DIQUID&GRIT Puzzle Report

Competitive Research and Actionable Product Recommendations

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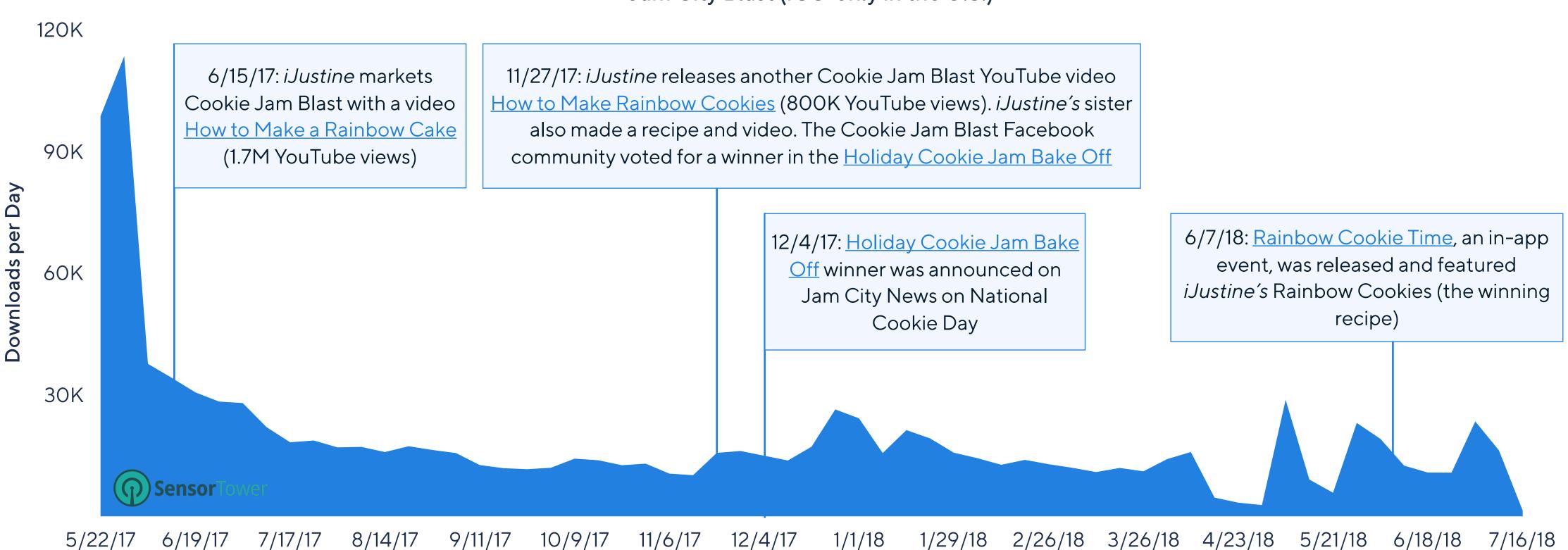
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JULY 2018

STRATEGY INSIGHTS

SOCIAL MEDIA CELEBRITIES

Jam City hired social media stars to market their app, driving engagement with YouTube videos and community contests. This campaign did not drive meaningful downloads. However, continue to test high-risk, high-reward marketing channels. Justify the ROI using a Venture Capital investment model: 10 bets will lead to 1 big win

