



## SLOTS DESIGN REPORT

Competitive Research and Data Insights for Slots Designers

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# MARCH

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# 2020

# NEW INNOVATIONS



CASINO > CONTENT > SOCIAL

# MACHINE STORE AND MONSTERPEDIA

Power of Dragon in *Cash Frenzy*



# MECHANIC TEARDOWN

Players collect a machine-specific currency to upgrade and unlock dragons. Spins can trigger a mini-stepper to add wilds, multipliers, or substitute symbols.

## Free Spins

- Landing three gold dragons awards eight free spins.
- Free spin symbols landed during free spins award additional spins.
- Multiplier symbols landed during free spins increase multipliers up to a maximum of 10x.

## Jackpot Pick'em

- The crystal ball symbol triggers a jackpot pick'em.
- Players pick from 20 cards to match jackpots (1).
- Each jackpot requires a different number of matches.
- The pick'em ends once players win a jackpot.

## Mini-Stepper

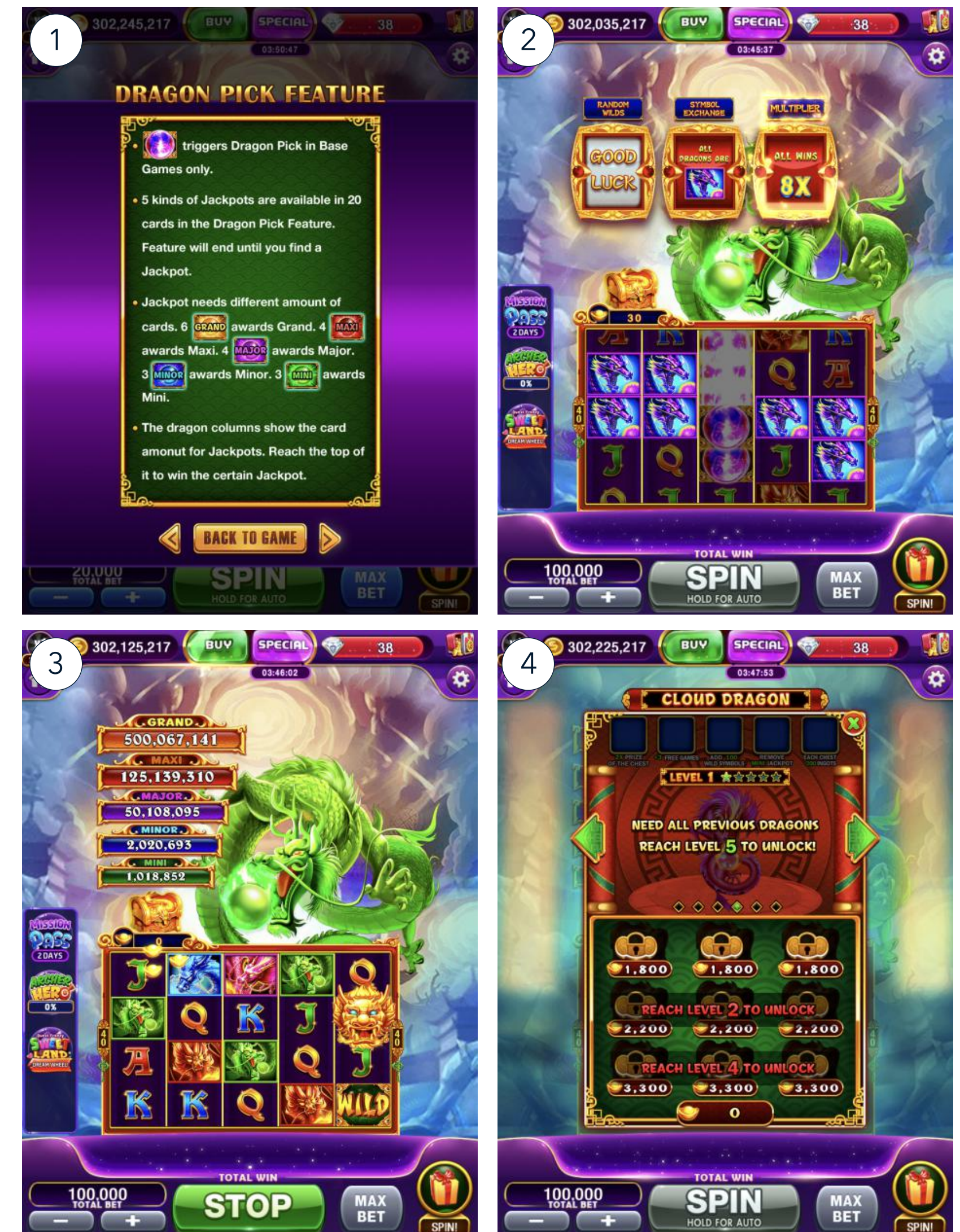
- Spins that don't award free spins or a jackpot can trigger a mini-stepper above the reels.
- The three mini-stepper reels add wilds, substitute dragon symbols, or award multipliers (2).

