



SLOTS DESIGN REPORT

Competitive Research and Data Insights for Slots Designers

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JUNE

2020

NEW INNOVATIONS



Machines with unique features or new combinations of established mechanics.

CASINO > CONTENT > SOCIAL

MULTI-MATRIX BONUS TRIGGERS

Cupid's Crush Deluxe in *Cash Frenzy*

MECHANIC TEARDOWN

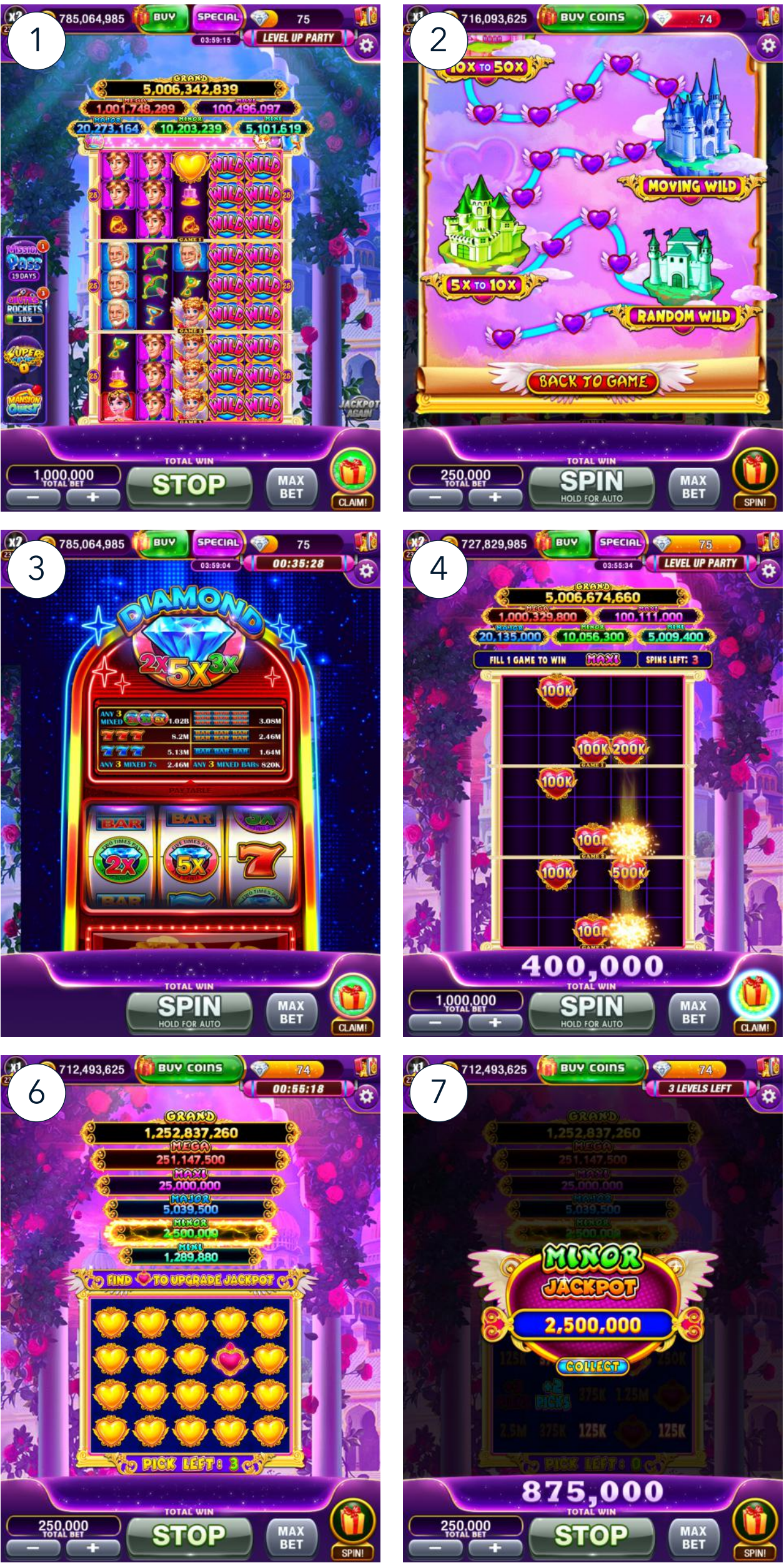
A three-matrix reel set uses symbols across all reel sets to trigger free spins and a jackpot pick'em. Wilds and respin symbols duplicate to their corresponding positions on all reel sets.

