5 Deconstructing 5 Tablet Gaming



In Partnership With
SensorTower

0

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2019 Deconstructing Mobile & Tablet Gaming Report

Full Report Now Available

Your Roadmap to the Mobile Gaming Market

EEDAR's 2019 Deconstructing Mobile & Tablet Gaming report provides you with an overview of the USA / Canadian mobile gaming market that takes you from top-level views of market trends, to deep-dive looks at the key audiences, titles, and genres that have shaped the market over time.

Data on mobile gamers in this report comes from a consumer survey of 5,000 active mobile gamers (ages 2+), conducted by EEDAR, as well as EEDAR's Gamer Segmentation Report. Performance and revenue data for the market, genres, and titles is provided by Sensor Tower.

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Key Benefits



Detailed analysis of market trends & key stories

- See revenue and market sizing for the total market and 27 different mobile gaming subgenres
- Examine notable market disruptions and shifts from 2017 to present



Profiles of active mobile gamers (ages 2+)

- Understand how players learn about new games, what experiences they enjoy, and how mobile gaming fits into their daily lives
- Explore how gamers engage at different life stages and see detailed profiles of how 20 different demographic audiences play



Summaries of 27 mobile game genres

 See how different styles of mobile games fit into the market based on who plays them and how their audiences overlap

Overview & Methodology

2019 Report Overview

The EEDAR 2019 Deconstructing Mobile & Tablet Gaming Report examines the current state of the USA & Canadian mobile gaming market, including the gaming habits of current players (ages 2+), market performance trends, and notable happenings of the past year.

This analysis is broken into three sections, including:

- I. Market Summary
- II. Mobile Gamer Profiles
- III. Mobile Genre Profiles

The first section provides an overarching view of the US mobile games market in terms of the number of active gamers (overall, and devices used) and revenue performance, and explores key stories / trends over the past year.

The second section focuses on active mobile gamers (ages 2+) and profiles their habits, preferences, and motivations. Summaries include both total market views and profiles by demographic audience.

The third section breaks down the mobile gaming market by genre and subgenre, providing a view of relative performance of different types of mobile games, as well as profiles of the players who are playing them.

Data Sources & Methodology

The data reported in this analysis comes from two sources:



Consumer Surveys: Unless otherwise noted, consumer data in this report comes from a survey of 5,000 active USA & Canadian mobile gamers (ages 2+) conducted in October 2018. Participants in this survey were recruited from two representative pools:

- Adults (respondents ages 18+) were recruited for participation directly and completed the survey based on their own habits.
- Children / Teens (ages 2-17) were recruited via parent surrogates (with instructions to have the child / teen complete the survey themselves to the extent that they were able).
- Respondents qualified as active mobile gamers for the purpose of this study if they owned / had access to a qualifying device (see list below) and had used the device to play a game within 30 days of the survey.
 - Qualifying Devices: iPhone, iPad, Android smartphone, Android tablet, Kindle Fire / Kindle Fire HD, Windows phone, Windows Surface, other smartphone or tablet

Data on mobile gaming in the context of broader gaming habits and leisure activities (see pgs. 34 - 37) comes from EEDAR's Gamer Segmentation Survey which included 5,000 active USA gamers (ages 2+) conducted in June 2018. Participants in this survey qualified as active gamers on the basis of having played a game on a computer, console, gaming handheld, and/or mobile device in the past 30 days.



Revenue & Performance Data: Mobile gaming revenue and other performance metrics (e.g. app store engagement) were provided by Sensor Tower.

Overview of the Findings





Players = 5% growth year-over-year

An estimated 60% of Americans and Canadians play mobile games, and growth is slowing as the device market becomes saturated (an estimated 80% of Americans and Canadians have regular access to a smartphone or tablet).

Revenue = 17% growth year-over-year

The US / Canadian mobile gaming market continues to generate approximately 25% of worldwide revenue.

Top-performers faced major shake-ups

The seemingly "static" market leaders have undergone some significant shifts as they have matured, lost publisher support, and/or have faced new competition.



Fortnite brings the phenomenon to mobile

Fortnite successfully bridged the gap between HD and mobile gaming by providing curious players with an accessible entry point and gameplay that is a surprisingly good fit for the platform.



Combat City Builders lose ground

Although still the second most profitable subgenre on the market, Combat City Builders faced significant losses as key titles lost publisher support (notably *Game of War* and *Mobile Strike*), or have simply matured.



Roblox continues its relentless rise

While many leaders appear and disappear from the top ranks seemingly overnight, *Roblox* has painstakingly climbed up the charts by leveraging its unique User-Generated Content emphasis to build and retain a significant core user base across multiple platforms.



Pokémon Go finds new ways to push player engagement

Niantic has recaptured significant player interest in *Pokémon G* through their introduction of new features, content, and events. Community Days, in particular, appear to have been key to bringing players back to the game as they helped improve visibility for the title by giving players a reason to be active at the same time(s).