## Dragon Store

- Symbols randomly award a machine-specific currency (3).
- Players use this currency to purchase chests.
- Chests award coin prizes, free spins, and dragon upgrades.
- Each dragon can be upgraded to level five.
- Upgrading all dragons to level five unlocks additional dragons (4).
- Boosts collected from the base game are added to chests.

## Additional Information

- See more images and videos in the [Power of Dragon](#) Library.





# EXPERT INSIGHTS

Increase emotional connection to collectibles by generating unique elements for each player. Scale progressions and collections to a product's expected play time.

## Insight Details

- **Make collectibles more desirable with player-specific accents.** Research shows that collectible objects are satisfying due to the distinct associations with places, people, and experiences that they develop over time.<sup>1</sup> Harness this power with systems that allow collectibles to accumulate unique biographies for each player. For example, *World of Warcraft* gives certain summonable minions permanent, randomly generated names (1). These names often become a source of affection for their owners and even lead to community engagement as players share their favorites.<sup>2</sup> Other techniques include surfacing metadata that shows the names of battles won by a character, the total winnings of an unlocked symbol, or the name of a player who gifted an item.
- **Design progressions to push players only slightly past their normal play time.** Power of Dragon's unlockable dragons progression is large enough to keep players engaged but not so extensive that it requires an unrealistic time commitment (2). Make sure that progressions are challenging but achievable based on the number of hours players spend on a single machine, then add prestige mechanics for whales who want to keep playing.
- **Use multiple reward schedules to sustain engagement.** The mix of random rewards and steady progressions in Power of Dragon ensures that players always feel like a win is close at hand. While collecting currency creates a reliable stream of progress, the free spins bonus and jackpot pick'em can happen at any time. And when they don't, they have a chance to spin a mini-stepper for upgrades!

<sup>1</sup> [Materialising Digital Collecting: An Extended View of Digital Materiality](#), p. 30

<sup>2</sup> [Game FAQs – What are your Warlock pet names?](#)





CASINO > CONTENT > SOCIAL

# TIMED BOOST

Tikitopia in *House of Fun*



# MECHANIC TEARDOWN

Players collect tokens to fill a meter. Filling the meter triggers a timed boost that increases the number of respins awarded by a pick'em bonus.

