



How to Master Long-Term Player Engagement

—
An Analysis of the Top Performing
Meta Features in Mobile Gaming



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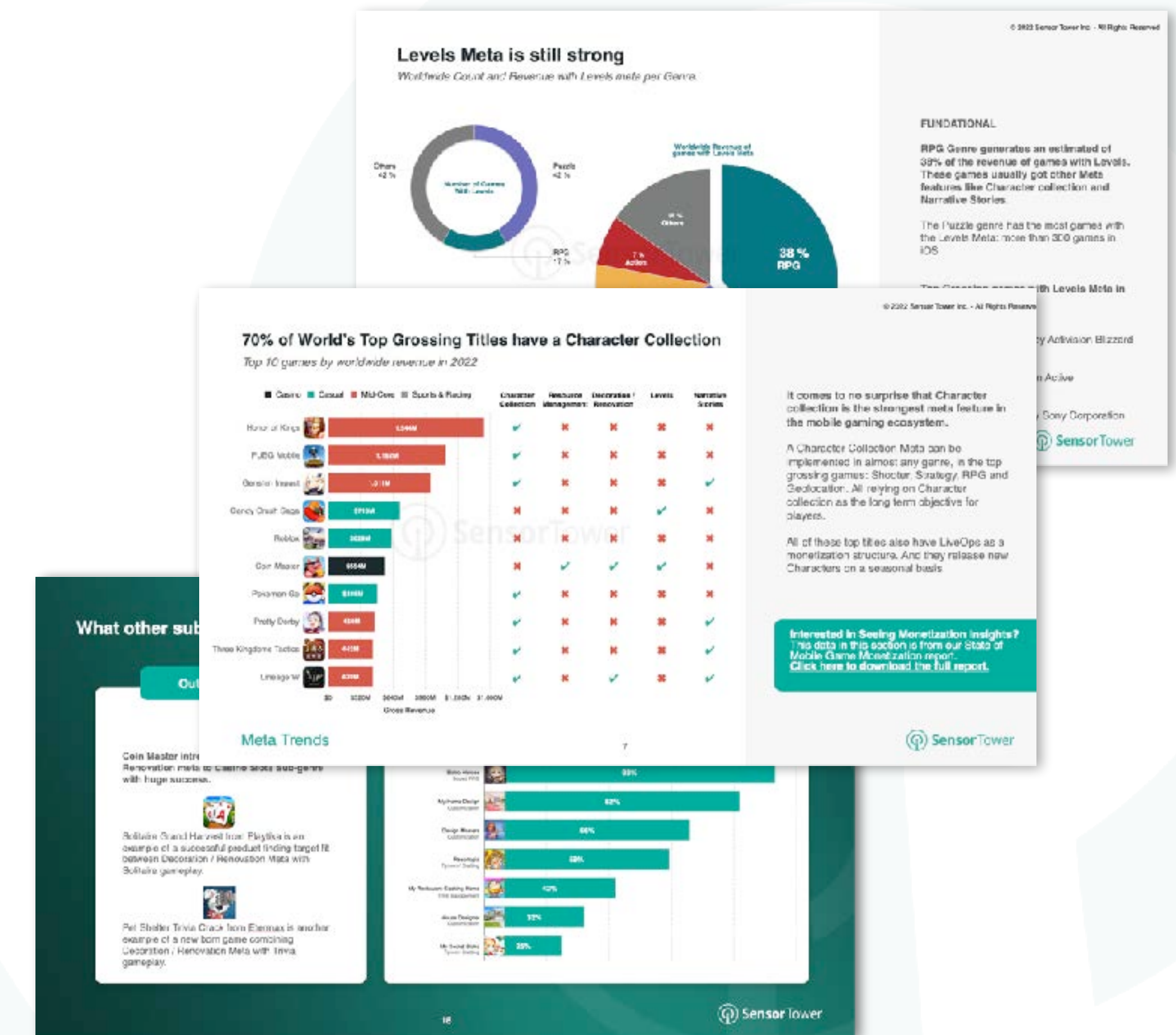
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Introduction

This report offers an analysis of mobile games within the Apple App Store and Google Play in the United States using Sensor Tower's Game Taxonomy and Store Intelligence. It includes trends for top mobile games as well as a detailed analysis on their meta-progression system.

Sensor Tower has added specific meta feature tags to every game in the mobile gaming ecosystem. In this report, we conduct deep analysis using this brand new data.

- **Gaming Meta Feature (Meta):** A system or game structure that is parallel to the core gameplay loop and grants players a long-term objective to pursue. Most metas revolve around creating layers of progression to keep players engaged with the core loop forever.
- **Genre:** Taxonomy structure based on core mechanics, like Puzzle, RPG or Strategy.
- **Sub-Genre:** Subset of the main taxonomy structure to detail core mechanics further, like Match 3, Hidden Objects or Merge inside of the Puzzle genre.
- **Monetization Features:** Specific features implemented inside the game to monetize their player base.



Sensor Tower

Meta Features



Character Collection

Players collect and build up a roster of playable characters that affect gameplay.



Resource Management

Players manage resources to successfully optimize the economy of a civilization or empire.



Decoration / Renovation

Players clean up, repair and decorate a house, garden or village.



Level Progression

Players complete a series of predefined levels.



Narrative Stories

Players are immersed in narrative content and stories.



Social Gambling

Players engage in gambling against other players or AIs with fictional currency.



Social Clans

Players join other groups of players, cooperating to achieve shared goals and interests as a clan.



Mobile Gaming: Market Overview

—
Mobile Gaming Trends Worldwide

Overview of the Mobile Gaming Ecosystem

Top Mobile Games by Worldwide Revenue on the App Store and Google Play

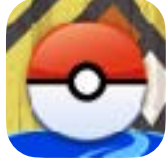
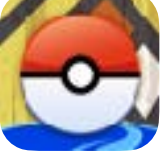
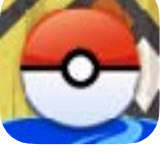
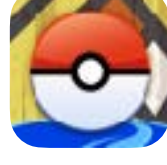
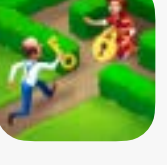
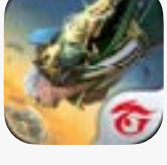
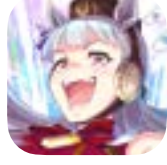
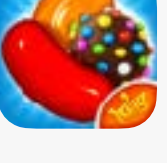
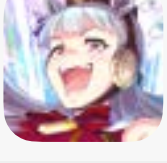
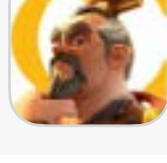
Game Class

Mid-Core

Casual

Casino

Sports & Racing

2019	2020	2021	Q1-Q3 2022
1  Honor of Kings Tencent -	1  PUBG Mobile Tencent +1	1  PUBG Mobile Tencent -	1  Honor of Kings Tencent +1
2  PUBG Mobile Tencent NEW	2  Honor of Kings Tencent -1	2  Honor of Kings Tencent -	2  PUBG Mobile Tencent -1
3  Fate/Grand Order Sony -	3  Pokémon GO Niantic +3	3  Genshin Impact miHoYo NEW	3  Genshin Impact miHoYo -
4  Candy Crush Saga King -	4  Roblox Roblox NEW	4  Roblox Roblox -	4  Candy Crush Saga King +3
5  Monster Strike Mixi -3	5  Coin Master Moon Active NEW	5  Coin Master Moon Active -	5  Roblox Roblox -1
6  Pokémon GO Niantic -	6  Monster Strike Mixi -1	6  Pokémon GO Niantic -3	6  Coin Master Moon Active -1
7  Fantasy Westward Journey NetEase -	7  Rise of Kingdoms Lilith Games NEW	7  Candy Crush Saga King +2	7  Pokémon GO Niantic -1
8  Lineage M NCSOFT -3	8  Gardenscapes Playrix NEW	8  Garena Free Fire Garena NEW	8  Pretty Derby Cygames +1
9  Clash of Clans Supercell -	9  Candy Crush Saga King -5	9  Pretty Derby Cygames NEW	9  Three Kingdoms Tactics Alibaba NEW
10  Homescapes Playrix NEW	10  Fate/Grand Order Sony -7	10  Rise of Kingdoms Lilith Games -3	10  Lineage W NCSOFT NEW

70% of Top Grossing Titles Include a Character Collection Meta

Top 10 Games by Worldwide Revenue in 2022



It comes as no surprise that Character Collection is the most prevalent meta feature among top titles in the mobile gaming ecosystem.

A Character Collection meta can be implemented in almost any genre, including the top grossing games. Genres such as Shooter, Strategy, RPG, and Geolocation all rely on Character Collection as a long-term objective for players.

All of these top titles also use LiveOps as a monetization structure and release new characters on a seasonal basis.

