

LIQUID AND GRIT

Product Report

Competitive research and actionable product recommendations

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INTRODUCTION



Dear Product Owner,

John D. Rockefeller said, "If you want to succeed, you should strike out on new paths rather than travel the worn paths of accepted success." The Market Watch section heightens innovation and growth by informing you of all recent feature releases. Key Features takes a closer look at current successful trends helping you create new paths.

Like you, our goal is to grow. We now have a new monthy report focused entirely on slots machines. In this report, we summarize *every* machine released by the 30 top grossing social casino slots games. The report also includes Deep Dives into the most innovative machines released. Email me to find out more.

By popular demand, the Bold Beat this month examines sales tactics. To save you time, we examined all 40 top grossing social casino games and compiled a list of best practices by category.

New this month, you will see a slide detailing creative Live Ops feature releases. Also in the Quick Wins section, check out the Lucky Spin feature. As a former revenue product manager, I love to see buy page tactics like this one to increase revenue per payer.

To provide more value, we have doubled the Market Watch coverage to include the 40 top grossing social casino games, 10 top grossing bingo games, and 10 top grossing poker games. Review the Detailed Slides in this section for more information on major features released.

Through innovation, intuition, and iteration, a successful future lies ahead.

All the best,

Brett Nowak Editor-in-Chief

KEY FEATURES

KEY FEATURES

Feature	KPIs	Recommendations
Sales Tactics	ConversionRevenue per payer	 Add guaranteed wins to sweepstakes, change discounts based on level, and launch sales during retail times with coinciding sinks Be careful not to cannibalize future revenue by revealing low-priced packages too early
Post-Purchase Buy	 Transactions per payer 	 Consider adding a post-purchase mini-game that can only be unlocked with an additional purchase to drive revenue per payer
Payer Payout Meters	 Transactions per payer 	 Test rewards of in-machine multipliers and free spin bonuses based on purchases made Monitor payer wallets closely during testing
Live Ops	Short-term revenue	 Test a Live Ops event that can only be claimed with a purchase Try rewarding purchasers with a huge daily bonus 'tomorrow'
Polish Items	 Retention 	 Consider a daily bonus calendar with dispersed awards Add small mechanics for whales, like expensive secondary currency-only machines

BOLD BEAT: SALES TACTICS

BUY PAGE OFFERINGS

Slotomania HD offers players the most extra items with each purchase: rewards points, purchasable mini-games, boosts, friend rewards and better packages based on rewards level

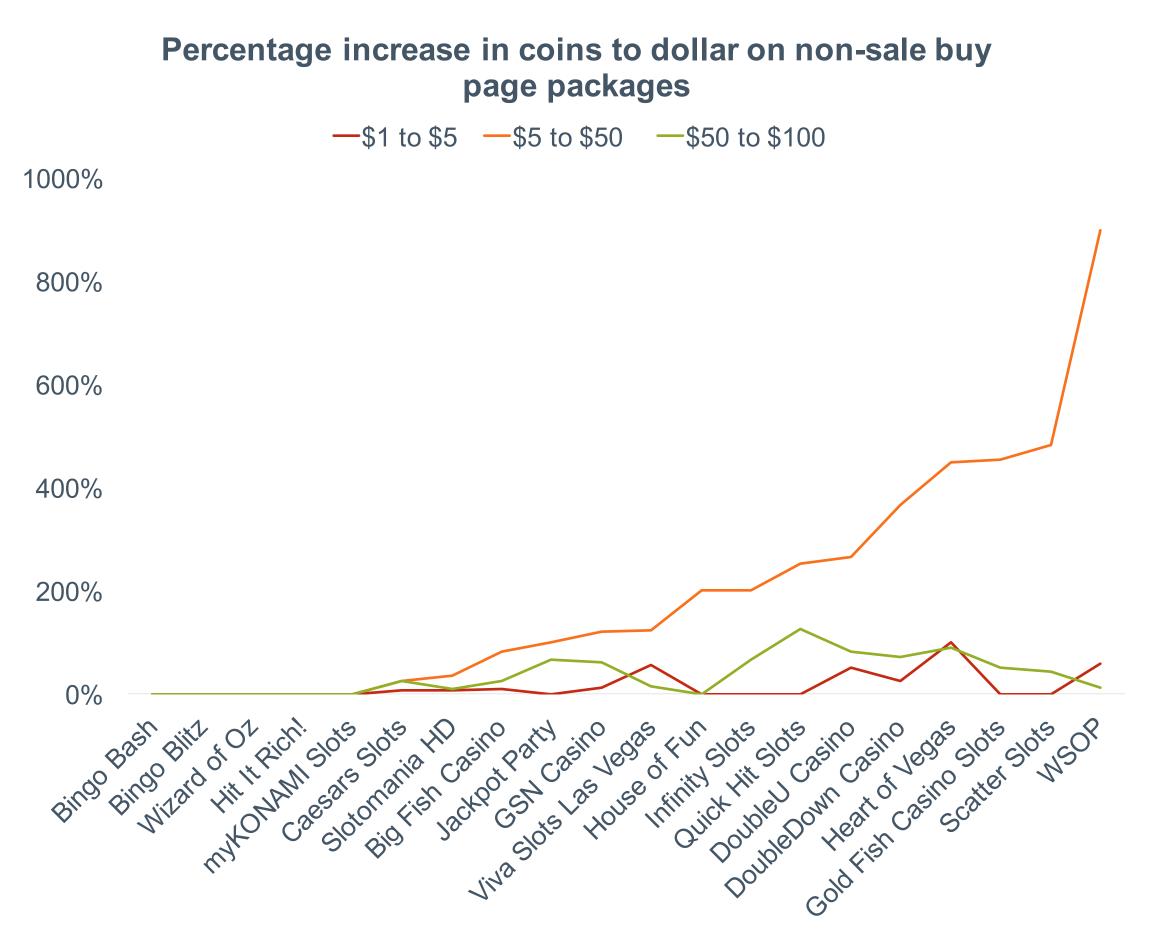
	Tickets	VIP Points	Purchasable Mini-Games	Boosts	Friend Rewards	Package Progression
DoubleDown Casino		√				
Big Fish Casino	✓	✓				✓ (VIP level)
Heart of Vegas		√				
Jackpot Party						
House of Fun		✓		✓		✓ (game level)
Slotomania HD		√	✓	✓	✓	✓ (VIP level)
GSN Casino						
Bingo Bash						
DoubleU Casino		✓				✓ (VIP level)
Gold Fish Casino						
Bingo Blitz		√				