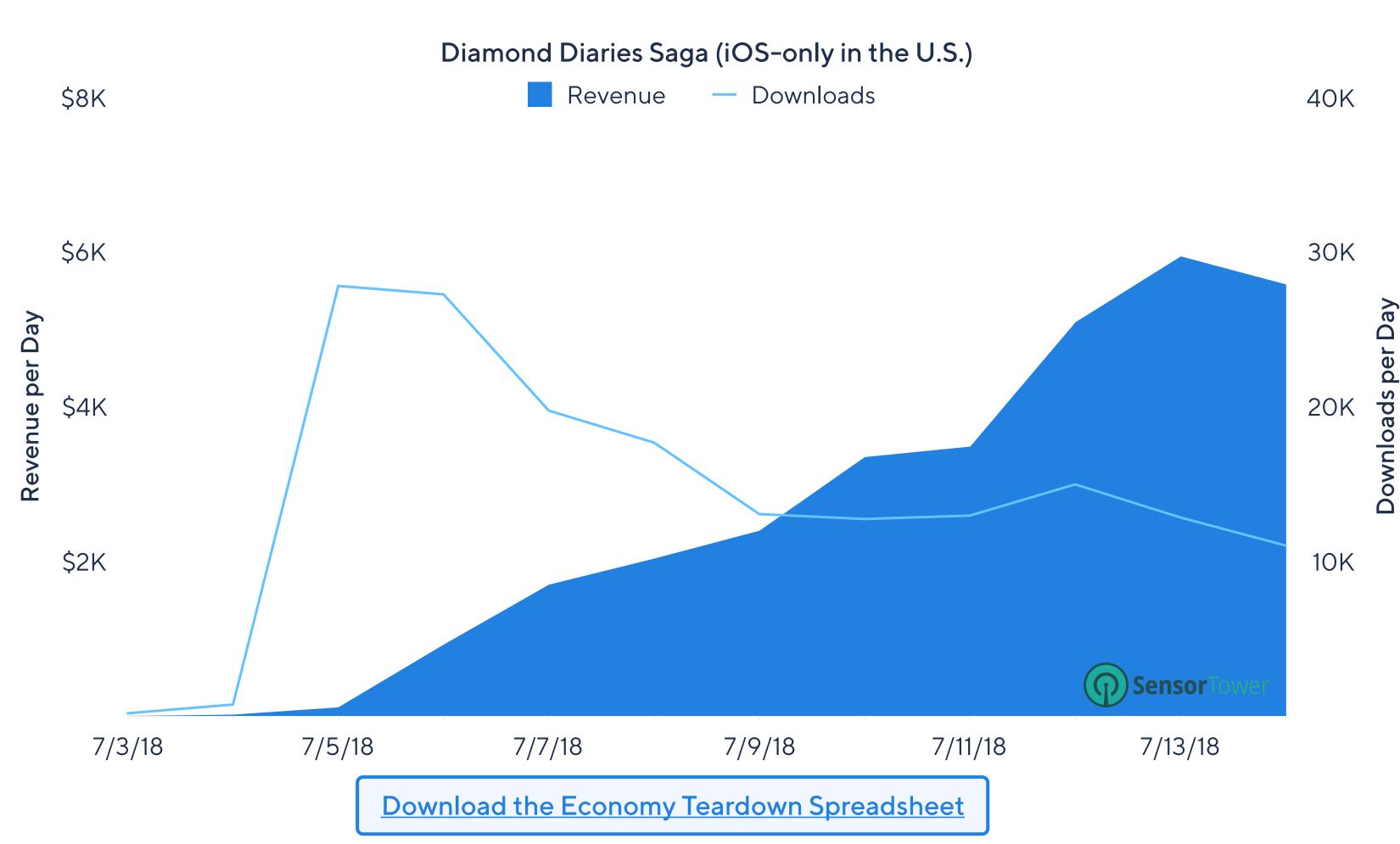


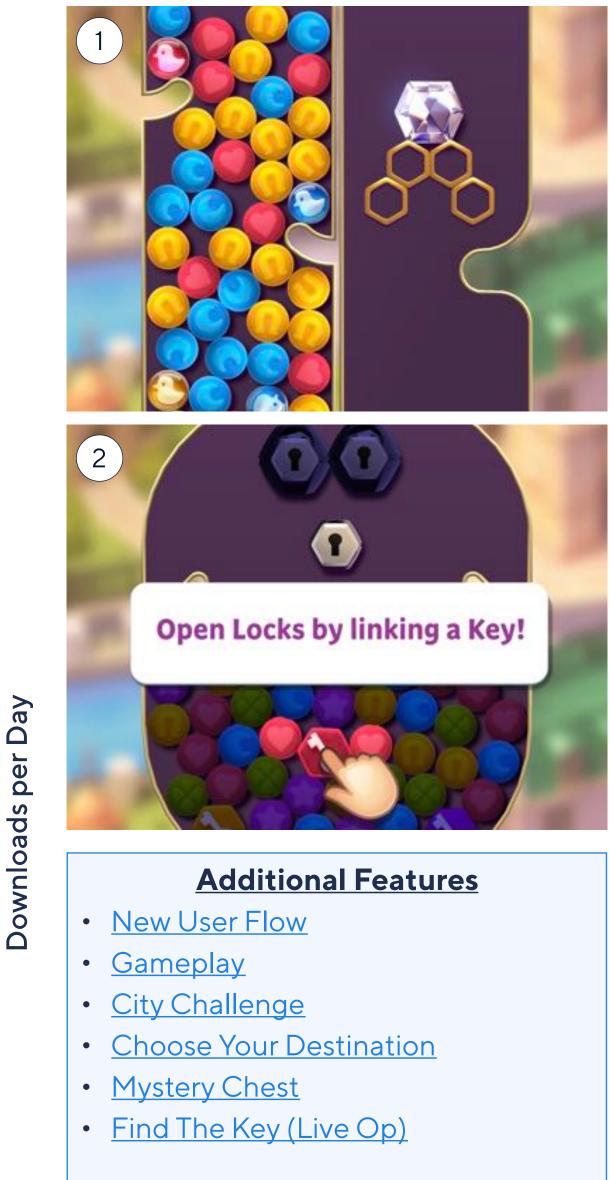
5/22/17 6/19/17 7/17/17 8/14/17 9/11/17 10/9/17 11/6/17 12/4/17 1/1/18 1/29/18 2/26/18 3/26/18 4/23/18 5/21/18

Jam City Blast (iOS-only in the U.S.)

NEW KING APP

King's new app, Diamond Diaries Saga, offers an innovative combination of gameplay features: physics-based trajectory with linker mechanics and link-3 techniques (1 & 2)





REVENUE DRIVERS

EXCLUSIVE CONTENT CHALLENGES

FEATURE SNAPSHOT

The Incredibles 2 Survival event in Disney Emoji Blitz is a challenge system that excites players with a new gameplay mode and exclusive boosts/content

Detailed Information

- Release: 6/15/18
- Player Motivations: Achieve, Surprise, Ownership
- Player Types: Gathering Grace, Prospecting Polly

Related Features in Puzzle

- <u>The Emoji Movie Levels</u> Candy Crush Saga
- Party Booster Candy Crush Saga
- <u>Holiday Events</u> Angry Birds Match

Related Features in Casino

- Party Modes Pokerist
- <u>All-In or Fold Mode</u> Scatter HoldEm Poker
- <u>Snakes & Ladders</u> Slotomania

Related Reports

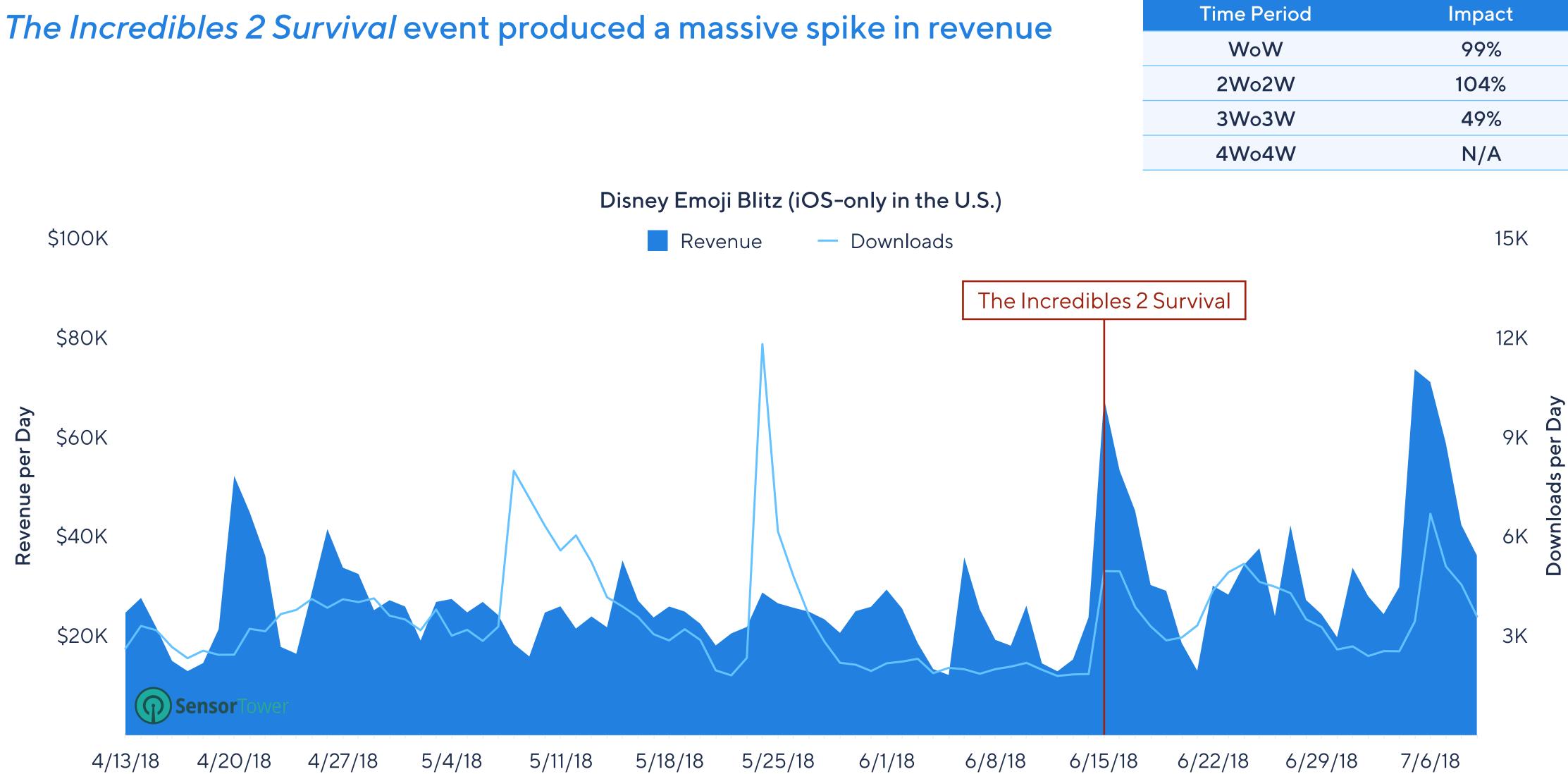
- The Emoji Movie Levels in the <u>September 2017 Puzzle Report</u>
- Varied Challenges in the <u>January 2018 Puzzle Report</u>
- Poker Modes in the <u>September 2017 Casino Report</u>
- Legends Collections in the <u>January 2018 Casino Report</u>