Source: EEDAR & Sensor Tower

Overview of the Findings

Children - Ages 2 to 12

20% of Mobile Gamers - 42.3MM

Avg. Weekly Play Time: 5 hours Avg. Yearly Spend: \$17

- Are among the most likely to play on tablets (83% total)
- Tend to stick to kid-friendly genres (Puzzle, Arcade, Action Builder, Simulation), but expand types as they grow older (esp. boys)
- Social influences matter tend to learn about games from friends / family and play because people they know do

31% of Mobile Gamers - 65.1MM

Avg. Weekly Play Time: 6 hours Avg. Yearly Spend: \$37

- Are very likely to play on a smartphone (97%) – only 55% use a tablet
- Enjoy a wider range of gaming experiences - casual genre play is still common, but genre choices often include midcore / core options too (esp. men)
- Are especially likely to play mobile games because they are a more flexible gaming option (compared to HD)



Teens & Young Adults - Ages 13 to 24



Avg. Weekly Play Time: 5 hours Avg. Yearly Spend: \$18

 Are among the most likely to be smartphone-only gamers (53%)

24% of Mobile Gamers - 50.0MM

- Enjoy a wider range of gaming experiences - casual genre play is still common, but genre choices often include midcore / core options too (esp. for boys / men)
- Online video presence is critical 88% are regular YouTube watchers and it is a key discovery source for games

60% of Americans / Canadians play mobile games

Mobile gaming's accessibility makes it broadly appealing across demographic audiences.

For the majority of mobile device owners (75%), mobile gaming is among one of the most common activities they participate in on their device - with the average mobile gamer playing games on a daily or near-daily basis.





25% of Mobile Gamers - 53.5MM

Avg. Weekly Play Time: 6 hours Avg. Yearly Spend: \$22

- Are among the most mixed in their device usage (49% use both a phone and tablet)
- Tend to focus on more casual Puzzle and Skill & Chance games (among the biggest players of Casino titles)
- Are among the most likely to play primarily as a form of relaxation at home (38% occasionally while multitasking, 33% in regular, focused sessions)

Mid-Adults - Ages 25 to 44

Later Adults - Ages 45+

Source: EEDAR



Overview of the Findings



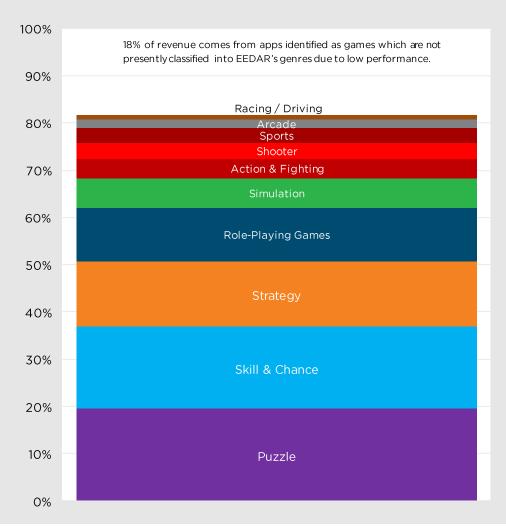
\$9.37B Mobile Games Revenue

[USA & Canada] [2018] [iOS App Store & Google Play]

56% of game revenue comes from 3 genres:

- Puzzle
- Skill & Chance
- Strategy

% of Revenue Contributed by Genre [2018] [USA & Canada] [iOS App Store & Google Play]



Source: EEDAR & Sensor Tower





Mobile Gaming Market Summary Mobile Device Owners & Gamers 3

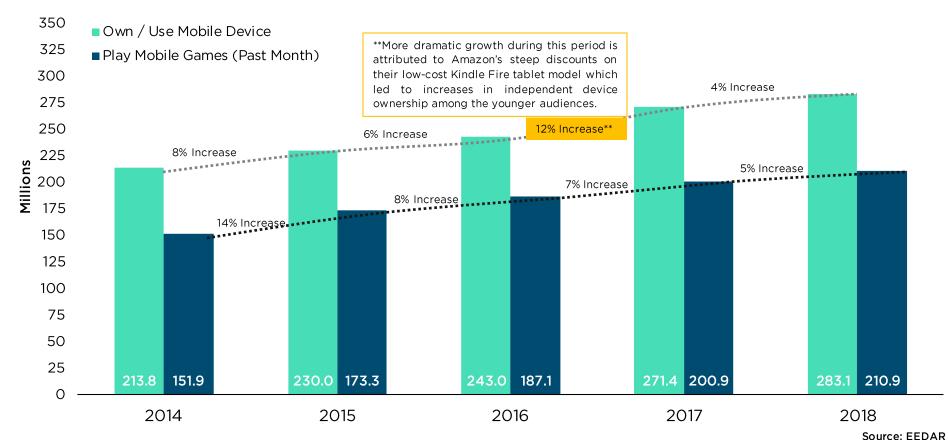




Growth of the USA and Canadian mobile market has generally slowed as the device market becomes saturated - as of 2018, an estimated 80% of kids, teens, and adults own / use a smart device.

Mobile Device Users & Gamers

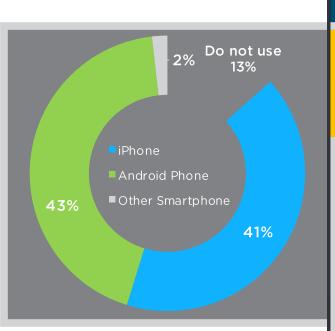
[2014 - 2018] [USA & Canada] [Ages 2+]



Mobile Gaming Market Summary Device & OS Market Share



87% (182.5MM) Play on a Smartphone



Play rates reflect total reported use of a qualifying device to play a video game within the past month by Americans and Canadians ages 2+.

