



Puzzle Report

Competitive Research and Actionable Product Recommendations

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AUGUST

2018

STRATEGY INSIGHTS



CONTENT IS KING

Epic Games' decision to bypass the Google Play Store indicates a shift in power from platforms to developers. If Epic Games' direct-to-web strategy is successful, this will lead to profit growth for developers

For the past ten years, platforms have exercised their strength over app developers by charging 30% on every in-app transaction. A platform's power is predicated on (1) *user value* ... both population and profit-per-user (2) *monopolistic strength* ... or, the number of substitutes for developers.¹

The history of Facebook PC games illustrates how swiftly platform strength can rise and fall. From 2010-2014, Facebook PC games revenue skyrocketed from \$75M to \$250M ... due to high value users, limited alternatives, and a 30% cut on each transaction.²

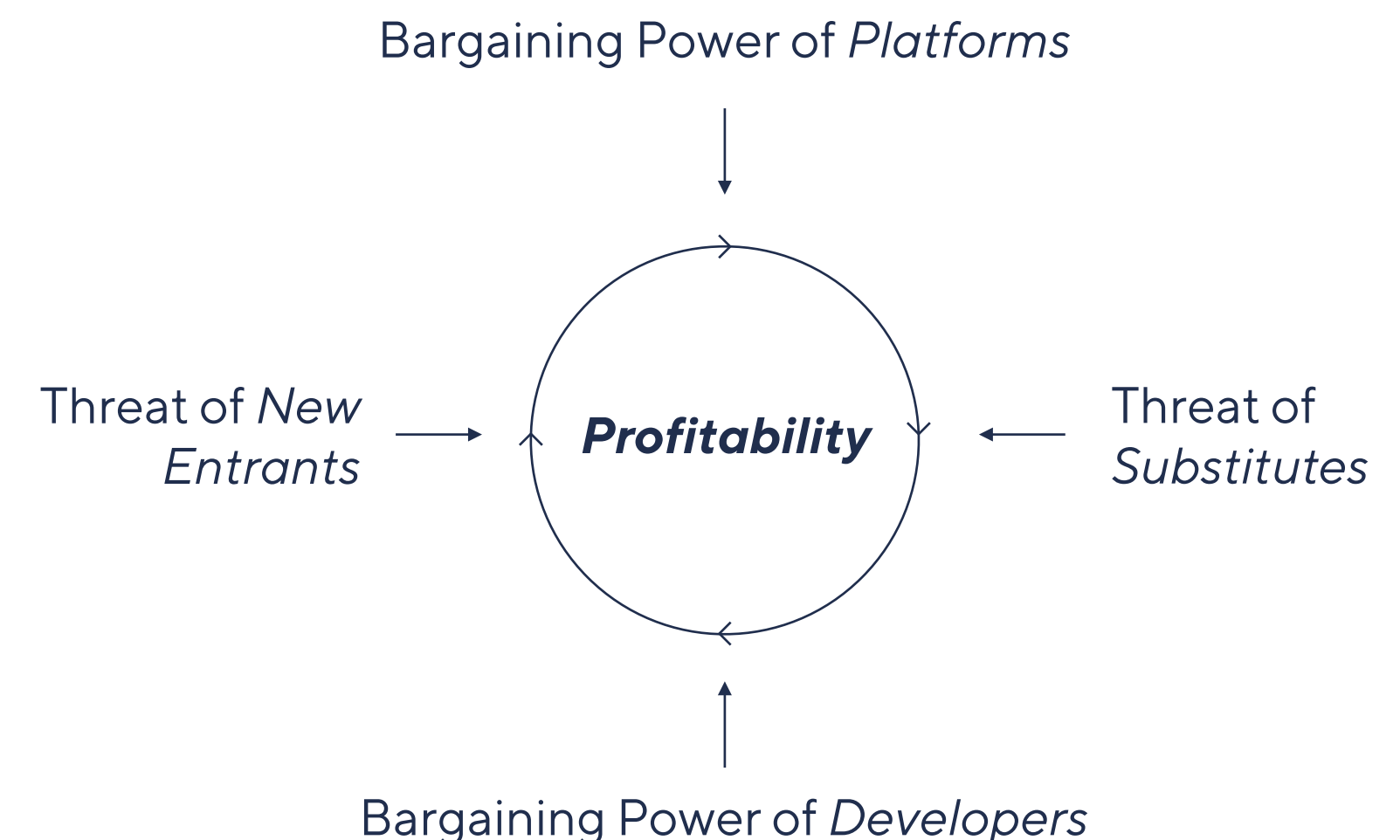
By 2015, the value of Facebook PC users declined and substitutes appeared. Facebook failed to improve their platform for developers and kept their 30% price the same. As a result, off-Facebook investments became more attractive to developers ... and Facebook PC games revenue has declined ever since.

History *will* repeat itself if mobile platforms fail to adjust.

Epic Games' alternative to the Google Play Store is to go directly to consumers via the web. The largest hurdle for Epic Games will be replacing the Google Play Store infrastructure, namely managing payments and controlling fraud. Expect third-party providers to emerge and help solve direct-to-web issues.

If Epic Games is successful, other developers will no-doubt follow ...increasing developer profits with a larger percentage retained for each transaction.

Market Forces



¹ See [Porter's Five Forces Framework](#) for more details on the foundation of this strategic analysis

