



SLOTS DESIGN REPORT

Competitive Research and Data Insights for Slots Designers

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JULY

2020

NEW INNOVATIONS



Machines with unique features or new combinations of established mechanics

CASINO > CONTENT > SOCIAL

FREE SPIN BATTLE BONUS

Coin Hunter in *Scatter Slots*

MECHANIC TEARDOWN

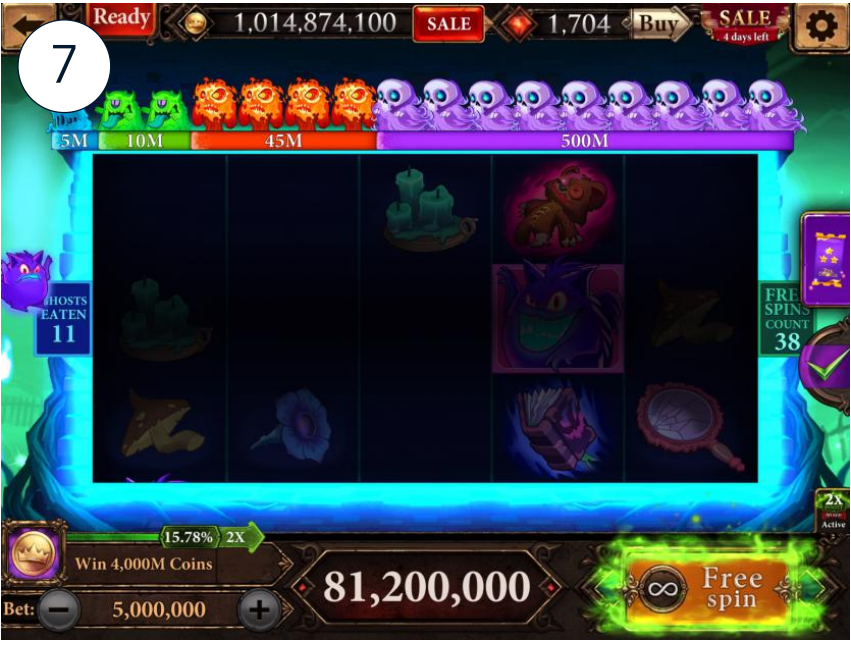
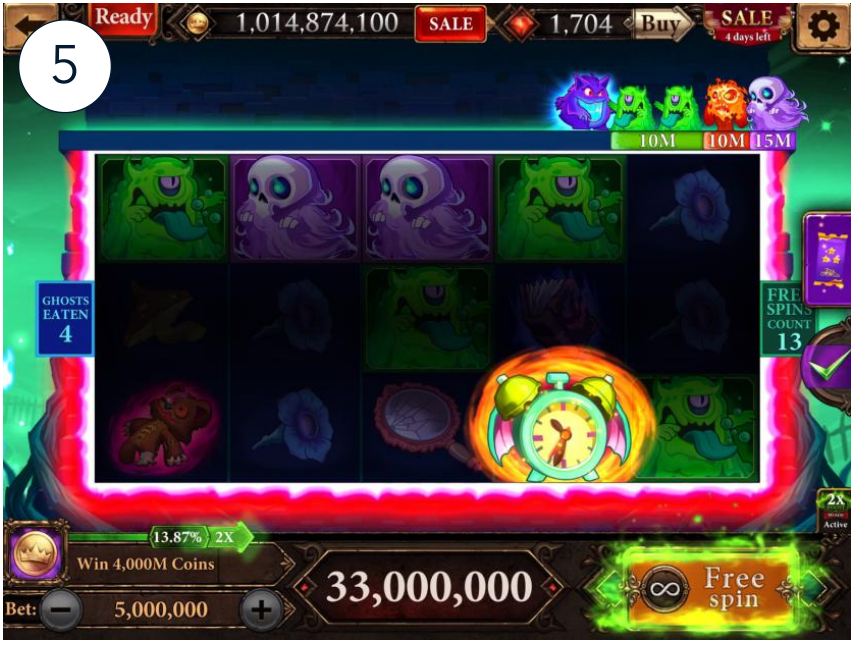
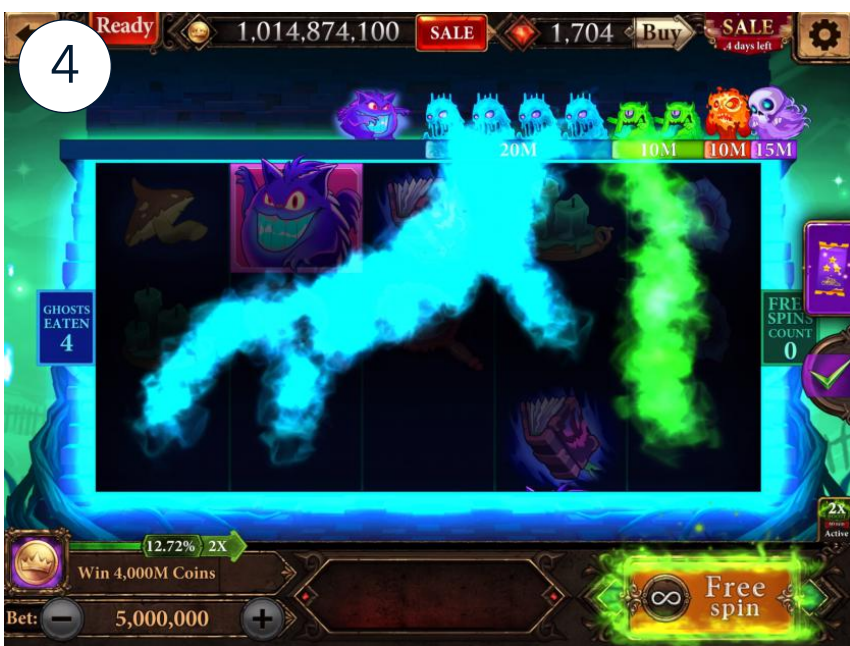
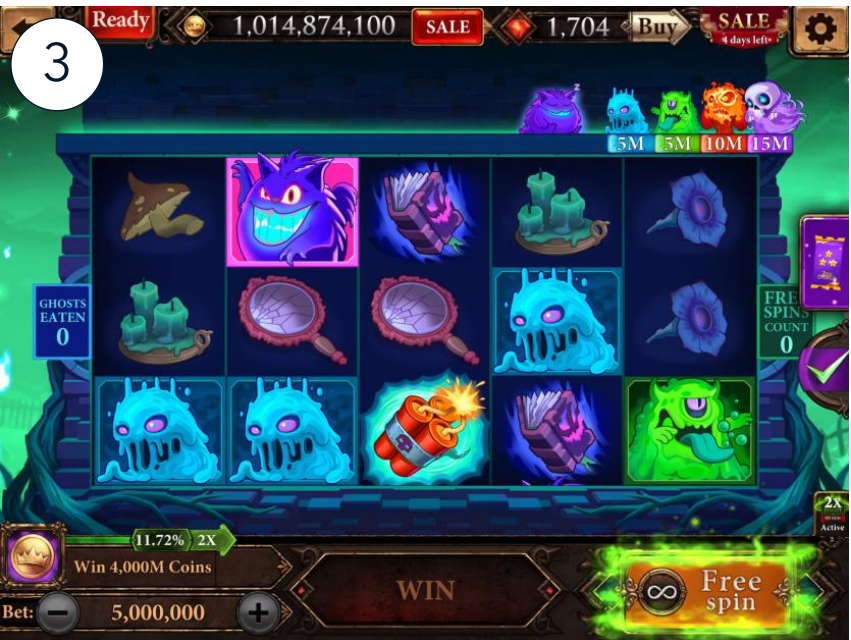
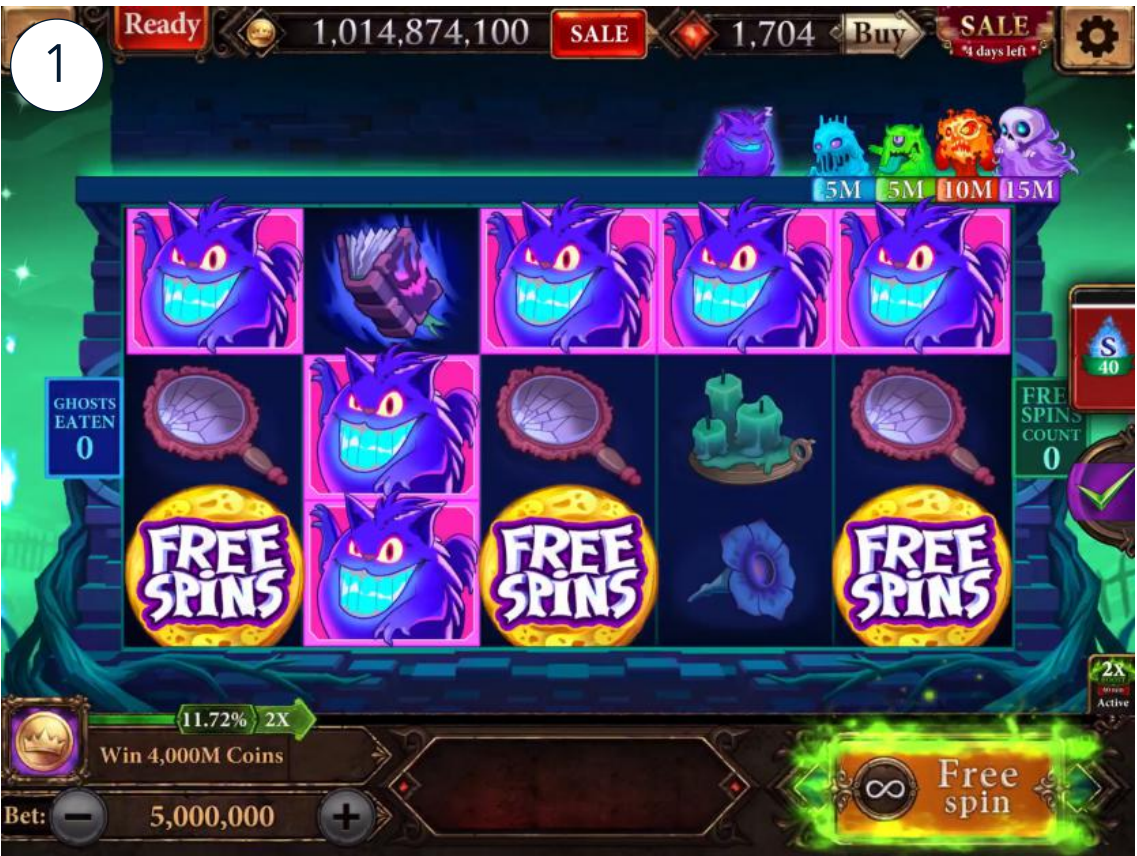
A free spin bonus lets players add ghosts to a bar above the reels. Free spins last until all ghosts have been eaten or completely fill the bar.