Click here for more images and videos





IMPACT ANALYSIS





PRODUCT INSIGHTS

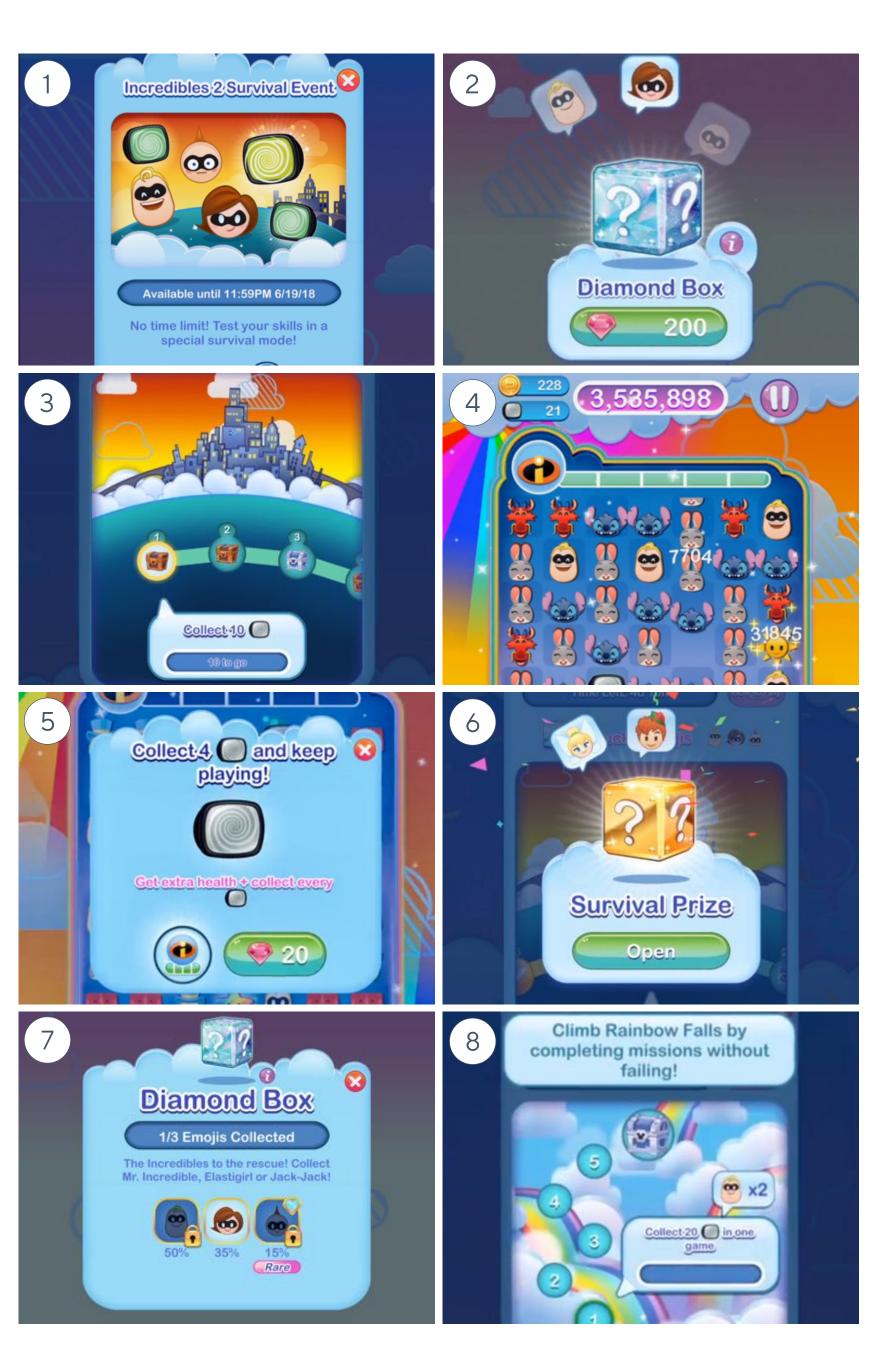
Unlock exclusive boosts/content with *Chests* that are deeply integrated into many meta-features. Disclose the draw rate odds of Chests to earn player trust and maintain long-term revenue health

Feature Details

- During the event, players unlock 3 *Emojis* from *The Incredibles 2* movie. Each *Emoji* is a special boost (1) •
- Players unlock *Emojis* with *Boxes*, which can be collected in base play, event challenges, and purchases (2) •
- Completing challenges progresses players along an event map (3) •
- The challenges involve a Survival Mode: players must destroy Televisions before they explode, decreasing a Health Meter. In normal play, players compete against time (4)
- If players complete a round with extra *Televisions*, they have the option to purchase the *Televisions* and receive extra *Health* in the next round (5)
- At the end of each round, players win either *Chests* or *Boxes*. One of the *Emojis*, Jack-Jack, is only awarded with *Diamond Boxes* during the event (6)
- The draw rate of each *Emoji* in a *Box* is revealed to players before winning or purchasing a *Box* (7)
- If players complete all of the *Survival Mode* challenges early, they unlock expert challenges (8)