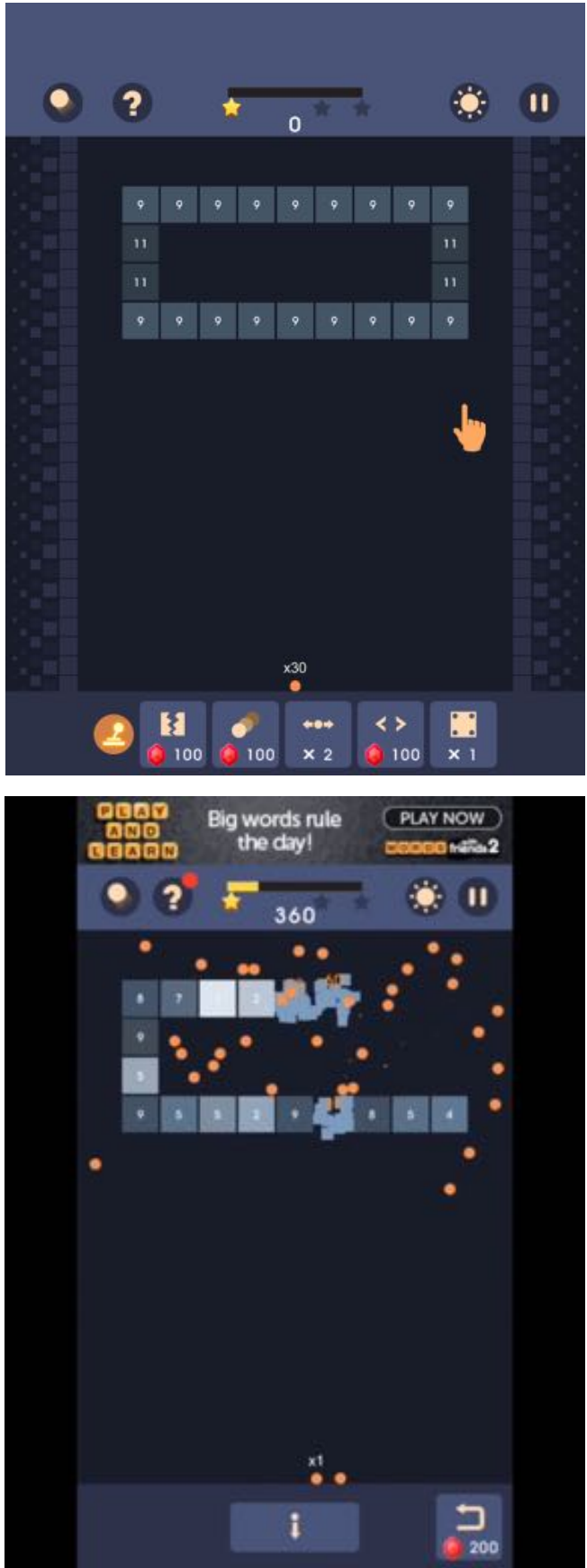
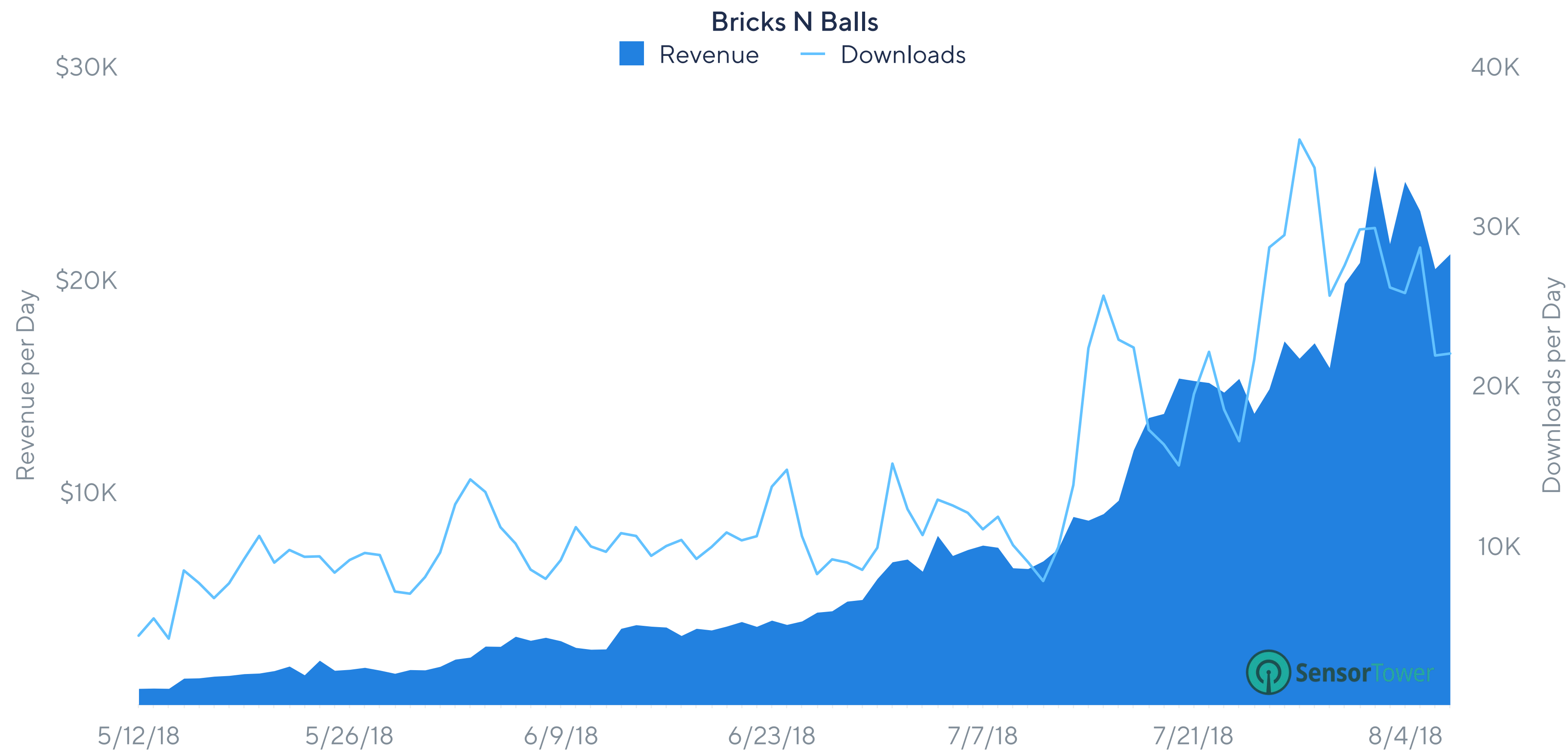
² Revenue numbers from *Facebook: In Depth Look at its Games Business in 2Q18*, Adam Krejcik, Principal, Eilers & Krejcik Gaming, LLC

BREAKOUT APP: BRICKS N BALLS



Bricks N Balls’ growth is driven by innovative gameplay. The app has not received major Featuring and still has massive amounts of downloads. The top in-app purchase removes ads for \$2.99, but the majority of revenue is driven by currency purchases

Additional Features	
<ul style="list-style-type: none">New User FlowCurrencyVIP SubscriptionDaily BonusMisc. Features	<ul style="list-style-type: none">Standard Mode100 Ball ModeBalls Buy PageBoostsWatch to Earn



REVENUE DRIVERS



MONTH-LONG EVENT CALENDAR

FEATURE SNAPSHOT

Dragon Ball Z released over 30 days of events and an event-specific daily bonus. Many events overlap during this *3rd Anniversary Celebration*

Detailed Information

- Release: 7/6/18
- Player Motivations: Achieve, Surprise, Ownership
- Player Types: All

Related Features

- [Super Power-UP Intense Training](#) - Dragon Ball Z
- [Long Fall](#) - Seekers Notes Hidden Mystery
- [Way of Perfection](#) - Hidden City Mystery of Shadows

