market.

- **Get a comprehensive overview** of the digital games market, across platforms, titles (800+ games, 100+ publishers) and markets.
- Spot opportunities early, and find out when key competitors struggle to maintain conversion rates and average spending.
- Create custom queries and segmentation across all data and export analysis to .csv or PDF format.
- Automatically receive custom data pulls by email as soon as updates are available.

To arrange a demo of the SuperData Arcade, contact sd.contact@nielsen.com.

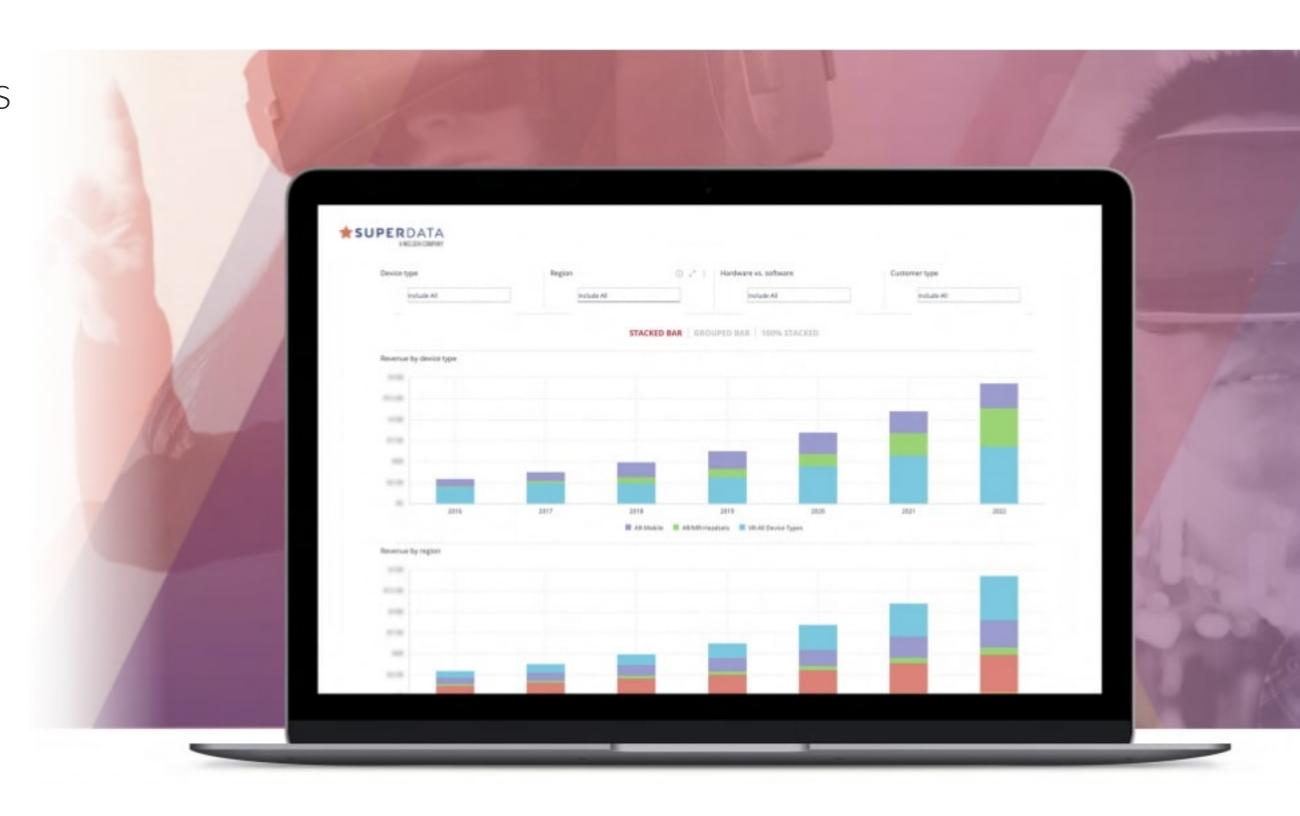


*SUPERDATA

XR Dimensions

SuperData's XR Dimensions provides a comprehensive understanding of global virtual and augmented reality trends to inform XR-related business and product strategies.

- Intuitive, interactive dashboard offering the ability to customize, drill-down and export data
- Intelligence into global VR/MR/AR markets with regional granularity
- Comprehensive VR headset shipments and quarterly breakdowns for key devices like Oculus Quest and PlayStation VR
- Audience numbers such as total users of iOS AR apps and the VR install base by region
- Consumer software revenue for segments ranging from mobile AR games to VR location-based entertainment
- Historical estimates and forward-looking projections through 2024



To arrange a demo of XR Dimensions or for custom requests, contact sd.contact@nielsen.com.



EXECUTIVE SUMMARY

Games and interactive media earned \$139.9B¹ in 2020

Digital games

Interactive media











The games and interactive media industry grew 12% year-over-year. The COVID-19 pandemic shaped the games market in 2020, as audiences were forced to stay home and interact remotely. Earnings for game types popular in North America and Europe grew significantly due to the pandemic's impact on those regions.

Over half of US residents (55%) played video games as a result of the first phase of COVID-19 lockdowns. Consumers turned to games as other forms of entertainment like watching professional sports and going to movie theaters became unavailable.

The premium games market grew 28% in 2020 as the segment had multiple blockbuster releases throughout the year. Highly-anticipated single-player games such as DOOM Eternal, The Last of Us Part II and Cyberpunk 2077 helped drive earnings. The performance of sports franchises like FIFA and NBA 2K was also up year-over-year even after the return of televised sports.