Key Takeaways

- •
- Deeply integrated collection systems are pushing results in both Puzzle and Casino apps • Make the challenge system difficult, but fair and transparent, in order to increase short and long-term revenue from highly-engaged players
- Introduce new game modes during events to drive player engagement towards fresh content • To increase the revenue-bump, make some content is only unlockable with a purchase (an approach used by House of Fun in the <u>HoF Legends</u> feature)
- To sink wallets, allow items to carry over from challenge-to-challenge and let players purchase the remaining items on the board with primary currency
- Never limit engagement to ensure that even highly engaged players have unlimited content to consume



VIP SIGNUP SWEETENERS

FEATURE SNAPSHOT

Word Crossy released a weekly subscription package with a 3-day free trial period and *Instant Rewards* for new subscribers

Detailed Information

- Release: 6/8/18
- Player Motivation: Ownership
- Player Types: All

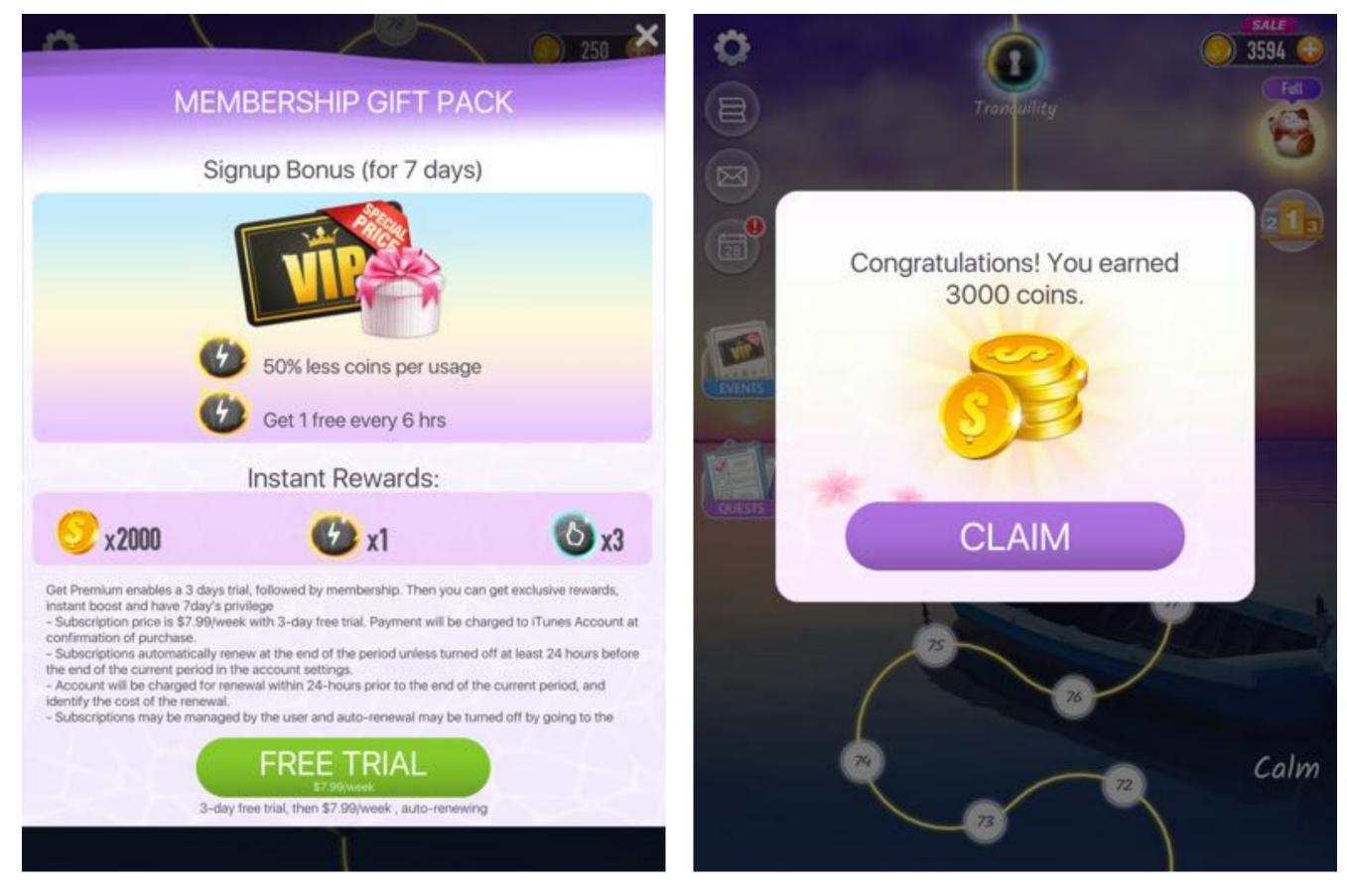
Related Features

- <u>Subscriptions</u> Color by Number
- <u>Piggy Bank Subscription</u> Ellen's Road to Riches Slots
- <u>VIP Subscription Update</u> Legendary Game of Heroes

Related Reports

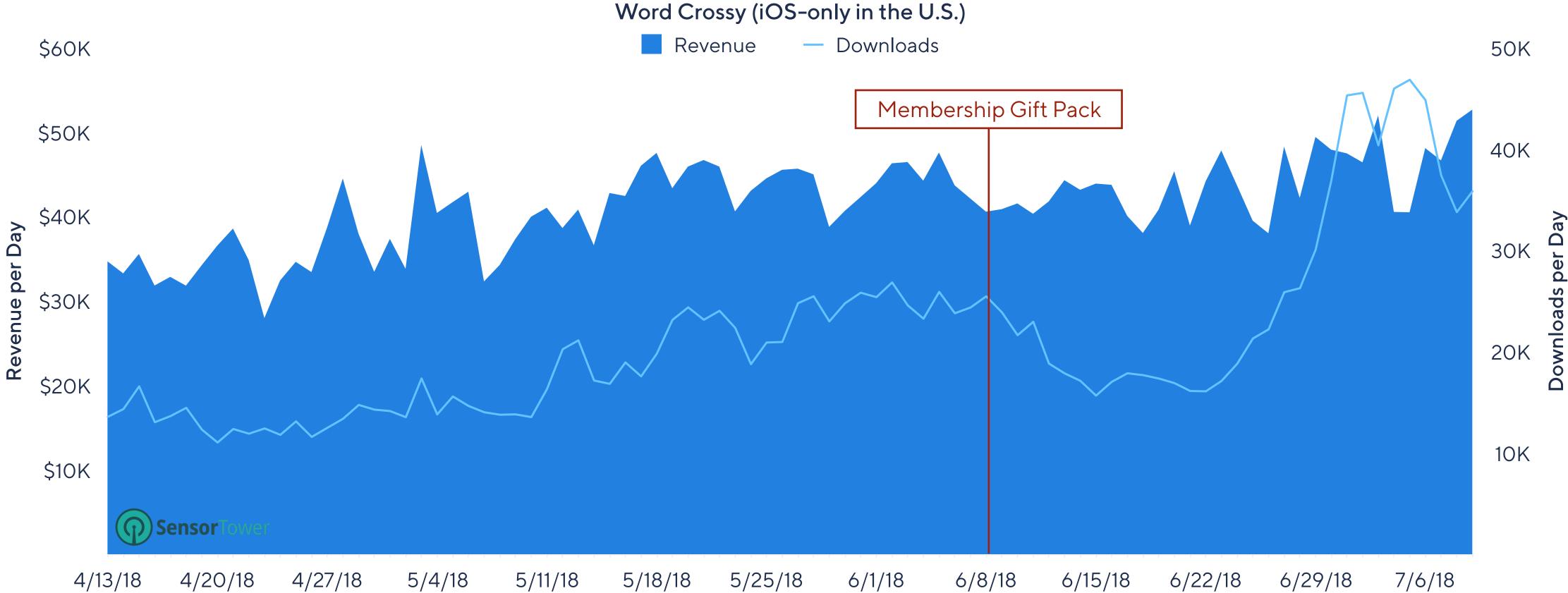
- Subscriptions in the March 2018 Puzzle Report
- App Teardown in the <u>December 2017 Casino Report</u>
- Post-Round Mini-Games in the April 2018 Casino Report