Qualifying device types include Smartphone (iPhone, Android phone, Windows phone, Other smartphone), Tablet (iPad, Android tablet, Windows Surface tablet, Amazon Kindle Fire / Fire HD, Other tablet).



210.9MM Mobile Gamers

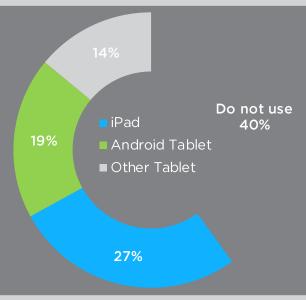
The majority of mobile gamers utilize a smartphone (at least some of the time) to play games.

Children are among the most likely to play on a tablet (83%), compared to about half of all teens and adults (47% - 60%).

47% play on both a smartphone and tablet.

Of these, 66% stay within one operating system - 39% using both an iPhone and iPad, 27% using both an Android phone and tablet.

60% (126.6MM) Play on a Tablet



47% (98.3MM) Play on Smartphone and Tablet

Source: EEDAR

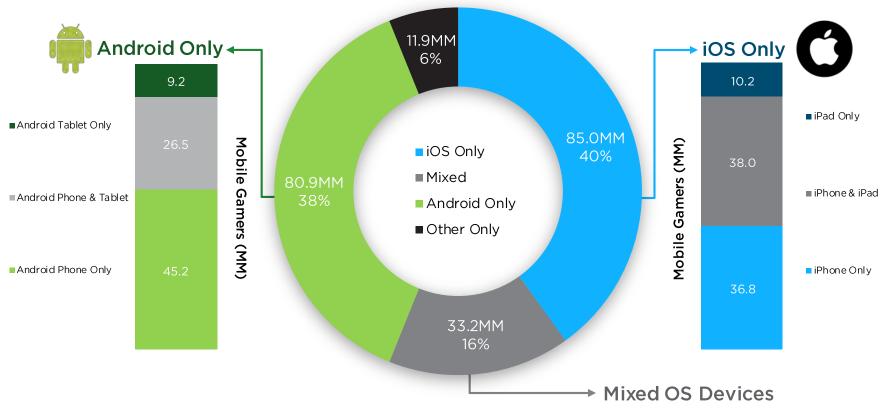


Mobile Gaming Market Summary Primary Device OS



Primary Mobile Device(s) Used for Gaming

[2018] [USA & Canada] [Active Mobile Gamers, Ages 2+]



Despite iOS being the more popular platform, Android phones remain the most popular gaming option for smartphone-only gamers due in part to their wider range of price points. Dual device usage is most common within the Apple ecosystem - 44% of iOS users play on both an iPhone & iPad, compared to 33% of Android users.

Device distribution reflects device(s) gamers reported that they use to play mobile games on at least a monthly basis. Where gamers reported use of multiple smartphones or tablets, the device(s) used most were identified as a primary.



*market shares of < 1MM not displayed.

Source: EEDAR

Mobile Gaming Market Summary Age of Primary Device(s)



Avg. Phone Age: 1.7 years [31% older than 2 years, 57.1MM]

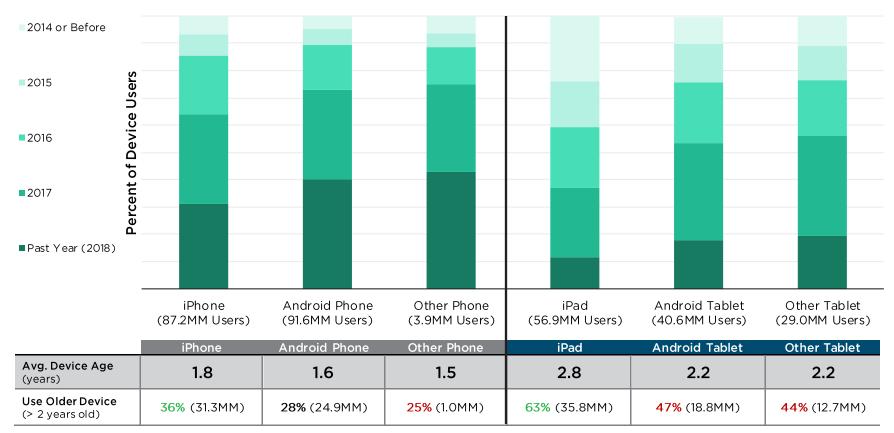
Avg. Tablet Age: 2.4 years [53% older than 2 years, 67.2MM]

Smartphone gamers are more likely to use current / recent model phones - 69% use a device that is less than 2 years old, and 52% intend to upgrade within the next year.

Tablet gamers are more likely to use an older tablet device – 53% use a device that is over 2 years old, and only 27% indicate they intend to upgrade within the next year.

How recently did you aquire your primary mobile gaming device(s)?