Free-to-play games once again generated the vast majority (78%) of games revenue, with Asian markets accounting for 59% of free-to-play earnings. Hardcore mobile games continued to appeal to players in Asia. Honor of Kings and Peacekeeper Elite, both Tencent titles, each generated over \$2B during the year.

Gaming video content (GVC) became a \$9.3B industry in 2020, reaching 1.2B viewers. Alongside the standard fare of competitive titles, social games, brand crossovers like *Fortnite X Marvel* and public figures like Congresswoman Alexandria Ocasio-Cortez earned top views. GVC also helped *Among Us* become one of the most popular games ever.

Virtual reality (VR) game earnings jumped 25% year-over-year to \$589M in 2020. The release of *Half-Life*: *Alyx*, a rare VR-only title from a major gaming franchise, reinvigorated interest in the technology among hardcore gamers. Additionally, the untethered and budget-friendly Oculus Quest 2 headset attracted everyday consumers to VR.

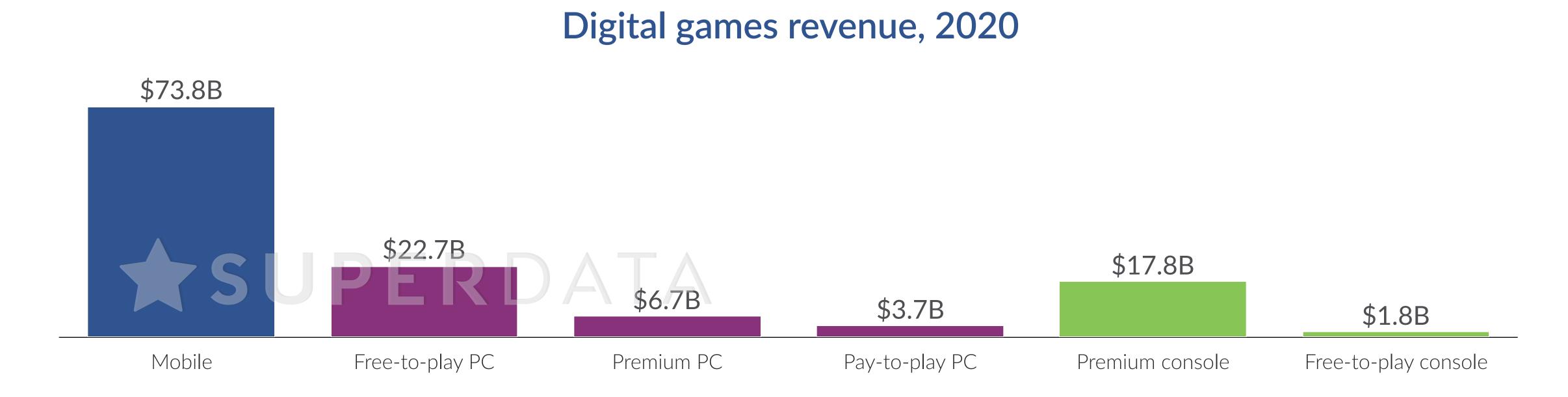


¹ Total interactive media revenue is less than the sum of all segments due to overlapping earnings in games and XR segments (e.g., *Pokémon GO* revenue is included in both the mobile games and XR segments). 2020 YEAR IN REVIEW | © 2021 SuperData, a Nielsen company. All rights reserved.

DIGITAL GAMES



Digital games earned \$126.6B in 2020, up 12% year-over-year



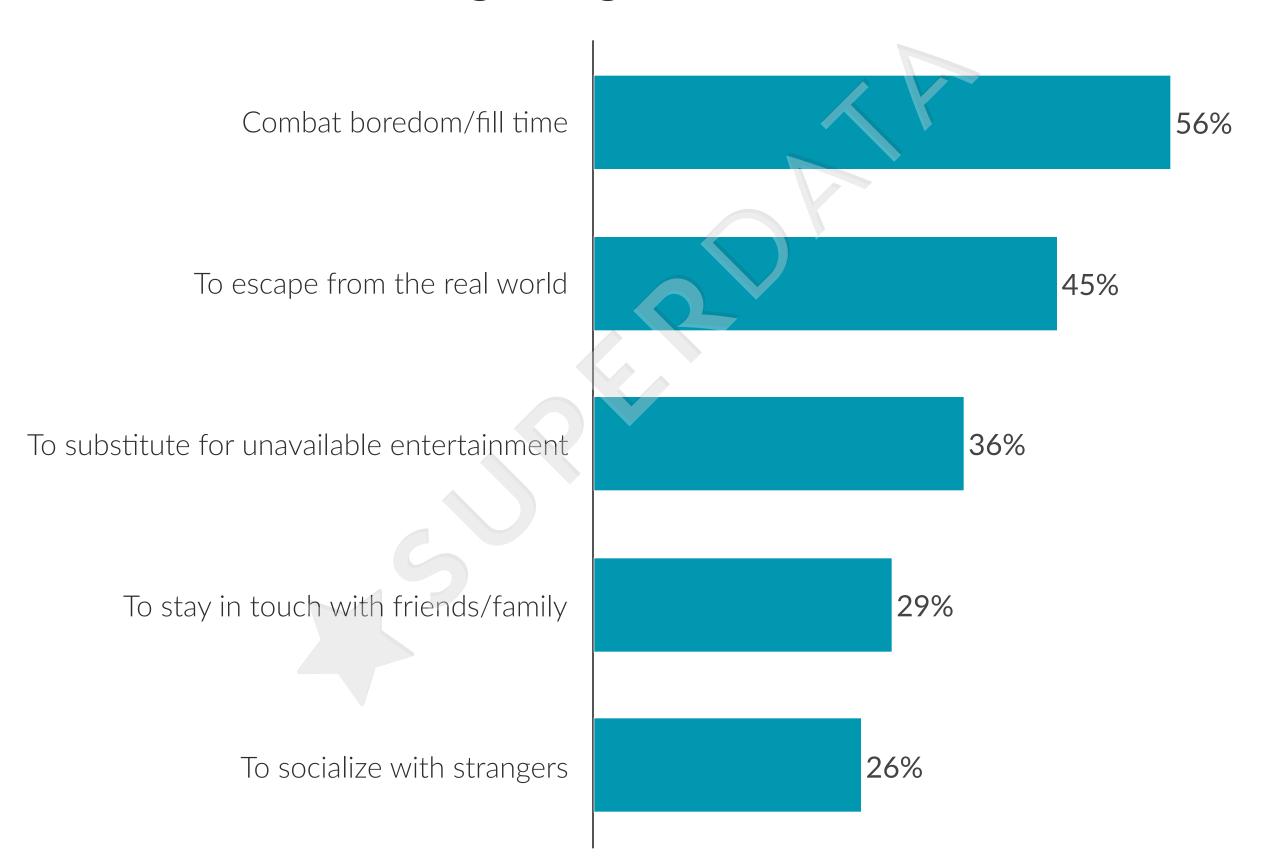
Game earnings were up just 6% year-over-year in January and February, but rose to 14% for the rest of the year. As COVID-19 lockdowns took effect worldwide in March, game spending took off and never let up.