Feature Details

- Players spin on a three-matrix reel set.
- Wilds that land on one reel set are copied to the corresponding positions on all reel sets (1).
- Wilds fill a meter to advance players on a prize map (2).
 - Map spaces trigger mini-stepper spins until players win (3 and [video](#)).
 - Milestones award free spins with sticky, moving, or multiplier wilds.
- Landing five red hearts between all reel sets triggers three respins ([video](#)).
 - Respins contain only red hearts and gold hearts.
 - At the start of respins, red hearts copy to the corresponding positions on all reel sets (4).
 - Red hearts copied to the same position combine their values.
 - Gold hearts fill vertical reels across all reel sets with red hearts (5).
 - Maxi, mega, or grand jackpots are awarded for filling one, two, or three reel sets.
- Landing three gold hearts between all reel sets triggers a jackpot pick'em ([video](#)).
 - Players start with four picks.
 - Gold hearts contain coins, two or three additional picks, or a framed heart.
 - Framed hearts advance a jackpot ladder and award an additional pick (6).
 - The current jackpot is awarded once players run out of picks (7).

Additional Information

- See more images and videos in the [Cupid's Crush Deluxe](#) Library.



PRODUCT INSIGHTS

Symmetry is visually pleasing and naturally motivates players to work toward its completion. Increase engagement by using symmetrical reward triggers—especially in multi-matrix reel sets.

Insight Details

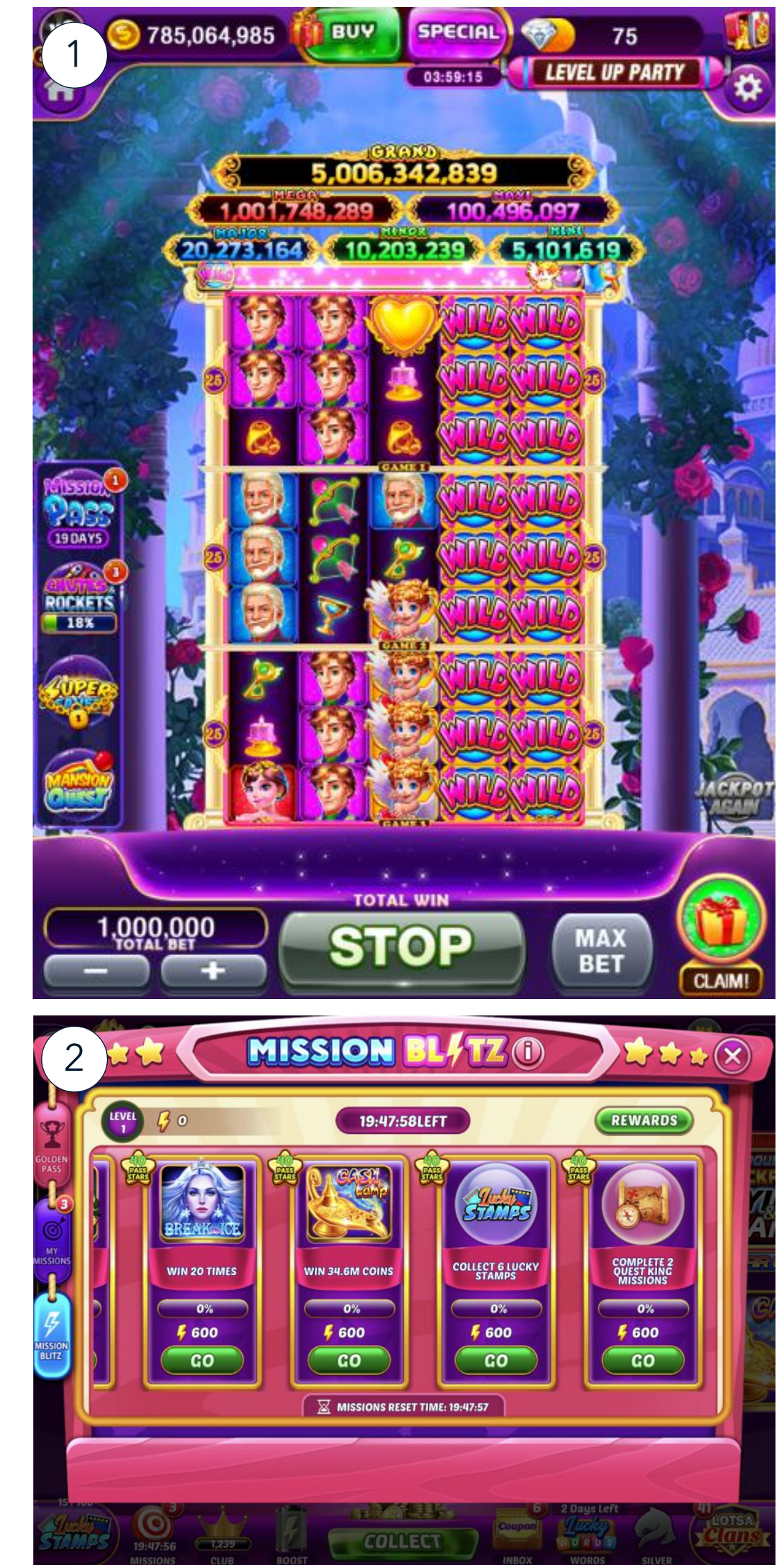
- **Visual symmetry is pleasurable and can be used to motivate players to complete tasks.** Humans crave symmetry for both its aesthetic beauty and the sense of completion it provides.¹ Cupid's Crush Deluxe harnesses this inclination toward symmetry by copying valuable symbols across reel sets and requiring players to fill all reel sets during respins (1). The more symmetrical the reels become, the greater the rewards.