BUY PAGE PACKAGES

The largest increases in chips to dollar ratios on non-sale buy pages is seen between \$5 and \$50. WSOP has the highest ratio from \$50 to \$100, awarding payers 900% more chips to dollar at the \$100 non-sale package

Increase	\$1 to \$5	\$5 to \$50	\$50 to \$100
Average	+23%	+203%	+44%
Minimum	0%	0%	0%
Maximum	+100%	+900%	+126%
Median	+8%	+123%	+43%

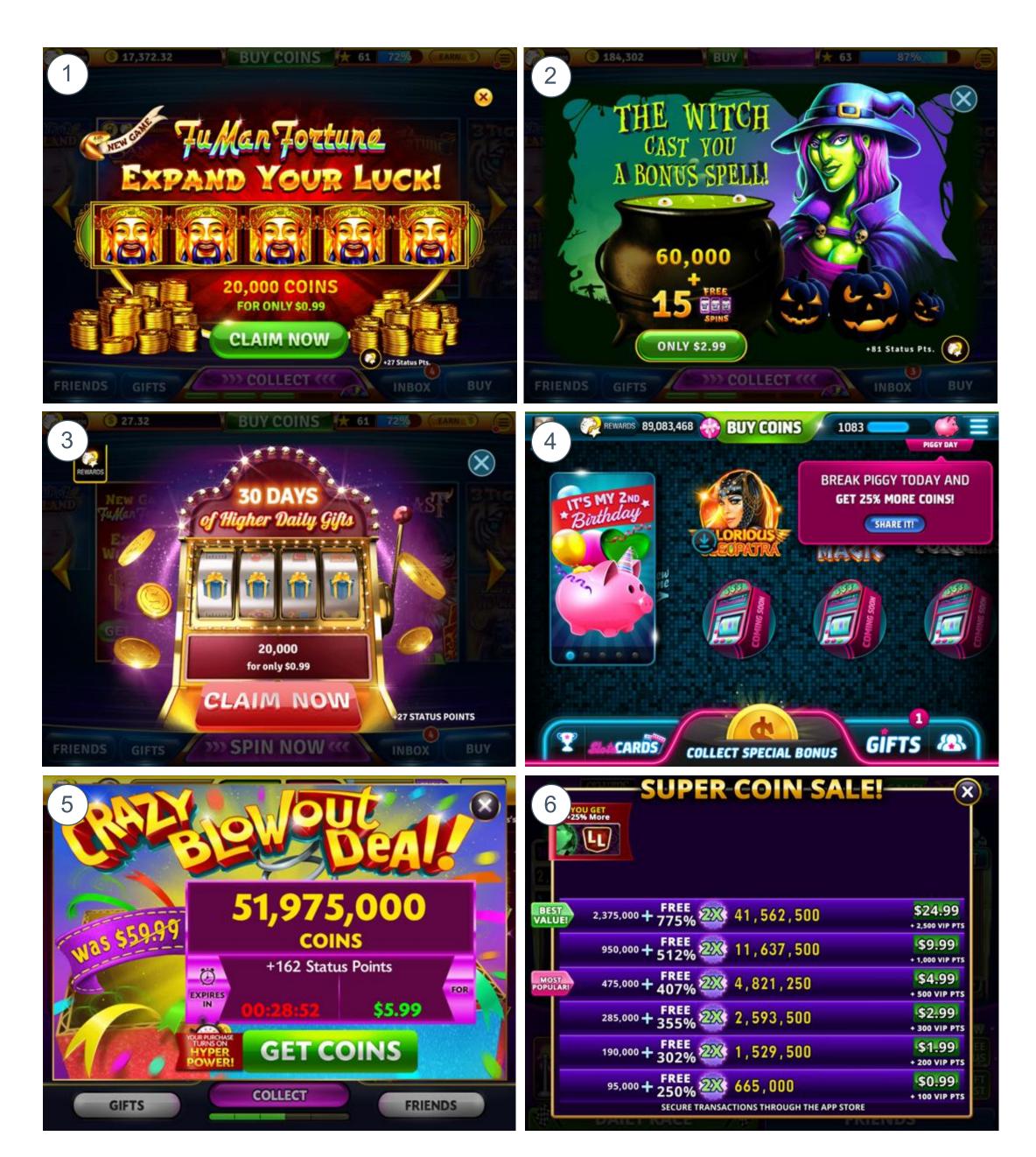
- Try random changes to conversion to keep payers surprised: WSOP, for example, has a +900% increase from \$5 to \$50 but only a +13% increase from \$50 to \$100. Change the ratios up randomly to keep players checking the buy page and changing their purchasing behaviors.
- Consider smaller ratios to increase transactions: Decreasing inflated wallets for heavy spenders with smaller, yet more frequent transactions, could increase payer retention and decrease potentially massive wallets.
- Consider a zero value increase: Bingo Bash, Bingo Blitz, Wizard of Oz, Hit It Rich!, and myKONAMI Slots either do not have packages or have no value increase from \$1 to \$5, \$5 to \$50, and \$50 to \$100.