Interested in Seeing Monetization Insights?
The data in this section is from our State of Mobile Game Monetization report.
[Click here to download the full report.](#)

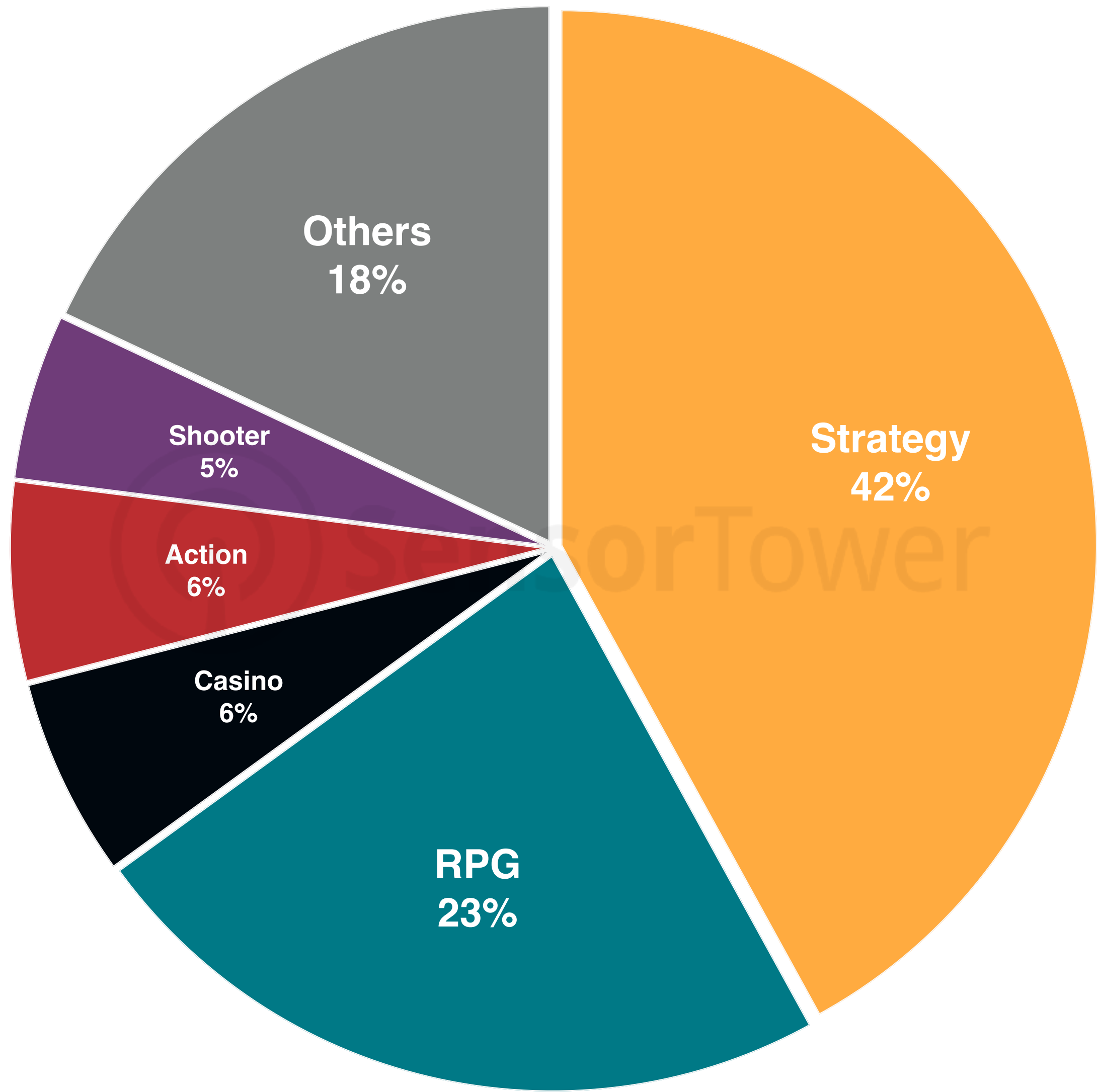


Character Collection

Trends and Insights from the Most Dominant Meta Feature in Mobile Gaming

Character Collection Works Best with LiveOps

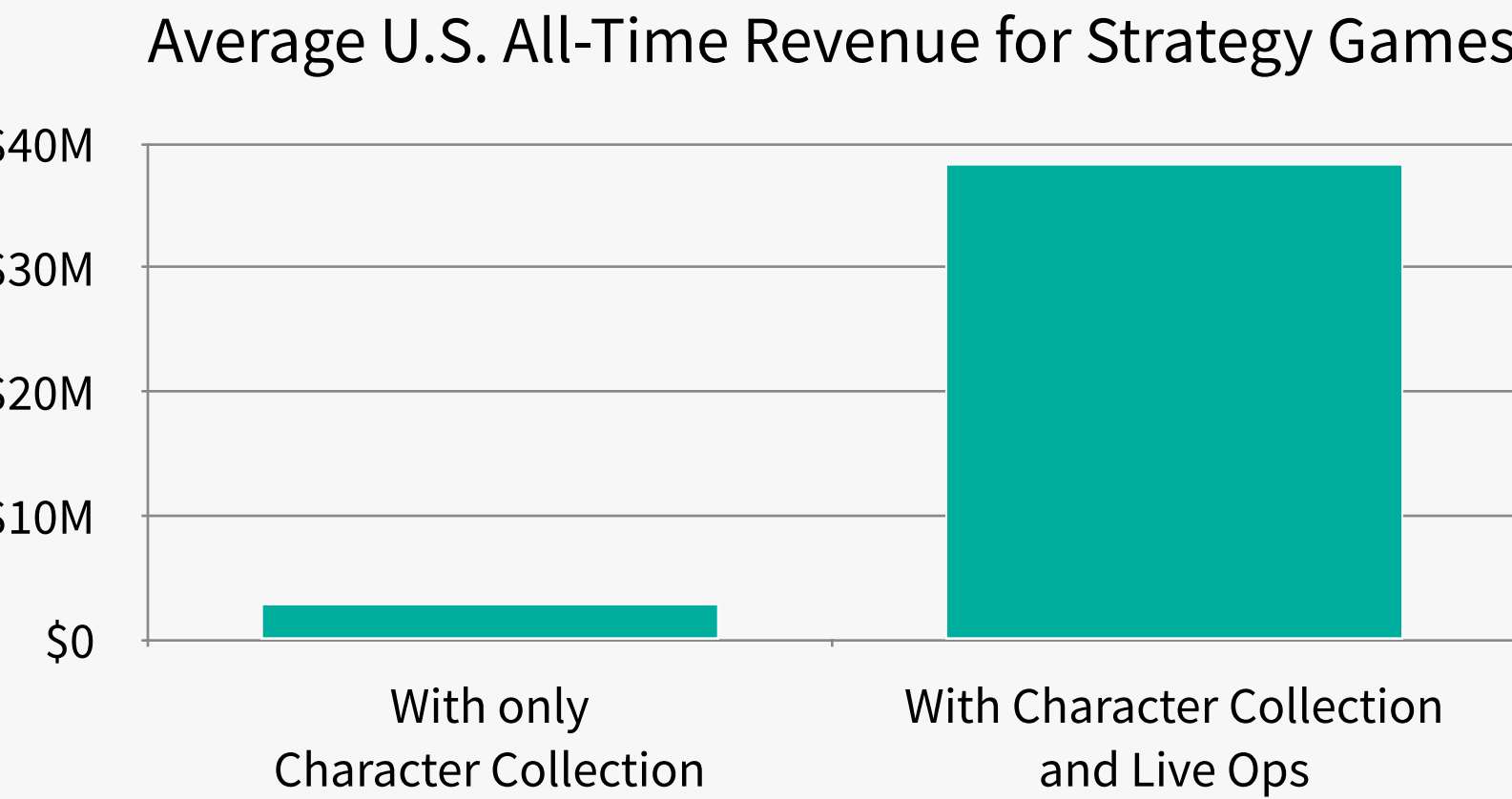
Share of U.S. All-Time Revenue by Genre: Character Collection Games with LiveOps



On average, a Strategy game with both **Character Collection** and **LiveOps** can generate **12X** more all-time revenue in the U.S. than a Strategy game with solely **Character Collection**.