Feature Details

- Spins can randomly add ghost symbols to reels.
- Landing free spins symbols on the first, third, and fifth reels at once triggers free spins ([1](#), [2](#), and [video](#)).
- During free spins, dynamite symbols send all ghost symbols to a bonus bar above the reels ([3](#) and [4](#)).
- Dynamite and alarm clock symbols cause the Ghost Eater to eat the lowest-value group of ghosts on the bar ([5](#)).
- Ghosts' values increase based on the number of ghosts eaten ([6](#)).
- Free spins continue until the ghost bar is either completely empty or full ([7](#) and [8](#)).

Additional Information

- See more images and videos in the [Coin Hunter](#) Library.



PRODUCT INSIGHTS

Bonuses that stay close to the base game appeal to profit-driven players.

Gambler Gail and Money Mike player types prefer short, lucrative bonuses like mini-games, boosts, and multipliers. They don't enjoy deep meta-features that wander too far from the base game, like collections, quests, leagues, and clubs.¹

Coin Hunter's ghost-eating mechanic builds a lite mini-game directly into free spins, resulting in a unique bonus that increases players' profits without too much distraction from base play.

Non-standard counters increase ambiguity to create more engaging bonuses.

Instead of determining the number of free spins with a normal counter, Coin Hunter uses a bar that fills up with different types of ghosts that can be eaten for points. Free spins last until the bar is either empty or full, turning the duration of free spins into something of a mini-game in itself.

In another example of a novel bonus counter, *DoubleU Casino's* [Elves Workshop](#) uses walking wilds to trigger respins. These wilds move one reel to the left with each respin, and respins continue until no wilds remain ([1](#) and [video](#)).

During exciting situations like high-value bonuses, research shows that hiding the math behind risks leads to more engagement.

Normally, people are more inclined to take risks with known odds. However, emotional arousal produces the opposite effect: Excited players are *more likely* to engage with ambiguous risks and *less likely* to engage with explicit odds.²

Offering big wins at the end of a bonus ensures an exciting experience—even if players “fail.”

The peak-end rule suggests that people evaluate experiences based on their peak intensity and final moments.³