## Respins Bonus

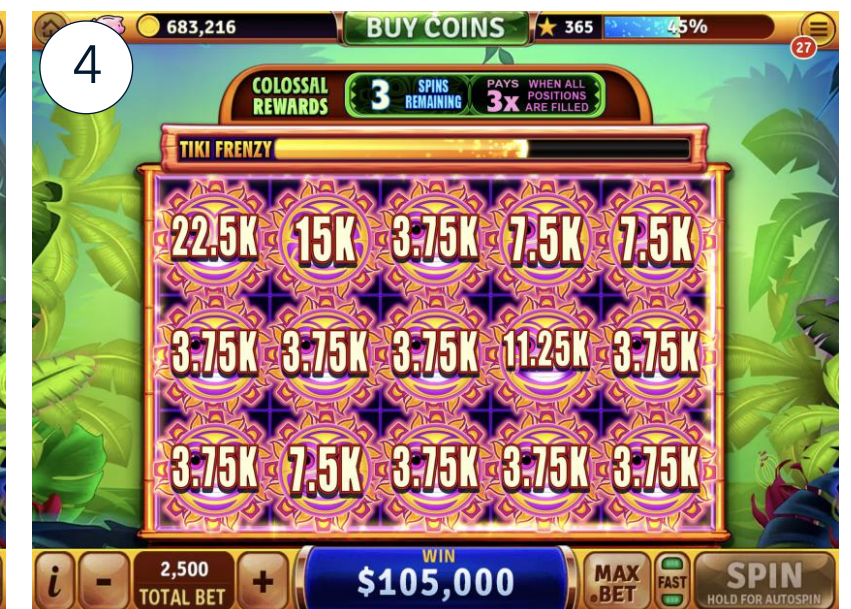
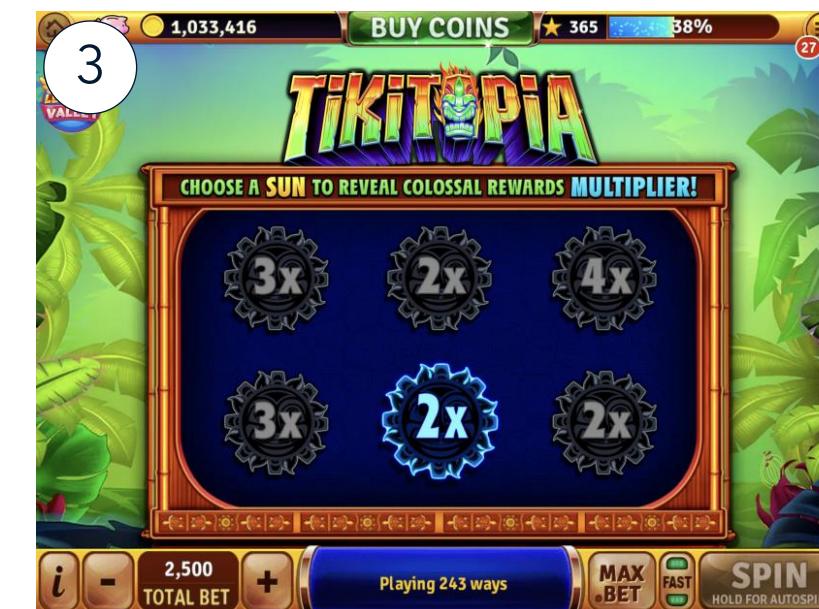
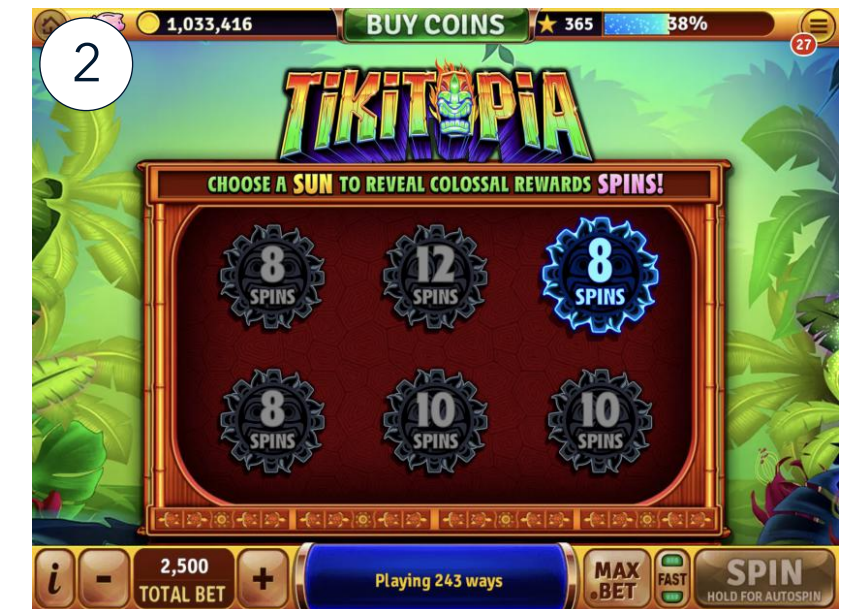
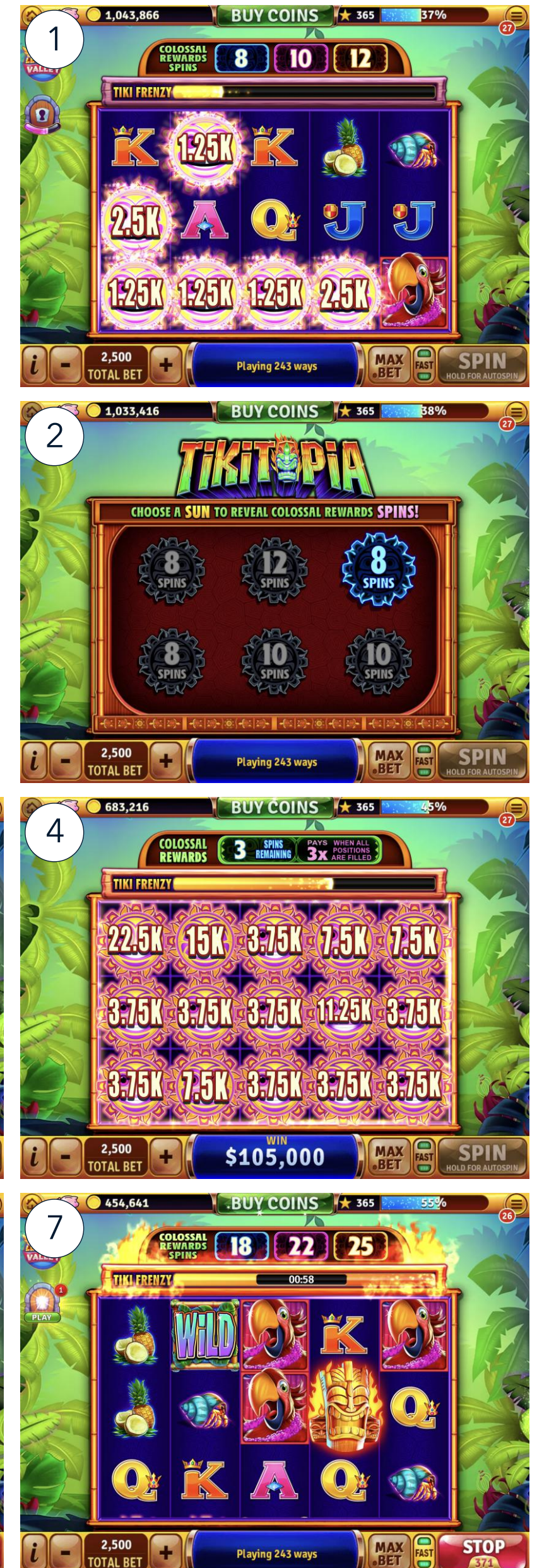
- Landing six or more sun symbols triggers a respins pick'em bonus (1 and [video](#)).
- Players pick a number of respins and a multiplier on two consecutive screens (2 and 3).
- During respins, all symbols besides suns are grayed out.
- Filling all positions with suns clears the reels, awards the multiplier, and increases the value of suns for the remaining respins (4).