[2018] [USA & Canada] [Active Mobile Gamers, Ages 2+]



Reflects reported timeframes of device acquisition (purchased or received) for primary mobile gaming device(s).

Color coding indicates where users are more likely (than the average) to have a device over 2 years old (GREEN) or less likely (RED).



Mobile Gaming Market Summary Mobile Gaming Revenue

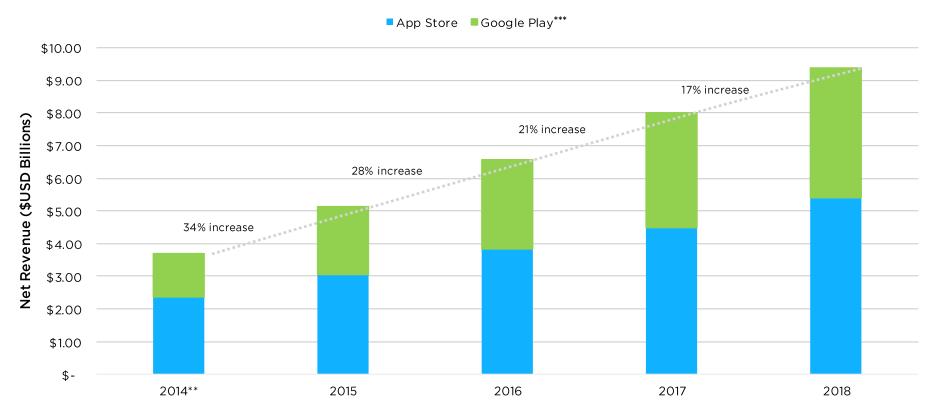




The USA and Canadian mobile markets have continued to see strong growth year-over-year, with games generating over \$9B in 2018.

Mobile Gaming Revenue

[2014 - 2018] [USA & Canada] [Net Revenue]



Reflects total revenue for games (including both premium game sales and in-app purchase sales) in the iOS App Store and Google Play Store.
*** This does not include games only distributed through third-party storefronts or websites (notably Fortnite on Android).

Source: Sensor Tower



Mobile Gaming Market Summary Top-Grossing Titles



2018 was a volatile year for market leaders.

This year saw a shakeup of the "static" app store leaders, which began with Machine Zone shifting focus away from games (which in turn led to *Game of War* and *Mobile Strike* dropping out of the top-grossing charts in Q4 2017), and continued as a number of other key leaders began to lose ground.

During this relative upheaval, the mass-market appeal of King's Candy Crush Saga and Soda Saga helped them fill the void left behind by Machine Zone, while Supercell's Clash of Clans remained steady. Clash Royale faltered slightly but gained ground back due to well-implemented and well-received content updates.

Adding to major market landscape shifts, this year also saw Battle Royale titles such as *Fortnite* surge to the top of the app store, while the slower, inexorable growth of *Roblox* (which has been available on mobile since 2012) moved it into the Top-10.

While Collectible Battle RPG as a subgenre is up year-over-year from 2017, *Pokémon Go* was the only title from the subgenre to remain in the Top-10 Grossing. Matching Puzzle, meanwhile, surged as a subgenre year-over-year, and its titles gained ground in the top-grossing rankings.

Reflects ranking based on total revenue for games (including both premium game sales and inapp purchase sales) in the iOS App Store and Google Play store.

*** These rankings do not reflect revenue from games only distributed through third-party storefronts or websites (notably *Fortnite* on Android).

Grossing Rank	2017	2018
1	Game of War: Fire Age	Candy Crush Saga
2	Mobile Strike	Candy Crush Soda Saga
3	Candy Crush Saga	Sotomania 2222 Casino Slotomania
4	Clash of Clans	Clash of Clans
5	Clash Royale	Pokémon Go
6	Candy Crush Soda Saga	Roblox Mobile
7	Pokémon Go	Fortnite***
8	Sotomanio 222 Casino Slotomania	Clash Royale
9	Star Wars: Galaxy of Heroes	Homescapes
10	Marvel Contest of Champions	Gardenscapes
	1,1211	













Mobile Stories 2018

Examine key market disruptions and notable trends that have had a significant impact on the shape of the mobile market.

Included in the full report:

- Summary analysis of five key stories:
 - o Fortnite & The Rise of Battle Royale
 - See how Battle Royale titles led to the explosion of the Shooter genre, and learn more about Fortnite players on mobile.
 - Pokémon Go & Community Days
 - Explore how notable updates helped to reinvigorate player interest and boost performance over the past year.
 - The Decline of Combat City Builders
 - Examine the factors behind the notable loss of market share for one of mobile's biggest genres.
 - The Inexorable Growth of Roblox
 - See how User-Generated Content can help to build momentum for a title and drive long-term success.
 - The Impact of the App Store Overhaul
 - Understand how changes to the storefront format impacted game discovery / download.