In an analysis by genre of Character Collection games with LiveOps, **Strategy games command over 40% market share of the lifetime player spending collectively generated by all titles in the U.S.**

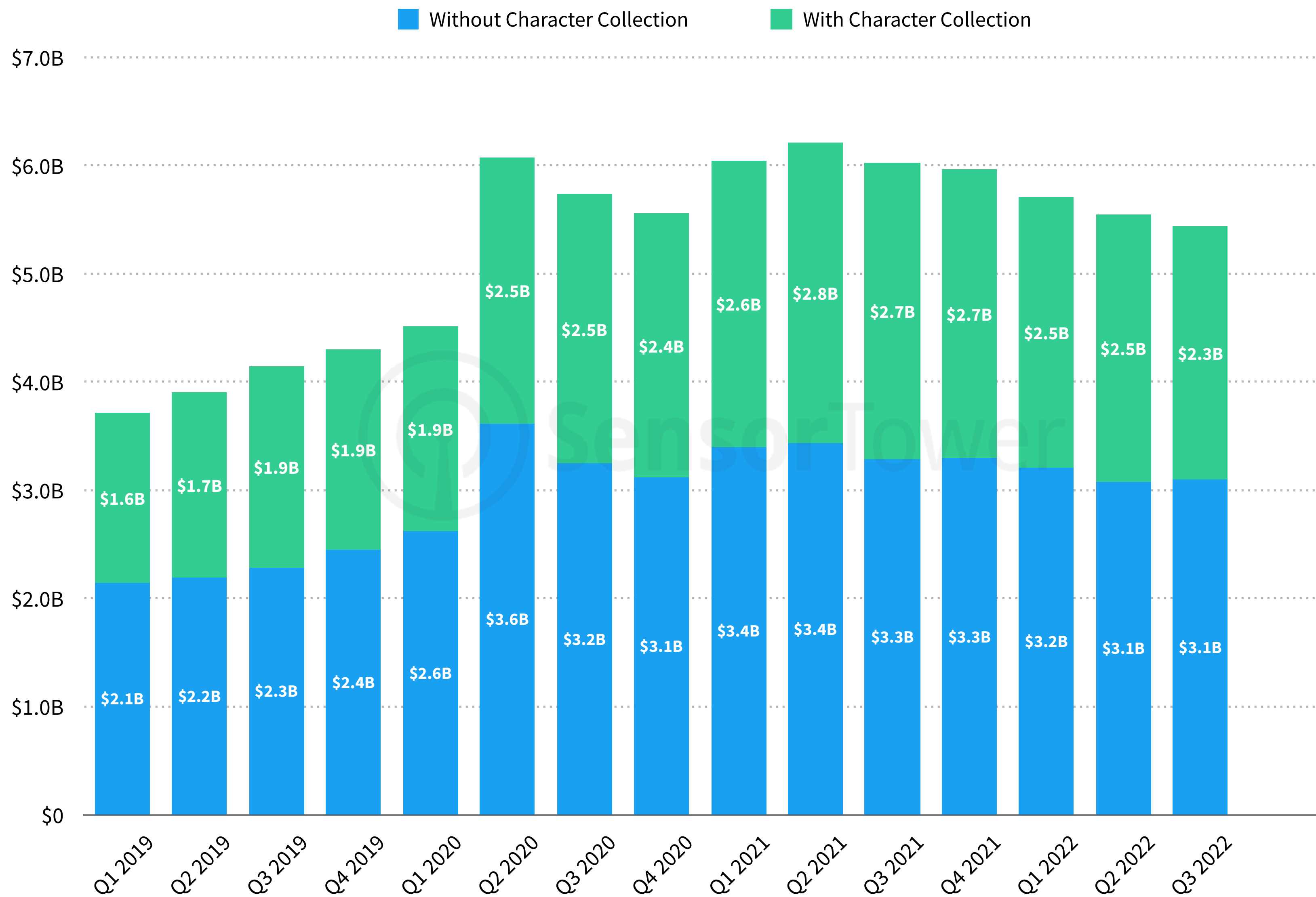
This is followed by the RPG genre, which accounts for over 20% of the revenue.



Note:
All-time U.S. revenue estimates span from Jan 1st, 2014 to Oct 20th, 2022.

Character Collection Worldwide Revenue in 2022

Quarterly U.S. Gaming Revenue by Games With and Without Character Collection

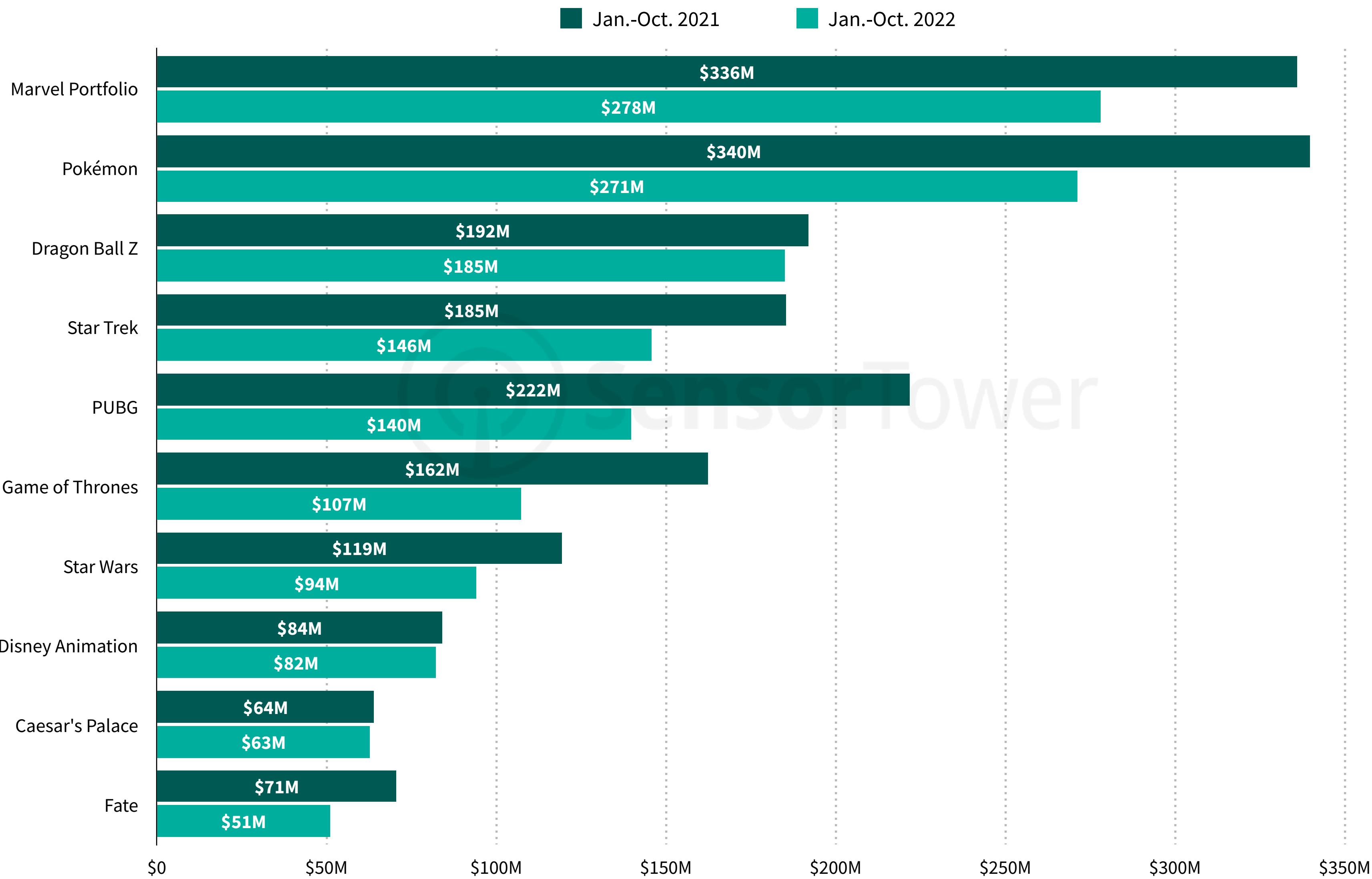


Games with Character Collection account for approximately 44% of mobile gaming revenue in the U.S.

This proportion remains constant throughout most quarters of the last two years, showing that player willingness to spend on games including the Character Collection meta has remained steady quarter-over-quarter.

Measure the Power of IP with Meta Features

Top IPs Used With the Character Collection Meta by U.S. Revenue



Among mobile titles licensing IPs and featuring Character Collection, **Pokémon and Marvel games lead with over \$1.5 billion in U.S. all-time revenue each**, despite each having a low number of games (5 and 10 titles, respectively).