For the same reason, asymmetrical compositions often feel incomplete. Incomplete tasks are uncomfortable for players and create an urge to re-engage.² As a result, players who fail to create symmetry are naturally driven to try again. Consider using a greater variety of symmetrical boosts and reward triggers to create goals that are both inherently motivating and viscerally pleasurable to achieve.

- **Using reward triggers both within and across multiple matrices increases motivation and enjoyment.** Not only does this stimulate arousal-motivated player types like Sensation Serena,³ but research shows that breaking rewards into multiple categories dramatically improves engagement—even when those categories are *completely arbitrary*.

One study found that subjects who were assigned a task with rewards broken down into arbitrary categories were over 3.5x more likely to complete the task than a control group without categories. Importantly, members of the categorized rewards group also ranked their motivation 38% higher and rated the task as 35% more enjoyable than the control.⁴

As a product example, *Lotsa Slots* offers three categories of challenges and saw revenue increase +18% 50Do50D following the release of its two most recent [daily challenge seasons](#) (2).



¹ [Why Do We Get So Much Pleasure From Symmetry?](#)

² [Induced not just right and incompleteness experiences in OCD patients and non-clinical individuals: An in vivo study](#)

³ [Liquid & Grit Slots Personas Report](#), p. 28-34

⁴ ["I'll Have One of Each": How Separating Rewards Into \(Meaningless\) Categories Increases Motivation](#), p. 4