Click here for more images and videos



IMPACT ANALYSIS

Word Crossy revenue declined in the short-term due to the *Instant Rewards,* but returned back to normal levels after 4 weeks. Revenue is expected to increase in week 5





Time Period	Impact
WoW	-4.8%
2Wo2W	-4.2%
3Wo3W	-2.9%
4Wo4W	0.1%



PRODUCT INSIGHTS

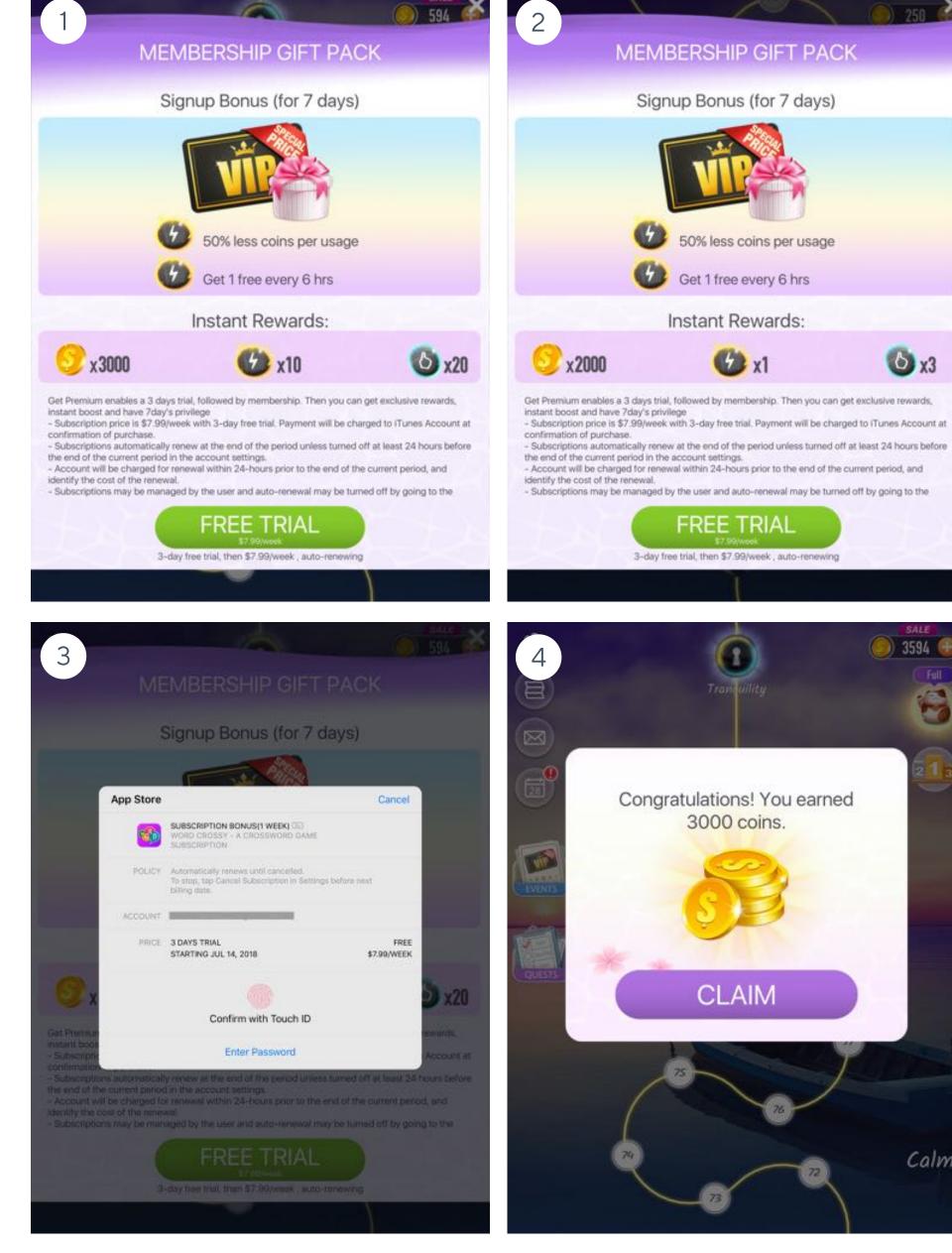
Use high-value *Instant Rewards* to drive subscription package conversions. Remind players weekly of their auto-renew subscription to protect the lifetime value of players

Feature Details

- Upon app-entry, players are offered a *Membership Gift Pack* that includes:
 - 1. Signup Bonus: Every week members get a 50% coin usage discount and 1 free Lightning Bolt every 6 hours
 - 2. Instant Rewards: 3K coins, 10 Lightning Bolts, and 20 Hint Boosts (1)
- The Instant Rewards were less in June: 2K coins, 1 Lightning Bolt, and 3 Hint Boosts (2)
- The *Membership Gift Pack* includes a 3-day trial on the \$7.99/week recurring package (3)
- Players immediately receive the *Instant Rewards* upon purchase (4)