## Tiki Frenzy

- Symbols with token icons fill a meter above the reels (5).
- Filling the meter triggers a 10-minute Tiki Frenzy ([video](#)).
  - Respins bonuses triggered during Tiki Frenzy award more respins (6).
  - The number of potential respins increases as the timer counts down (7).

## Additional Information

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





# EXPERT INSIGHTS

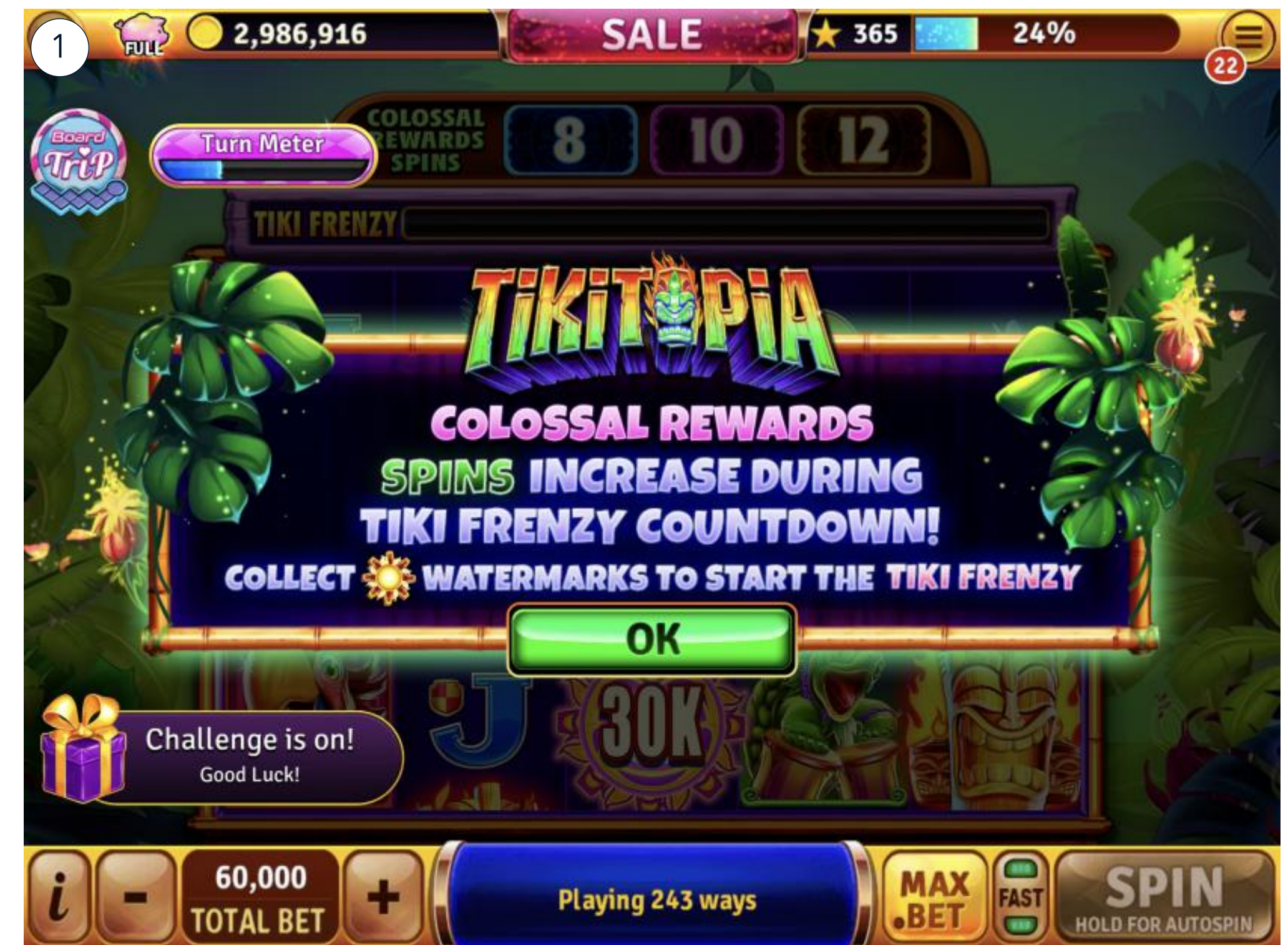
Time-limited mechanics should provide clear goals, reward player effort, and offer a final bonus to end on a high note.