Free-to-play games earned 78% of digital revenue in 2020, but premium title revenue grew faster, rising 28% vs. 9%. North America and Europe together accounted for 84% of all premium games revenue. Since COVID-19 impacted these regions severely, spending on premium content jumped as COVID-19 shut down other leisure activities like watching professional sports, visiting movie theaters and traveling.



Over half of US residents (55%) played video games as a result of COVID-19

Reason for gaming due to COVID-192



Individuals actually spent more time on mobile games even as they remained sedentary. Over 2 in 5 consumers (43%) spent more time playing mobile games in the spring compared to just 8% who spent less time. Similarly, over 1 in 4 consumers (28%) spent more time playing console games and nearly 1 in 5 (18%) played more PC games.

Young adults turned toward games as a direct result of COVID-19. Among consumers ages 18 to 24, 66% played more console games, 60% played more mobile games and 55% watched more gaming video content on sites like Twitch or YouTube.

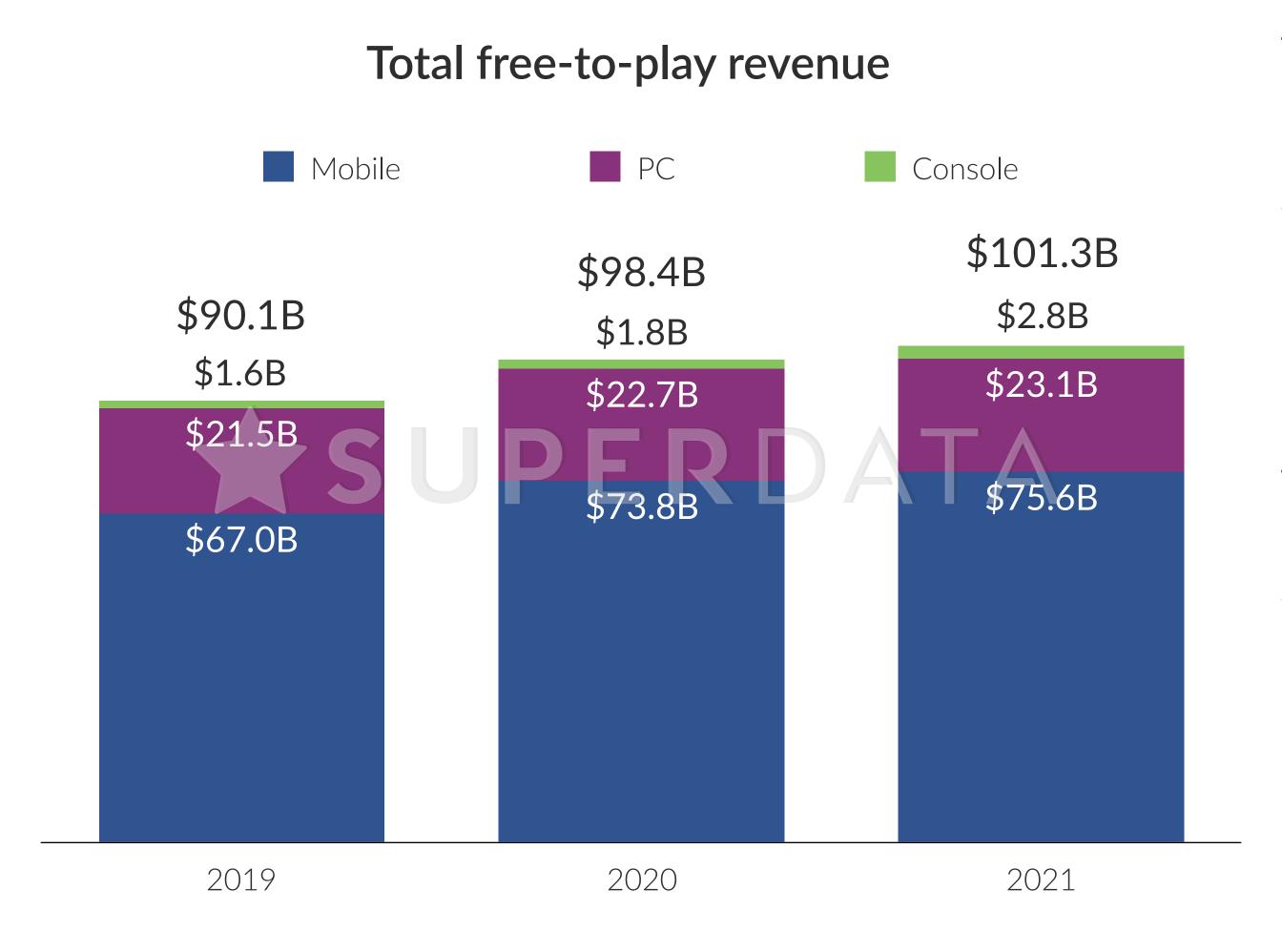
Shipping delays and closures of local games businesses pushed gamers to purchase digital goods instead of discs and cartridges. Spending on game downloads went up among over 1 in 4 adults (27%) who spent money on video games compared to 29% of adults who spent less on physical game purchases.