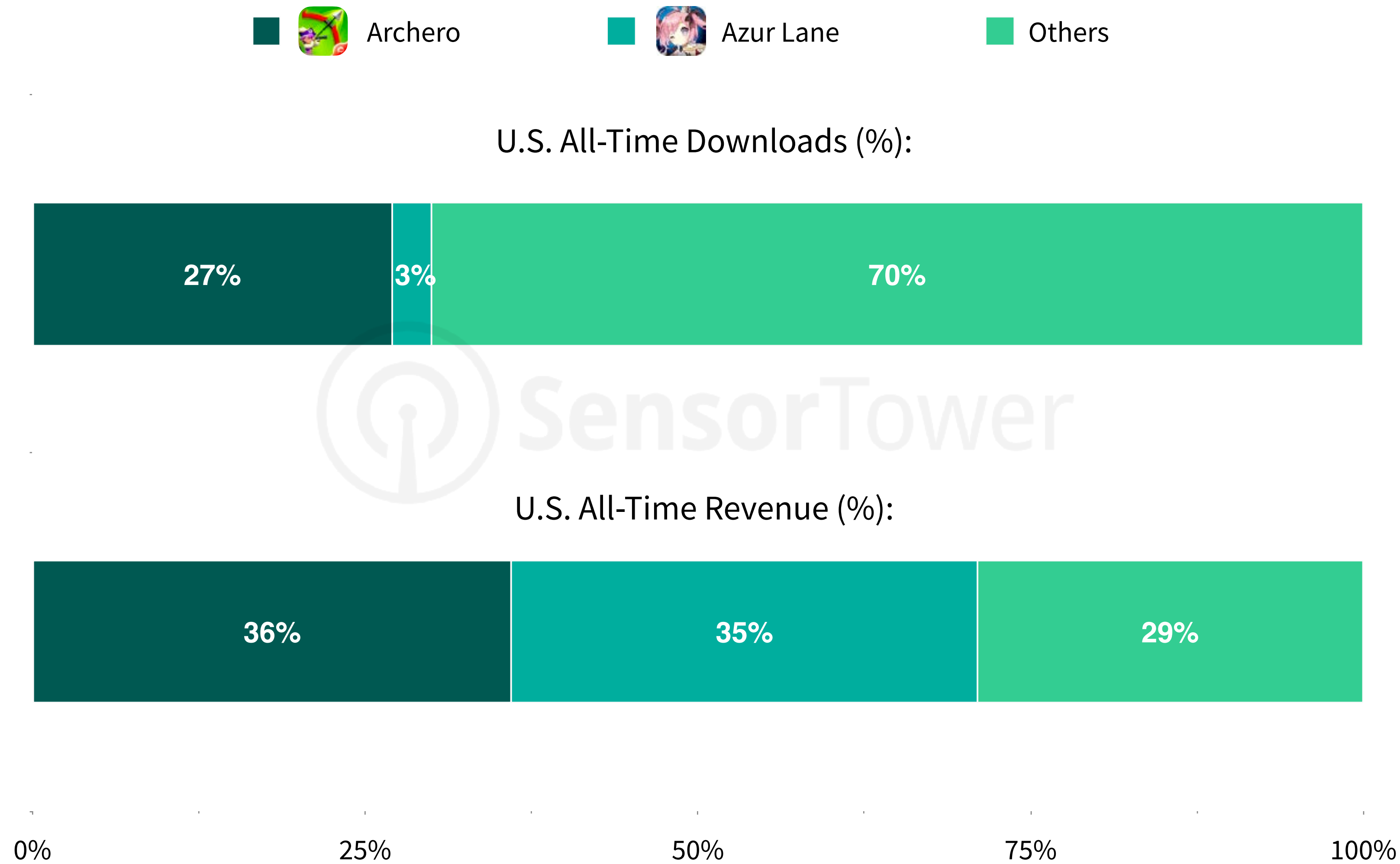
Marvel Squad RPGs represents over 20% of all-time U.S. player spending on Squad RPGs that feature both Character Collection and licensed IPs.

Meanwhile, **Pokémon UNITE has seen over 40% of all-time downloads in the U.S.** among MOBAs with Character Collection licensing IPs, dominating other games like League of Legends: Wild Rift and Star Wars: Force Arena.

Note:
U.S. revenue estimates compare the time periods from Jan. 1 to Oct. 20. in 2021 and 2022.

Few Shoot 'em Ups Dominate with Character Collection

Market Share for Top Shoot 'em Up Games with Character Collection



Around 12% of all Shoot 'em Ups have **Character Collection**. However, those that use this meta feature represent over 50% of the U.S. player spending in the sub-genre.

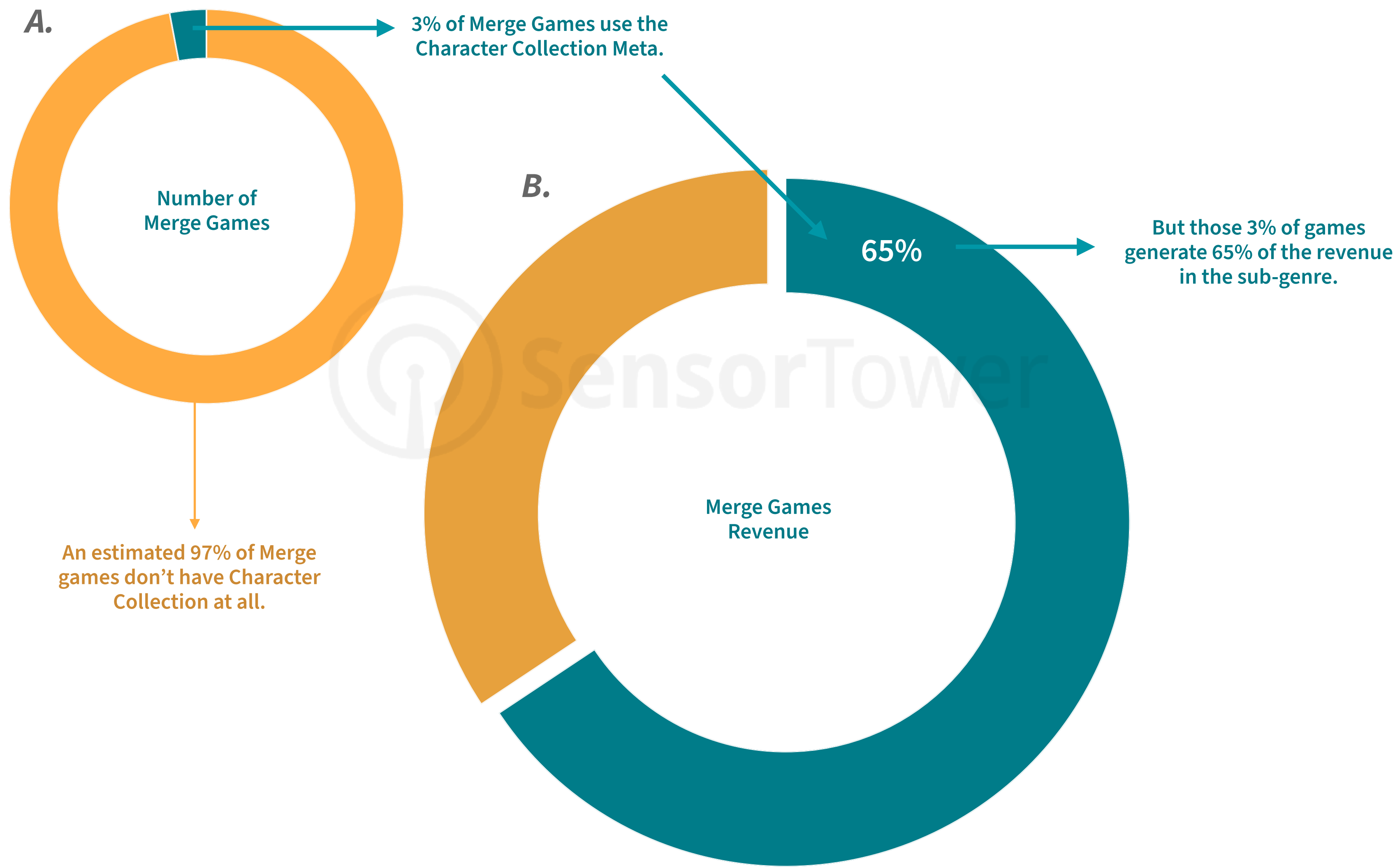
Archero and Azur Lane together make up over 70% of the total U.S. all-time revenue for all Shoot 'em Ups with Character Collection.

Azur Lane has 10x the U.S. Revenue per Download (RPD) than other Shoot 'em Ups, and Archero has almost triple.

Note:
All-time U.S. estimates span from Jan 1st, 2014 to Oct 20th, 2022.

Character Collection Is a Winner in Merge Games

A: Percentage of Merge Games with Character Collection
B: U.S. All-Time Revenue of Merge Games With and Without Character Collection



Only about 3% of Merge games have Character Collection—however, these have collectively generated 65% of all U.S. player spending in the sub-genre.

In addition, Merge games with Character Collection have more than twice the 30-day retention rate than Merge games without this meta feature.

Top Merge games with Character Collection:



Merge Dragons by Take-Two Interactive



Merge Magic! by Take-Two Interactive

Note:
All-time U.S. estimates span from Jan 1st, 2014 to Oct 20th, 2022.