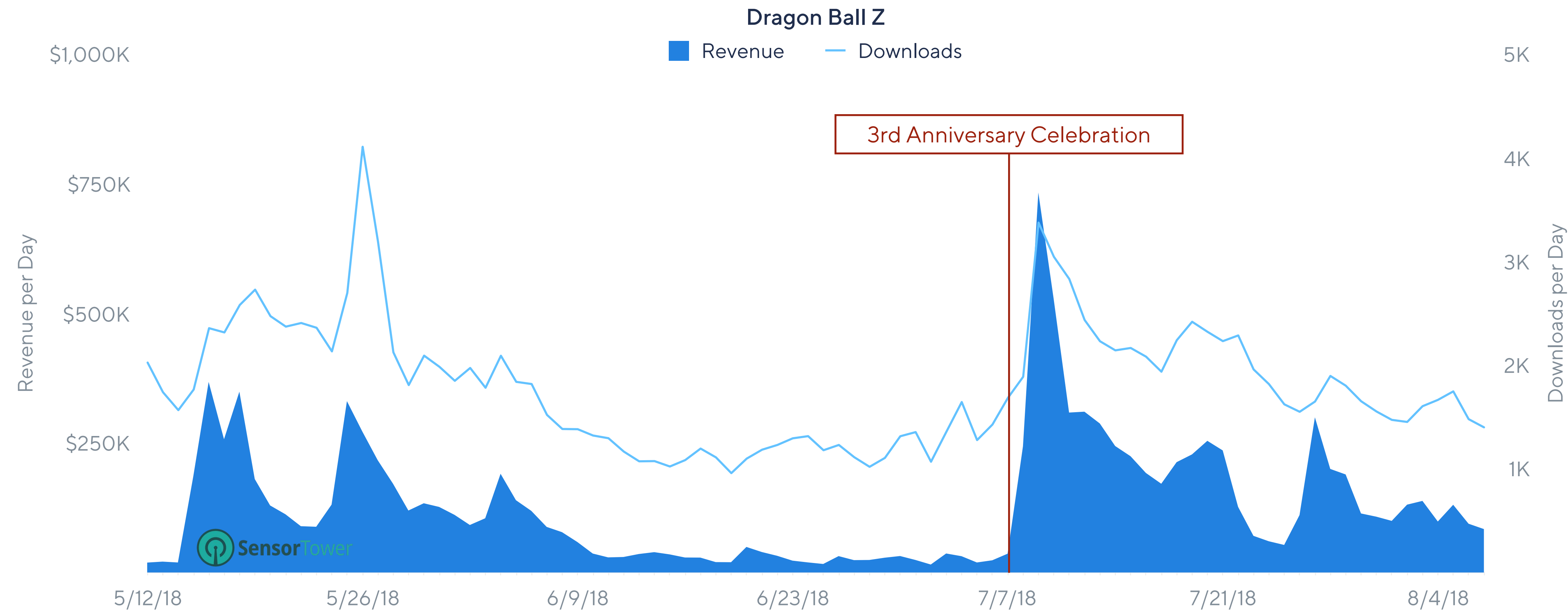
[Click here for more images and videos](#)



IMPACT ANALYSIS

The events drove a massive increase in revenue: over 1,000% WoW and 2Wo2W

Time Period	Impact
WoW	1,321%
2Wo2W	1,051%
3Wo3W	786%



INSIGHTS & ADVICE

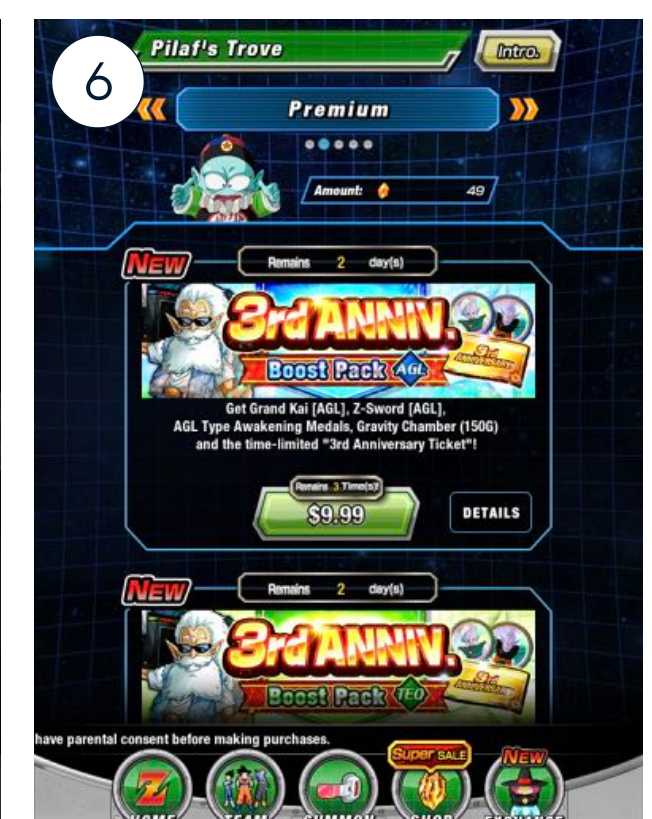
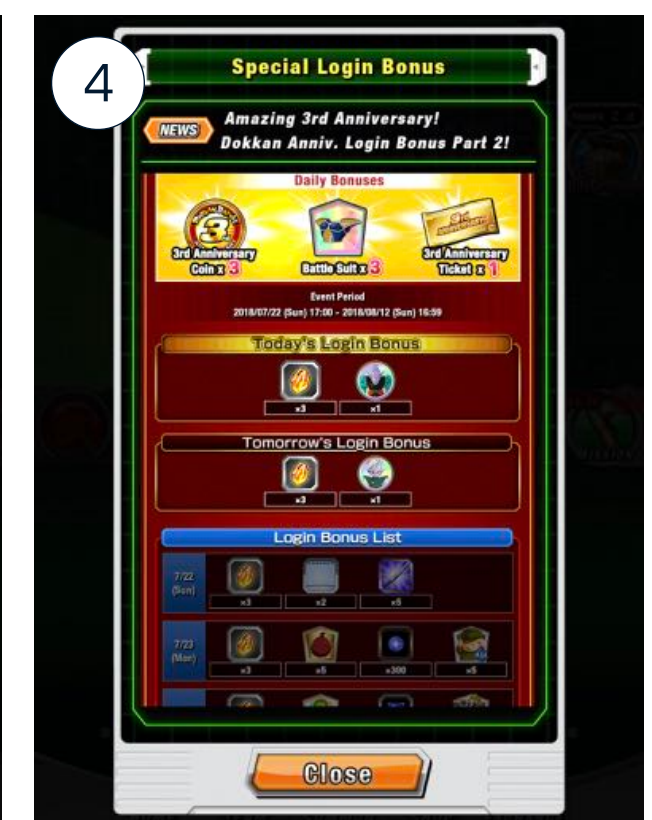
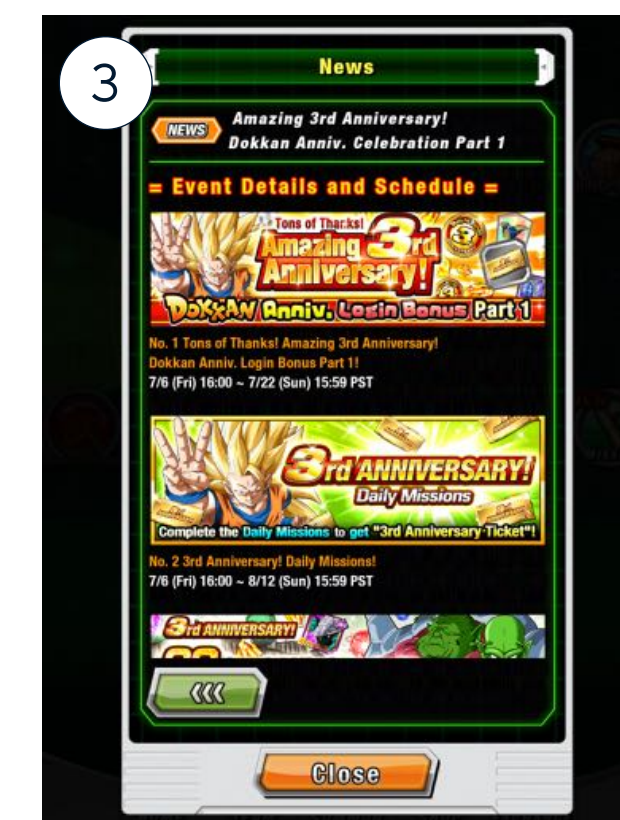
Older games can produce substantial boosts in revenue by utilizing inflationary economy tactics