Roughly 1 in 4 (27%) US residents used games to stay in touch with friends and loved ones or socialize with new people. Online games such as *Call of Duty: Warzone* and *Animal Crossing: New Horizons* became early hits in 2020 thanks in part to their ability to help gamers socialize virtually.

² Data was taken from an April 2020 consumer survey made up of US residents age 18 and up. This survey recorded consumers' immediate behavioral reactions to the COVID-19 pandemic. Values displayed in the chart are in regards to those who played or watched video games.



The free-to-play market increased by 9% to \$98.4B in 2020



The mobile market saw 10% growth in 2020 and accounted for 58% of the total games market. Despite lockdowns and reduced commuting, mobile earnings did not fall as a majority of mobile players (62% in the US) already use mobile devices as their primary gaming platform. Mobile gamers in North America and Europe continued to play mainstay titles like *Pokémon GO* or *Candy Crush Saga*. In Asia, mobile continued to be the platform of choice for many hardcore gamers and titles like *Free Fire* performed better than ever in 2020.

The free-to-play segment continues to thrive in Asia. Asia generated 59% of total worldwide free-to-play earnings. Companies based in Asia published six out of the top 10 titles, with Tencent titles *Honor of Kings* and *Peacekeeper Elite* each breaking over \$2B in total revenue.



Mobile continues to dominate the segment with 8 out of 10 of the top free-to-play titles

Top 10 free-to-play titles, 2020

Rank	Title	Publisher	Genre R	levenue
1	Honor of Kings	Tencent	MOBA	\$2.45B
2	Peacekeeper Elite	Tencent	Shooter	\$2.32B
3	Roblox	Roblox Corporation	Simulation	\$2.29B
4	Free Fire	Garena	Shooter	\$2.13B
5	Pokémon GO	Niantic, Inc.	Action- adventure	\$1.92B
6	League of Legends	Riot Games, Tencent	MOBA	\$1.75B
7	Candy Crush Saga	King, Activision Blizzard	Puzzle	\$1.66B
8	AFK Arena	Lilith Games	Strategy	\$1.45B
9	Gardenscapes - New Acres	Playrix Games	Puzzle	\$1.43B
10	Dungeon Fighter Online	Nexon	RPG	\$1.41B

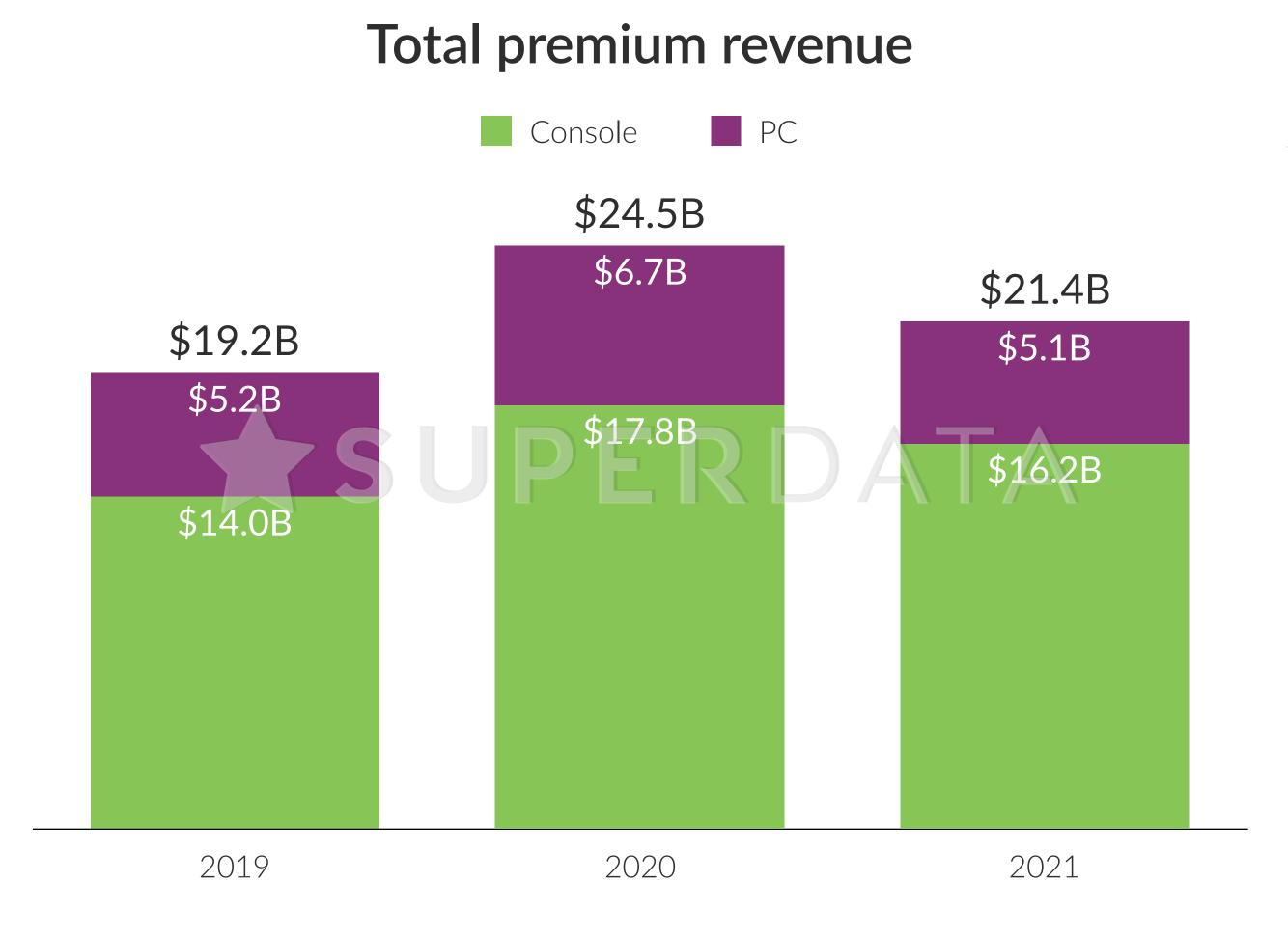
Riot Games had a banner year as it expanded into several new IPs. Still going strong at 11 years old, League of Legends was the highest earning non-mobile free-to-play title in 2020. Riot expanded the League of Legends universe, launching collectible card game Legends of Runeterra in April. Meanwhile, the publisher's new shooter Valorant became the ninth highest earning non-mobile free-to-play title, and its launch month earnings surpassed rival title Counter-Strike: Global Offensive.