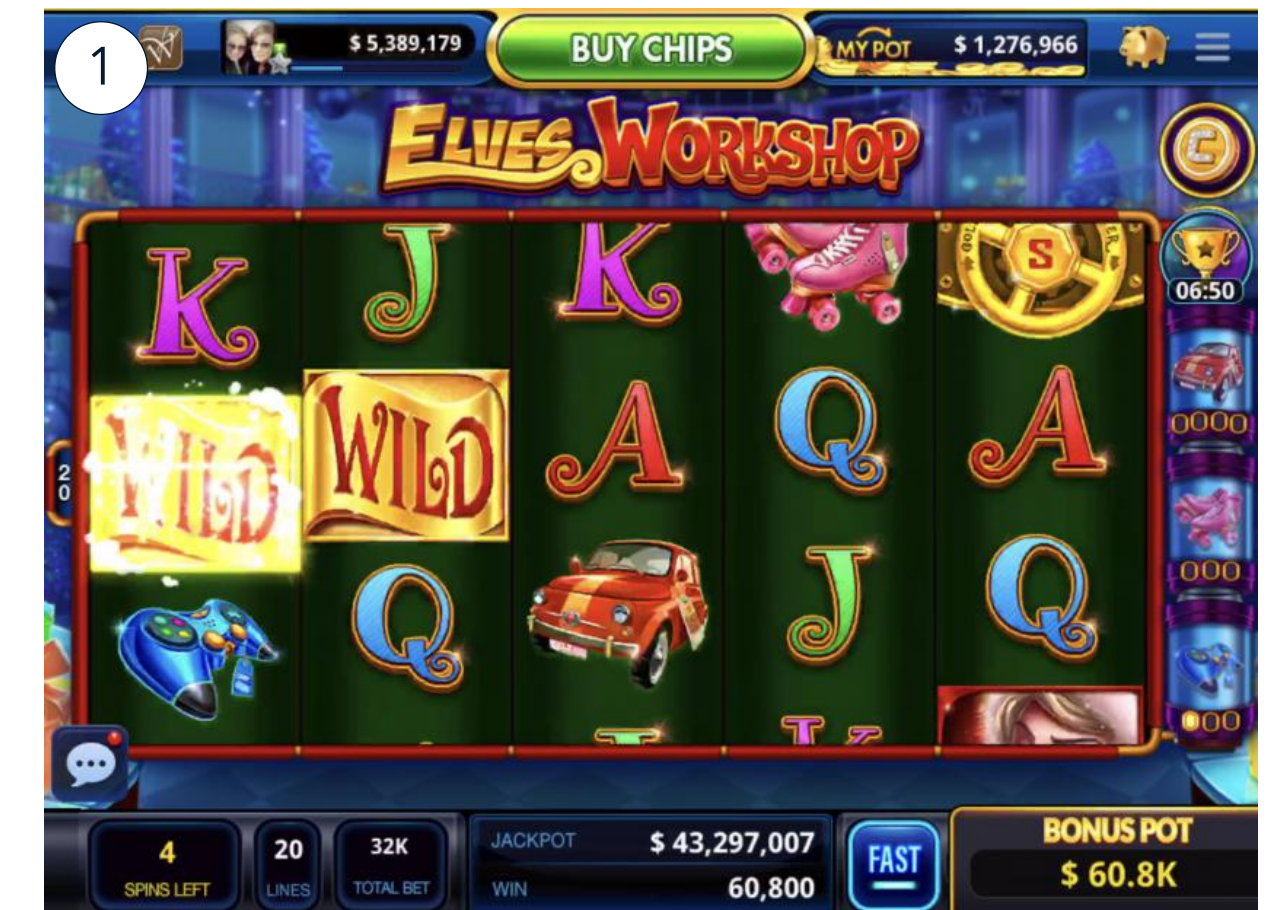
Bonuses that allow players to fail—like Coin Hunter's free spins, which end if players don't eat enough ghosts—run the risk of going out on a sour note. However, this can be mitigated by increasing the apparent potential for winnings as players approach a loss.

Coin Hunter offers the biggest rewards at either extreme of the bar. As players clear the bar, they approach the most valuable ghosts; as the bar fills up, there are more ghosts to eat ([2](#)). In both cases, the stakes rise as the bonus nears its finale, creating an experience that players are more likely to remember as exciting even when they don't succeed.

¹ [Liquid & Grit Slots Personas Report](#), p. 13-16; 22-27

² [Emotion and Decision-Making Under Uncertainty](#), “Emotional arousal and choice”

³ [Evaluations of pleasurable experiences: The peak-end rule](#)