SLOTS TRENDS



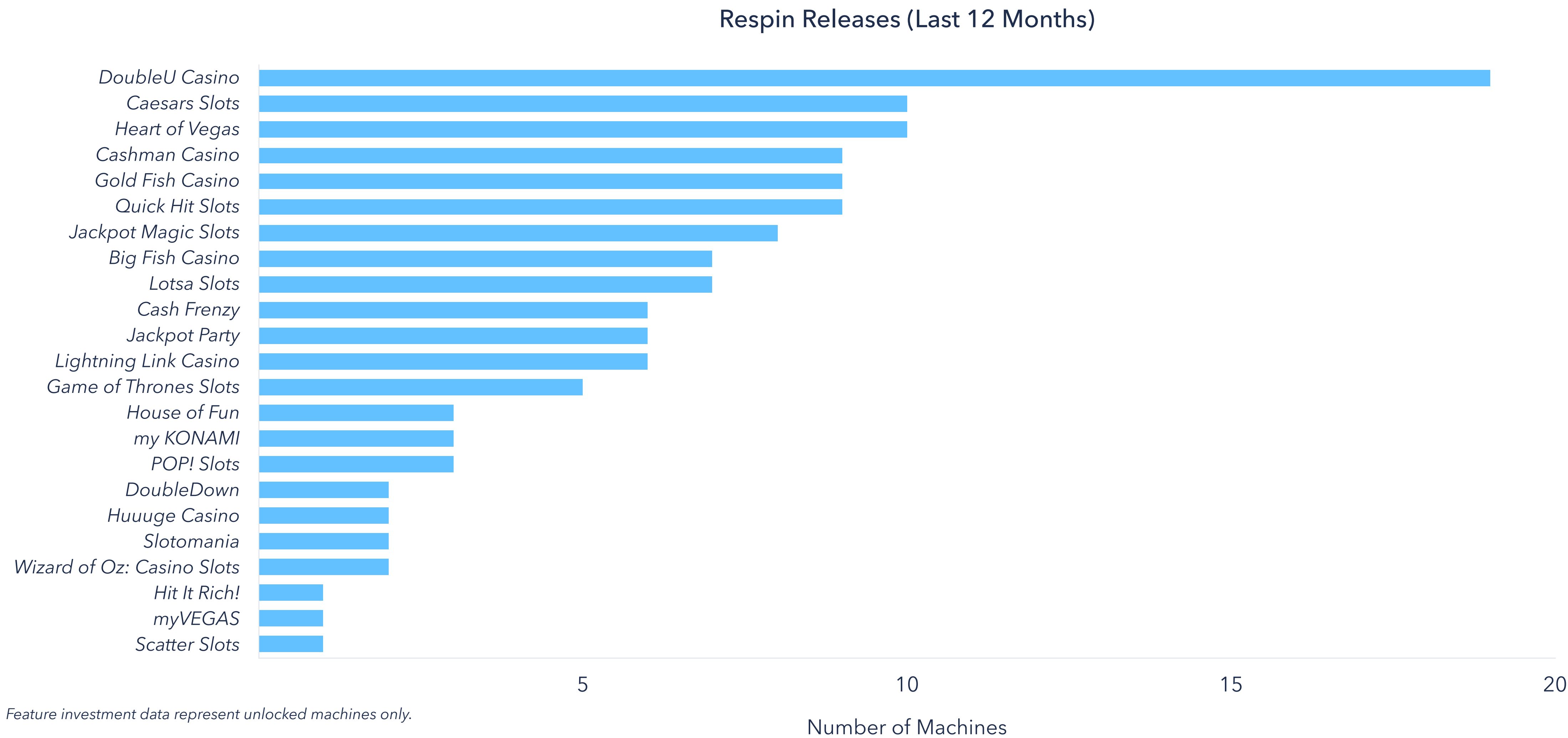
Analysis of the latest content developments in top-grossing apps.