Niantic quickly adapted to the restrictions of COVID-19, allowing *Pokémon GO* to grow 39% year-over-year. Although the game has historically encouraged in-person gatherings and long-distance traveling, the developers altered gameplay features to bring in-game events, pokémon and items directly to players' homes. The remote Global Pokémon GO Fest helped earnings reach an all-time high.

Roblox surpassed Fortnite thanks to strong mobile growth. Roblox mobile earnings growth sped up as the game creation platform became a social network of choice for young gamers. Although Fortnite still earned more than \$1B in 2020, it faced stiff competition on multiple fronts. Older shooter fans played Call of Duty: Warzone for a more serious battle royale experience while children took to the vast sea of user-generated content in Roblox.



The premium market increased by 28% to \$24.5B in 2020



Premium console earnings grew 28% year-over-year, by far the biggest growth of gaming segments measured. North America accounts for over half (57%) of the premium console market and the significant impact of COVID-19 on the United States resulted in higher console engagement, pushing worldwide revenue upward. Life simulation game Animal Crossing: New Horizons became one of the biggest hits in 2020, breaking the console record for premium launch downloads. It overtook Call of Duty: Black Ops IIII by selling 5.0M digital units during its March 2020 launch.

Call of Duty and sports franchises topped the premium game charts in 2020

Top 10 premium titles, 2020

Rank	Title	Publisher	Genre	Revenue
1	Call of Duty: Modern Warfare	Activision Blizzard	Shooter	\$1,913M
2	FIFA 20	Electronic Arts, Inc.	Sports	\$1,083M
3	Grand Theft Auto V	Take Two Interactive Software, Inc.	Action- adventure	\$911M
4	NBA 2K21	Take Two Interactive Software, Inc.	Sports	\$889M
5	NBA 2K20	Take Two Interactive Software, Inc.	Sports	\$771M
6	Call of Duty: Black Ops Cold War	Activision Blizzard	Shooter	\$678M
7	Animal Crossing: New Horizons	Nintendo	Simulation	\$654M
8	Cyberpunk 2077	CD Projekt	RPG	\$609M
9	Sims 4	Electronic Arts, Inc.	Simulation	\$462M
10	DOOM Eternal	Bethesda Softworks	Shooter	\$454M

The top 10 premium titles accounted for 34% of total premium market earnings. In comparison, the top 10 free-to-play titles accounted for 19% of overall free-to-play earnings. Premium titles, which rely on front-loaded release months, compete for the limited time and wallets of players, resulting in a top-heavy market where the heavily-advertised titles win out.

Call of Duty: Modern Warfare rose to become the highest-earning premium game of 2020.³ The game shifted to a hybrid business model in March with the release of the free-to-play Warzone battle royale mode and the lower barrier to entry caused player numbers to jump. Many of these new players not only purchased in-game content but also ended up paying to upgrade to the full game.

Pent-up demand resulted in sports games performing strongly once live sports returned to TV. Sports games provided a significant boost to the premium market, making up 4 out of the top 10 earning titles in 2020. In the early stages of the pandemic, 36% of gamers played video games as a substitute for unavailable entertainment including sports and movies. Once televised sports resumed, sports video games continued to perform well. NBA 2K20 earned significantly more revenue later in its life cycle than NBA 2K19 thanks to excitement around the NBA Bubble season. NBA 2K21 had a strong start by launching during the postseason, generating 20% more revenue at launch than NBA 2K20.

Single-player games were still going strong in 2020. DOOM Eternal ranked among the highest-earning premium games and launch sales of 3.0M were more than three times greater than its predecessor. Sony continued to rely on high-budget, single-player games like *The Last of Us II* and *Ghost of Tsushima*, which sold 2.8M and 1.9M digital copies in their respective first months.