NEW BUYER CONVERSION

Be careful not to cannibalize future revenue by revealing low-priced packages too early

- Scale up the coins to dollar ratio to convert players: In House of Fun, players first receive 16K coins for \$0.99, and then 20K coins for \$0.99 (image 1). Players are given 32K, then 40K, and finally 100K for \$1.99. For \$2.99, players get 160K coins.
- Attach free spins and bonus games to purchases: In House of Fun, players are also awarded bonus games and free spins with new buyer packages (image 2).
- Give players 30 days of larger daily bonuses: Similar to Scatter Slots' VIP for a month feature, which was examined in the January 2016 Product Report, House of Fun awards players 30 days of higher daily gifts (image 3).
- Add sales to the break-the-bank feature: Included in the February 2016 Product Report, consider adding a sale to the break-the-bank feature to drive up conversion (image 4).
- Try ridiculous discounts: In Caesars Slots, players receive a \$59.99 package for \$5.99, one of the best deals observed (image 5).
- Offer cheaper prices to non-buyers: In Hit It Rich!, non-payers receive sales on packages that range from \$0.99 to \$24.99 (image 6).



REPRICES

Hit It Rich! repriced the daily bonus, jackpots, and coin purchases by 15.8x. This change did not result in a sustained gross revenue increase

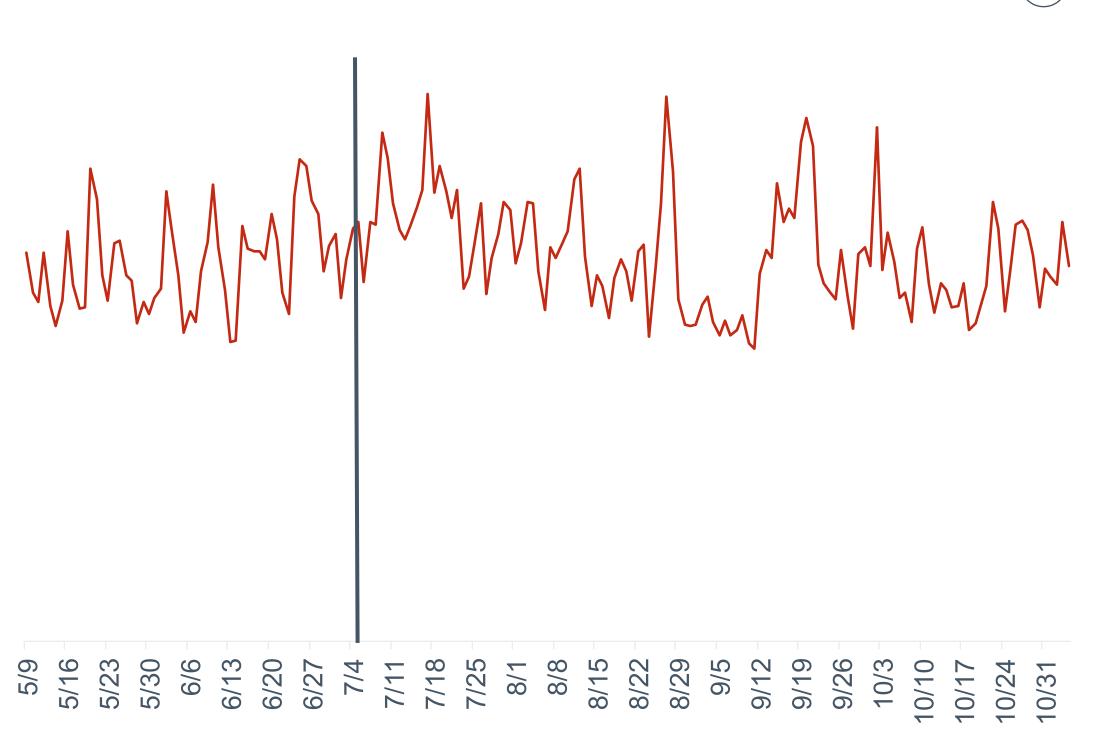
- Hit It Rich! released a reprice during the 7/5/16 release.
- The reprice increased the daily bonus, jackpots, and coin purchases, as noted in our July 2016 Product Report.
- Prior to the release, there were sales of 280% and a \$4.99 non-sale package for 30K coins, a conversion of 6K coins to dollar (image 1).
- Now, there are larger sales of 407% and a non-sale \$4.99 package of 475K coins, a conversion of 95K coins to dollar (image 2).
- The non-sale reprice was a 15.8x increase in non-sale coins.
- Looking at Hit It Rich!'s gross revenue, the reprice could have contributed to a temporary lift in revenue from 7/5 to 9/5 but the slope seems downward trending (image 3).
- However, it is clear that the *last* reprice did not substantially change Hit It Rich!'s gross revenue. Their ranking went from a 14 rank average in social casino grossing to an ~11 average (temporarily) before returning back to ~14.
- A prior reprice could have had a larger impact on overall revenue.