Key Takeaways

- Adding an Instant Reward to a recurring subscription package may decrease revenue in the short-term, as seen in Word Crossy. However, if the payout is tuned correctly, the feature will increase revenue in the long-run
- The correct Instant Reward value will be difficult to determine initially without some data. To decrease the inflationary risk of the subscription package, start with a smaller *Instant Reward* and increase as more player data is gathered
- Protect your long-term revenue with forthcoming and principled development practices. Remind players weekly of their subscription auto-renewal before their subscription payment triggers. Since this feature is an add-on to IAP revenue, it is important not to discourage heavy spenders with minor weekly charges
- Since the subscription cancellation flow is not straight forward, make sure to inform players on your FAQ page how to turn off Apple subscriptions



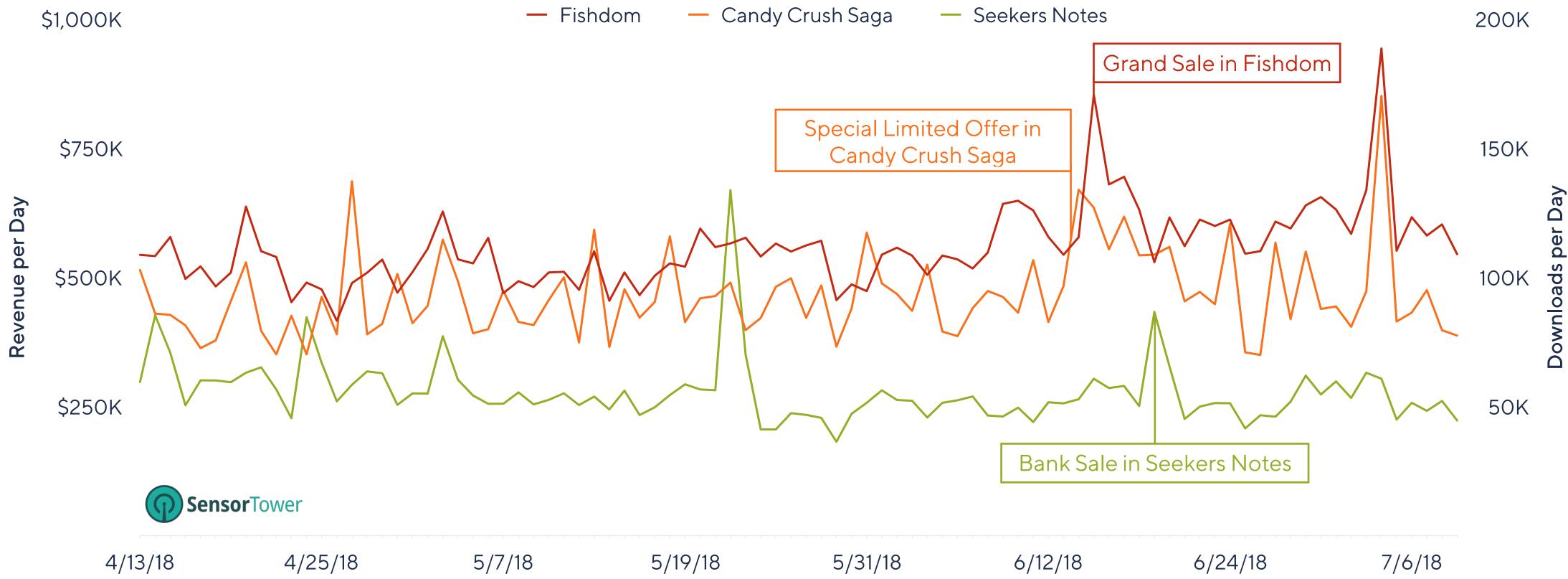
IMPACT SALES

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IMPACT ANALYSIS

Арр	Sale	Date	WoW Revenue Impact	2Wo2W Revenue Impact
Fishdom	Grand Sale	6/15/18	29%	12%
Candy Crush Saga	Special Limited Offer	6/13/18	10%	10%
Seekers Notes	Bank Sale	6/19/18	3%	6%

Sales Impacts (iOS-only in the U.S.)



FEATURE SNAPSHOT

<u>Grand Sale</u> in Fishdom

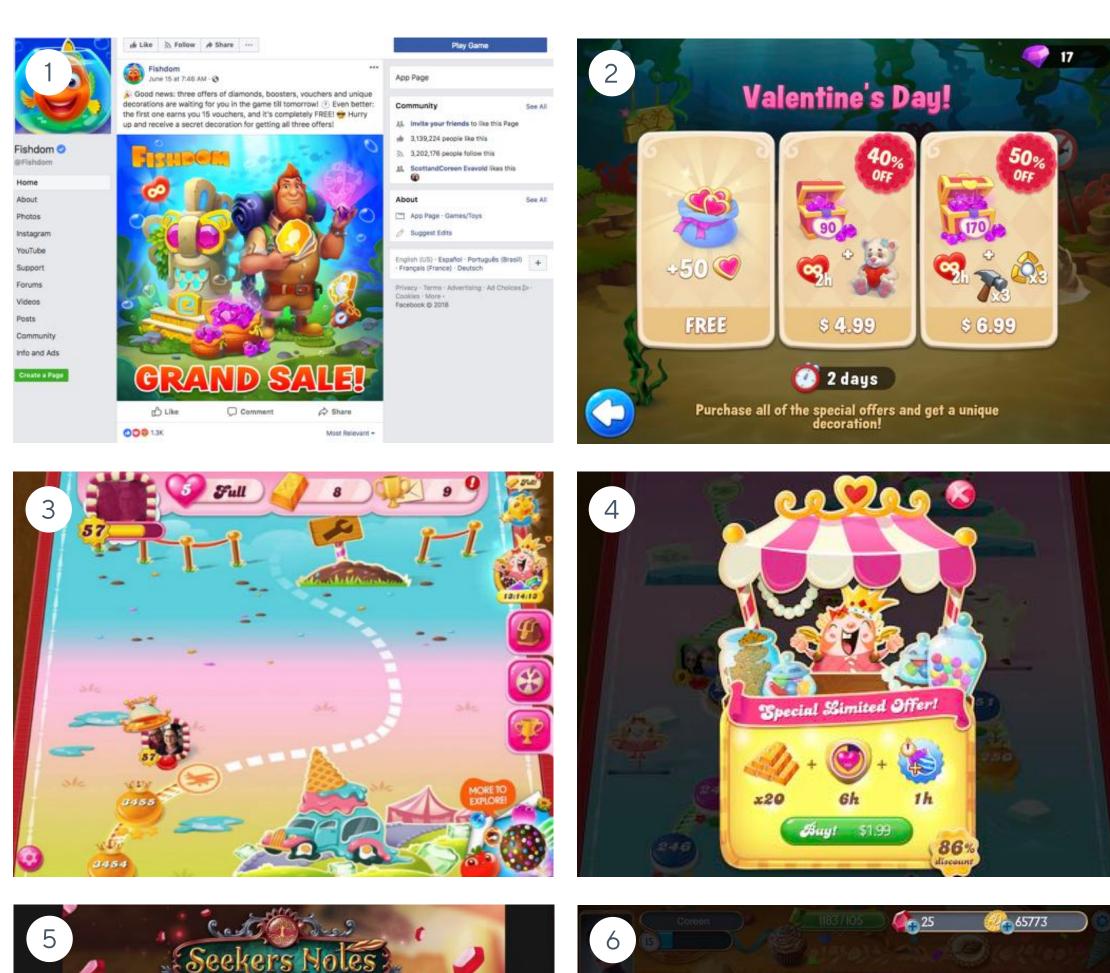
- Players receive a limited time to accept three offers that include gems, boosts, *Vouchers,* and unique decorations (1)
- This sale is a reskin of *The Valentine's Day Sale* (2)
 - 1. The first offer is free to collect
 - 2. The second and third offers must be purchased
 - 3. If all three items are collected (two with purchases), a player receives a unique decoration