## Insight Details

- **Use time limits to increase flow.** According to research, players experience higher levels of engagement and flow when faced with time limits.<sup>3</sup> In Tiki Frenzy, players feel even more pressure because the potential rewards increase as the timer winds down (1).
- **Avoid all-or-nothing reward systems for infrequently triggered features.** During testing, it took over 2,000 spins to activate Tiki Frenzy—but we were unable to trigger a respin bonus within the 10-minute timer. As a result, this hard-to-obtain mechanic provided no additional value.

Studies show that performance-based rewards increase intrinsic motivation<sup>4</sup>—and that the *absence* of expected rewards feels like a punishment.<sup>5</sup> Avoid this potentially disappointing experience by offering guaranteed minimums and incremental, performance-based rewards.

- **Make the grand finale memorable.** In the [February 2020 Slots Design Report](#), we wrote about the peak-end rule, which says that people primarily remember the peak intensity and the end of an experience.<sup>6</sup> Make sure timed mechanics leave players feeling good by awarding a final boost in the form of a pick'em, wheel spin, or mini-stepper.



<sup>3</sup> [Time Pressure as Video Game Design Element and Basic Need Satisfaction](#), p. 33

<sup>4</sup> [Achievement-Based Rewards and Intrinsic Motivation: A Test of Cognitive Mediators](#), p. 651

<sup>5</sup> [The Gamer's Brain, Part 3: The UX of Engagement and Immersion \(or Retention\)](#), 13:02