Hit It Rich! Grossing Numbers





SALES

Increase prices for dollar-discounted sales.

Adjust prices based on level or VIP tier. Launch sales during retail times with coinciding sinks

- Increase crossed-out prices above the iOS limit to maintain revenue per transaction during sales: In Viva Slots Las Vegas, \$199 is crossed out during a sale for \$99.99 (the usual package price) (image 1).
- Trigger a contact support pop-up after purchase: In House of Fun, when players cancel a purchase a Contact Support dialogue box appears increasing transactions per buy page impression. This was discussed in our May 2016 Product Report (image 2).
- Adjust prices based on VIP or game level: In Slotomania HD, players of higher reward levels enjoy better package amounts (image 3).
- Add level-based chip discounts: In Wizard of Oz, players receive 40% more credits when they reach level four (image 4).
- To retain the perceived value of coins, launch sales during similar times to retail stores: In Caesars Slots, players receive an, "Autumn Sale" for one day only. Retail stores have similar calendar-based sales to maintain perceived value of their brand (image 5).
- Launch sales with coin sinks to decrease hangovers: In Viva Slots Las Vegas, players receive a sale on the weekend, which is a downtime, and all machines are unlocked to sink wallets (image 6).













QUICK WINS

- POST-PURCHASE BUY
- PAYER PAYOUT METERS
- LIVE OPS
- POLISH ITEMS

POST-PURCHASE BUY

Consider adding a post-purchase mini-game that can only be unlocked with an additional purchase to drive revenue per payer

- In Slotomania HD, the buy page notifies players of the progression to buy coins, purchase Lucky Spins, and win up to 10x multiplier (image 1).
- After the initial purchase of a qualifying coin package, a dialogue box opens giving players the option to make an additional purchase of the same amount—in this case \$1.99—for a Lucky Spin (image 2).
- myVegas Slots added a similar feature called the BONUS \$PIN that costs \$9.99 after making a \$9.99 coin purchase (image 3).
- After a purchase in Slotomania HD, players are presented with a one line 2 x 3 classic reel machine (image 4).
- In this example's spin, two cherries land on the payline and the player receives 3x the original coin package (image 5).
- When the final dialogue box opens, it displays all the items received with this purchase: total coin amount, Gift Card to qualified friends, Collect All gifts for seven days, 2HR Power for seven days, and status points (image 6).













PAYER PAYOUT METERS

Test rewards of in-machine multipliers and free spin bonuses based on purchases made. Monitor payer wallets closely during testing

- Upon app-launch, players see Multiplier Bar and Free Spin Bar icons on select machines (image 1).
- When a player enters a Multiplier Bar machine, a dialogue appears informing players of the new feature (image 2).
- A fill bar sits on the left side of the reels with multipliers on it ranging from x2.0 to x5.0 (image 3).
- Players must make a purchase to activate the feature (image 4).
- After purchases are made, the bar lights up. In this example, two \$0.99 packages of gems purchased fill the Multiplier Bar up to the x2.0 (image 5).
- With the Multiplier Action feature active, all wins are multiplied by the amount achieved on the Multiplier Bar (in this case x2) (image 6).
- In a Free Spin Bar machine upon game-entry, a dialogue box notifies players of the new feature. Again, any purchase lights up portions of the fill bar (image 7).
- Upon game-entry in a Free Spin Bar machine, there are numbers from +3 to +10. In this instance, the two \$0.99 gem packages purchased filled up the spin meter to +3. This means that three more free spins will be added to free spins triggered (image 8).

















