



# LIQUID AND GRIT

## Puzzle Report

Competitive research and actionable product recommendations

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SEPTEMBER

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2017

# INTRODUCTION



*“I get asked a lot why Apple’s customers are so loyal ... It’s because when you buy our products, and three months later you get stuck on something, you quickly figure out [how to get past it]. And you think, ‘Wow, someone over there at Apple actually thought of this!’ And then three months later you try to do something you hadn’t tried before, and it works, and you think, ‘Hey, they thought of that, too.’ And then six months later it happens again.”*

*- Steve Jobs, 2004*

Dear Product Owner,

Years ago, we started Liquid and Grit to help you, the soldier—the product manager, game designer, live ops manager, and designer. We knew that you needed very detailed analyses on the latest innovations, because we’ve walked in your shoes. To make great products and games, users must *feel* that you considered their 1<sup>st</sup>, 10<sup>th</sup>, 100<sup>th</sup>, and 1,000<sup>th</sup> experience with a product.

In this Puzzle Report, New Innovations are designed to keep you at the edge of change in your genre. Live Ops and Level Design are specific to certain elements of game play. The Market Watch summarizes notable features added to the top apps in the Puzzle category—expect to see our coverage grow with more apps and sub-genres in Puzzle. Finally, the Economy Teardown analyzes how each game drives retention through economy balances.

You will receive the Puzzle Report each month. Shortly after, you will have an online version of the report at [Liquidandgrit.com](http://Liquidandgrit.com). If you do not have it already, email [info@liquidandgrit.com](mailto:info@liquidandgrit.com) for access.

Think of everything.

Brett Nowak  
*Editor-in-Chief*

# NEW INNOVATIONS

# NEW INNOVATIONS

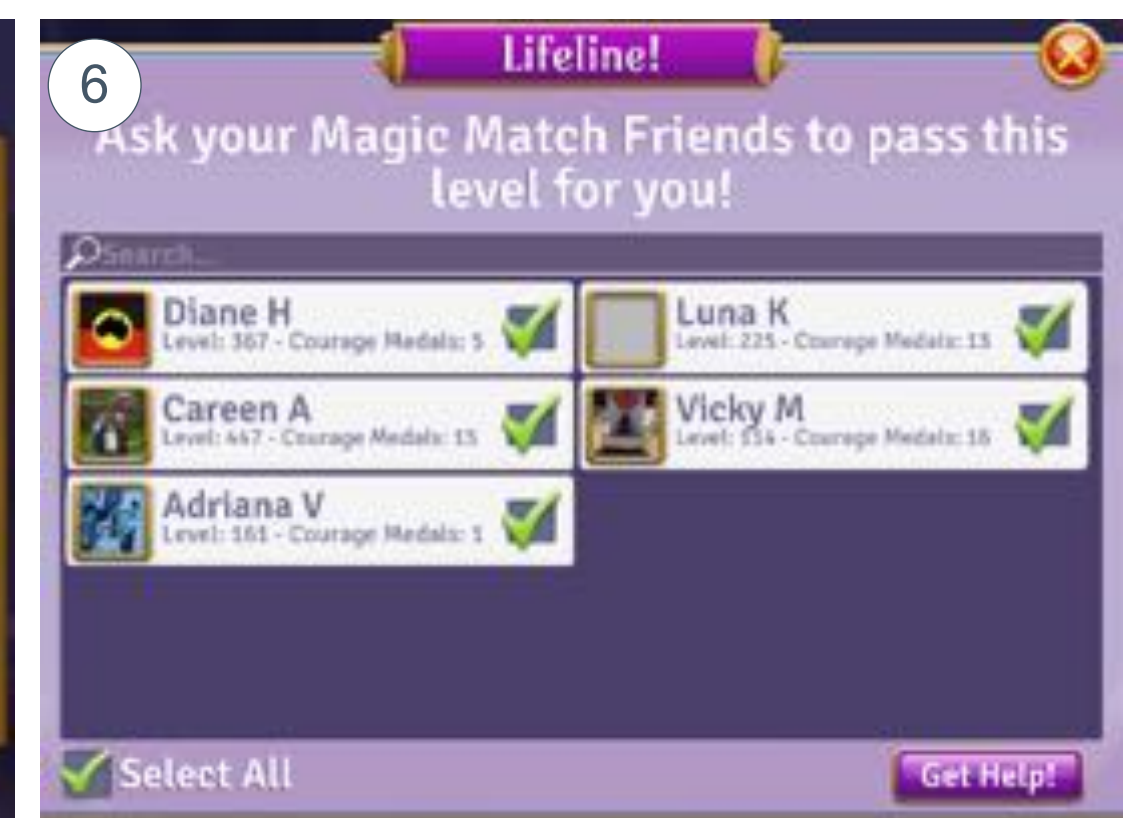
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Feature	KPIs	Recommendations
<b>Lifelines</b>	<ul style="list-style-type: none"><li>• Boost retention</li></ul>	<ul style="list-style-type: none"><li>• Allow players to request assistance from friends when failing to pass a level</li><li>• Let players complete levels for their friends to increase retention through collaboration</li></ul>
<b>Event Calendars / Medals</b>	<ul style="list-style-type: none"><li>• Boost retention</li></ul>	<ul style="list-style-type: none"><li>• Create an event calendar to announce new features</li><li>• Incorporate a medal collection system to reward players</li></ul>
<b>Team Battles</b>	<ul style="list-style-type: none"><li>• Strengthen engagement</li></ul>	<ul style="list-style-type: none"><li>• Give highly-engaged players an intimate team competition feature that awards team and individual performances</li><li>• Determine winners based on levels won in a single life</li></ul>
<b>Rainbow Roads</b>	<ul style="list-style-type: none"><li>• Increase spend</li></ul>	<ul style="list-style-type: none"><li>• Take players back only one step in a win-streak mechanic</li><li>• Increase non-savable boosts awards as players progress</li></ul>
<b>Quick Hits</b>	<ul style="list-style-type: none"><li>• Decrease churn</li><li>• Boost retention</li><li>• Drive conversion</li></ul>	<ul style="list-style-type: none"><li>• Decrease churn on hard levels by clearly setting expectations</li><li>• Add concurrent live ops events to boost retention</li><li>• Consider a <i>Piggy Bank</i> to drive conversion</li></ul>