Feature Details

- The *3rd Anniversary Celebration* is marketed on the start screen with a link to the developer's webpage and additional information about the event (1 & 2)
- Players can access the daily calendar of events by clicking the *News* button on the home screen (3)
- Players who login daily are awarded the *Special Login Bonus*, which includes: 3 Anniversary Coins, 3 Battle Suit boosts, 1 Anniversary Ticket, and the daily login bonus (4)
- A *Special Login Bonus* calendar shows the items awarded each day (5)
- A number of *3rd Anniversary Boost Packs* are available for a limited time during the event (6)

Key Takeaways

- Use inflationary economy tactics in older apps to produce revenue bursts:
 1. Release a daily bonus mechanic to 1) increase retention 2) fill player wallets
 2. Flush wallets will increase propensity to spend (much like inflating a real-world economy)
 3. Release sales that will inflate wallets further, making the daily bonus inflation negligible ... but also producing a spike in revenue
 4. Then, stack multiple events to drive up player engagement and sink wallets back to normal levels
- Market such events with infrequent themes, like Anniversaries, so players do not wait for the next event (slowing spend during non-events)



TEAM TOURNAMENTS

FEATURE SNAPSHOT

Toon Blast released *Team Tournaments* that run every week

Detailed Information

- Release: 7/6/18
- Player Motivations: Achieve, Association
- Player Types: Daring Dan, Stealthy Steve

Related Features

- [Rocket Race](#) - Candy Crush Soda Saga
- [Team Battle](#) - Wizard of Oz Magic Match
- [Billionaire League](#) - Huuuge Casino

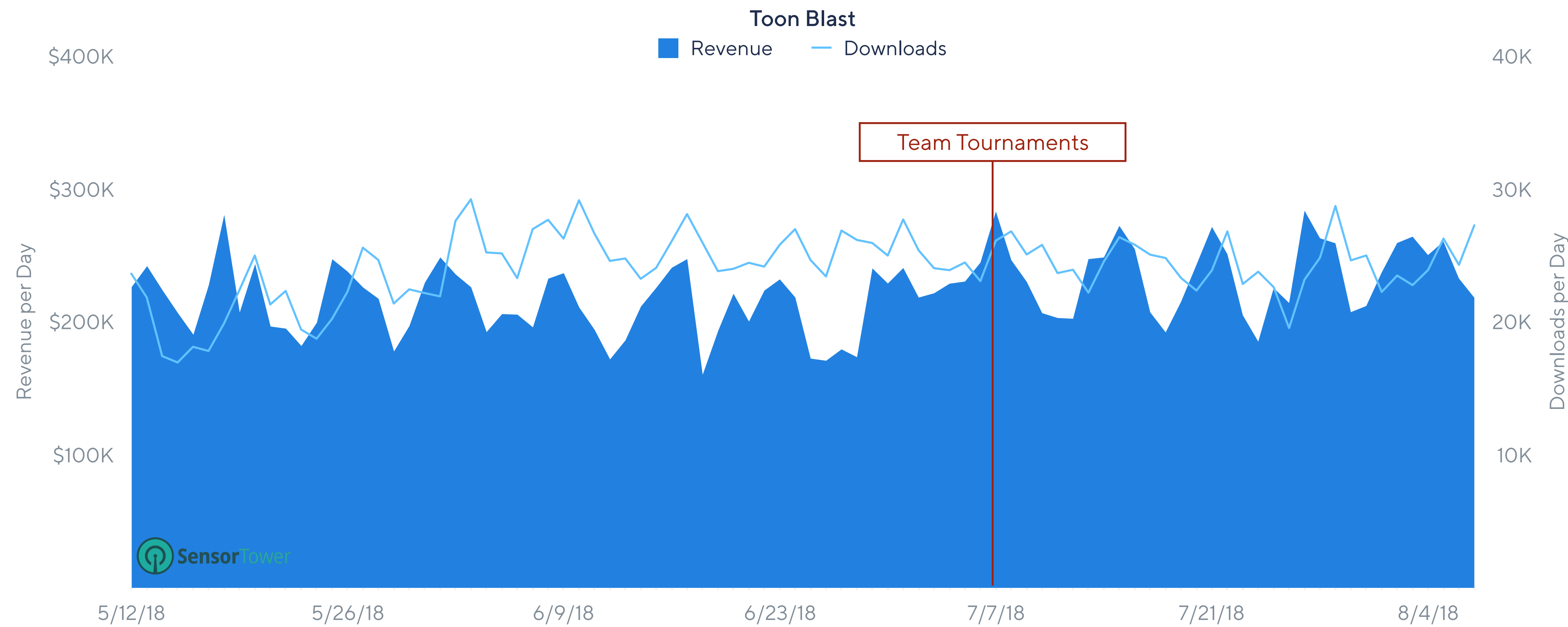
[Click here for more images and videos](#)