LIVE OPS

Test a Live Ops event that can only be claimed with a purchase. Try rewarding purchasers with a huge daily bonus 'tomorrow'

- Unlock Live Ops awards with purchases: In House of Fun, although the Spin & Win Challenge is unlocked by winning coins, it appears to take a \$0.99 purchase to claim (image 1).
- Add a sweepstakes mechanic to the daily bonus: In Slotomania HD, every tenth player to play the Golden Spin receives x10 their Golden Spin win (image 2).
- Bump players up a VIP level for the day: In Slotomania HD, players experience a higher rewards level for a limited time only (image 3).
- Make tomorrow's daily bonus massive after a purchase: In Huuuge Casino, the Lucky Day Special awards players bonuses larger then their initial purchase (image 4).
- Add a jackpot change for hard-core players: In DoubleU Casino, players can win jackpots with one less symbol. Try adding a multiplier or collection mechanic to jackpots in a set amount of time. This is difficult to win but targeted at hard-core players (image 5).
- Add jackpots to all machines to increase bet per spin. Limit eligibility by bet to sink wallets: In Heart of Vegas, all machines received a machine-specific progressive jackpot and all bets qualified for the jackpot (image 6).













POLISH ITEMS

Consider a daily bonus calendar with dispersed awards. Add small mechanics for whales, like expensive secondary currency-only machines

- Release a developed daily bonus challenge calendar: Vegas
 Party Slots has a 21 day calendar that includes promos, mystery
 gifts, and coins. Review the March 2016 Product Report information
 on Solitaire's daily challenge calendar (image 1).
- Add multiple progressive jackpots to machines: In Heart of Vegas, players can now win a Grand, Major, and Minor progressive jackpot (image 2).
- Add a vertical (or horizontal) machine for players who want to experience a different perspective: In House of Fun, the new Gorilla Grand is vertical instead of horizontal (image 3).
- Add a second round sale to your expensive tournaments: In WSOP, players have a promo sale on round two of the WSOP Las Vegas tournament (image 4).
- Release an expensive machine with a secondary currency: In Slots Bonanza, select machines can only be played with the more expensive secondary currency. The minimum bet in this machine costs \$2 worth of gems (image 5).
- Turn on a sweepstakes that provides guaranteed wins: In Big Fish Casino, the Gridiron Giveaway awards 100 players 10M chips, worth ~\$400 and also guarantees all other participants \$700K coins, which is ~\$60 worth of chips. Players must purchase more than \$20 in a certain amount of time (image 6).













MARKET WATCH

10/15/16 — 11/14/16

NOTABLE FEATURES OF 60 TOP GROSSING

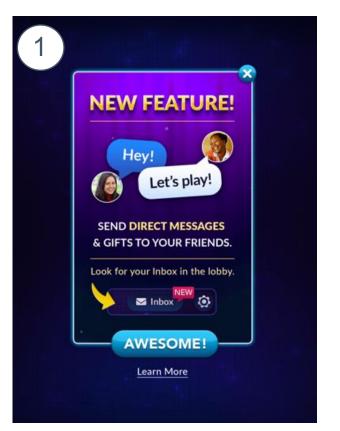
An overview of the major features released from the 40 top grossing social casino games, 10 top grossing poker games, and 10 top grossing bingo games

Game	Notable features released			
Big Fish Casino	Inbox feature added for one-on-one messages and gifting (see Detailed Slide)			
Heart of Vegas	Grand, Major, and Minor progressive jackpots added to select machines			
Slotomania HD	New Royal Jackpot leveling system (see Detailed Slide). Lucky Spin added to post-purchase (see Quick Wins)			
GSN Casino	New rewards system that currently adds daily bonus and token pack multipliers			
Bingo Bash	Rock, Paper, Zombie feature added to bingo rooms (see Detailed Slide)			
Bingo Blitz	New "epic" power up called the Triple Daub			
Wizard of Oz	Daily Challenges, Rainbow Collection on specific machines, and Machine Mastery (see Detailed Slide)			
Caesars Slots	New daily bonus feature called the Legacy Bonus (see Detailed Slide)			
myKONAMI Slots	Bingo mechanic added to select slot machines creating a collection-based mini-game that awards players tickets (see Detailed Slide)			
Infinity Slots	Progressive jackpots added to select machines			
Huuuge Casino	All machines upgradable, double collection amount of free bonus and lottery, and Sit and Go poker added			
Willy Wonka	Candy Collection with specific machines added			
Slots Bonanza	Multiplier Bar and Free Spin Bar added to increase machine payouts based on number of purchases (see Quick Wins)			
Zynga Poker	Daily Streak added to Lucky Bonus Spin			
	10			