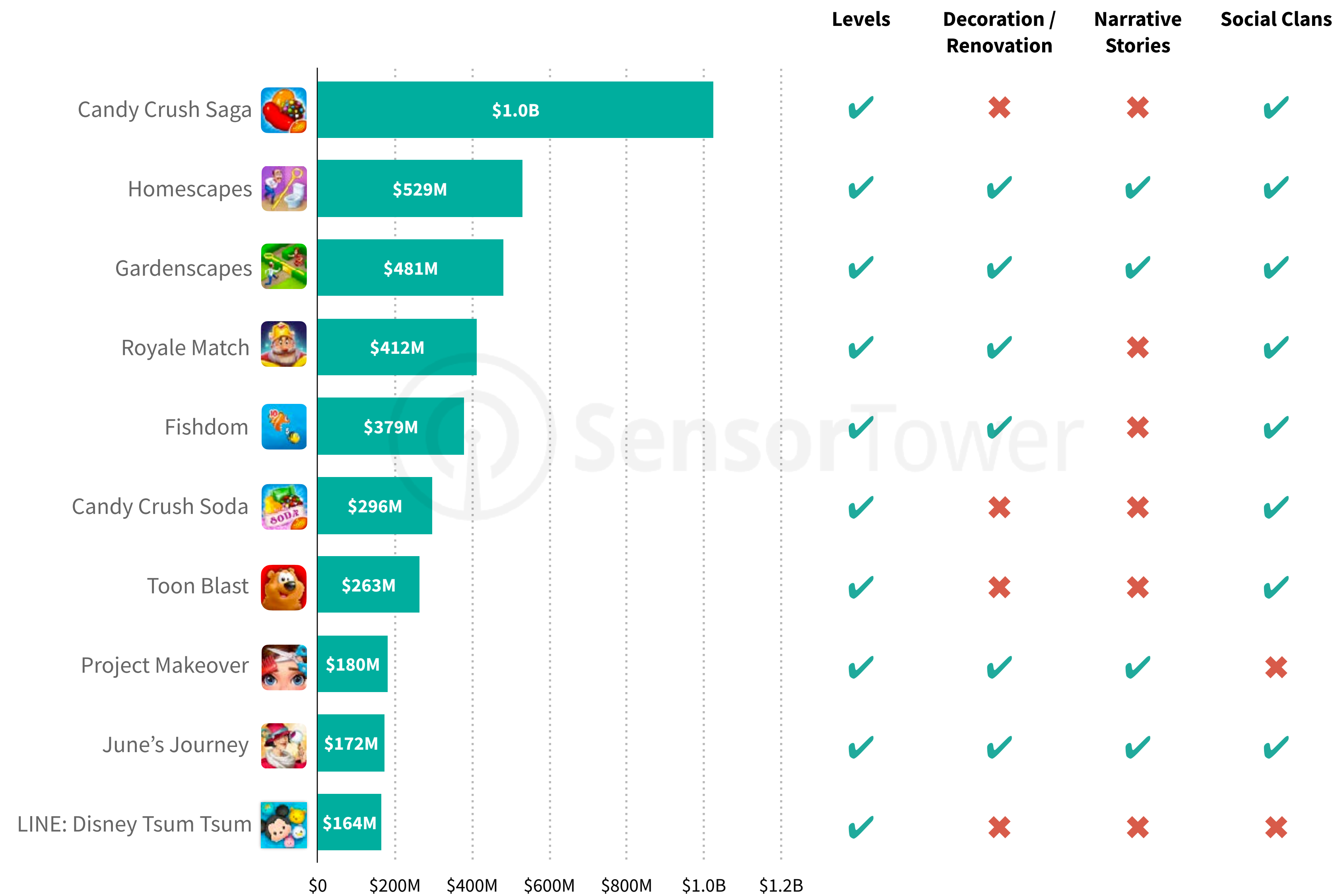


Levels and Decoration

—
From Candy Crush to Royal Match, the
Evolution of Meta Features in Puzzle Games

Decoration / Renovation Becomes a Puzzle Fixture

Top 10 Puzzle Games by Worldwide Revenue in 2022



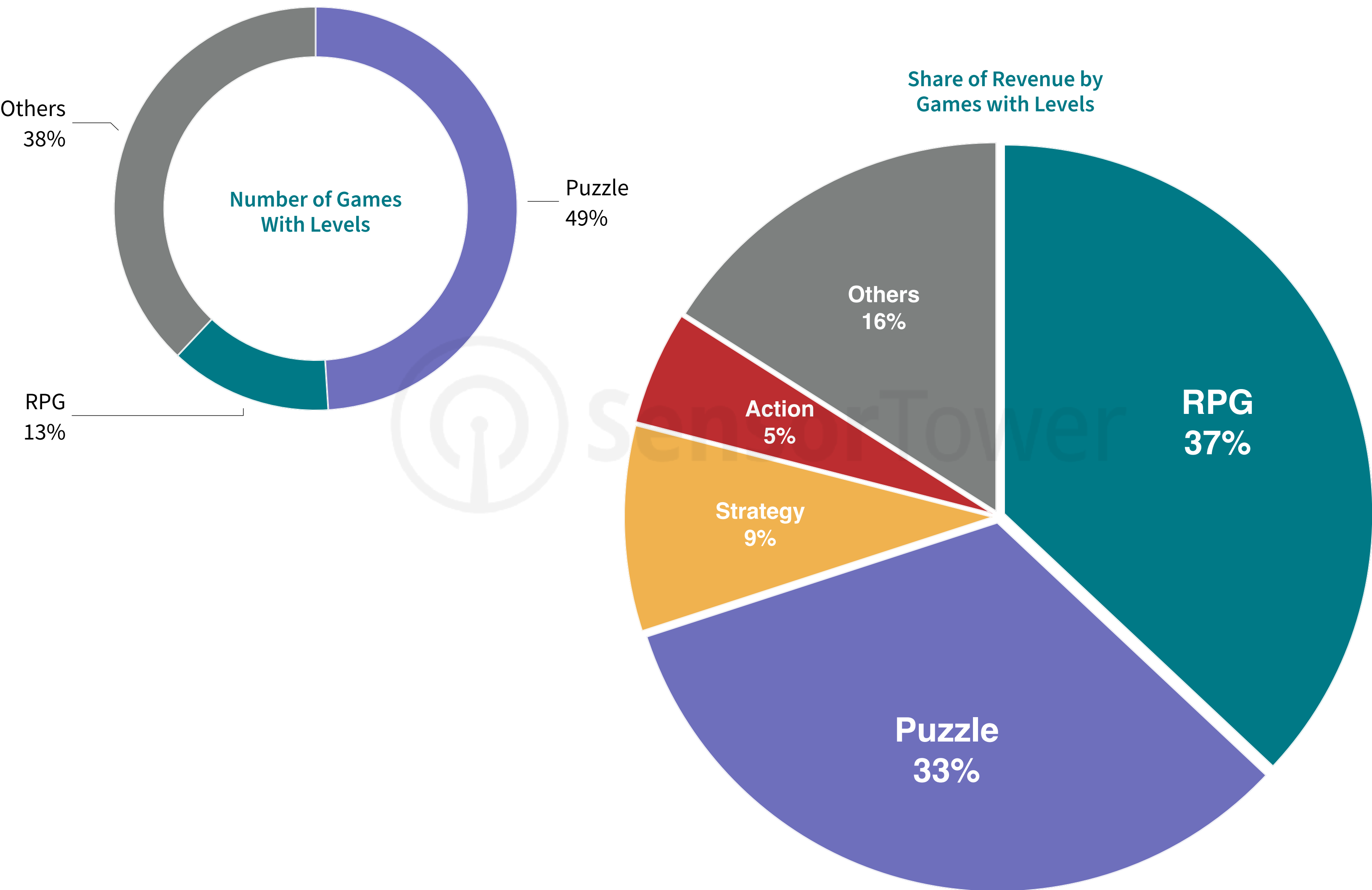
The Decoration / Renovation meta has proven to be really strong with the Puzzle genre, aligning with the target audience for a great product fit.

Every top-earning Puzzle games features progression through Levels, while 60% of the cohort leverage the Decoration / Renovation meta to capture long-term player retention and additional revenue.

Interested in Seeing Puzzle Game Insights?
Check Sensor Tower’s latest report on Puzzles.
[Click here to download the full report.](#)

The Levels Meta Remains Strong

Worldwide Count and Revenue with Levels Meta per Game



The RPG genre accounts for 13% of all games with Levels; however, it represents an estimated 37% of all-time worldwide revenue generated by games with this meta. RPG titles usually have other meta features as well, such as Character Collection and Narrative Stories.

The Puzzle genre features the most games that use the Levels meta with nearly 300 games on iOS.

Top Grossing Games with the Levels Meta from Jan.-Oct. 2022:

-  Candy Crush Saga by Activision Blizzard
-  Coin Master by Moon Active
-  Monster Strike

Note:
Estimates span from Jan 1st, 2014 to Oct 20th, 2022.