IMPACT ANALYSIS

Team Tournaments generated a step-function increase in Toon Blasts' revenue

Time Period	Impact
WoW	6%
2Wo2W	11%
3Wo3W	9%



INSIGHTS & ADVICE

Top-of-the-funnel marketing and close competition are the two most important components of a successful competitive feature

Feature Details

- At app-entry, players see a new event icon for *Team Tournaments* (1)
- During the event, groups of 10 teams at similar levels compete for prizes (2)
- The team score is the combined number of *Stars* earned by members during the tournament (3)
- At the end of the tournament, the top 5 teams of each group are awarded a prize, which is divided equally between all members (4)

Key Takeaways

- Top-of-the-funnel marketing is an often overlooked, yet key component, for success in older apps that hold many features (each in-app feature competes for a player's attention). This is even more true for features that require concurrent player participation
- Consider testing multiple marketing options upon app-entry since they are cheap to build and often lead to dramatically better results
- Toon Blasts' top-of-the-funnel marketing is very strong; a blackout screen with a bouncing arrow is an *excellent* way to drive a large percentage of user engagement (but it is fairly forceful)
- For sustained feature-engagement, it is crucial that players compete against similar-level players. This can be controlled by back-end logic, level-based mechanics, or both



UGC EVENTS WITH TWITCH

FEATURE SNAPSHOT

Puzzle & Dragons announced a *Design-a-Character* community contest during a live *Twitch Stream* concurrently with a revenue-driving feature release

Detailed Information

- Release: 8/1/18
- Player Motivations: Create, Ownership
- Player Type: Friendly Fran

Related Features

- [Twitter Live](#) - Homescapes
- [Facebook Live Cast](#) - Slotomania
- [First Facebook Live](#) - Bingo Blitz

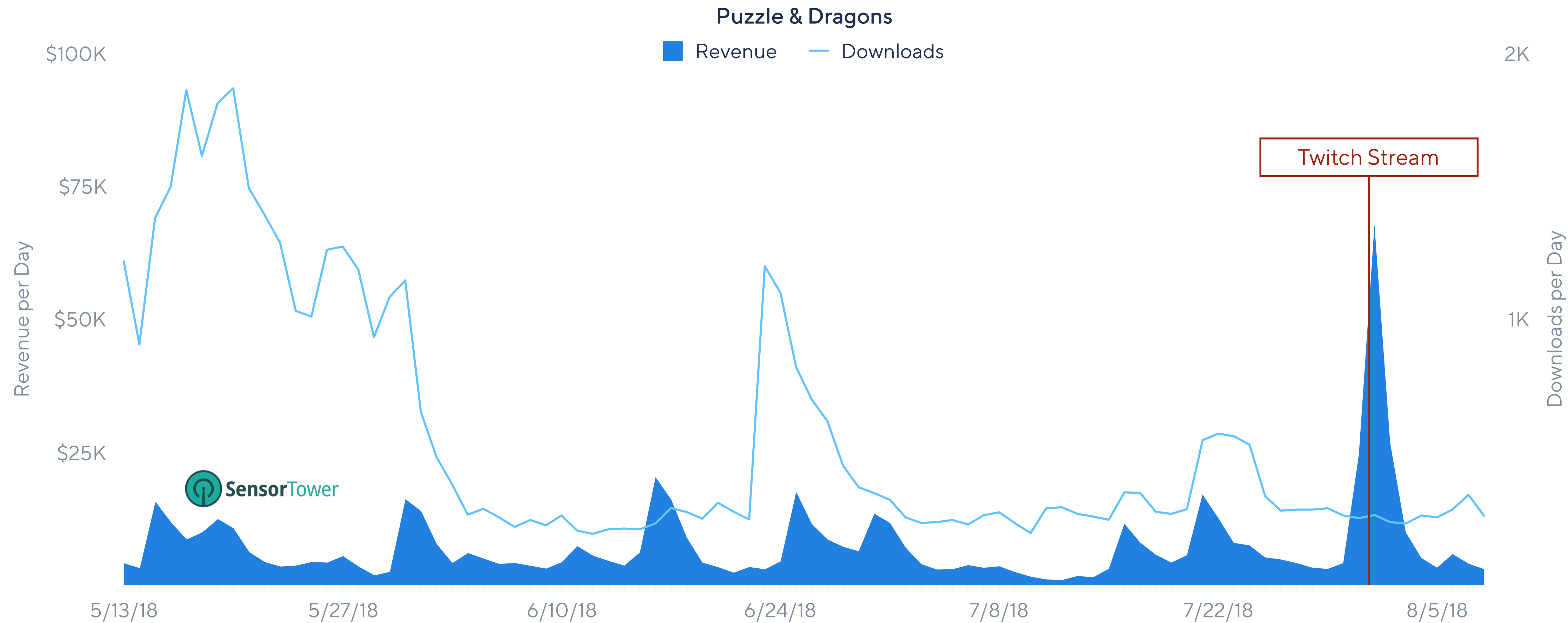
[Click here for more images and videos](#)



IMPACT ANALYSIS

Revenue spiked 345% WoW during the *Twitch Stream*

Time Period	Impact
WoW	345%
Wo2W*	134%
Wo3W*	1,043%



* Wo2W and Wo3W were used here because the feature was released so recently that 2Wo2W and 3Wo3W is not attainable