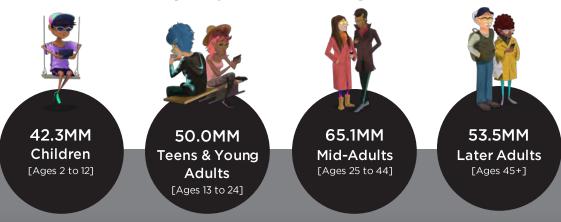


210.9MM Mobile Gamers

[Ages 2+, USA / Canada]

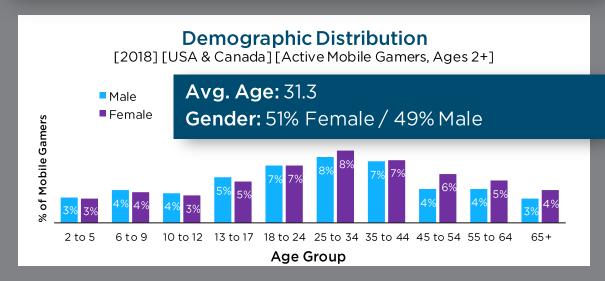


Who plays mobile games?



Mobile gaming is an extremely accessible form of entertainment, leading to high levels of participation across all demographic groups in the USA / Canada.

Where play rates are lower, it tends to be based on more limited access to mobile devices - this is particularly true for children and younger teens, who often rely on parents to provide a device for them to use (either their own or a shared device).





Mobile Gamer Profiles

Understand who mobile gamers are, and how they engage with the mobile platform differently based on their stage of life.

Included in the full report:

- Total Market & Stage-of-Life Summaries of:
 - Player Demographics
 - Discovery Sources for Games
 - o Device Uses & Reasons for Gaming
 - Mobile Gaming Habits
 - Mobile Investment (Time & Money)
- Context for Mobile Gaming
 - Share of Entertainment Time & Spend
 - General Gaming Habits
- Demographic Audience Profiles
 - Summaries of 20 different demographic groups (age by gender) that provide details about how they play mobile games, and what they most enjoy

Mobile Gamer Audience Profiles Later Adults (Sample Profile)





Men - Ages 55 to 64

4% of USA & Canadian Mobile Gamers - 8.5MM

Source: EEDAR

Male mobile gamers, ages 55 to 64 have mixed device preferences - preferring phones (92% use), but also showing strong tablet use (45% use both device types).

Their play is most motivated Progressing through and Completing content and chasing Achievements.

Genre preferences include a variety of casual experiences - e.g. Puzzles, Skill & Chance, Casino, etc.

Mobile Gamer Type

■ Tablet Only

■Both Smartphone & Tablet

Mobile Gaming Motivations

Motivational Factor	Avg. Rating	
Achievement	Important	
Challenge	Neutral	
Competition	Unimportant	
Completion	Important	
Cooperation	Unimportant	
Customization	Unimportant	
Immersion	Neutral	
Progression	Important	
Strategy	Neutral	

Most interested in

- Progressing to a higher level
- Beating levels and improving scores
- Completing goals
- Unlocking new content
- Completing all the content

93% play on a smartphone 52% play on a tablet

Most likely to use smartphone

Most likely to use:

- Android phone only (32%)
- Android phone & tablet (17%)
- iPhone & iPad (15%)
- iPhone only (13%)

Color coding: Above total market (GREEN), below total market (RED), equal to total market (BLACK)

Most Played Genres

- - Matching (42%), Brain Puzzle (39%), Physics (24%), Hidden Object (23%)
- Skill & Chance (31%)
- Quiz / Trivia (27%)
- Casino Chance (27%)
- Arcade (20%)
- Integrated Casino (20%)

Most Played Top-Performing Titles

40%



Saga









Big Fish Casino

DoubleDown Casino

Avg. Weekly Play: 6 hours



- 23% Light Players
- 36% Moderate Players
- 42% Heavy Players

Avg. Year Spend:

\$13



- 73% Non-Payer
- 23% Paver 4% Heavy Payer



7%

Smartphone Only

Mobile Gamer Audience Profiles Later Adults (Sample Profile)





Women - Ages 55 to 64

5% of USA & Canadian Mobile Gamers - 10.5MM

Source: EEDAR

Female mobile gamers, ages 55 to 64 have mixed device preferences preferring phones (89% use), but also showing strong tablet use (48% use both device types).

Their play is almost exclusively motivated by Progressing through and Completing chasing content and Achievements.

Genre preferences include a variety of casual experiences - e.g. Puzzles, Skill & Chance, Arcade, etc.

Mobile Gaming Motivations

Motivational Factor	Avg. Rating	
Achievement	Important	
Challenge	Unimportant	
Competition	Unimportant	
Completion	Important	
Cooperation	Unimportant	
Customization	Unimportant	
Immersion Unimportant		
Progression	on Important	
Strategy	Neutral	

Most interested in

- Beating levels and improving scores
- Progressing to a higher level
- Completing goals
- Unlocking new content
- Completing all the content

Mobile Gamer Type

11%	■ Tablet Only
48%	■ Both Smartphone & Tablet
41%	■ Smartphone Only

89% play on a smartphone 59% play on a tablet

Most likely to use smartphone

Most likely to use:

- Android phone only (25%)
- iPhone & iPad (21%)
- iPhone only (14%)
- Android phone & tablet (12%)

Color coding: Above total market (GREEN), below total market (RED), equal to total market (BLACK)