CASINO > CONTENT > SOCIAL

SOCIAL BINGO MINI-GAME

Banana Bonanza in *Big Fish Casino*

MECHANIC TEARDOWN

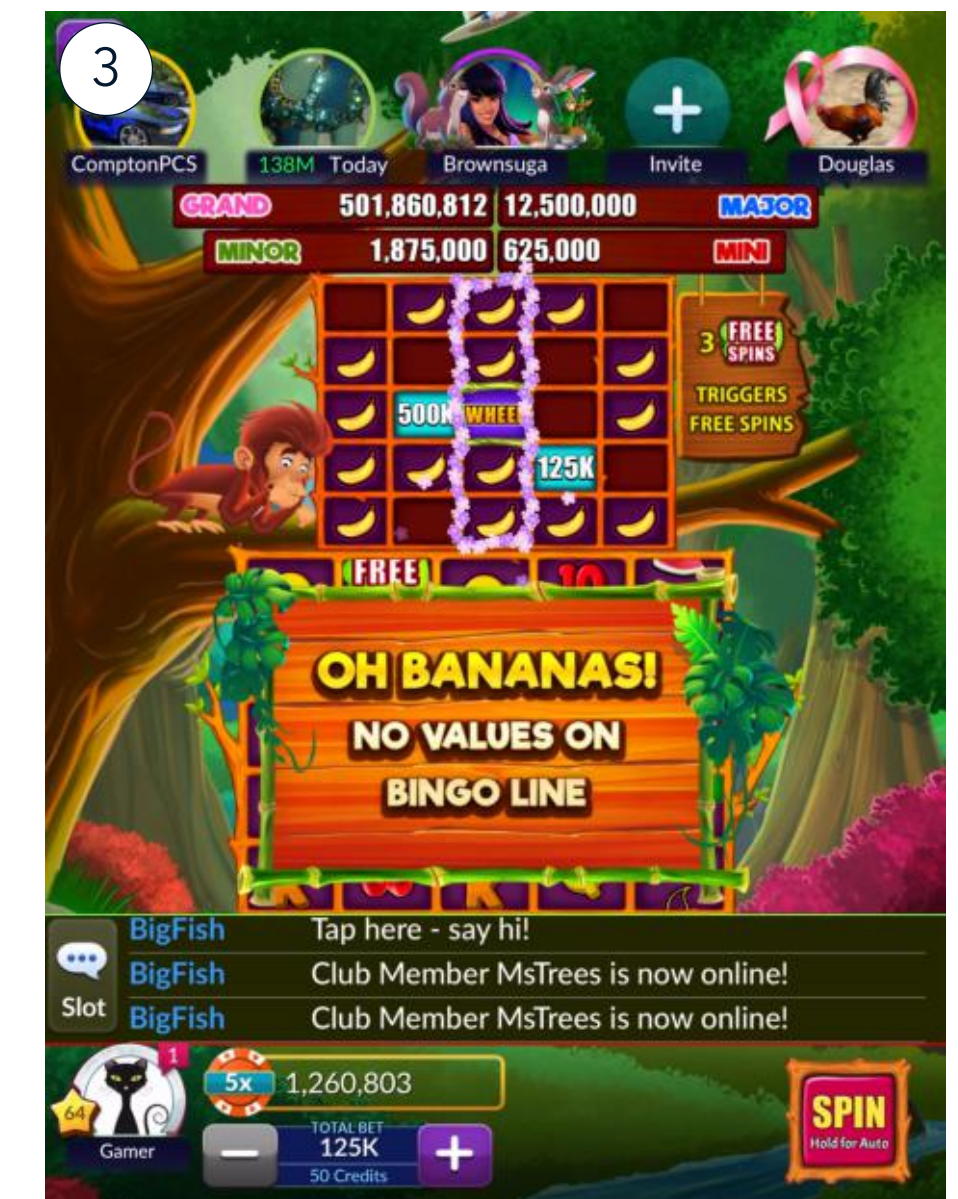
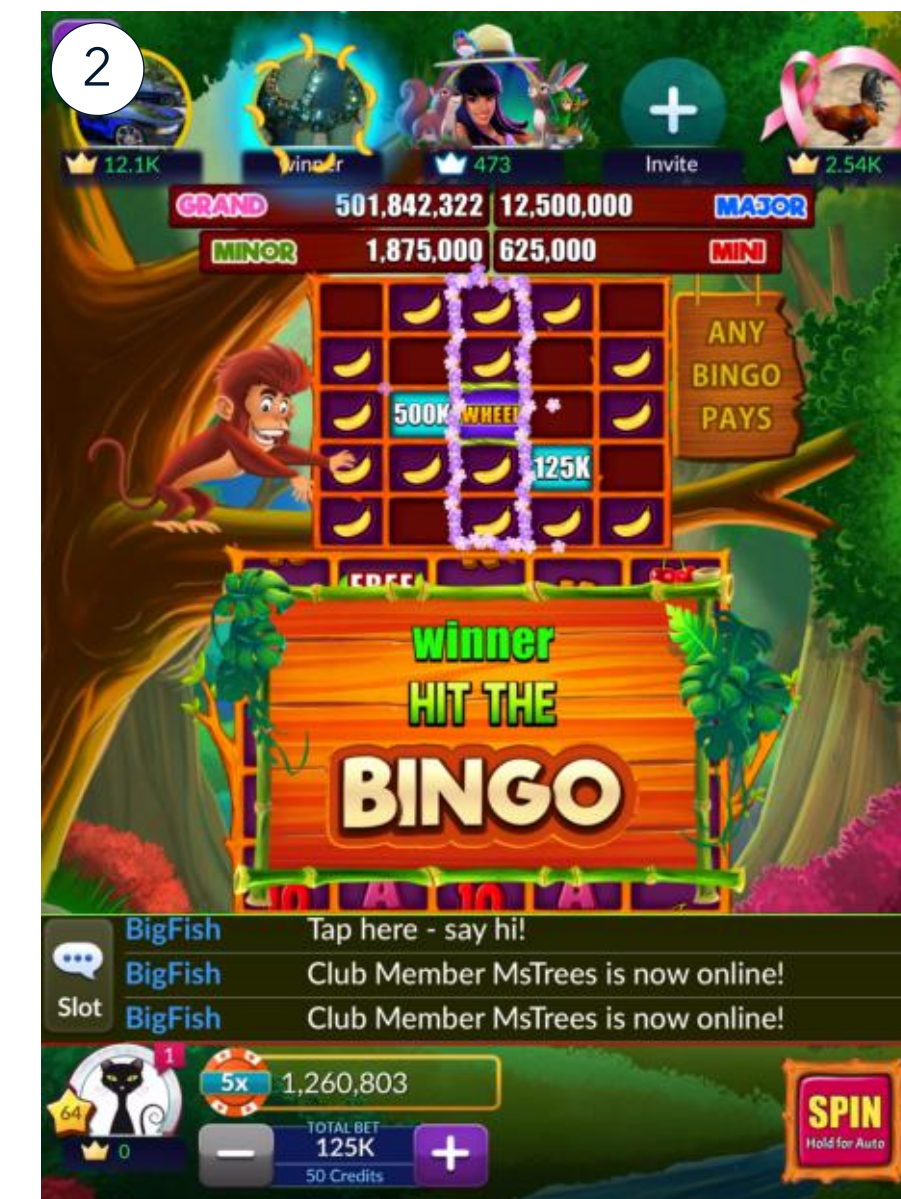
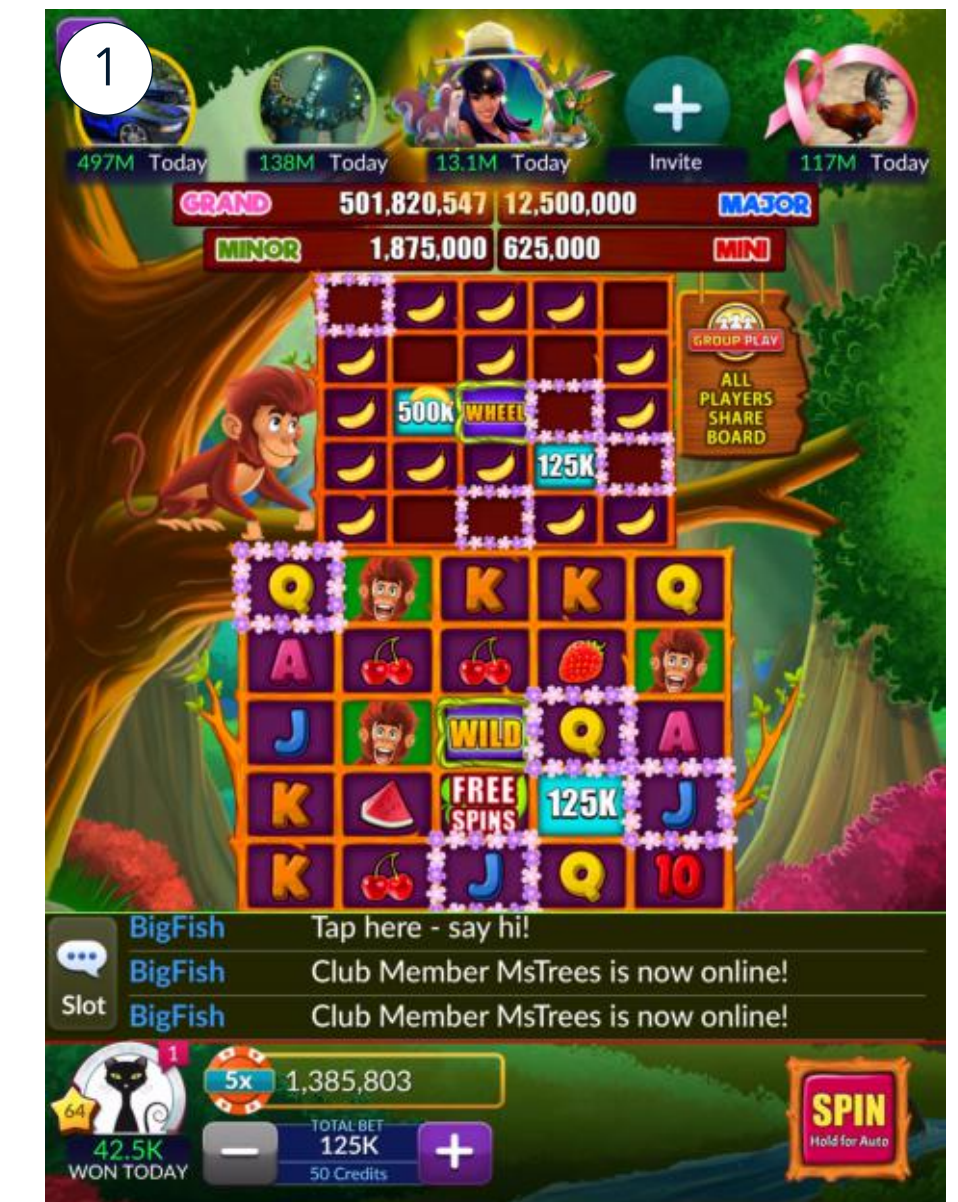
Blue squares are added to a shared social bingo board above the reels.
Winning bingo lines pay all players who contributed to the bingo.