INSIGHTS & ADVICE

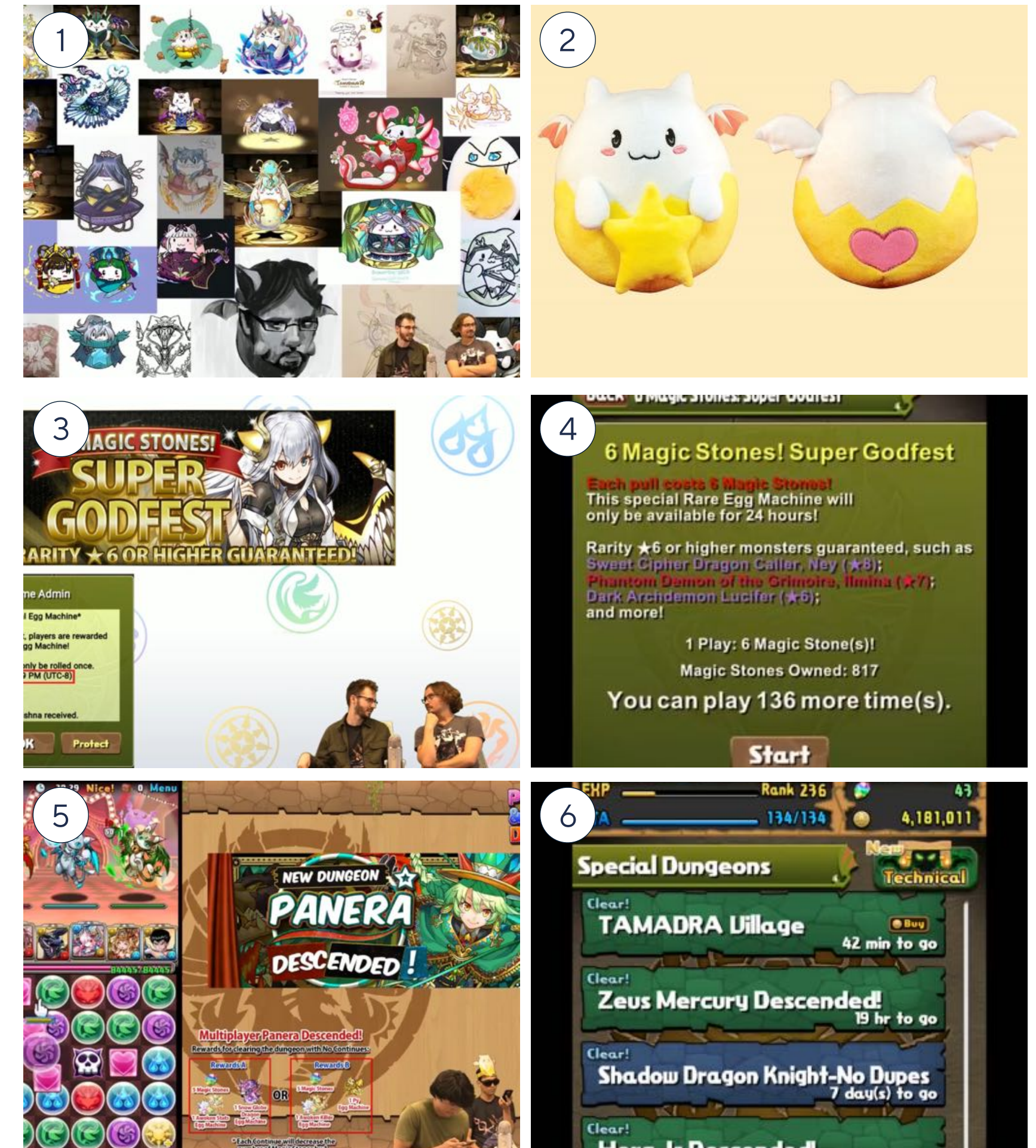
Drive engagement with a UGC event. Then, release a revenue-driving feature with the announcement of winners. Start to build a Twitch following, particularly for more male-oriented apps

Feature Details

- GungHo America announces winners to various Puzzle & Dragons community contests, reviews upcoming events, and showcases new gameplay features on *Twitch Streams* (1)
- Rewards for the *Design-a-Character* community contest included: 5 *Magic Stones* to all participants, 4 Puzzle & Dragons T-shirts, and a *TAMADRA Plush Toy* as the Grand Prize (2)
- The [8/1/18 Twitch Stream](#) outlined the release of the *August Quest Dungeon* (monthly event) and the *Super Godfest* event (3)
- During the *Super Godfest* event, players can purchase a pull on a special *Egg Machine* for a guaranteed *Rarity 6* or higher *Monster*. All players who logged in on 8/1/18 received a free pull (4)
- The *Twitch Stream* showcased special guest gameplay of new events and new *Coin Dungeons* (5)
- *Coin Dungeons* are rotated every 2 weeks and available for players level 80 and above (6)

Key Takeaways

- Work with the community team to pair announcements of major events with revenue-driving features. Bring the leads of other teams into your scrums to help them prepare events for major feature releases
- It is easier than ever for more players to participate in UGC contests with new mobile-friendly design apps. If UGC contests are successful, they can drive strong engagement (and have high repeatability)
- Twitch should be higher on your marketing list for younger, male-oriented apps: 81% of Twitch views are male, with 55% between 18-34 years of age (see [Twitch Audience](#)). Puzzle & Dragons has 37K followers on Twitch



REMOVED FEATURES



ACHIEVEMENTS

Fishdom is planning to remove *Achievements* in the next update

Feature Details

- Fishdom notified players with an in-game message that *Achievements* will be removed with the next update (1)
- *Achievements* allow players to earn rewards for completing certain in-game activities (2)
- Players tap the main screen *Trophy* icon to view a list of *Achievement* goals, progress, and rewards (3)
- Most *Achievements* have 3 levels; completing an *Achievement* level awards *Diamonds* and unlocks the next tier (4)

Detailed Information

- Original Release: 9/14/15
- Removal Notice: 7/16/18

[Images and videos of original release](#)

[Images and videos of removal](#)



FARM CLUB

Farm Heroes is removing the *Collection* system *Farm Club* for select high-level players