The Rise of Puzzle Games with Decoration / Renovation Meta

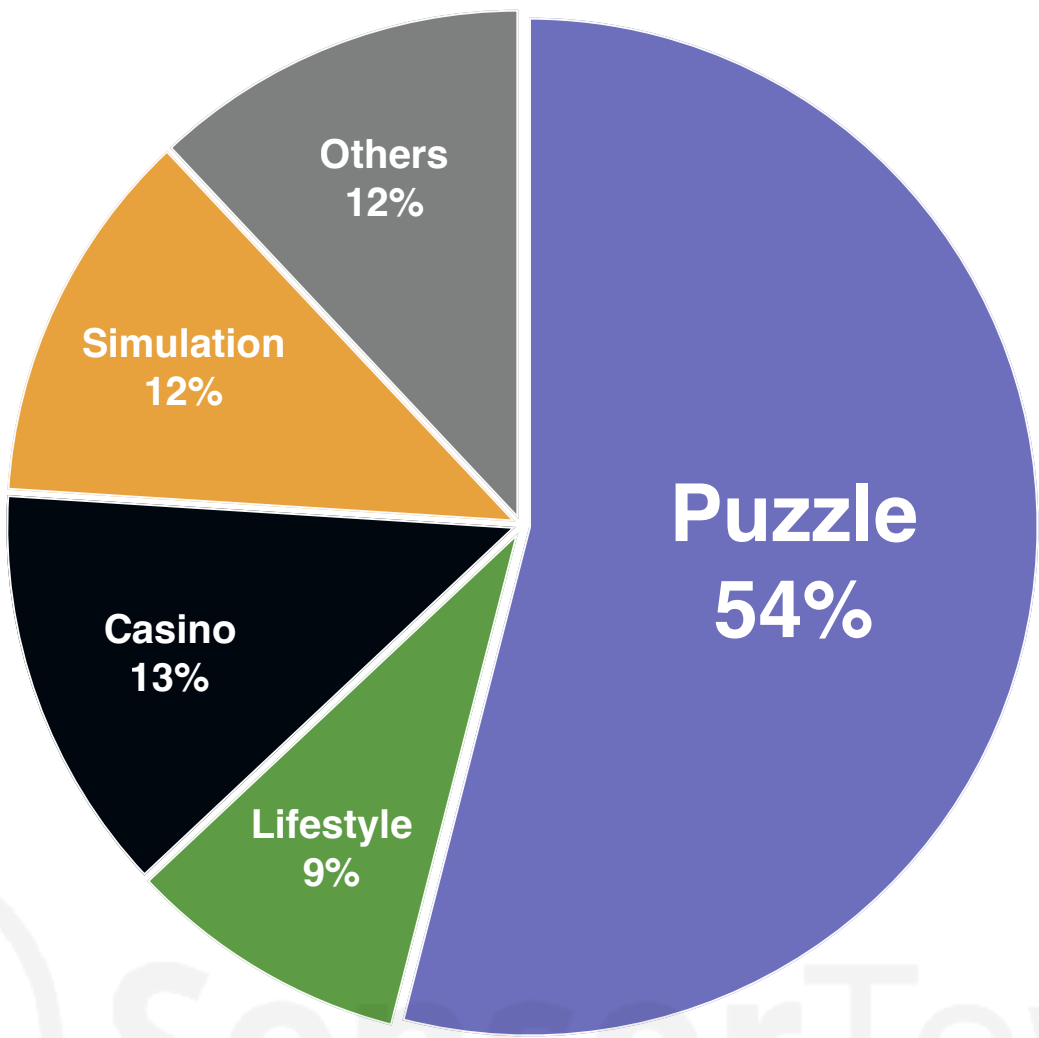
Worldwide Count and Revenue Generated by Games with the Decoration / Renovation Meta

Out of all of the mobile games featuring the **Decoration / Renovation meta**, the **Puzzle genre** represented more than half with a **54% share**.

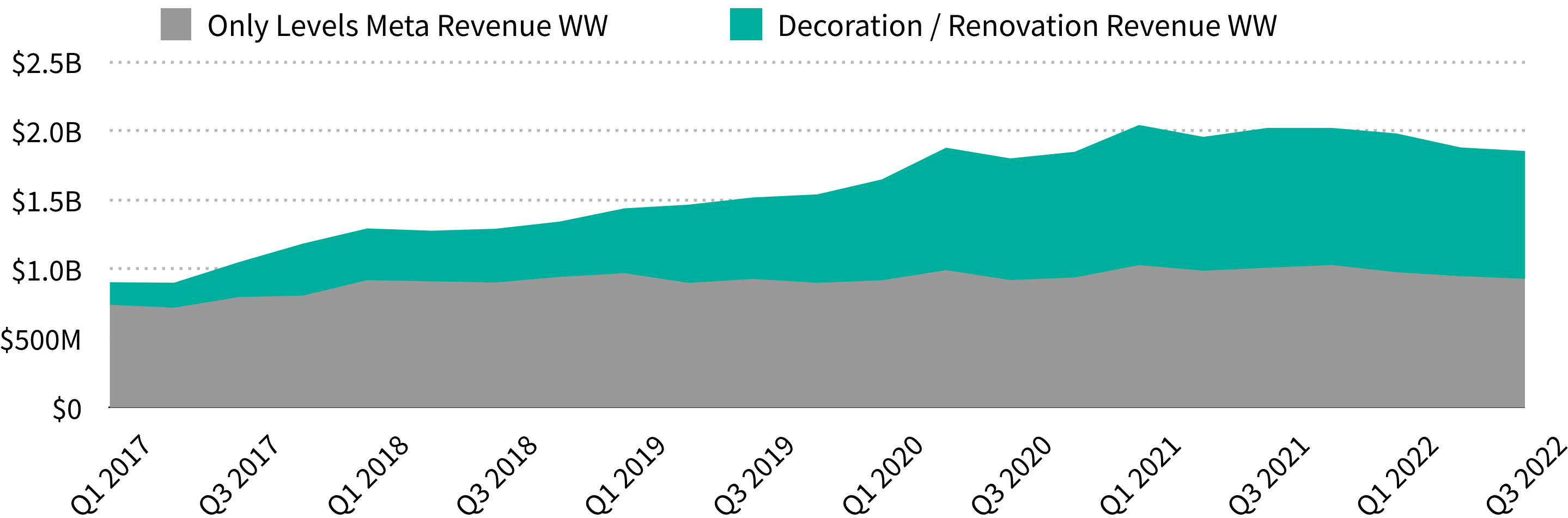
Historically, the Puzzle genre has mainly utilized the Levels meta, as players engage with puzzle levels to advance toward a long-term objective. However, the Decoration / Renovation meta clearly resonates with the Puzzle genre's audience, as evidenced by Playrix's success.

Playrix demonstrated how a new meta feature can drastically win and change the whole sub-genre environment. The publisher debuted Gardenscapes in 2016 and Homescapes in 2017, both puzzlers featuring the Decoration / Renovation meta. The two titles have since collectively generated \$7.2 billion in worldwide consumer spending, encouraging other publishers to experiment with the meta as well.

Worldwide All-Time Revenue of Games with Decoration / Renovation by Genre



Quarterly Worldwide Spending Based on Meta since Q1 2017



Note:
All-time estimates span from Jan 1st, 2014 to Oct 20th, 2022.

What other sub-genres can benefit from incorporating the Decoration / Renovation meta?

Outside of Puzzle



Coin Master, a Casino Slots sub-genre game, introduced the Decoration / Renovation meta with great success. The game has featured among the top 10 highest earning games worldwide since 2020.



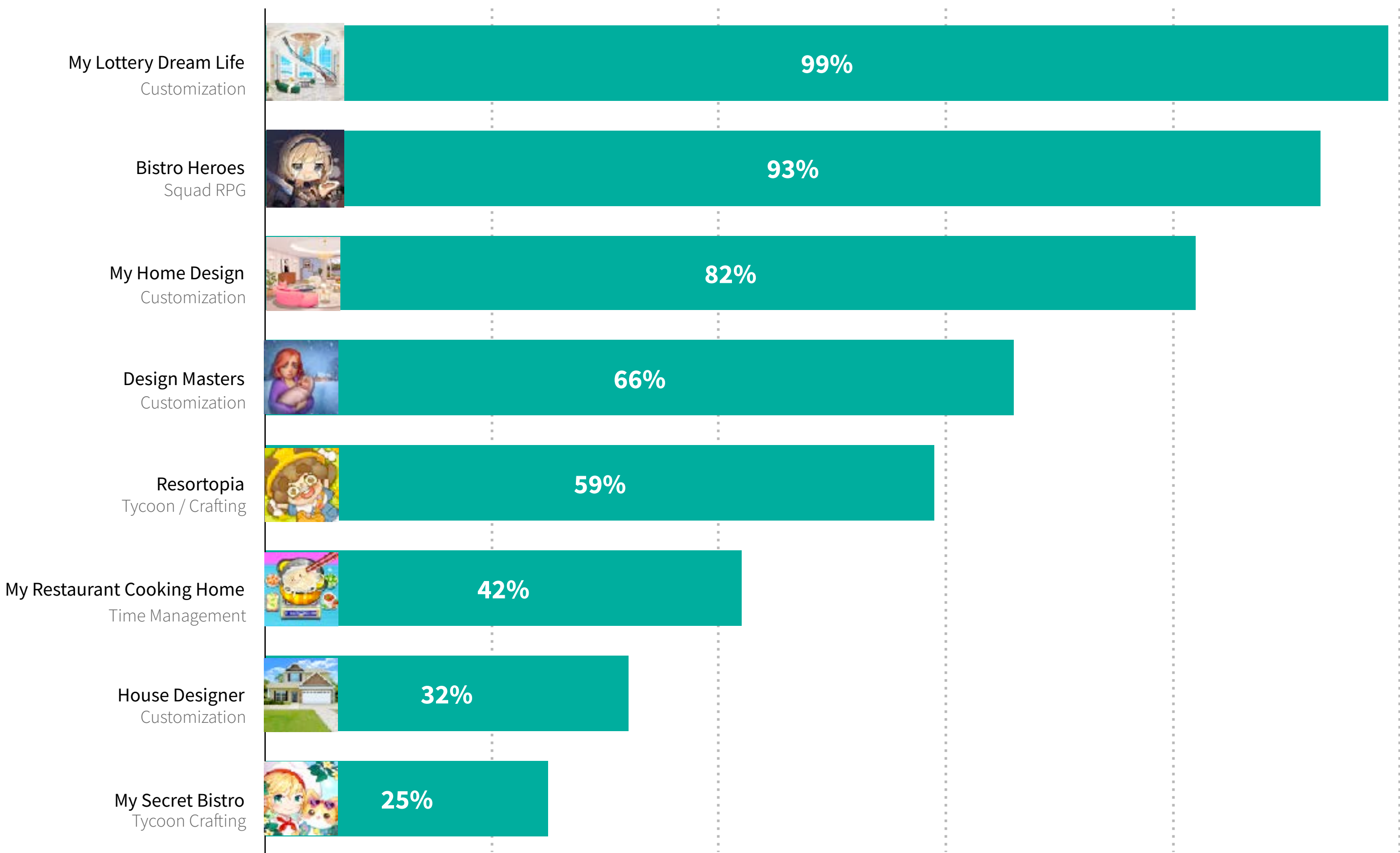
Solitaire Grand Harvest from Playtika is an example of a successful integration of the Decoration / Renovation meta with Solitaire gameplay. The game grew consumer spending 20% over the last year.