Feature Details

- Blue squares landed by players are added to corresponding positions on a shared bingo board above the reels (1 and [video](#)).
- Blue squares landed by the player contain coin values.
- Blue squares landed by other players are shown as bananas.
- Winning bingo lines pay each player the value of any blue squares that they contributed to the winning line (2).
- Winning bingo lines that contain the wheel “free space” symbol award a jackpot wheel spin to all contributing players.
- Players who did not contribute to the winning line do not receive a prize (3).
- Landing 3-5 free spins symbols triggers 7-20 free spins.

Additional Information

- See more images and videos in the [Banana Bonanza](#) Library.



PRODUCT INSIGHTS

Social players enjoy bingo.

Among slots player types, Sensation Serena is by far the biggest fan of bingo. In fact, she actually prefers bingo to slots. Importantly, she also has the second strongest preference for competitive and social mechanics like tournaments, clubs, and leagues.⁴

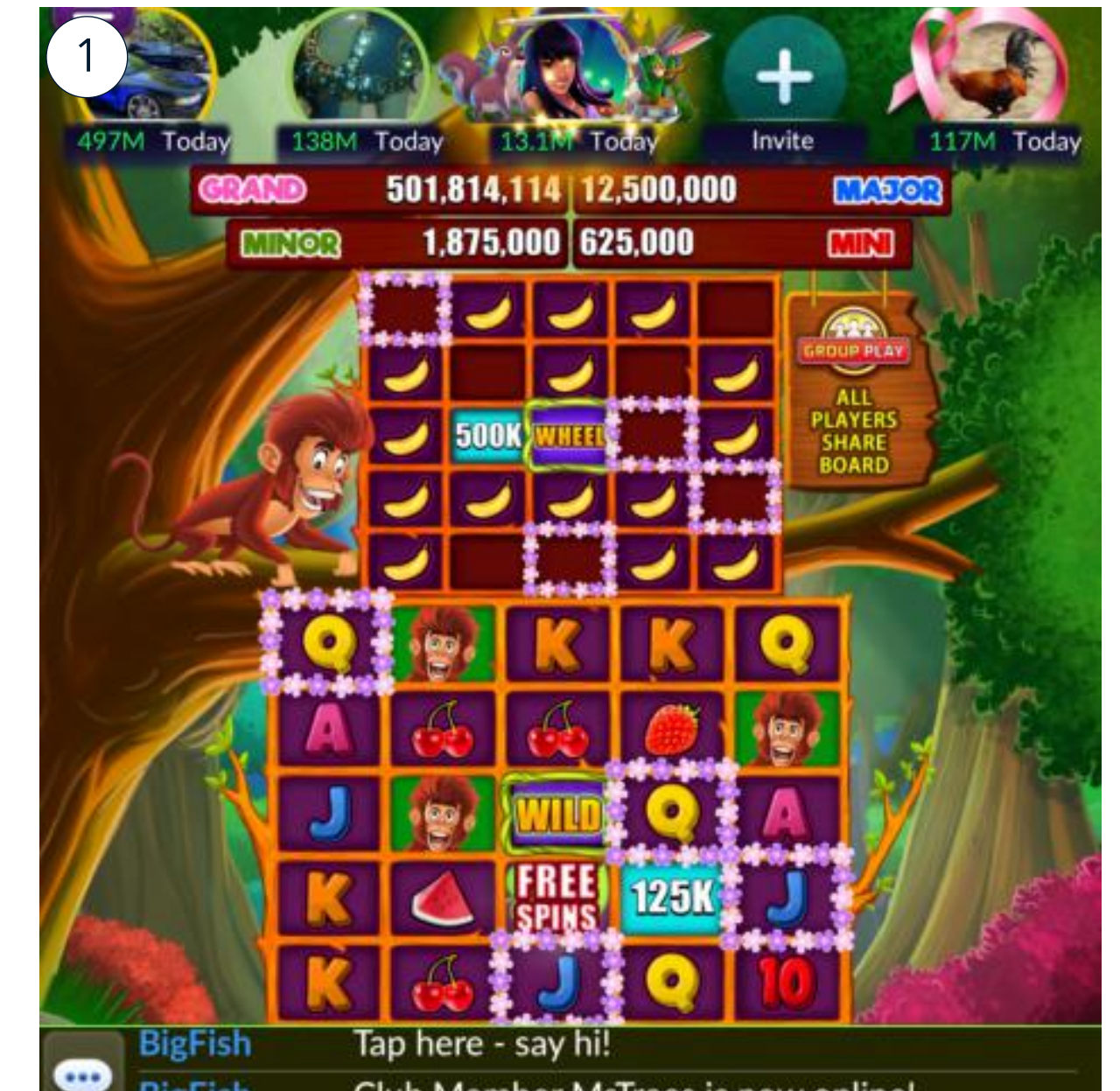
Banana Bonanza creates a social experience that is both collaborative and competitive by having players work together to complete the same board—but only rewarding players who contribute to winning lines (1).

This approach emulates the experience of a real-life bingo hall: a highly social event that offers low-intensity competition in the form of rounds that typically end once a certain number of players win bingos.

The addition of social play is a notable change from Caesars Slots' 2018 [Bingorilla](#) machine, which included a single-player only bingo mini-game (2). Consider experimenting further with social bingo bonuses that are either more competitive (fewer winners) or more collaborative (everybody wins).

Bingo is a fast-growing casino subgenre.

Our [April 2020 Casino Report](#) showed that bingo apps had the greatest Q1'20 revenue growth of all casino subgenres for iOS in the U.S.⁵ While slots apps dominated total revenue, bingo revenue grew +17.4% QoQ compared to +6.9% for slots and +7.6% for poker. Bingo-focused machines may allow slots apps to capture some of this growth.



⁴ [Liquid & Grit Slots Personas Report](#), p. 9; p. 32

⁵ [April 2020 Casino Report](#), p. 19

SLOTS TRENDS



The latest developments in top-grossing apps

Tracked slots apps:

Big Fish Casino, Caesars Slots, Cash Frenzy, Cashman Casino, DoubleDown, DoubleU Casino, Game of Thrones Slots, Gold Fish Casino, Heart of Vegas, Hit It Rich!, House of Fun, Huuuge Casino, Jackpot Magic Slots, Jackpot Party, Lightning Link Casino, Lotsa Slots, my KONAMI, myVEGAS, POP! Slots, Quick Hit Slots, Scatter Slots, Slotomania, and Wizard of Oz: Casino Slots