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

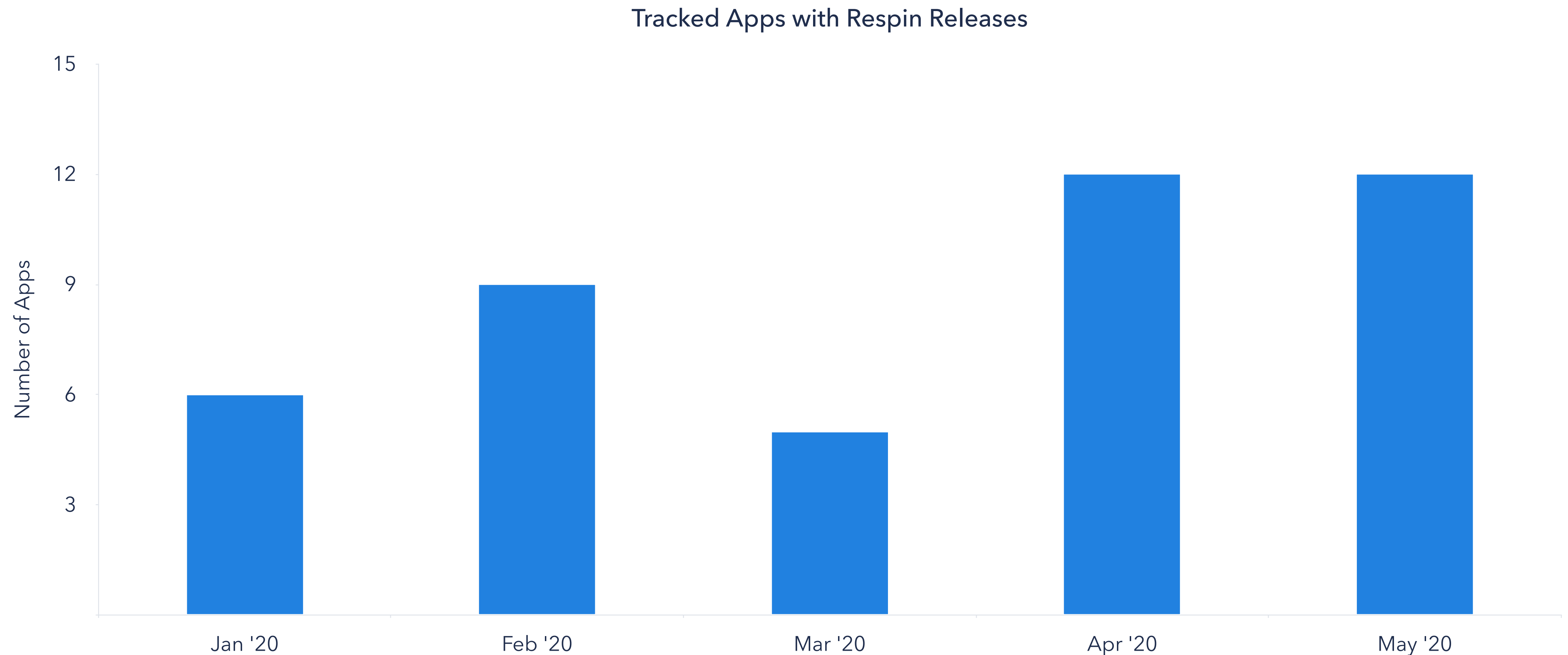
RESPIN INVESTMENTS BY APP

Over the last 12 months, *DoubleU Casino* has led tracked apps in respin investments, with almost twice as many respin releases as the next closest app.



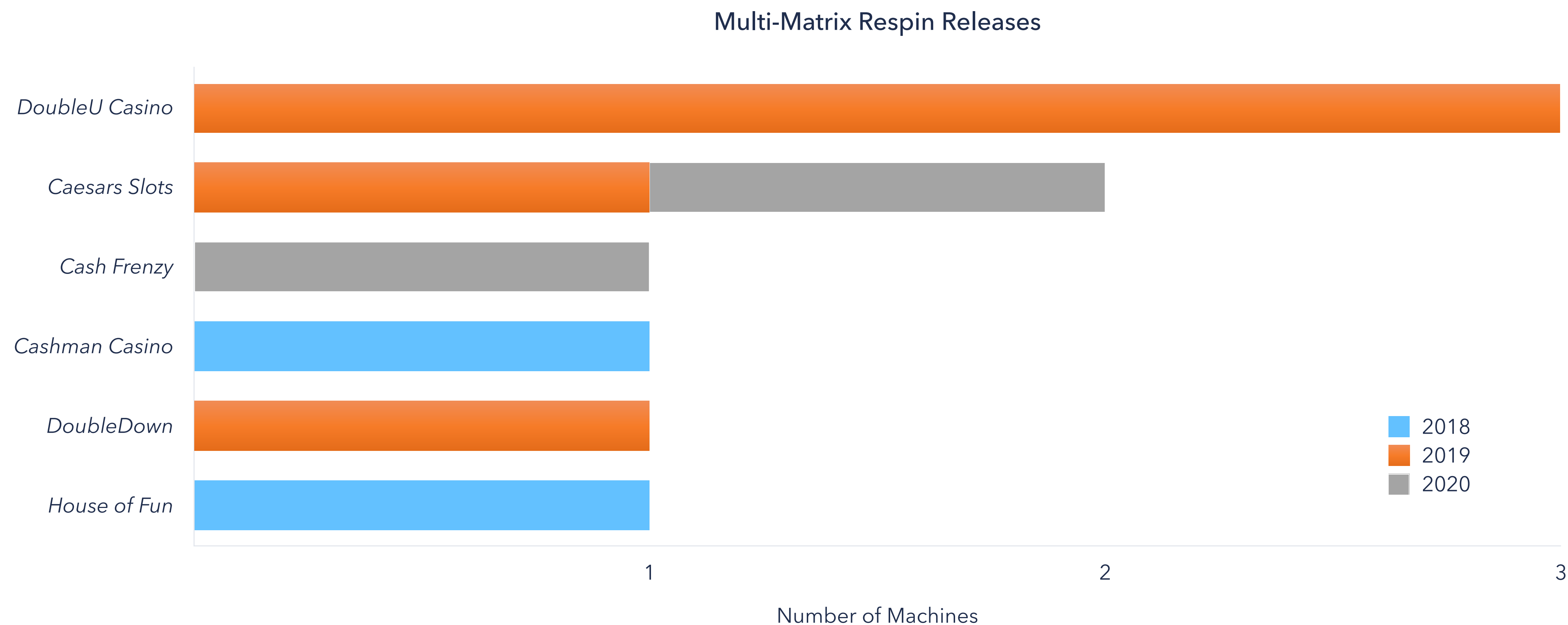
UNIQUE APPS WITH RESPINS

Although total new releases with respins have held relatively steady for the last year, the number of tracked apps with respin releases has increased from 6 in January 2020 to 12 in both April and May.