Most Played Genres

- Puzzles
 - o Matching (64%), Brain Puzzle (49%), Hidden Object (32%), Physics (22%)
- Skill & Chance (27%)
- Casino Chance (25%)
- Quiz / Trivia (22%)

Most Played Top-Performing Titles

60% Candy Crush

Saga

Candy Crush Soda Saga

39%

19% Slotomania

17%

Panda Pop



15%

Avg. Weekly Play: 5 hours



- 30% Light Players
- 34% Moderate Players
- 36% Heavy Players

Avg. Year Spend:

\$17

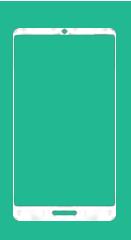


- 78% Non-Payer
- 17% Paver
- 5% Heavy Payer



Mobile Genre Profiles EEDAR Genre System





EEDAR classifies genres from **core** to **casual** based on how accessible and broadly appealing their experiences are.

- Casual Games are broadly appealing, highly accessible experiences that require minimal investment and skill to play successfully.
- Core Games are more niche in their appeal, requiring greater investment, focus, and skill for meaningful participation.

Subgenre
Color-Coding:
Casual (GREEN)
Mid-core (ORANGE)
Core (RED)

Genre	Subgenres	Description / Examples	
Genre	Matching	Match-3, Bubble Shooters, Block / Tetris	
	Brain Puzzle	Brain Puzzles, Brain Training games	
Puzzle	Hidden Object	Locate specified objects in a series of images	
	Physics Puzzle	e.g. Angry Birds, Where's My Water?, Paper Toss	
Quiz / Trivia		e.g. Trivia Crack, Heads Up!, Jeopardy	
	Skill & Chance (Non-Casino)	Familiar board, card, dice, and tile games	
Skill &	Casino - Chance	Chance-based casino games, e.g. Slots	
Chance	Casino – Skill	Skill-based casino games, e.g. Poker, Blackjack	
	Casino - Integrated	Games featuring a variety of casino games	
	General Arcade	Classic arcade games, "Fever" games, Platformers	
Avanda	Endless Runner	e.g. Jetpack Joyride, Minion Rush, Temple Run	
Arcade	Music / Rhythm	Tap, swipe, or otherwise react in time with the music	
	Location-Based	e.g. Pokémon Go, Ingress	
Simulation		Simulate a social environment or role	
Simulation	City Builder	Simulate building a city or farm (no combat elements)	
	General Strategy	Focus on skillful planning & tactical thinking	
Stratogy	Combat City Builder	Build a city & army, e.g. <i>Clash of Clans</i>	
Strategy	Trading Card Game (TCG)	Mimics a traditional strategic tabletop card game	
	Tower Defense	e.g. Clash Royale, Plants vs. Zombies, Bloons TD	
DDC /	Classic RPG	Mimic HD RPG experiences, e.g. Final Fantasy ports	
RPG / Narrative	Collectible Battle RPG	RPGs with collection mechanics, e.g. Summoners War	
Trairiative	Narrative	Story-driven games without combat	
	Shooter - General	First-person, Third-person, Arcade, Vehicular	
	Shooter - Battle Royale	Players compete to be the last person standing	
Action &	Action & Fighting	Action RPGs, 2D or 3D fighting games	
Other	Action Builder	Explore, craft, and build, e.g. Minecraft, Terraria	
	Racing	Racing simulators, drag racers / arcade racers	
	Sports	Simulate sports gameplay or sports team management	

Mobile Genre Profiles 2018 Genre Revenue





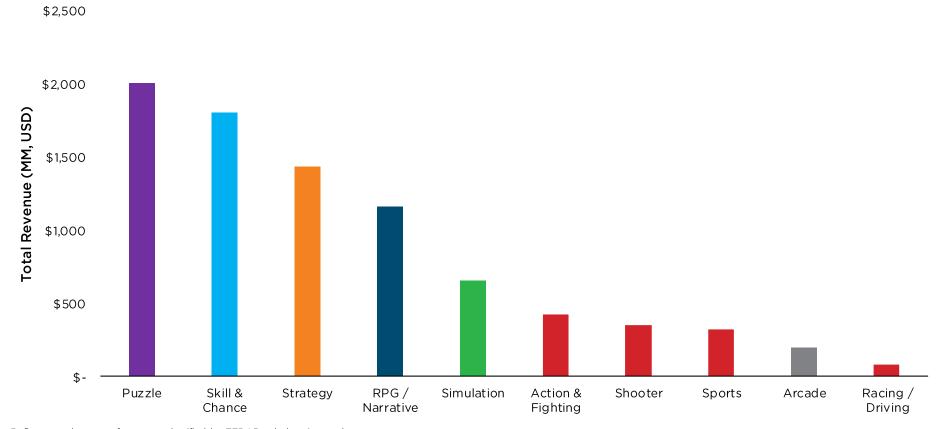
\$9,373.9MM Total Revenue

[USA & Canada] [Total Games Revenue]

The majority of mobile gaming revenue (56%) comes from three genres – Puzzle (21% of total revenue), Skill & Chance (19%), and Strategy (15%).

Total Revenue by Genre

[Dec 2017 to Nov 2018] [USA & Canada] [iOS & Google Play***]



Reflects total revenue for games classified by EEDAR as belonging to the genre.