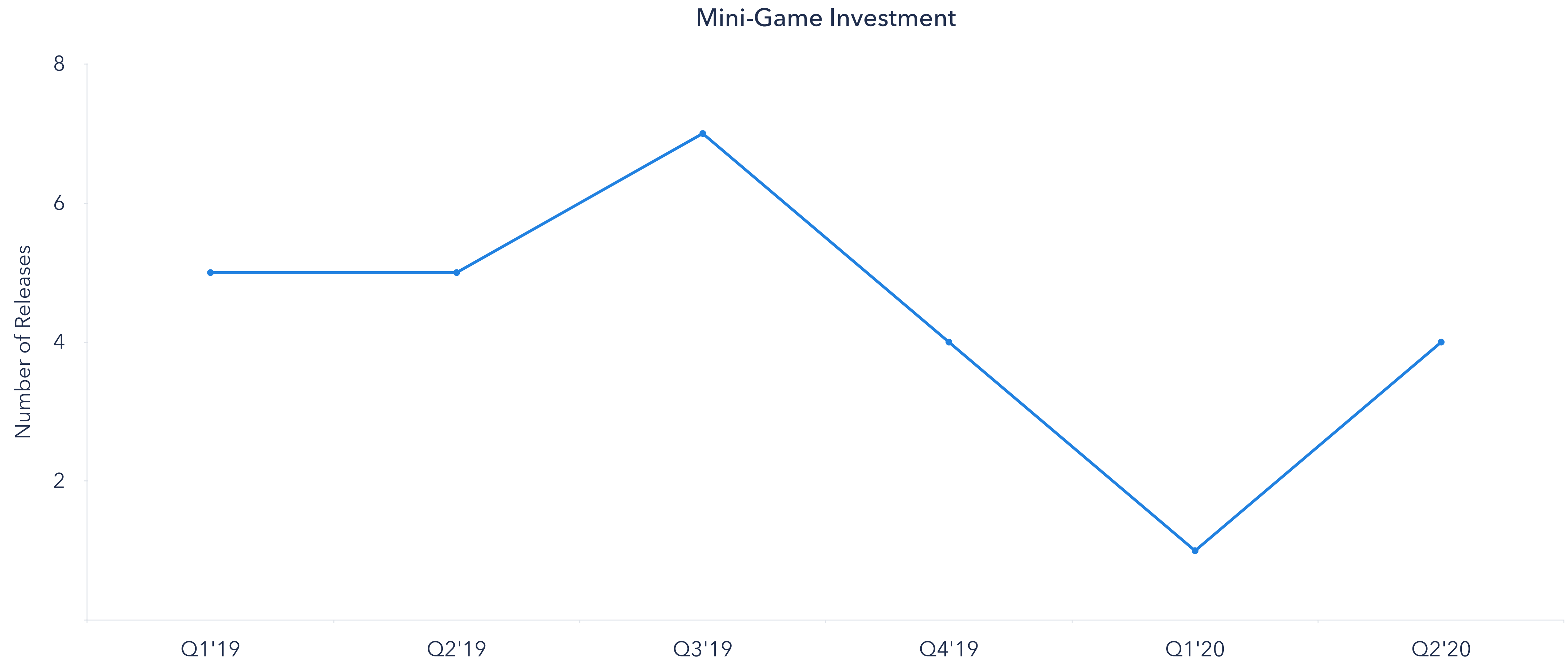
SOCIAL BONUSES ARE UP

Social bonus investments have steadily increased in the past year—averaging 5.7 per quarter for the past three quarters compared to 2.7 for the three preceding quarters.



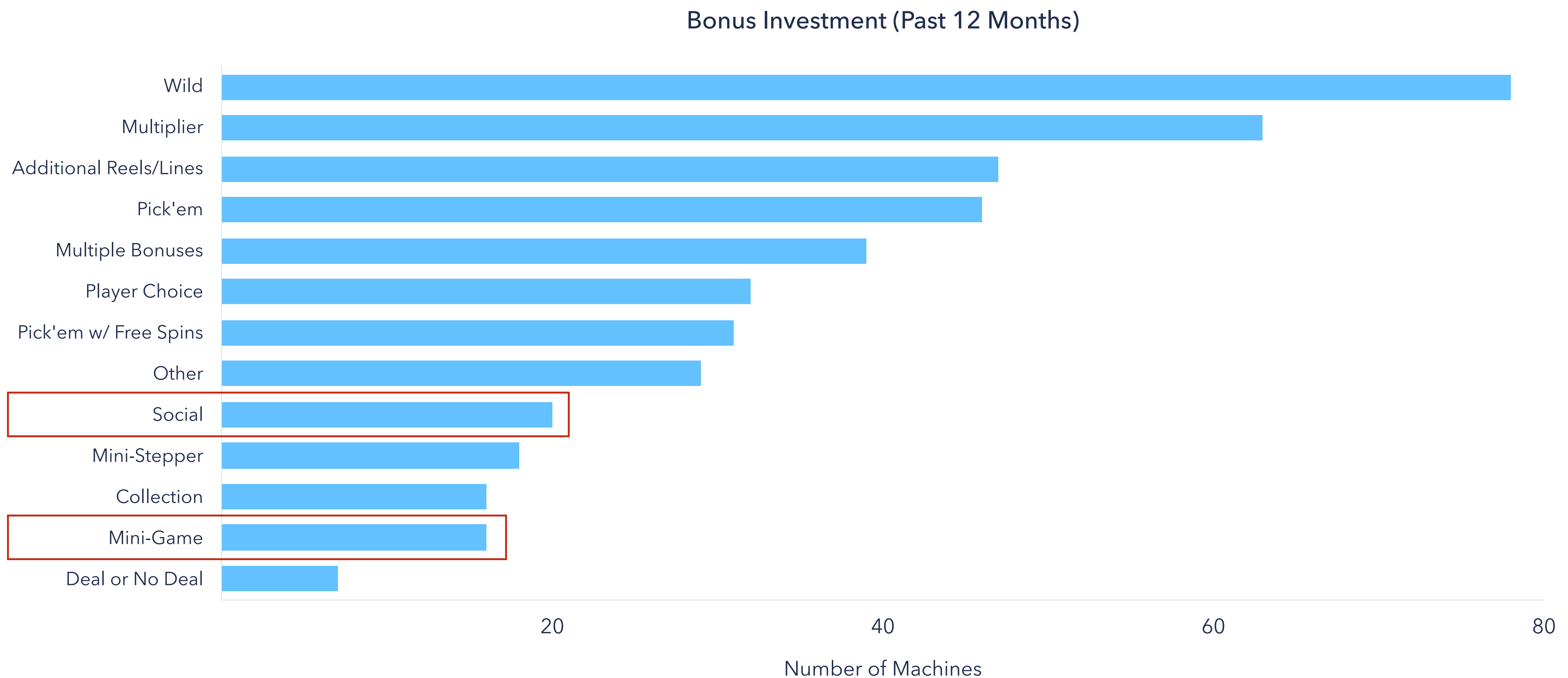
MINI-GAME BONUSES ARE DOWN

Mini-game bonus investments have decreased significantly since Q3'19. So far, 2020 has seen an average of 2.5 mini-game releases per quarter compared to 5.3 in 2019.