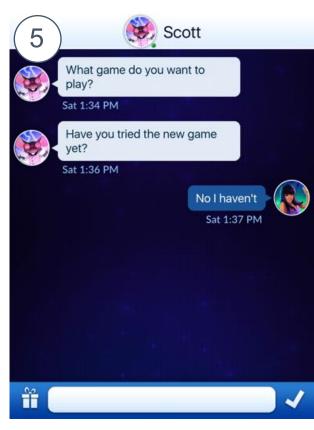
BIG FISH CASINO

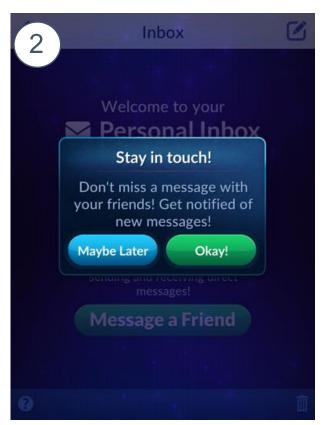
Big Fish Casino added an inbox feature that allows players to message and gift other players for one-on-one social experiences

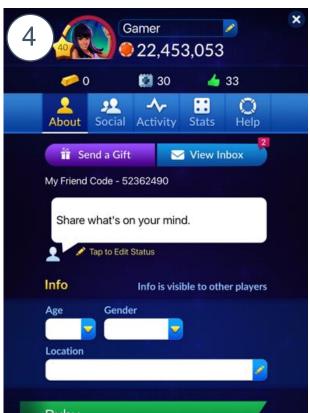
- Upon game-entry, a dialogue box appears notifying players of the new inbox feature (image 1).
- The inbox may be accessed within a player's profile or at the top right of the main lobby screen. Clicking on the icon will open the inbox with a brief explanation of the new features (image 2).
- A dialogue box appears enabling players to receive new message notifications. If the notify feature is enabled, players are alerted to new messages with a profile jewel (image 3).
- To check unread messages without leaving the machine, players click on their profile picture (image 4).
- To send or reply to a message, players select a friend, type in the message box provided, and send the message by clicking the "check-mark" (image 5). Players may only send messages to one friend at a time (there is no group-message capability).
- Players may also send gifts and store items to friends within the inbox by clicking the gift icon and choosing an item from the store. When a gift is sent, a notice will appear with the option to purchase and send more gifts (image 6).

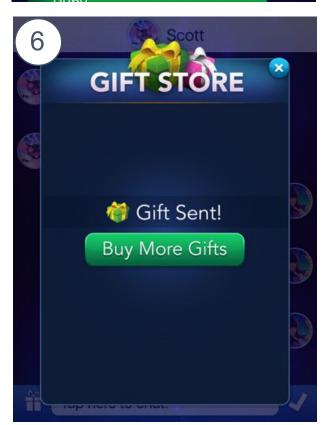












SLOTOMANIA HD

Royal Jackpot is a leveling system based on jackpots won. Players earn points, stage up, and win additional coins

- Upon app-entry, a short video announces Slotoshow Episode 29.
 Two hosts explain the addition of the newest jackpot level and briefly detail the points and leveling system of the new Royal Jackpot feature (image 1).
- In the lobby, the Royal Jackpot is displayed on a number of machine icons (image 2).
- After selecting a Royal Jackpot machine, a "Pick Your Total Bet" dialogue box appears to display the different bet levels, jackpots, and the current jackpot stage (image 3).
- When players hit a jackpot, they spin three jackpot wheels. Any win on one of the wheels grants players jackpot points (image 4).
- Once a stage meter is filled, players stage up to the next level and receive an award (image 5).
- When players win a Royal Jackpot, they receive a Royal Jackpot stage up and a huge amount of coins. In this Royal Jackpot image, which was pulled from the Slotomania Supergroup Revamped Facebook group, the player won \$105K worth of coins (converted with the \$99 package from the Gold level buy page) (image 6).