Special Limited Offer in Candy Crush Saga

- In addition to an app-entry popup, a sale icon with a countdown timer is placed in the map view (3)
- Players are offered an 86% discounted bundle that includes *Gold Bars*, 6 hours of unlimited lives, and 1 hour of boosts (4)

Bank Sale in Seekers Notes

- Players are offered discounts up to 50% on many Ruby purchase packs in the Bank (5)
- Special offers are only available to players level 5 and higher (6)







LEVEL DESIGN

NEW LEVEL DESIGNS

Candyvore in Candy Crush Jelly Saga

• The *Candyvore* is removed by multiple adjacent matches or boosts, leaving a candy or boost. While the *Candyvore* is active, it removes random adjacent elements. It can only be seen after level 1,575 (1 & 2)

Ivy in Toon Blast

• *Ivy* covers positions on the board and is removed by adjacent matches. Upon removal, blocks cascade from the top of the board to fill empty positions (3 & 4)

Alarm Clock in Homescapes

• An *Alarm Clock* displays a countdown timer that decreases by 1 with each move and ends the level at O. *Alarm Clocks* are removed by boosts, or by matches with other *Alarm Clocks*

Compass in Gardenscapes

• A Compass' active side rotates clockwise with each move. Matches next to the active side, or adjacent boosts on *any* side, collect the *Compass*

Generator in Gardenscapes

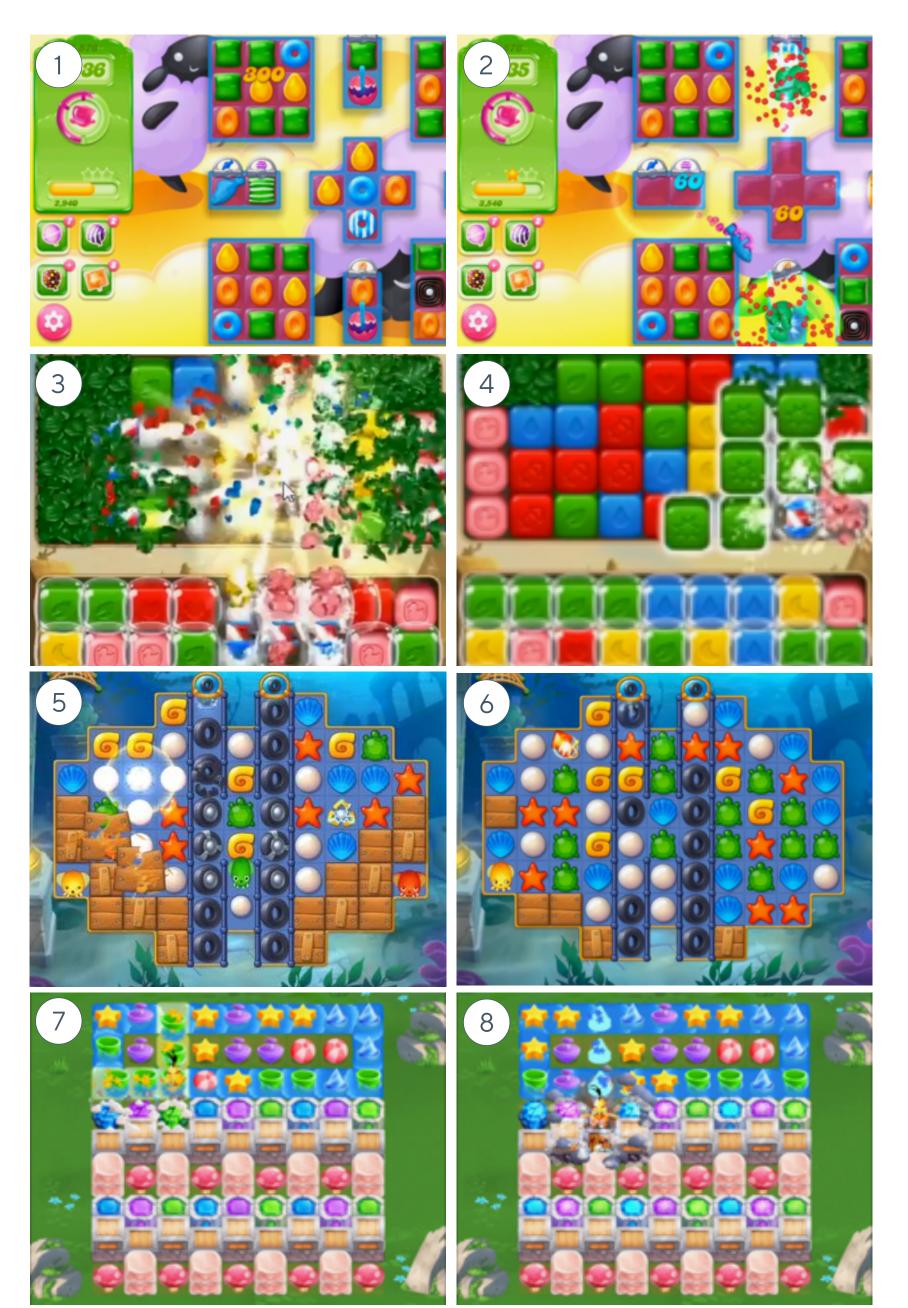
• A Generator produces an element or boost when space below the Generator is cleared. *Generators* display icons of the pieces they produce

Bathysphere in Fishdom

• A Bathysphere produces an element or boost when space below it is cleared. Bathyspheres display icons of the pieces they produce (5 & 6)