MULTI-MATRIX MACHINES WITH RESPINS

DoubleU Casino has invested the most in multi-matrix machines with respins since 2018; however, it has not released any so far in 2020. *Caesars Slots* and *Cash Frenzy* are the only tracked apps that have released multi-matrix machines with respins this year.



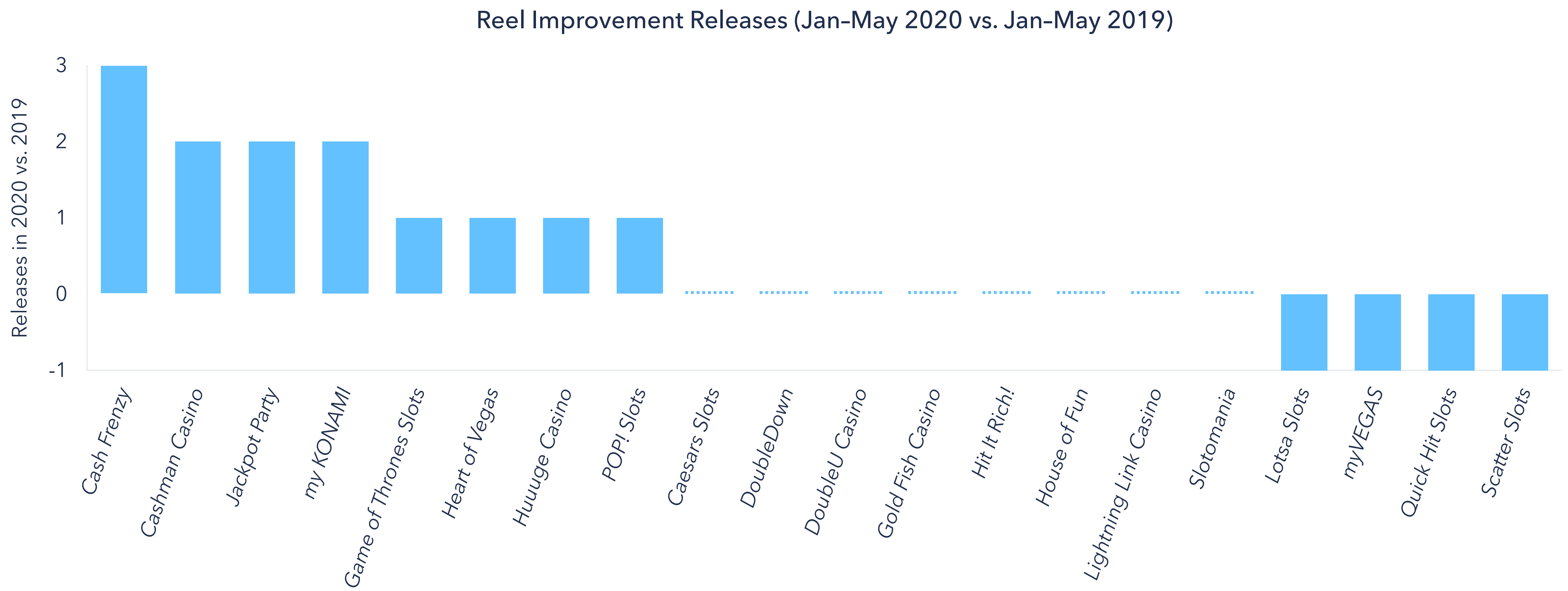
LOCKING CASH ZONES

Cash Frenzy, DoubleDown, and House of Fun all released machines with locking cash zone reel improvements in May.

	Cash Frenzy	DoubleDown	House of Fun
Machine	King of Olympus	Star Goddess: Stars of Wealth	Guardian of Fire
Release Date	5/14/20	5/19/20	5/16/20
Place Cash Zone	Lightning symbols place locked cash zones.	Portal symbols place locked cash zones.	Lion symbols place locked cash zones. Each spin can randomly add 1-6 cash zones.
Additional Action	Lightning symbols fill a meter for a Deal or No Deal bonus.	N/A	N/A
Cash Zone Trigger	Random lightning strike hitting a cash zone.	Random comet hitting a cash zone.	Landing a second lion symbol in the cash zone.
Cash Zone Action	Turns adjacent symbols wild.	Turns adjacent symbols and all cash zones wild.	Turns adjacent cash zones wild.
Free Spins	All free spins have lightning symbols.	Reel 3 contains only portal symbols.	A wheel spin before each spin adds 2-10 guaranteed lion symbols. Every fifth free spin bonus, an additional wheel spin adds locked cash zones during free spins.