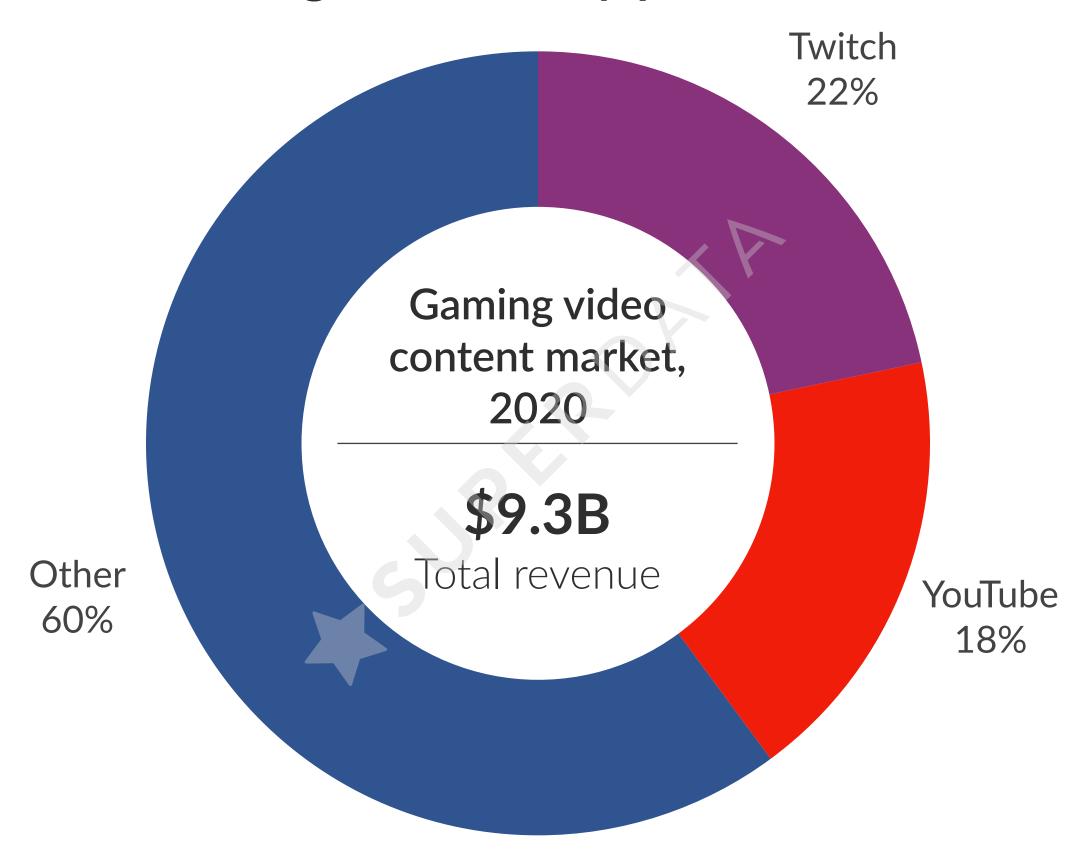


³ Call of Duty: Warzone earnings are included with Call of Duty: Modern Warfare because the Warzone mode exists as part of the Modern Warfare game client. 2020 YEAR IN REVIEW | © 2021 SuperData, a Nielsen company. All rights reserved.

GAMING VIDEO CONTENT

Gaming video content generated over \$9B in 2020

Revenue generated by platform, 2020



The audience for gaming video content (GVC) grew 18% to reach 1.2B people in 2020. Social and party games became hits as mainstream audiences looked for substitutes for social interaction and entertainment. Twitch streams helped battle royale platformer *Fall Guys: Ultimate Knockout* become a breakout hit in August, selling 8.2M units on PC. *Among Us*, a social deduction game, also attracted the highest monthly player base of any game in history after Twitch streamers popularized the title.

Viewership consolidated under fewer, larger platforms. Despite gaining exclusive streaming rights for some of the most popular streamers in 2019, Mixer from Microsoft failed to gain traction and shut down in July 2020. In October, Chinese platforms DouYu and Huya agreed to merge.