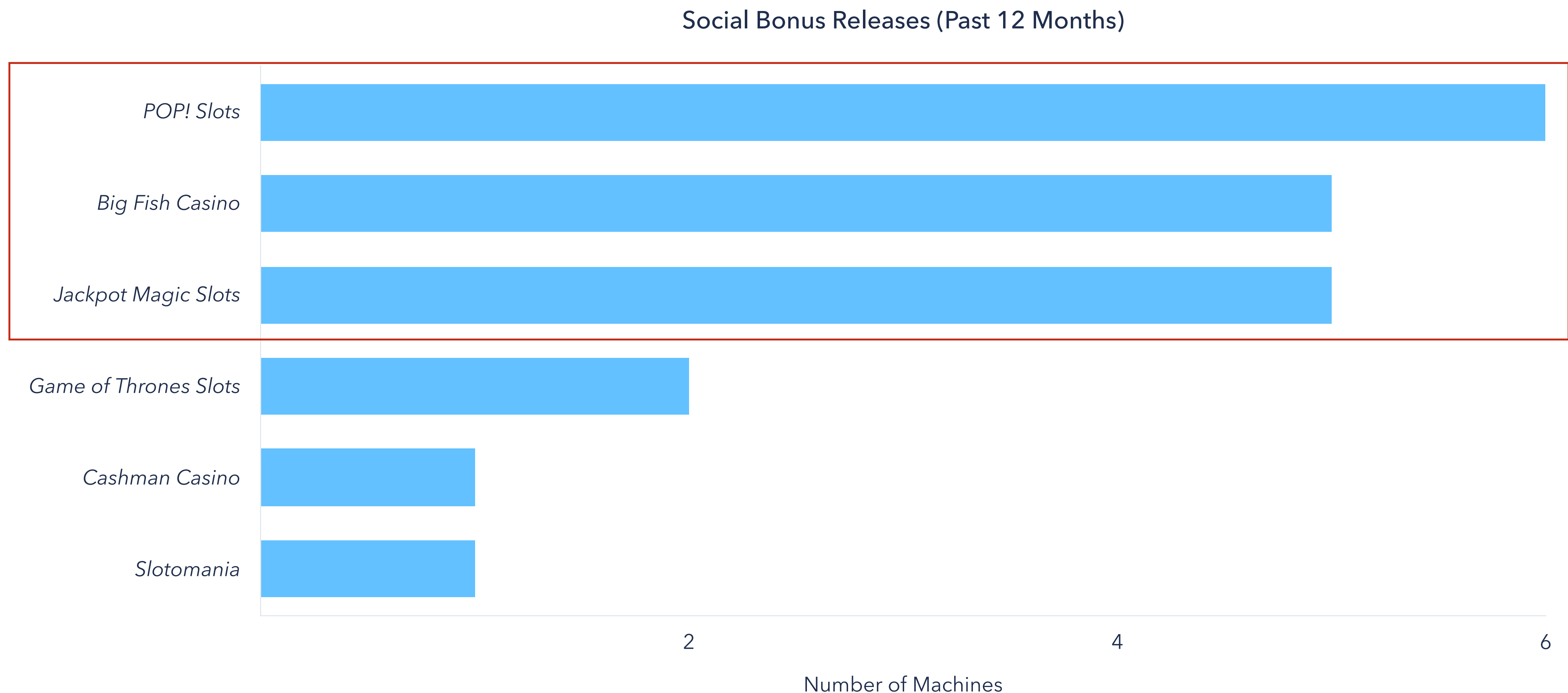
SOCIAL AND MINI-GAME BONUSES ARE UNCOMMON

Social and mini-game bonuses combined made up just 8% of all bonus mechanics released by tracked apps in the past year. By comparison, the top two bonus types—wilds and multipliers—accounted for 32% of releases.



VERY FEW APPS RELEASE SOCIAL BONUSES

Three apps released 80% of all social bonuses among tracked apps in the past year: *POP! Slots*, *Big Fish Casino*, and *Jackpot Magic Slots*.



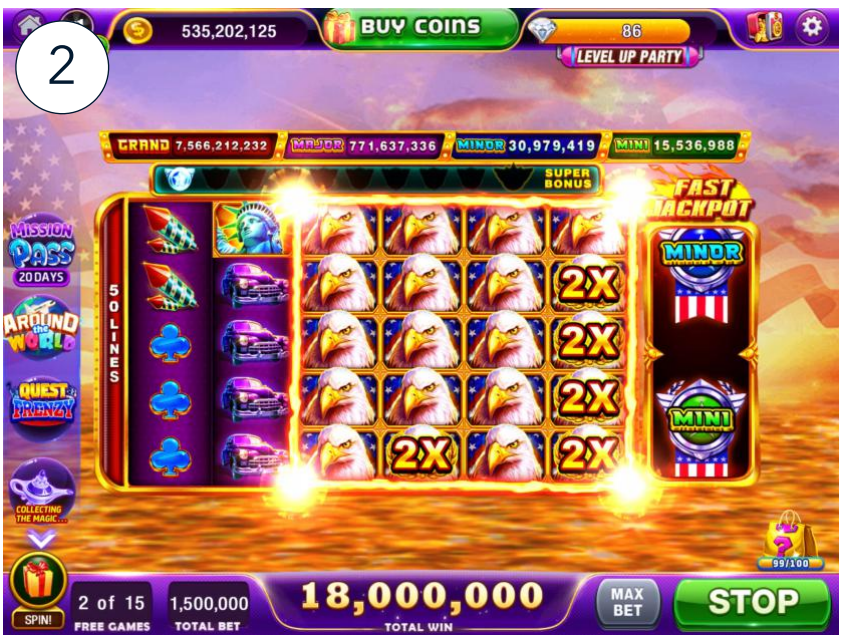
MARKET WATCH



New and notable releases

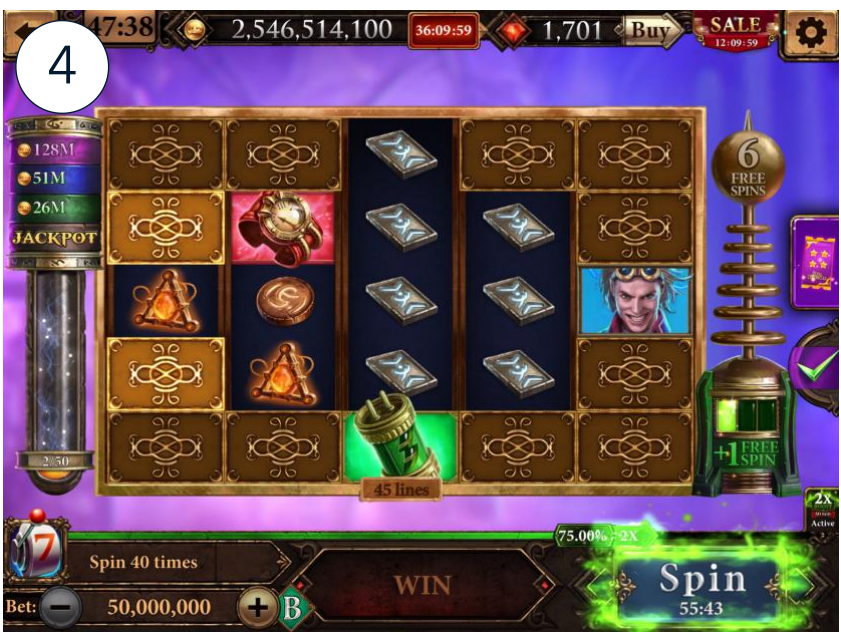
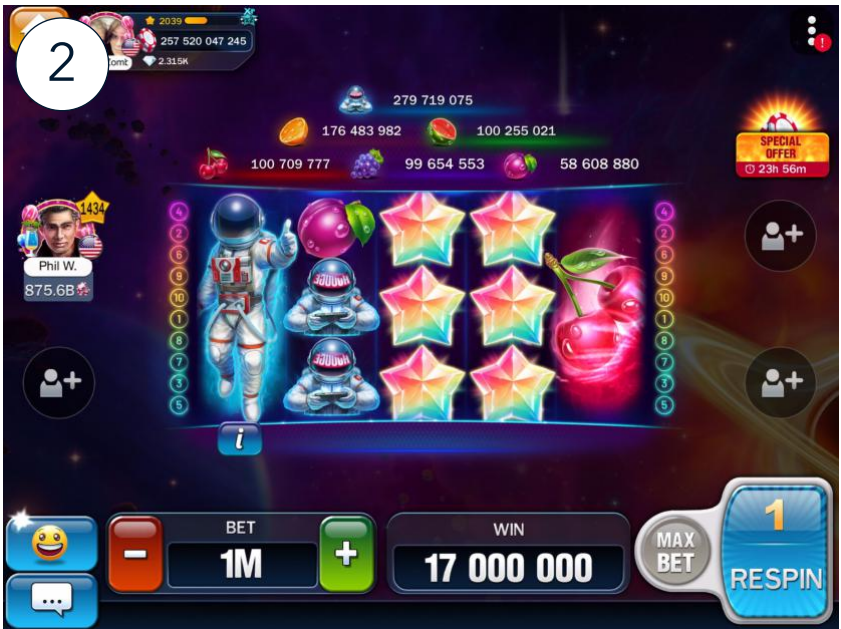
NOTABLE RELEASES I