Key Takeaways

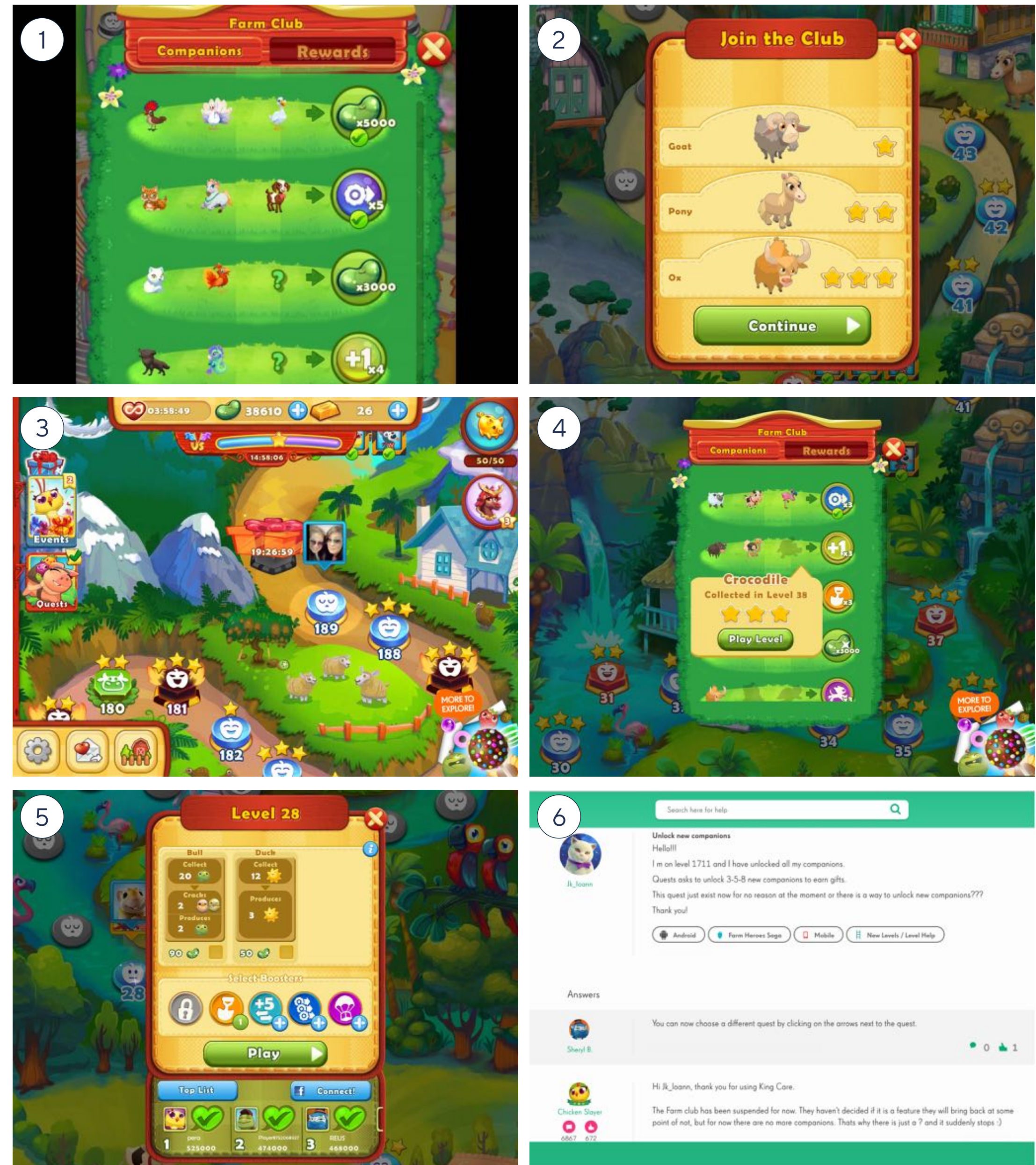
- *Farm Club* is a collection system recently made inactive for some high-level players (1)
- Players collect animal *Companions* by completing *Farm Club* levels (2)
- *Farm Club* levels are indicated on the map with a Cow icon (3)
- Completing a set of *Companions* awards players boosts and in-level *Companions* (4)
- At the beginning of a level, players select an available *Companion* for help with symbols or eliminating hazards during play (5)
- Players who have reported no access to the *Companion* feature are level 1,080 or above. Players at lower levels still have access to the feature (6)

Detailed Information

- Original Release: 1/16/15
- Removal: 7/1/18

[Images and videos of original release](#)

[Images and videos of removal](#)



LEVEL DESIGN



NEW LEVEL DESIGNS

Missiles in Toon Blast

- Collapse cubes or activate boosts adjacent to *Cases* in order to release *Missiles*. Subsequent collapses of cubes next to *Missiles* activate them, destroying hazards or random cubes (1 & 2)

Rock in Toy Blast

- To remove *Rocks*, players use *Rotors* (line-clearing boosts) or *TNT* (explosive boosts) to hit and crack the *Rocks*. Subsequent matches adjacent to the *Rocks* will remove them and collect *Crystals* (3 & 4)

Furniture Elements in Home Design Makeover!

- *Furniture* elements are covered by *Glass* tiles, which break after 1 or more matches are made above them. After all *Glass* is cleared, the *Furniture* is collected from the board (5 & 6)

Rocket in Home Design Makeover!

- Matching 4 elements in a line or 2 x 2 square, creates a *Rocket* tile position on the board. Creating a match over a *Rocket* position activates it, clearing a row and column of elements

Flower Pot in Home Design Makeover!

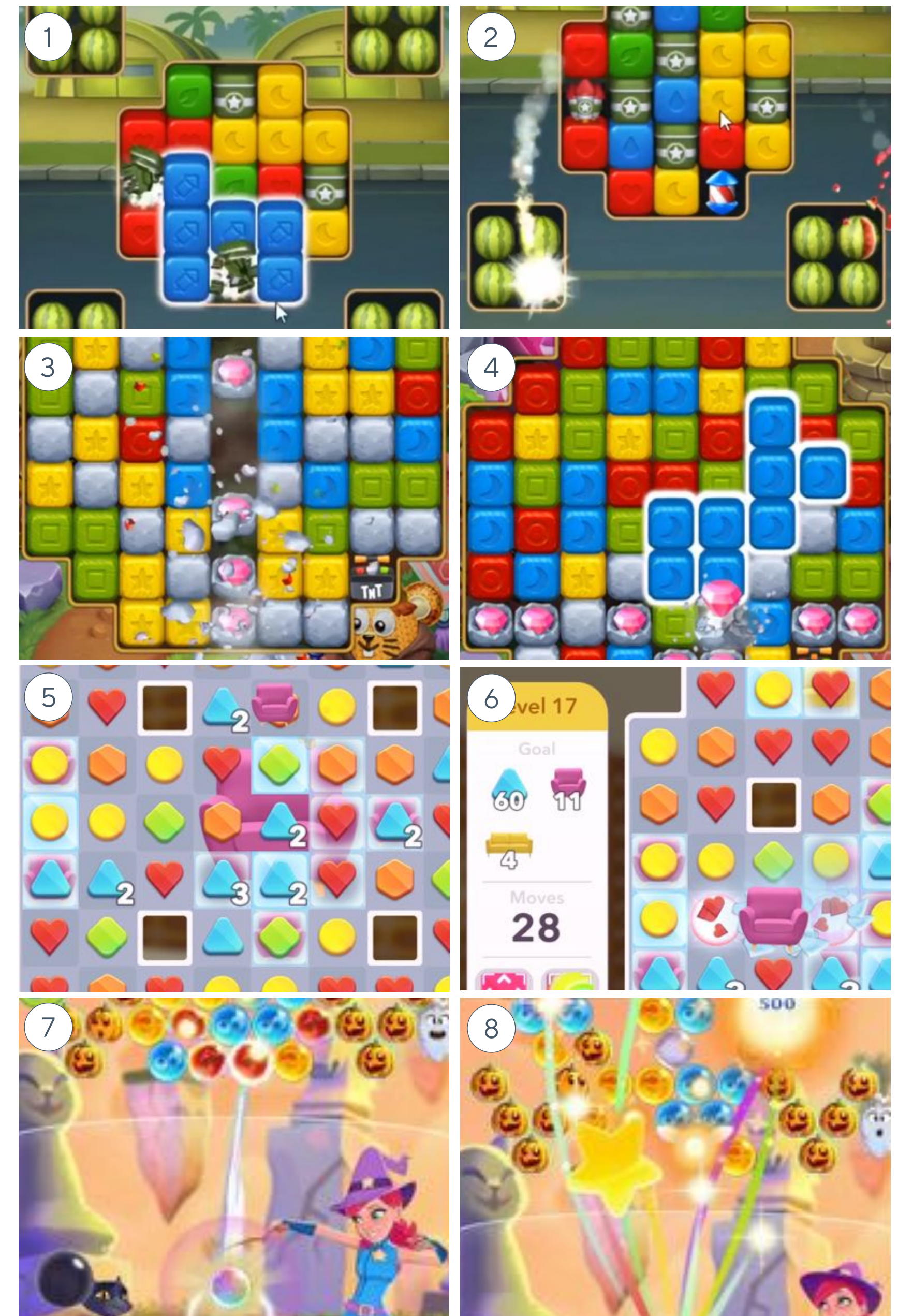
- *Flower Pots* appear as collection goals in some levels. Players must clear elements below the *Flower Pot*, collecting the *Flower Pot* once it reaches the bottom row