REEL IMPROVEMENT INVESTMENT TRENDS

So far in 2020, tracked apps have released 50% more machines with reel improvements—like cash zones, frames, and pattern pay jackpots—than during the same period in 2019. *Cash Frenzy*, *Cashman Casino*, *Jackpot Party*, and *my KONAMI* have seen the greatest increase in reel improvement releases.



Feature investment data represent unlocked machines only.

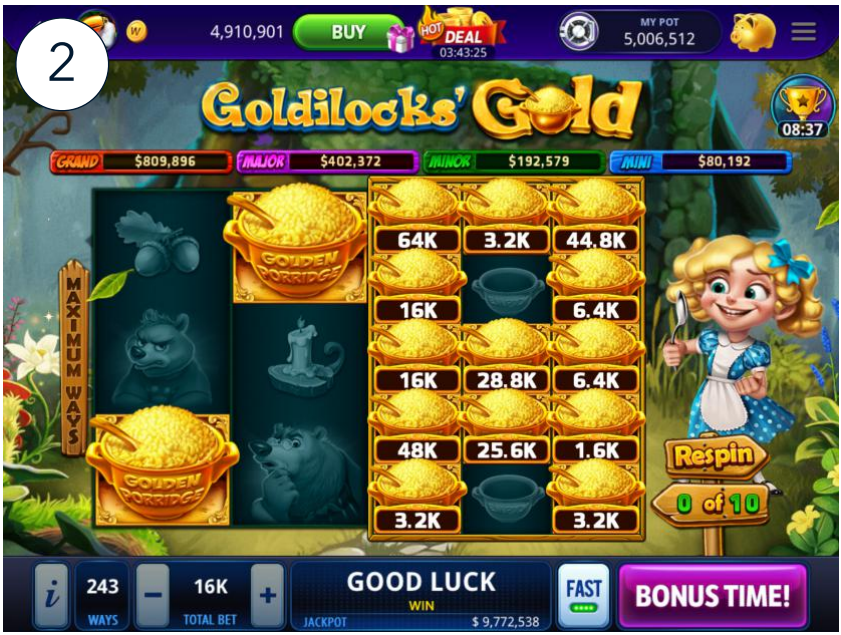
MARKET WATCH



A look at new and notable releases from established competitors.