Pet Shelter Trivia Crack from Etermax is another example of a recently released game combining the Decoration / Renovation meta with Trivia gameplay.

Non-Puzzle Games with Deco / Renovation

Top Non-Puzzle Games with the Decoration / Renovation Meta sorted by Revenue Growth Q/Q in Q3 2022 in U.S.



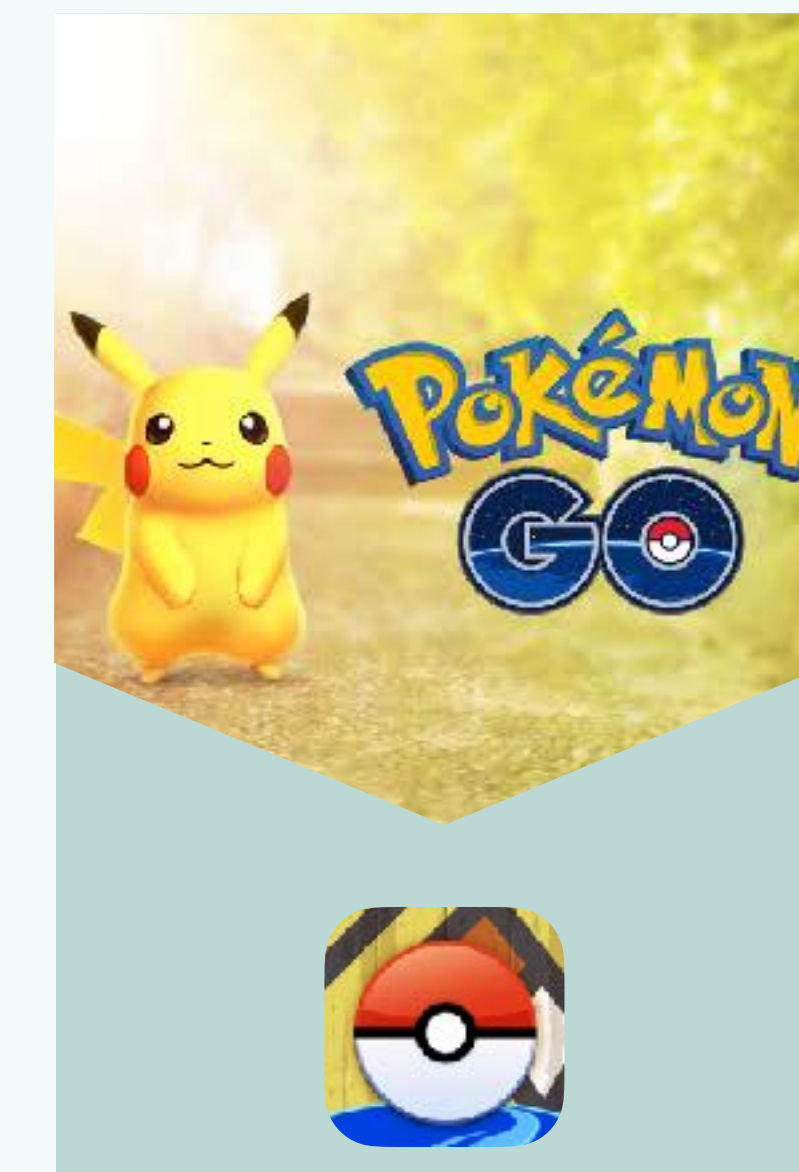
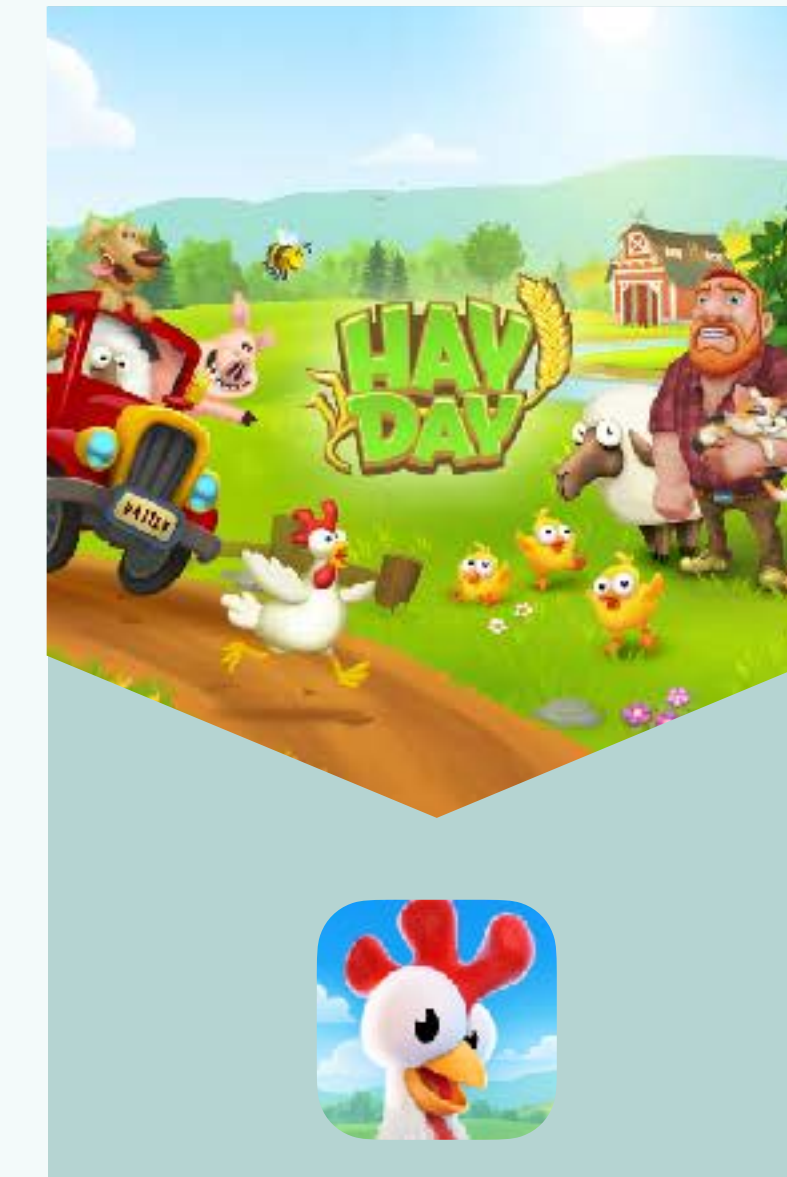
Conclusion

Key Takeaways from the Report

Key Takeaways:

Trends in Game Metas

1. **The Character Collection meta is proven to sustain long-term player engagement, especially in conjunction with LiveOps.** Game publishers have also successfully included it alongside multiple Monetization Features such as Gacha.
2. IPs can be analyzed for a fit with the Character Collection meta. **Certain IPs that have a clear path to Character Collection—like Marvel or Pokémon—are intrinsically good matches for Casual Mobile Games.**
3. **There is a strong synergy between the Decoration / Renovation meta, the Puzzle genre, and the Casual audience.** The increasing prevalence of the Decoration / Renovation meta in the Puzzle genre over the past six years suggests that it could also be applied to other Casual sub-genres to increase long-term retention.
4. **Understanding Meta features is fundamental to understanding the mobile gaming ecosystem.** Each Meta feature provides multiple pros and cons, but having a clear perspective on how they resonate with your audience is one of the keys to success.