<sup>6</sup> [Level Design Workshop: The Illusion of Choice](#), 13:45

# SLOTS TRENDS



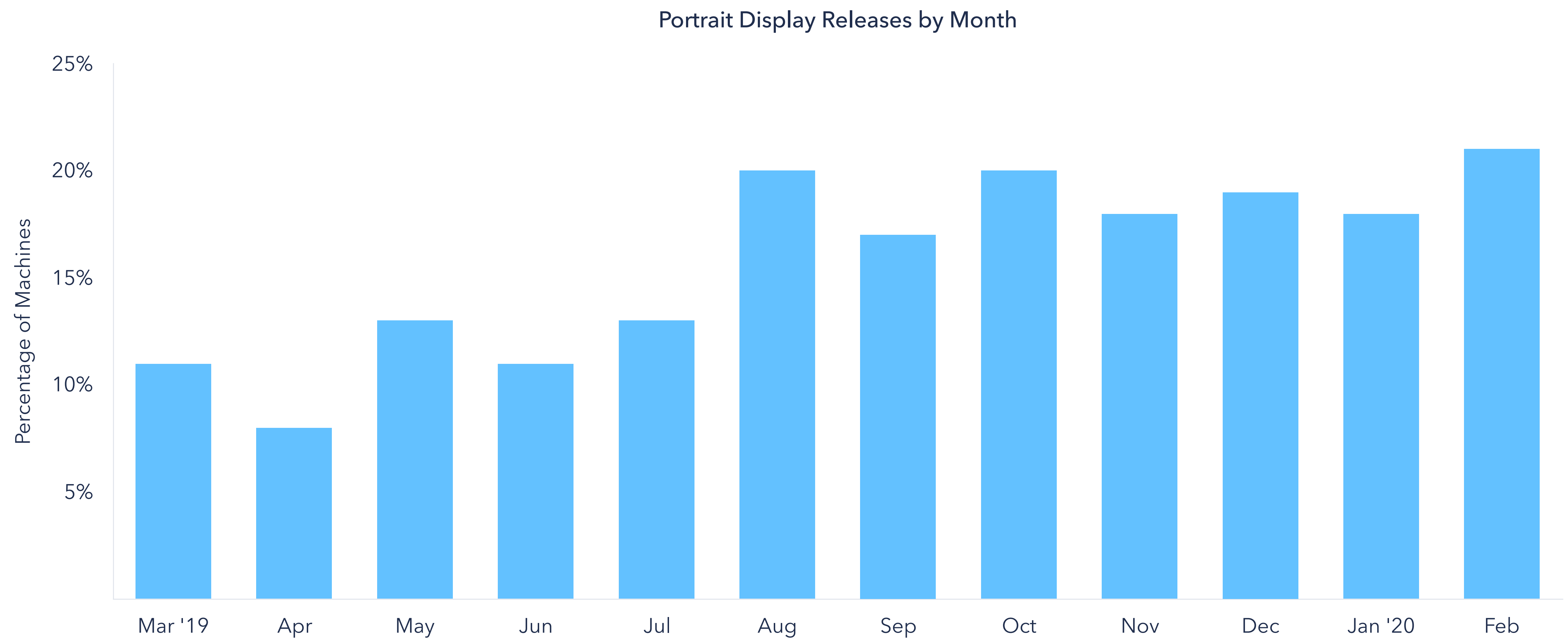
## **Tracked slots apps:**

*Big Fish Casino, Caesars Slots, Cash Frenzy, Cashman Casino, DoubleDown Casino, 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, myVEGAS, my KONAMI, POP! Slots, Quick Hit Slots, Scatter Slots, Slotomania, and Wizard of Oz: Casino Slots*