Rainbow Rush in Bubble Witch 3 Saga

- The *Rainbow Rush* boost removes all bubbles of the same color from the screen (7 & 8)

Shooting Star in Bubble Witch 3 Saga

- The *Shooting Star* boost removes a group of same-colored bubbles after players target an area



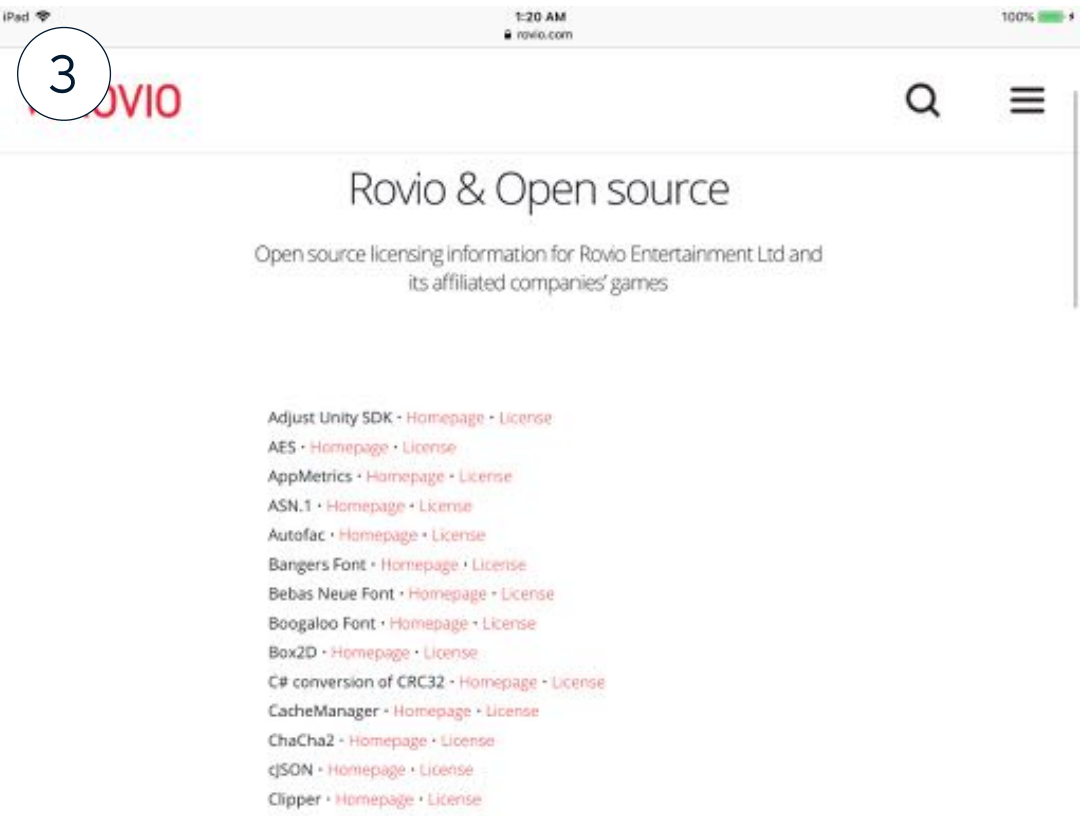
MARKET WATCH



7/1/18 - 7/31/18

NOTABLE RELEASES I

App	Feature	Description
Candy Crush Saga	V.I.P. Gift Bag	The <i>V.I.P. Gift Bag</i> is a type of <i>Piggy Bank</i> mechanic. Each <i>Gold Bar</i> purchase gives a 5% <i>Gold Bar</i> bonus and boosters, which are added to a <i>Gift Bag</i> . The <i>Gift Bag</i> is located and collected at the end of a player's current <i>Episode</i> (1)
Candy Crush Soda Saga	Golden Tickets	Players beat <i>Hard</i> or <i>Super Hard</i> levels to collect <i>Golden Tickets</i> and unlock a 24-hour bundle deal that includes <i>Gold Bars</i> , timed unlimited boosts, and boost inventory items
	Sponsored Ads	Skinned dialogues for companies like <i>Lyft</i> invite players to visit websites with offers or contests
Homescapes	Leagues	A <i>League</i> with a leaderboard based on participation in Flying High and Medal Race events (2)
Angry Birds 2	Open Source Update	A button is added to the app's main screen linking to Rovio's and affiliated companies' <i>Open Source</i> pages and licenses (3)
Legendary Game of Heroes	Legend Trials	An event for high-level players with bonuses for usage of second-generation heroes



NOTABLE RELEASES II

App	Feature	Description
Candy Crush Jelly Saga	Daily Boosts	Daily boosts collected are now only available for 2 hours (as opposed to being added to player inventories and available indefinitely). Similarly, Farm Heroes Saga’s new Daily Treat gives limited-time boosts (1)
Panda Pop	Zen Garden	Players collect <i>Stars</i> to purchase and upgrade a <i>Zen Garden</i> , which produces and increases boosts (2)
Gummy Drop	Odds Disclosure	Odds of a post-purchase wheel mini-game is showcased to players who click on the information button (3)
Bubble Witch 3 Saga	Level Tips	After failing levels, a post-level dialogue provides a link to the <i>King Support</i> website with videos of tips to help beat the level
WWE Champions	Dual Trainer Skills	Some <i>Superstars</i> now have additional ways to boost their special moves
	Faction Invasion	A team vs. team competition event with a node-based map

[Click here for the full list of content released this month](#)



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
- [Thrill](#) – Players who want the excitement and stress of taking a risk
- [Surprise](#) – Players who want to uncover an unknown, see new opportunities, and try new things
- [Awe](#) – Players who want to experience quality production value
- [Flow](#) – Players who want to get into the zone and escape
- [Relationship](#) – Players who want to connect with other people
- [Association](#) – Players who want to identify with something for familiarity and comfort
- [Ownership](#) – Players who want to have things belong to them
- [Create](#) – 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



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

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 less you are like anyone else, which makes you unique.”

– Walt Disney

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