App	Machine	Description
Cash Frenzy	Adventures in Space	<ul style="list-style-type: none">Three or more scatter symbols trigger sticky respins on five stacked reel sets of increasing size.Filling a reel set awards the corresponding jackpot (1 and video).Planet symbols fill a meter to advance players on a map.Map spaces trigger free spins or award multipliers, prize wheel spins, or additional free spins.
	Freedom Eagle	<ul style="list-style-type: none">Two or more eagle symbols form a rectangle.All symbols within the rectangle convert into eagles (video).Statue of Liberty symbols within the rectangle convert into multiplier eagles (2).Three or more star symbols trigger a player choice free spin bonus.Free spin bonuses fill a meter for a super free spin bonus.
	Slots Tower Deluxe	<ul style="list-style-type: none">Three or more scatter symbols trigger a pick'em bonus.Three matching cards trigger the indicated number of free spins (3).Diamond symbols collected during free spins unlock additional reel sets (video).Chips collected during the base game fill a meter for a roulette bonus at milestones (video).
DoubleU Casino	Koi Get the Coins	<ul style="list-style-type: none">Koi symbols award coins from corresponding positions above the reels (4).Coins contain payouts, jackpots, free spin bonuses with giant coins, or pick'em bonuses.Three or more yin-yang symbols trigger free spins with more frequent koi (video).



NOTABLE RELEASES II

App	Machine	Description
DoubleU Casino	Victorious Pots	<ul style="list-style-type: none">Gladiator and tiger symbols fill opposite sides of a shared blue and red meter (1).Filling the blue meter triggers three free spins with multipliers (video).Gladiators lock in place, advance a jackpot ladder, and reset the free spins counter.Filling the red meter triggers 10 free spins (video).Tigers lock in place and advance a jackpot ladder.Six or more gold coin symbols trigger respins with sticky coins (video).
Huuuge Casino	Cosmic Fruit	<ul style="list-style-type: none">Reels 1 and 5 contain only giant symbols.One or more stars award one respin.Stars lock in place and expand vertically (2 and video).
Lotsa Slots	Lava Loot Max	<ul style="list-style-type: none">Three or more scatter symbols trigger a player choice free spin bonus.Five or more purple lava symbols trigger three sticky respins.Purple lava symbols unlock extra rows at milestones and reset the respin counter (3).Red lava symbols fill a jackpot meter and reset the respin counter (video).Players win the sum of all lava values.
Scatter Slots	Flash Mage	<ul style="list-style-type: none">Battery symbols collected during the base game fill a meter for additional free spins (4 and video).Six consecutive wins or collecting 15 additional free spins triggers free spins.Higher bets award more free spins.Players can alter their bet at any time.Lightning symbols fill a meter for a pick'em bonus.Glowing orbs fill a jackpot meter.



Quickly review all features and machines

Filter the [Library Tool](#) by month and year to see all new releases.

APPENDIX



LIQUID & GRIT SLOTS PERSONAS

Participants from the U.K. and U.S. (N=1,299) were surveyed about their mobile gaming use. The data produced five personas with distinct patterns of slots preferences and playing habits.

Demographics					
	Fame Frank	Money Mike	Daydreamer Denise	Gambler Gail	Sensation Serena
Size	21%	22%	27%	19%	11%
Women	50%	51%	66%	60%	55%
Age	32 mean / 30 median	34 mean / 32 median	35 mean / 34 median	35 mean / 33 median	35 mean / 32 median
Education	3.5	3.3	3.5	3.2	3.3
Money Spent	4.2	4.9	3.5	5.4	5.8
Play Time	5.0	4.5	5.0	4.9	6.5



* The education, money spent, and play time numbers represent the relative value of each category compared to other player personas.

PREMIUM PARTNERSHIPS

Liquid & Grit partners with these premier market research and analytics companies to infuse our reports with the most relevant and detailed gaming user personas, data, and statistics available.

Quadrant Strategies	Kinrate Analytics	Sensor Tower
<p>Market Research Quadrant Strategies</p> <p>Quadrant Strategies is a market research consultancy that uses research to help the world's most prominent technology, gaming, and entertainment companies develop strategies for building their user base, increasing user engagement and spend, and strengthening their marketing and brand plans.</p> <p>We do that using a range of quantitative and qualitative methodologies, including gamer segmentation and persona development, feature testing, message creation, and loyalty and engagement modeling. The work of our senior leadership goes back many years, and includes long-term engagements for console and gaming-PC hardware-makers, individual games in a range of genres, and across consoles, PCs, and mobile, and for some of the top game franchises.</p>	<p>Player Personas Kinrate Analytics</p> <p>Kinrate Analytics offers game developers, consultants, publishers, and cloud gaming operators the best cross-platform game recommendation engine for targeted marketing, as well as a novel profiling-as-a-service solution for intelligent market segmentation and social networking.</p> <p>Other services include advanced market prediction analyses for identifying emergent gaming trends and access to unique AI-enhanced data of 140 thousand game titles and 48 million game players.</p> <p>The products of Kinrate Analytics have been developed in university-led research projects in collaboration with economists, psychologists, game scholars, and data scientists.</p>	<p>Mobile App Store Intelligence Sensor Tower</p> <p>Sensor Tower is relied upon by financial analysts, VCs, and publishers who need to leverage data to identify the fastest-growing apps, emerging markets, and more.</p> <p>Clients harness Sensor Tower's suite of app intelligence tools to:</p> <ul style="list-style-type: none">▸ Evaluate app economies and app vitality.▸ Drive organic growth with the leading App Store Optimization platform.▸ Get the best global download and revenue estimates for the App Store and Google Play.▸ Discover top creatives and better shape user acquisition strategy.



"Nothing is absolute. Everything changes, everything moves, everything revolves, everything flies and goes away."

– Frida Kahlo

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