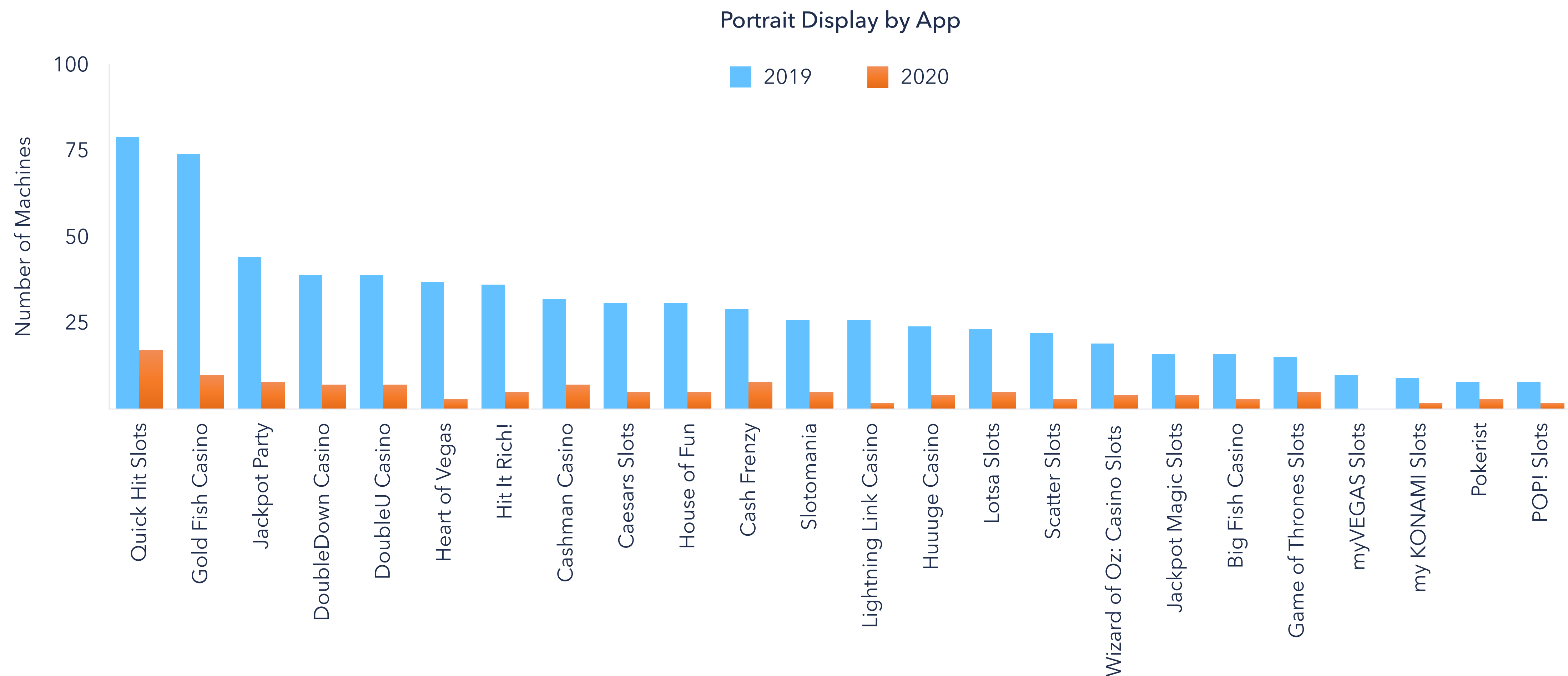
# PORTRAIT DISPLAY

In February, over 20% of new machines used portrait display—the most to date. We expect this trend to continue to rise as more apps make this capability available to their slots design teams.



# PORTRAIT DISPLAY BY APP

Apps with RMG content release the most portrait display machines, while Playstudios, Big Fish Games, and some of Zynga’s apps release much fewer.





# MARKET WATCH



# NOTABLE RELEASES I

App	Machine	Description
Big Fish Casino	<a href="#">Serengeti Splendor</a>	<ul style="list-style-type: none"><li>• Symbols with sun icons have a chance to turn all animal symbols into elephants (<a href="#">video</a>).</li><li>• Spins from all players in the room fill a social meter for a mystery prize (<a href="#">1</a>).</li></ul>
Cashman Casino	<a href="#">Jin Fuo Wheel</a>	<ul style="list-style-type: none"><li>• The total value of yellow coins landed on any spin is added to a slice on a social wheel (<a href="#">video</a>).</li><li>• When all slices are filled, all players in the room win the total value of the wheel and six wheel spins.</li><li>• Wheel spins award the value of 1-3 slices with increasing multipliers for each spin (<a href="#">2</a> and <a href="#">video</a>).</li></ul>
	<a href="#">The Walking Dead</a>	<ul style="list-style-type: none"><li>• Players spin on two 5 x 5 reel sets.<ul style="list-style-type: none"><li>• Landing tall character symbols fully on the reel creates a full-reel wild and copies it to the other reel set (<a href="#">video</a>).</li></ul></li><li>• Landing three or more jackpot symbols triggers free spins on a 10 x 1 reel set and a prize wheel.<ul style="list-style-type: none"><li>• The prize wheel spins continuously until the bonus ends (<a href="#">video</a>).</li><li>• Players get three spins on the reel set to land baseball bats or flaming baseball bats.</li><li>• Flaming baseball bats upgrade wheel prizes.</li><li>• At the end of spins, the wheel stops and players earn all prizes that align with baseball bats (<a href="#">3</a>).</li></ul></li></ul>
DoubleU Casino	<a href="#">Witty Kitty</a>	<ul style="list-style-type: none"><li>• During respins, coin symbols leave behind sticky rope frames.</li><li>• Landing a coin in a rope frame turns it into a wooden frame.</li><li>• Landing a coin in a wooden frame turns it into a castle gate (<a href="#">4</a>).</li><li>• At the end of respins, rope frames award coin bags, wooden frames award chests, and castle gates award the total value of all other framed spaces.</li></ul>