Gem Blocker in Angry Birds Match

• Gem Blockers are removed by 3 boosts, adjacent matches, or adjacent matches of the same color as the *Gem Blockers*. *Gem Blockers* are immobile and explode upon removal (7 & 8)



MARKET WATCH

6/1/18 - 6/30/18

NOTABLE RELEASES I

Арр	Feature	
Candy Crush Saga	<u>Gold Trophy</u>	Players earn <i>Golden Crow</i> the same <i>Episode</i> and fill <i>Trophies</i> (1)
Gardenscapes	<u>Level Background Update</u>	New art announced and r
Homescapes	<u>Medal Race</u>	Beat levels in 3 or less atte ranks. A 'personal goal' fil
Dragon Ball Z Dokkan Battle	<u>21st Century World</u> <u>Tournament</u>	PvP elimination round to app's tournament game k
Angry Birds 2	<u>Birld Cup Soccer Event</u>	World Cup soccer-theme receive a themed-boost o
Fishdom	<u>Vouchers</u>	Additional in-app current currency earned by beati events

Description

owns by beating a level on the first try within Iling a meter for *Gold, Silver,* or *Bronze*

released to change level backgrounds (2)

tempts to win medals and earn leaderboard fill meter is included (3)

ournament with a special variation of the board movement

ned event. During play, players randomly of an Angry Birds 2 *Spell*

ncy used to purchase *Unique Fish*. New ting levels on the first try and participating in







NOTABLE RELEASES II

Арр	Feature	
Legendary Game of Heroes	<u>Terms of Service Giveaway</u>	A \$5K real money raffle e and certain gem pack pu
Cookie Jam	<u>Sweet Race</u>	Play-to-collect tourname
Gummy Drop	<u>Father's Day BBQ</u>	Play-to-collect event fea
Bubble Witch 3 Saga	<u>Players Party</u>	Event featuring a map of
Wizard of Oz Magic Match	<u>Toto's Tag Collection</u>	Players collect <i>Badges</i> to amounts
Angry Birds Match	<u>Challenge Mode</u>	Special game mode unlo players collect <i>Eggs</i> in qu

<u>Click here for the full list of content released this month</u>

Description

event. Players earn raffle entries by daily log-ins during the event urchases. VIP members receive an extra entry per daily log-in (1)

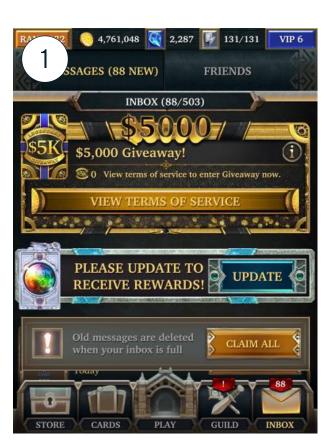
nent event based on *Striped* boosts collected (2)

eaturing a Father's Day-themed *Event City* (level map)

of player inspired levels (3)

to win tiered prizes in this event. Wild Badges multiply prize

ocked after completing the *Prehistoric* event quests. In this mode, juest challenges for leaderboard ranks







APPENDIX

PLAYER MOTIVATIONS

Understand emotional motivations to generate growth. The most impactful features are those that trigger strong, positive emotional responses

"Most companies segment their markets by customer demographics or product characteristics and differentiate their offerings by adding features and functions. But the consumer has a different view of the marketplace. She simply has a job to be done and is seeking to 'hire' the best product or service to do it. Jobs aren't just about function -they have powerful social and emotional dimensions." - Clayton Christensen, co-author of Jobs to be Done framework

To create new innovations, focus on the emotional jobs that people want to accomplish. This is very applicable to our industry, where there is little practicality about playing a non-paying casino game. Therefore, we have to know the emotional drivers of our players.

Liquid and Grit has formulated key player motivations.

Player Emotional Motivations

- Achieve Players who want to accomplish a goal
- <u>Thrill</u> Players who want the excitement and stress of taking a risk
- <u>Surprise</u> Players who want to uncover an unknown, see new opportunities, and try new things
- <u>Awe</u> Players who want to experience quality production value
- <u>Flow</u> Players who want to get into the zone and escape
- <u>Relationship</u> Players who want to connect with other people •
- Association Players who want to identify with something for familiarity and comfort
- <u>Ownership</u> Players who want to have things belong to them
- <u>Create</u> Players who want to be creative and produce something

PUZZLE PERSONAS

	Stealthy Steve	Friendly Fran	Destructive Derek	Adventuring Adrian	Prospecting Polly	Daring Dan	Gathering Grace
Gender	76% male	72% female	73% male	55% male	78% female	69% male	71% female
Mean age	31.6	40.8	37.8	31.5	42.3	39.6	45.3
Highest preference(s)	Assault	Care and Manage	Manage	Journey	Journey and Coordinate	Assault and Coordinate	Coordinate
Lowest preference(s)	Care	Assault	Care	Manage and Care	Assault and Care	Journey and Care	All except Coordinate
Gameplay mechanic LIKES	Stealth, strategy, being the protagonist, skill progression, and exploration	Befriending non- playable characters (NPCs), creating an avatar, skill progression, and city or village handling	Strategy, city or base construction, and large-scale handling of NPCs	Creating an avatar, skill progression, being the protagonist, exploration and secrets, and befriending NPCs	Collecting rare items and treasures, exploration, skill progression, and tile matching	Racing, explosions, and stealth	Tile matching, platforming, and collecting rare items
Gameplay mechanic DISLIKES	Rhythm mechanics and pet training	Killing, war, weaponry, and explosions	Theft, illegal activities, stealth, retreating, and rhythm mechanics	Racing, sports, tile matching, instruments, dancing, and pet training	Theft, explosions, and retreating	No strong dislike for any particular mechanic	Killing, theft, destruction, and war

Data adapted from Vahlo, Kaakinen, Holm, & Koponen. "Digital Game Dynamics Preferences and Player Types", Journal of Computer-Mediated Communication. 2017

DATA COLLECTION PROCESS

deep analysis of the apps

Market Research

- Each app is reviewed daily for updates, regardless of whether the app 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
- Trending revenue, downloads, and package-rank data come from Sensor Tower's Store Intelligence

Recommendations, information, and data come from market research, app intelligence tools, and

Game Information

- App information comes from a deep-dive analysis of each app
- In the Economy Analysis and economy-related slides, the currency value is determined by converting currencies into money using \$5 worth of non-sale purchasable currencies in each app
- For example, if an item costs 1,000 of the primary currency and players can purchase 500 for \$5, the value of the item is \$10. For apps without a \$5 package, the next closest package is used

"The more you are like yourself, the makes you unique."

- Walt Disney

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"The more you are like yourself, the less you are like anyone else, which





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