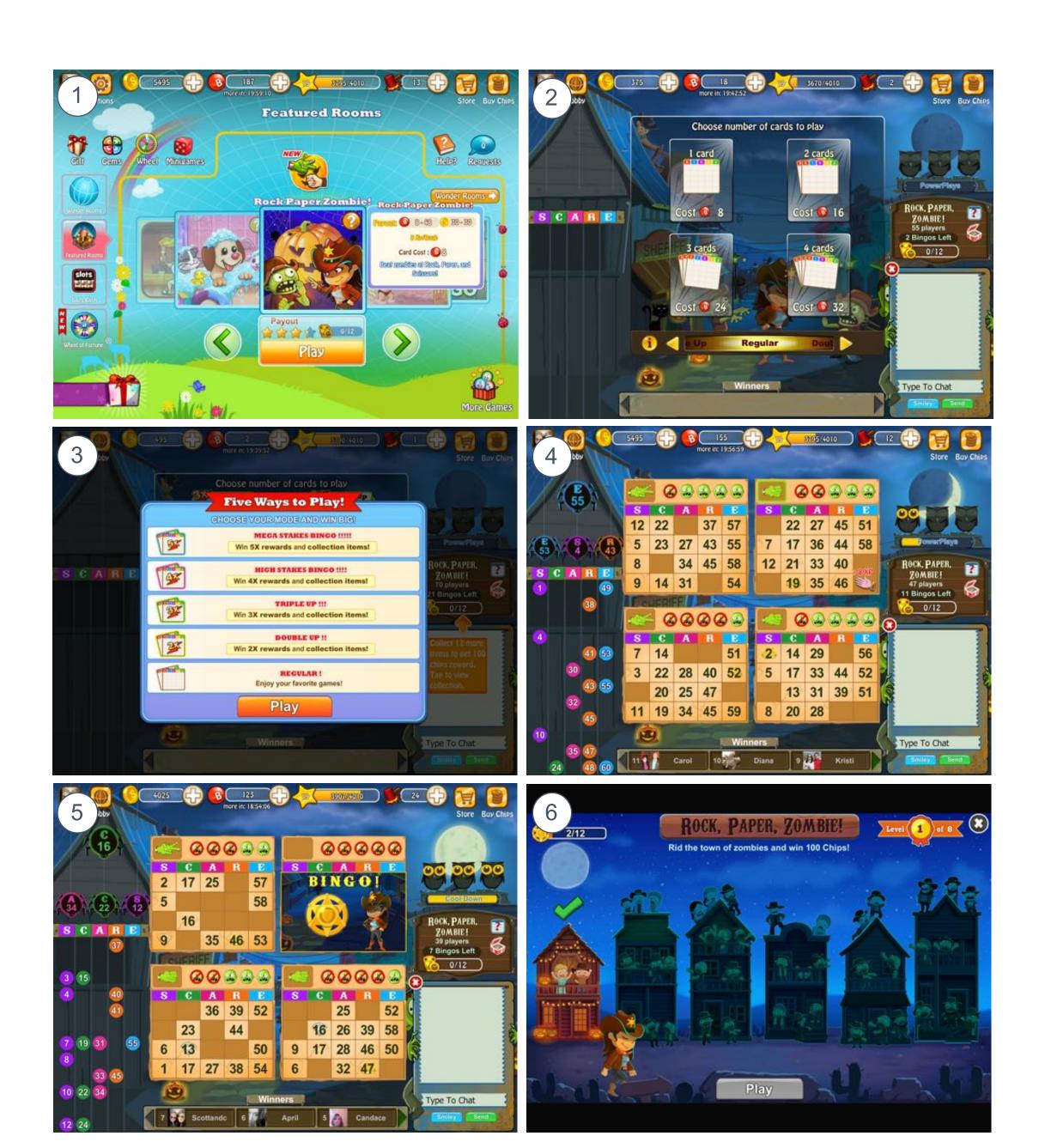




BINGO BASH

Bingo Bash's new bingo room has a mini-game of rock, paper, scissors and a collection feature

- Rock, Paper, Zombie is introduced to players in the lobby (image 1).
- Upon room-entry, players choose one to four cards to play and pick from five different modes with the gold roll bar (image 2).
- The modes multiply rewards and collection items for that round. Players may choose regular, 2x, 3x, 4x, and 5x multipliers (image 3).
- In this room, "S-C-A-R-E" appears above the bingo numbers instead of the usual "B-I-N-G-O." A zombie hand and five zombies appear on the top of each bingo card for the Rock, Paper, Zombie game. When a called number is daubed on a card, it reveals the player's rock, paper, or scissors move (image 4).
- If the player's move beats a zombie's move, a zombie at the top of the card is crossed out. Beating all five zombies at the top of a card is a bingo on that card (image 5).
- Every bingo won awards players with a sheriff's star. Players must collect the stars to chase the zombies from the homes. Completing the entire collection rids the town of all zombies and awards \$9.99 worth of chips (image 6).



WIZARD OF OZ

Wizard of Oz's Machine Mastery feature lets players win mastery points. These points fill a meter to collect cards and a complete card set leads to an upgraded play button

- Upon app-entry, players are notified of the new Machine Mastery feature with a dialogue box (image 1).
- Machine Mastery symbols are on each of the machines within the first world of the game (image 2).
- Players earn mastery points with each winning spin. Higher bets and bigger wins will increase mastery points and XP rewards earned (image 3).
- The mastery icon is found at the bottom of the reel set and displays the mastery meter progress (image 4).
- Once the mastery meter is filled, players are awarded one of five collection cards or an XP reward card (image 5).
- Players are notified with a dialogue box when a collection of cards is completed (image 6).
- Players who complete the bronze collection in any of the first world machines will have their play button for that machine upgraded. Upgraded machines show a blue ribbon signifying mastery (image 7).
- Players may currently collect the bronze collection, with silver and gold collections coming soon (image 8).

















CAESARS SLOTS

The Legacy Bonus is a new daily bonus that offers trivia, daily bonus coins, and a collection feature with rewards

- Players are shown a brief video introducing the new daily "Legacy Bonus" upon appentry. After the video, players may press the time capsule icon on the bottom right of the screen to play the new bonus feature (image 1).
- Players begin their travel journey by pressing start on the new bonus feature (image 2).
- As the capsule spins, dates and pictures of various trivia events cycle through the windows (image 3).
- When the date and image stop, a large dialogue box opens. The bonus award is based on the trivia fact bonus, friends benefit, tier benefit, and sequence bonus. The trivia item and the bonus award can be shared and collected by pressing collect with the share box checked (image 4).
- When the Fortune Goddess of Luck appears in the window, players are awarded a large coin bonus and the Fortune Goddess of Luck is considered a wild (image 5).
- After a spin, the countdown timer resets to 24 hours and players are given a purchase option to spin the Legacy Bonus again for \$2.99 (image 6).
- After a player presses collect, the trivia fact icon appears in one of the boxes within the sequence multiplier at the bottom of the screen. The sequence multiplier is determined by the trivia items within the five boxes (image 7).
- The gallery button in the left bottom corner of the screen allows players to view the gallery of collected trivia items. Completing either a group or the entire collection gives players coin bonuses (image 8).

