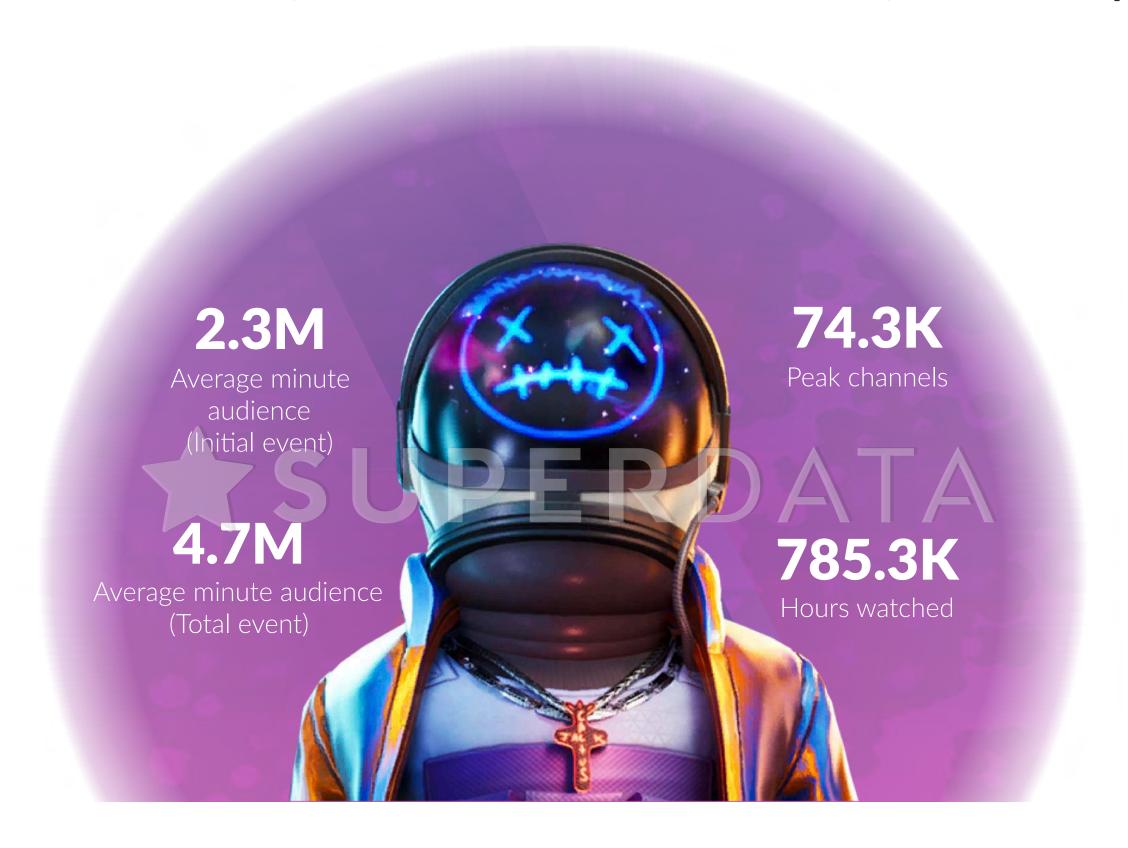
Twitch regained several streaming superstars after Mixer's shutdown. After departing for Mixer in 2019, top streamers Ninja and shroud became free agents when the service shut down. Shortly after their departures, both returned to Twitch. In his first stream back on Twitch, shroud racked up over 500K concurrent viewers.



BRANDS AND ENTERTAINMENT IP

Big brands and mainstream celebrities stepped up collaborations with interactive entertainment

Astronomical (Fortnite Travis Scott concert) viewership



COVID-19 gave rise to digital spaces being used as socially distant gathering hubs. With concerts cancelled, musicians performed inside online games to bring music to their fans. Travis Scott performed a digital concert in *Fortnite* to great success. Across five concerts, the event attracted over 45M views, with an average minute audience of 4.7M. In November, Lil Nas X performed a concert in *Roblox*, gathering over 33M views across the event.

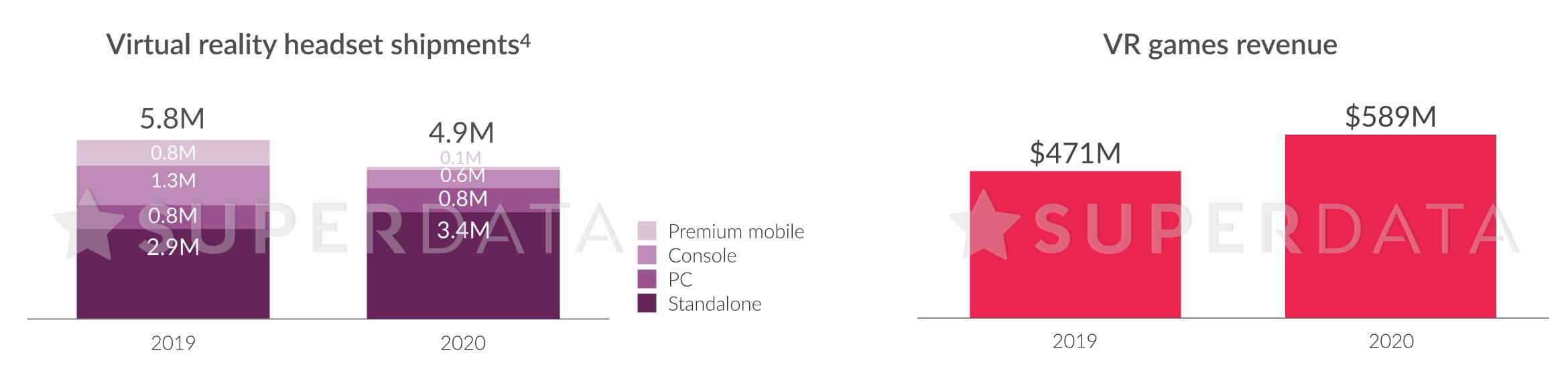
Public figures that include celebrities and politicians are making a splash in games media. Congresswomen Alexandria Ocasio-Cortez and Ilhan Omar streamed Among Us alongside popular Twitch streamers, attracting a 358K average minute audience. Travis Scott joined PlayStation as a creative strategic partner to promote the PlayStation 5, while rapper Megan Thee Stallion appeared in a promotional video for Mortal Kombat 11 dressed as popular character Mileena. These public figures had previously established themselves as gamers or "nerds," gaining credibility among their target audiences.

Brands continued to expand their reach to gamers in ways that went beyond simple in-game ads or sponsorships of video creators. Fortnite, which has long featured collaborations with various entertainment franchises, took this to the next level with a crossover event featuring Marvel Comics characters that lasted for several months. Animal Crossing: New Horizons also attracted organizations as varied as the Biden-Harris presidential campaign, the Detroit Lions NFL team and fashion label Marc Jacobs, who all created content using the game.





VR games earned \$589M in 2020 as standalone headsets became the device of choice for most users



Overall VR headset shipments fell 15% in 2020, but sales of standalone devices grew 19% during the year. The standalone Oculus Quest 2 is driving VR adoption among mainstream consumers. In contrast, the once-popular premium mobile segment effectively died during 2020, as platform holders dropped support for the Samsung Gear VR and Google Daydream. PlayStation VR sales also declined due to a lack of new content, as Sony focused on the launch of the PlayStation 5.