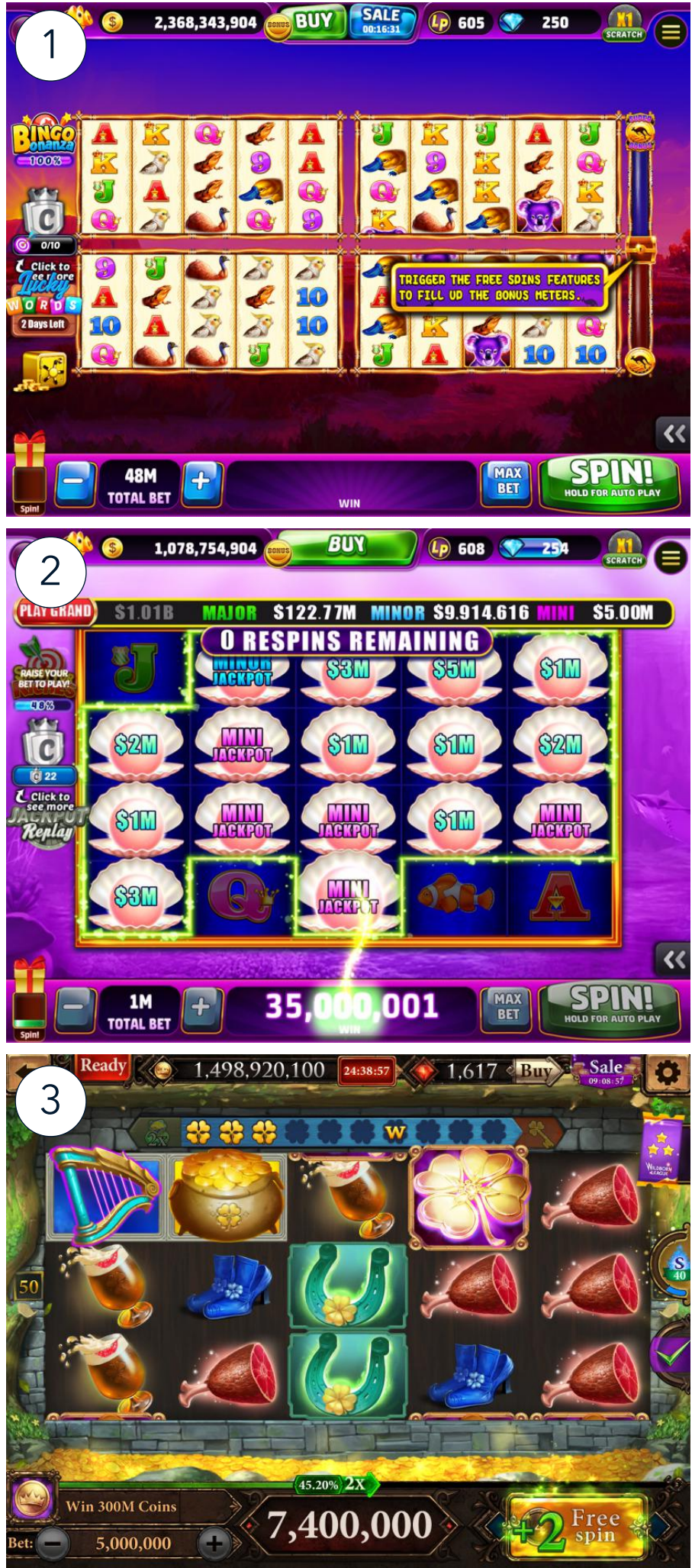
NOTABLE RELEASES I

App	Machine	Description
Cash Frenzy	Moment of Wonder	<ul style="list-style-type: none">Three or more circus tent symbols trigger a wheel spin (video).Wheel spins award coins, free spins, jackpots, or mystery prizes.A randomly triggered wilds bonus adds 3-10 multi-position wild symbols (video).Players collect wild symbols to fill a meter.Filling the meter moves players one space on a prize map for a wheel spin or a free spins bonus at milestones (1 and video).Wheel spins award prize multipliers or additional free spins.
	Goldilocks' Gold	<ul style="list-style-type: none">Three or more bonus symbols trigger 10 or more free spins (video).Wins with golden porridge symbols trigger respins.Repins occur on reels 3-5, which expand to form a 5 x 3 reel set (2).Bomb and porridge symbols lock in place (video).Bombs double their values and those of adjacent porridge symbols.
DoubleU Casino	Wizardous Orbs	<ul style="list-style-type: none">Three scatter symbols trigger 10 free spins.Landing 3 scatter symbols during free spins awards 10 more free spins (video).Orbs above the reels change values and positions after each spin.Wizard symbols that align with orbs award orbs' values (3 and video).
	Grand Star Wealth	<ul style="list-style-type: none">Three or more scatter symbols trigger a player choice free spins bonus (video).Landing one or more star pot, gold star, or colored star symbols on each reel triggers a bonus.Each star spins to reveal a star pot (4).Players win the sum of all star pot values (video).



NOTABLE RELEASES II

App	Machine	Description
Lotsa Slots	Koala Gold: Key to Riches	<ul style="list-style-type: none">• Players spin on four reel sets (video).• Three or more kangaroo symbols trigger up to 20 free spins.• Three or more super bonus symbols trigger up to 20 super free spins.<ul style="list-style-type: none">• Super free spins start with two stacked reel sets.• Landing a full key on one set unlocks an adjacent reel set, up to six total (three per row).• Each type of free spins fills a corresponding meter to trigger either super free spins or enhanced super free spins (1).
	Poseidon Cash	<ul style="list-style-type: none">• Three or more adjacent pearl symbols trigger three respins, link together, and lock in place.<ul style="list-style-type: none">• Pearls landed adjacent to linked pearls join the link and reset the respins counter.• Players receive all linked pearl prizes at the end of the bonus (2 and video).• Three shell symbols trigger a choice between wild free spins or the respins bonus (video).• Wins with scatter symbols award keys.• Keys fill a meter for a bonus prize.
Scatter Slots	Mary McWin	<ul style="list-style-type: none">• Spins fill a meter with four sections.• Each of the first three sections triggers free spins when completed.• During free spins, clover symbols fill a progress bar and can award extra free spins (3 and video).<ul style="list-style-type: none">• A progress bar milestone turns a random symbol type wild for the remainder of free spins.• Completing the bar unlocks the next section of the base game meter.• Failing to complete the bar resets the base game meter section's progress and fills a secondary jackpot meter.• Completing all sections of the base game meter awards a jackpot.



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.



"There is no must in art because art is free."

– Wassily Kandinsky

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