myKONAMI SLOTS

myKONAMI Slots added a bingo mechanic to a slot machine creating a collection-based minigame that awards players tickets

- A dialogue box opens on app-entry announcing the Lucky Lantern Bingo mini-game within the machine Brilliant Cats (image 1).
- To activate the feature, players spin the reels to collect 40 bingo balls and trigger the mini-game. A bingo icon is shown at the right of the reel set with the number of collected bingo balls (image 2).
- Clicking on the Lucky Lantern Bingo screen displays how many balls are needed to play the bingo game (image 3).
- The instructions inform players that increasing their bet will increase the prize amount and ball frequency (image 4).
- Once 40 bingo balls have been collected, the Lucky Lantern Bingo game appears (image 5).
- The spin button is replaced by a bingo ball counter. Bingo balls shoot out of the funnel, either marking a number on the board or creating a miss. The feature is complete when a bingo is achieved or there are no more bingo balls to play. In this example, completing a bingo awarded a prize of 22 tickets (image 6).













GAME DEEP DIVE

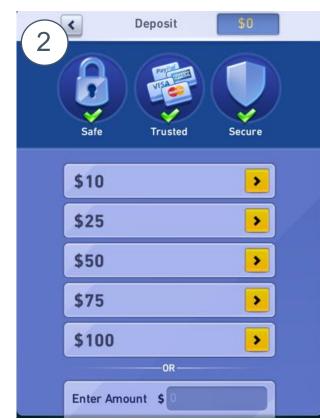
Sparcade

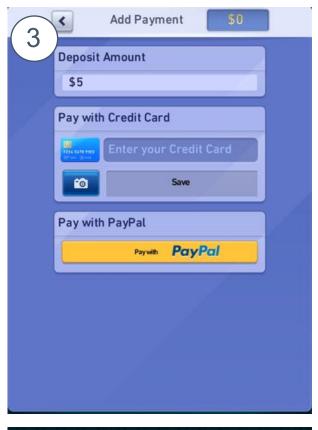
SPARCADE

Players can compete in skill-based games with either tokens or real money. The game also offers challenges, goals, achievements, and social features

- Players receive 10K tokens upon app-load to practice any of the five skill-based games: Solitaire Tri Peaks, Scrabble, Tetris Burst, Pac-Man, and Wheel Of Fortune (image 1).
- To play for real money, players must deposit funds into their account (image 2).
- Payments can be made with a credit card or PayPal account. The credit card payment flow includes the card info and then billing address (image 3).
- Players can see the cost of each match by selecting the 'Money' or 'All' tabs (image 4).
- There are adjustments to game rules. For example, in Pac-Man players complete a maze when all of the Pac-Dots are eaten. Competition with other players is based on points won in a given amount of time (four minutes in Pac-Man) (image 5).
- Players then compete in the Pac-Man game (image 6).
- When a game ends, a dialogue box appears with the place in the match, fame points, and tokens or dollars won. Players then wait to see their results vs. other players (image 7).
- There are also many non-real money mechanics. For example, every time a player levels up, they receive Fan Mail that can reward players with additional bonus tokens, fame, or fans (image 8).
- There are also two daily challenge goals that award fame points (image 9).



















APPENDIX

DATA COLLECTION PROCESS

Recommendations, information, and data comes from market research, app intelligence tools, and deep analysis of the games

Market research

- Each game is reviewed weekly for updates, regardless of whether the game has been updated through the App Store.
- Transaction information comes from the iOS App Store's In-App Purchases tab. These transactions are ranked based on the number of transactions.
- Las Vegas player insights come from online sources, such as the Las Vegas Convention and Visitors Authority and the UNLV Center for Gaming Research.
- Progressive jackpot information comes from online research, specifically from Wizard of Odds.
- Trending revenue, downloads, and package-rank data come from Priori Data, a Liquid and Grit partner.

Game information

- Game information comes from a deep-dive analysis of each game.
- In the economy section and economy-related slides, the coin value is determined by converting coins into money using \$5 worth of non-sale purchasable coins in each game. For example, if the minimum bet is 1,000 coins and players can purchase 500 coins for \$5, the value of the minimum bet is \$10. For games without a \$5 package, the next closest package is used.
- The cost of each level is determined by how many coins are needed to complete it. Then, that amount is converted to a dollar amount using \$5 worth of non-sale purchasable coins, as mentioned above.

Let your plans be dark and impenetrable as night, and when you move, fall like a thunderbolt

- Sun Tzu, The Art of War

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