Revenue includes both premium game sales and in-app purchase sales in the iOS App Store and Google Play Store.

***This does not include games only distributed through third-party storefronts or websites (e.g. Fortnite on Android).



Mobile Genre Profiles YoY Revenue Change (Genre)

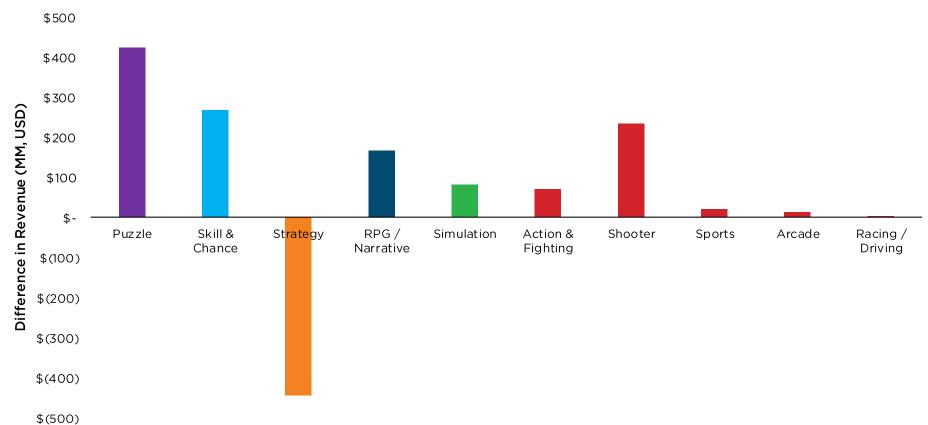




The USA and Canadian mobile gaming market has largely seen growth year-over-year - with 90% of genres seeing increases in total revenue relative to last year.

Year-Over-Year Revenue Change

[Dec 2017 to Nov 2018, compared to Dec 2016 to Nov 2017] [USA & Canada] [iOS & Google Play***]



In the chart: % reflects percentage change in revenue relative to prior year performance, dollar value reflects the actual difference in year-over-year revenue. Example of how to read: The puzzle genre grew by \$423.2MM between 2017 and 2018, which reflects a 27% increase in total revenue relative to 2017 performance. ***This does not include games only distributed through third-party storefronts or websites (notably Fortnite on Android).

Source: EEDAR & Sensor Tower





Mobile Genre Profiles

Explore how different types of games fit into the mobile gaming market and see summaries of 27 distinct subgenres.

Included in the full report:

- Genre & Subgenre Performance
 - o Total Revenue (Dec 2017 Nov 2018)
 - Year-Over-Year Revenue Comparison
- Genre Market Sizing
 - o Number of Gamers Who Play Genre
 - o Overlaps Between Genres
- Genre Profiles for 27 Subgenres
 - Summaries of Key Leaders & Performance
 - Analysis of Notable Game Types & Trends
 - Demographic Distribution of Players
 - Market Share of Revenue & Players
 - o Top Genre Overlaps

Mobile Genre Profiles Arcade Genres (Sample Summary Profile)



Music / Rhythm

Genre Description

Games where the focus is on tapping / swiping (or otherwise acting) in time with music to earn the highest possible score for accuracy.

Subtypes

- Rhythm follow prompts to tap / swipe / etc. in time with music
- Instrument / Singing players sing or mimic playing an instrument (piano, guitar, etc.) and are awarded points for accuracy
- Dancing games players mimic dance moves and earn points for accuracy

Top-Performing & Notable Titles



Love Live! School Idol Festival Klab



Just Dance Now Ubisoft



Beat Fever -Music Planet WRKSHP



Super
Dancer VN Audition 3D
Ly Ban



VOEZ Rayark International

Avg. # of Titles in Top-200 Grossing: 0

[Per month - based on total month revenue]

Music / Rhythm games struggle to find strong traction as their gameplay often relies too heavily on hyper-focused play for an extended period of time (the length of a song), making it difficult for gamers to play them outside of designated sessions.

O

\$5.4MM Revenue (down \$0.6MM)

[2018] [USA & Canada] [iOS & Google Play]

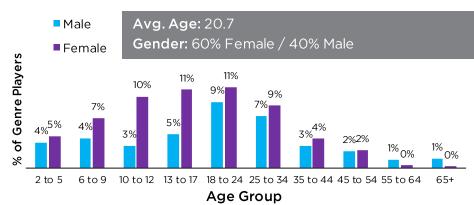


26.0MM Players

[2018] [USA & Canada] [Ages 2+]

Genre Player Demographics

[2018] [USA & Canada] [Music / Rhythm Players]



Genre Players (12% of Mobile Gamers)

Most popular among girls and young women (53% are females under age 35)

Also Likely to Play

- Matching Puzzle (59%)
- Physics Puzzle (45%)
- General Arcade (44%)
- Quiz / Trivia (41%)
- Brain Puzzle (37%)

Target Market (Genre Among Top-5 Most Played): 10.4MM

Source: EEDAR & Sensor Tower



Appendices Terminology

Smartphone Gamers: Smartphone owners / users (if a shared device) who have played a game on their smartphone in the past month.