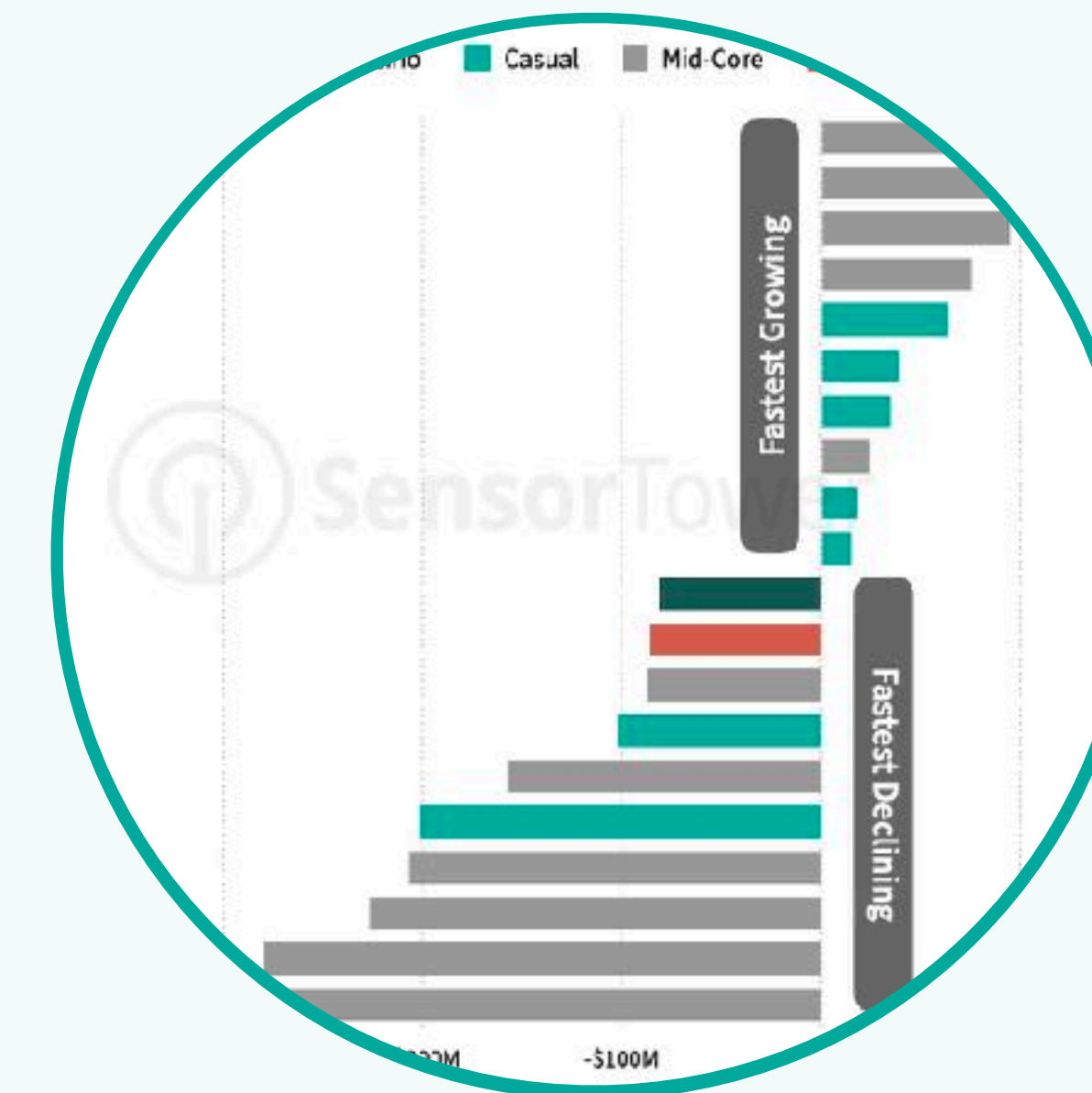
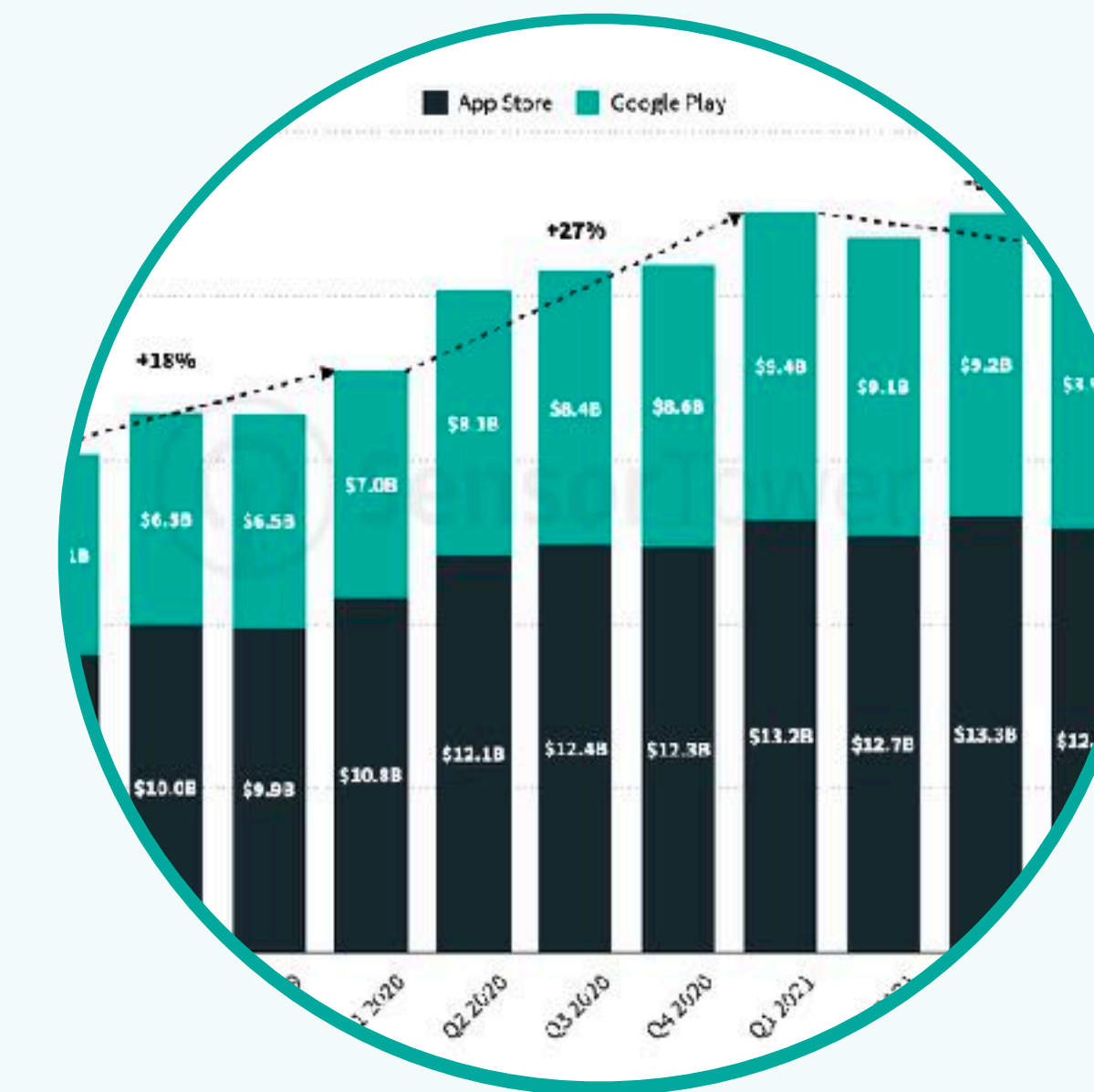


Do you want more data on Meta features in Mobile Gaming?

1. Top grossing games with the Narrative Stories Meta feature include Fate/Grand Order, Fantasy Westward Journey, and Genshin Impact. **The RPG genre represents 55% of all-time worldwide revenue generated by games with the Narrative Stories meta**, followed by Strategy and Puzzle.
2. **The Social Clans Meta is particularly important for 4X Strategy games and MMORPGs.** However, only a fraction of these games are leveraging this meta: Only 25% of games utilizing LiveOps have also implemented Social Clans functionality.
3. Top grossing games with the Social Gambling Meta include Slotomania, Coin Master, and Double Down. **The Slots sub-genre represents 40% of all Social Gambling games**, while 27% are in the Poker / Cards sub-genre.

Looking for More Insights?

Check Sensor Tower's new Meta-Features dropdown to generate your own insights with this powerful data.

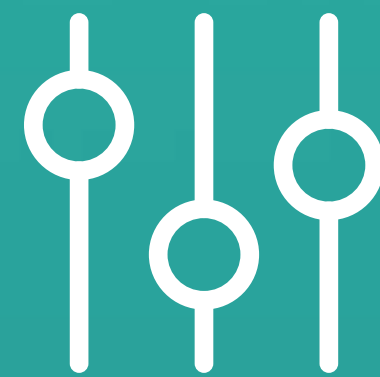


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Store Intelligence

Make strategic decisions with the industry's most accurate estimates.



App Intelligence

Drive organic growth with the leading App Store Optimization platform.



Ad Intelligence

Develop winning User acquisition campaigns with crucial mobile advertising insights.



Usage Intelligence

Benchmark app usage, engagement, and demographics.



App Teardown

Evaluate which SDKs apps are using and measure SDK adoption across market segments.



Consumer Intelligence

Access unfiltered mobile user engagement for financial analysis.

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