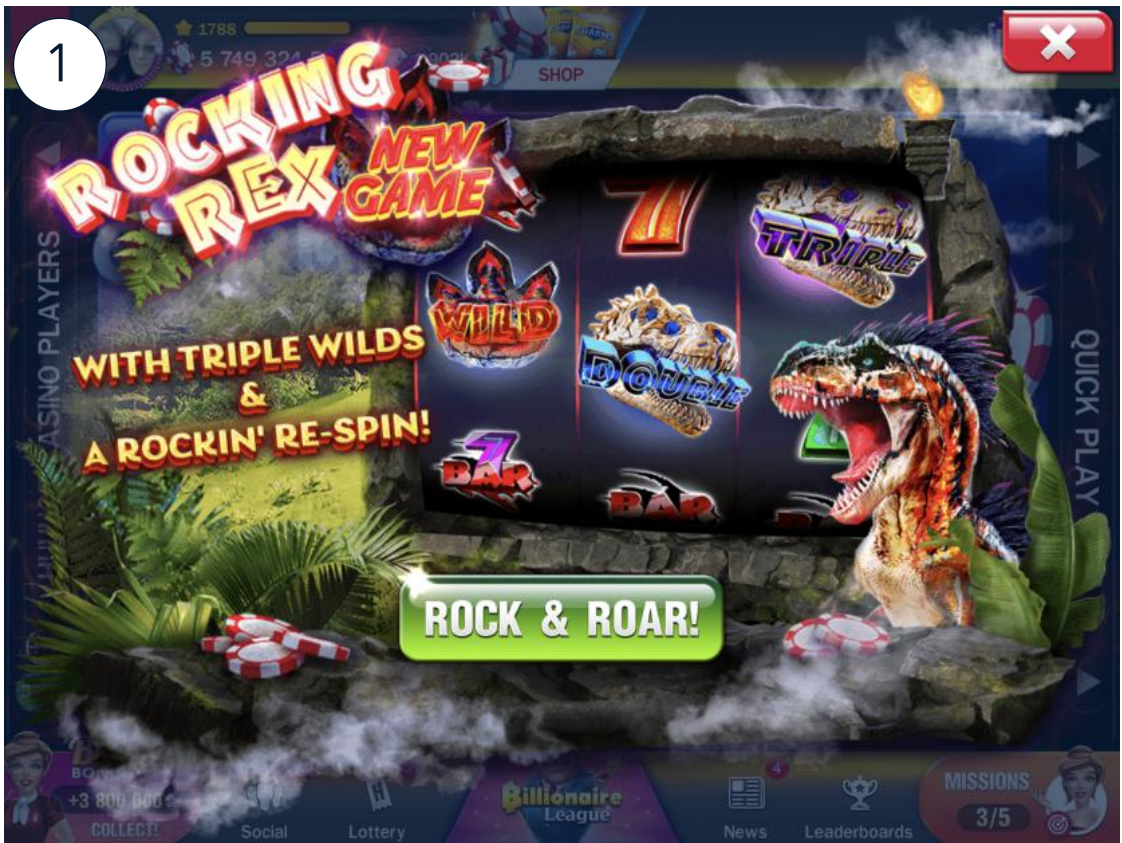


# NOTABLE RELEASES II

App	Machine	Description
Huuuge Casino	<a href="#">Rocking Rex</a>	<ul style="list-style-type: none"><li>Any spin can randomly trigger respins.</li><li>During respins, multiplier wilds from the triggering spin remain on their reels and randomly change position each spin (<a href="#">1</a> and <a href="#">video</a>).</li></ul>
Lotsa Slots	<a href="#">Red Hot Hearts</a>	<ul style="list-style-type: none"><li>Heart icons appear on symbols.</li><li>Landing three heart icons triggers free spins and fills a meter.</li><li>Three meter milestones award additional starting reel sets for free spins.</li><li>During free spins, players collect hearts to unlock up to nine more reel sets (<a href="#">2</a> and <a href="#">video</a>).</li></ul>
Slotomania	<a href="#">2 Dragons Rapid Fire</a>	<ul style="list-style-type: none"><li>Players spin on two 5 x 5 reel sets.</li><li>Landing three or more scatter symbols triggers up to 50 free spins.<ul style="list-style-type: none"><li>Filling the first reel on either set with dragon symbols adds up to 1,000 dragon symbols to the next spin (<a href="#">3</a> and <a href="#">video</a>).</li></ul></li><li>Wilds are copied to the corresponding position on the other reel set (<a href="#">video</a>).</li></ul>

Quickly review all features and machines

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



# APPENDIX





# LIQUID AND 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 and 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><b>Market Research</b> <a href="#">Quadrant Strategies</a></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><b>Player Personas</b> <a href="#">Kinrate Analytics</a></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><b>Mobile App Store Intelligence</b> <a href="#">Sensor Tower</a></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"><li>▸ Evaluate app economies and app vitality.</li><li>▸ Drive organic growth with the leading App Store Optimization platform.</li><li>▸ Get the best global download and revenue estimates for the App Store and Google Play.</li><li>▸ Discover top creatives and better shape user acquisition strategy.</li></ul>





*“Before he goes into the water, a diver cannot know what he will bring back.”*

– Max Ernst

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