- A smartphone is a cellular telephone that can support and run thirdparty applications and has internet access.
- Qualifying Devices: iPhone, Android phone, Windows phone, other smartphones

Tablet Gamers: Tablet owners / users (if a shared device) who have played a game on their tablet in the past month.

- A mobile tablet is a wireless, portable computer with a touchscreen interface that is capable of running applications and accessing the internet.
- Qualifying Devices: iPad, Android tablet, Windows Surface tablet, Kindle Fire / Fire HD tablet, other tablet devices

Mobile Gamer: Individuals who have used a smartphone, tablet, or both device types to play a mobile game in the past month.

OS: The operating system running on a smartphone or tablet. For the purpose of this analysis, the primary operating systems are designated as Apple iOS (iPhone and iPad devices), Google Android (on Android phones and tablet devices), and Other (includes Windows devices, Amazon, Blackberry, etc.). Each OS has a proprietary app store.

Free-to-Play (F2P): A business model where the app / game is free to download from the app marketplace.

• In-App Purchases (IAP): Content that is available for purchase within the game using real money. These can include subscriptions, consumable offerings (e.g. currencies, boosts, energy, etc.), and permanent content purchases (e.g. level packs, customization elements, characters, etc.).

Mobile Gamer Spend Segments: Categories of mobile gamers based on self-reported total spend in the past year across mobile games that they play. These segments include:

- Non-Payers: individuals who report that they spent no money on any mobile games that they played in the past year.
- Moderate Payers: individuals who report that they spent money on mobile games in the past year, but that their total spend was less than \$100 total.
- Heavy Payers: individuals who report that they spent over \$100 total on mobile games they played in the past year.

Mobile Gamer Play Segments: Categories of mobile gamers based on their average self-reported weekly play time across all mobile games that they play. These segments include:

- Light Players: individuals who report that they spend less than one hour a week playing mobile games.
- Moderate Players: individuals who report that they spend between one hour and five hours a week playing mobile games.
- Heavy Players: individuals who report that they spend over five hours a week playing mobile games.

Investment Index: Segments based on individuals' combined investments of time and money spent on mobile games. This index includes nine potential pairings of play and spend patterns, ranging from Minimal Investment (i.e. those who play very little and do not spend money on mobile games) to Extreme Investment (i.e. those who play and spend significant amounts).

Investment Index	Non-Payer (\$0/year)	Moderate Payer (\$0.99-\$100/year)	Heavy Payer (>\$100/year)
Light Player (<1 hour/week)	Minimal	Low	Moderate
Moderate Player (1-5 hours/week)	Low	Moderate	Heavy
Heavy Player (>5 hours/week)	Moderate	Heavy	Extreme

Methodology & About EEDAR

Research Methodology

Electronic Entertainment Design and Research (EEDAR) gathers its information from a variety of sources. EEDAR goes to great lengths to verify the accuracy of its information, as detailed below.

Where information is publicly available from an authoritative source, such as the issuer or the responsible industry agency, that data is used as authoritative. All authoritative information is then double checked by an EEDAR researcher through direct observation or by cross referencing the data with other authoritative sources. Where possible, the data that is visible to the consumer is used: this includes information printed on the retail boxed product or displayed on the manufacturer website. When discrepancies arise between authoritative sources, additional sources are checked until a clear consensus emerges.

Where information is not publicly available, EEDAR's internal staff performs directed studies to gather the appropriate data. Our researchers work using custom-built data collection and analysis applications. Each researched fact has an objective observation system which ensures that researcher bias is eliminated. Our data research is performed by multiple researchers simultaneously to ensure that individual facts are cross-checked before being input into the classification system established for that fact. Once information has been entered in the EEDAR Games Database, quality assurance staff reviews the data using boundary analysis tools to identify errors and pinpoint difficulties in the classification systems. Our quality assurance team maintains rigorous performance metrics and ensures that each report is validated to the highest quality standards.

EEDAR attempts to use standard industry vernacular and information classification whenever possible. Where industry standard vernacular or classification structures are not available, EEDAR uses its own vernacular and/or classification systems. This would occur in areas where no industry recognized authoritative body exists, or in areas where multiple authoritative sources use different classification systems. All of the classifications systems created for these reports by EEDAR researchers are detailed in the appendix sections of EEDAR documents. All data from sources other than the EEDAR Games Database are clearly cited.

About EEDAR

Founded in 2006 by video game industry veterans, EEDAR is the largest specialty video game research firm in the world.

Leveraging a proprietary database of over 165 million internally researched data points from more than 125,000 physical and digital video game products, EEDAR is the sole provider of end-to-end integrated data analysis solutions that allow for the examination of every factor influencing the success of past, present, and future video game titles.

EEDAR's flagship product is GamePulse® 3, a web-based market intelligence platform that surfaces sales, marketing, and video game metadata in an intuitive and flexible way. EEDAR also offers sales forecasting, data feeds, and a variety of custom research services through its internal team of video game analysts.

In October 2016, EEDAR was acquired by NPD Group, combining their years of games industry expertise with the most trusted name in retail data and consumer analysis.

Visit www.eedar.com for more information on EEDAR's products and services.