VR game revenue was up 25% year-over-year largely thanks to the release of Half-Life: Alyx. As a VR-exclusive entry in a major franchise, Half-Life: Alyx rejuvenated interest in the technology among hardcore gamers. The PC game sold 1.9M digital units in its first six months and generated more revenue on its own than all PC VR games combined in 2019.

Supply issues held back pandemic-fueled growth in VR spending. The impact of COVID-19 on production lines meant headsets like the Oculus Quest and Valve Index were sold out through much of 2020. However, those who already owned headsets engaged with them more often. In the spring, 71% of US VR headset owners spent more time on their devices than in the past due to COVID-19.

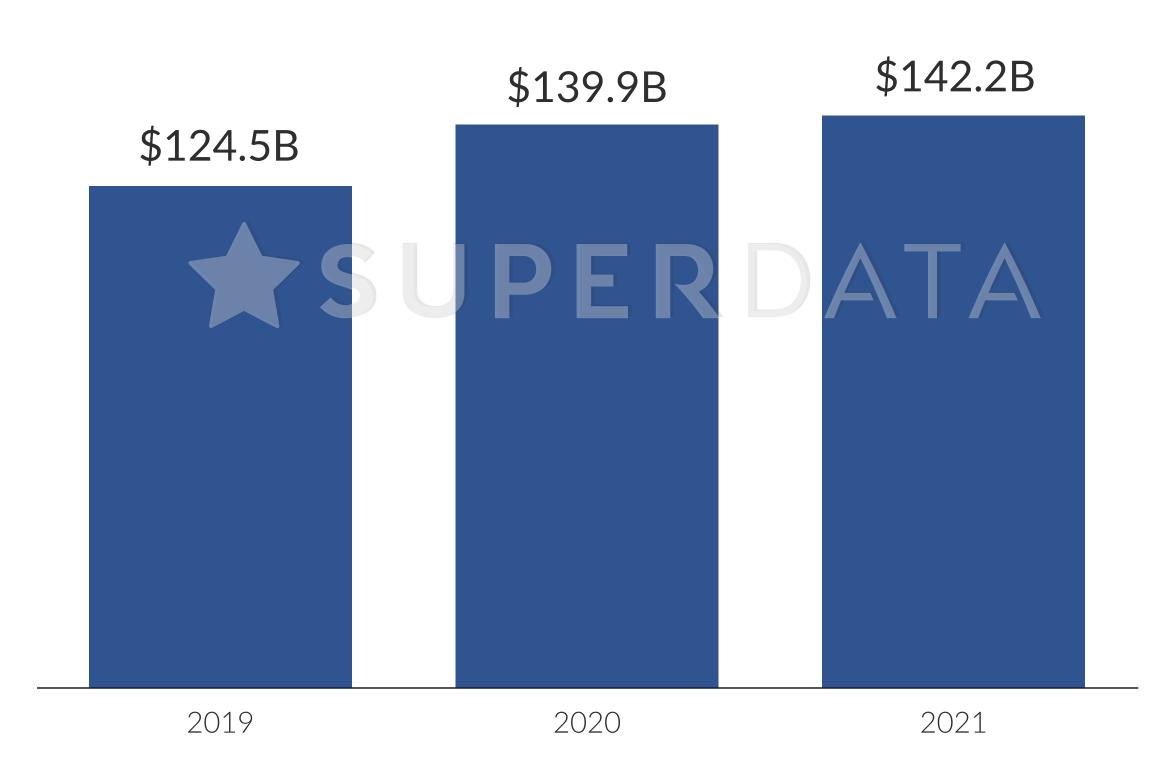


⁴ Figures in this slide do not contain the sales of Google Cardboard or similar mobile VR headsets. 2020 YEAR IN REVIEW | © 2021 SuperData, a Nielsen company. All rights reserved.

TRENDS TO WATCH IN 2021

After significant pandemic-fueled growth in 2020, interactive entertainment earnings are set to rise 2% in 2021

Total games and interactive media revenue



Despite an increase in gaming activity due to COVID-19, the rollout of a vaccine is not expected to cause a gaming market crash. Although digital game revenue is projected to be roughly flat in 2021, the long-term habits formed during lockdown are here to stay. Notably, both free-to-play and premium markets in Asia were up year-over-year by 11% and 20% respectively, despite several countries, particularly China, dealing with COVID-19 much quicker and more effectively than other markets.

The strategies of the "big three" console makers will continue to diverge. Microsoft is focused on turning Xbox Game Pass into a "Netflix for games" service that runs on everything from phones to smart TVs. The demand for the service is evident; revenue and subscriber numbers were up 179% and 175% year-over-year in November 2020. Meanwhile, Sony and Nintendo will continue to focus on platform exclusives, which drive hardware sales. *Spider-Man: Miles Morales* and *Demon's Souls* from Sony were the company's premier PlayStation 5 launch titles and exemplified the company's focus on high-fidelity single-player games.

Industry consolidation will continue in 2021 as developers and publishers fight for a spot in a competitive market. In 2020, announced acquisitions included ZeniMax Media (Bethesda) by Microsoft, Codemasters by Electronic Arts and Daybreak Games by EG7. Competing in the AAA space is an increasingly difficult task for midsize studios and publishers that are not tied to platform providers like Xbox or Epic. As game budgets continue to grow and user acquisition costs rise, smaller companies will continue to be acquired as the top firms seek to broaden their offerings.





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