# LIFELINES

Allow players to request assistance from friends when failing to pass a level. Let players complete levels for their friends to increase retention through collaboration

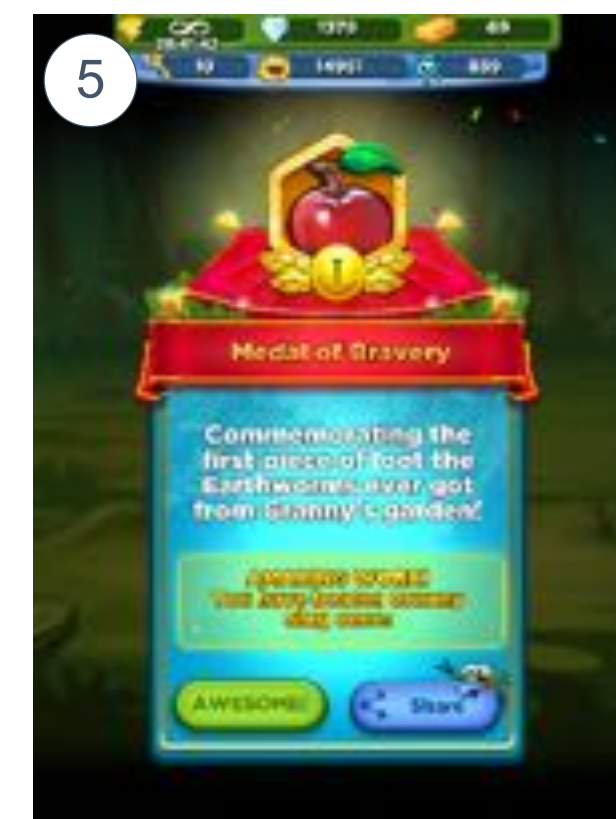
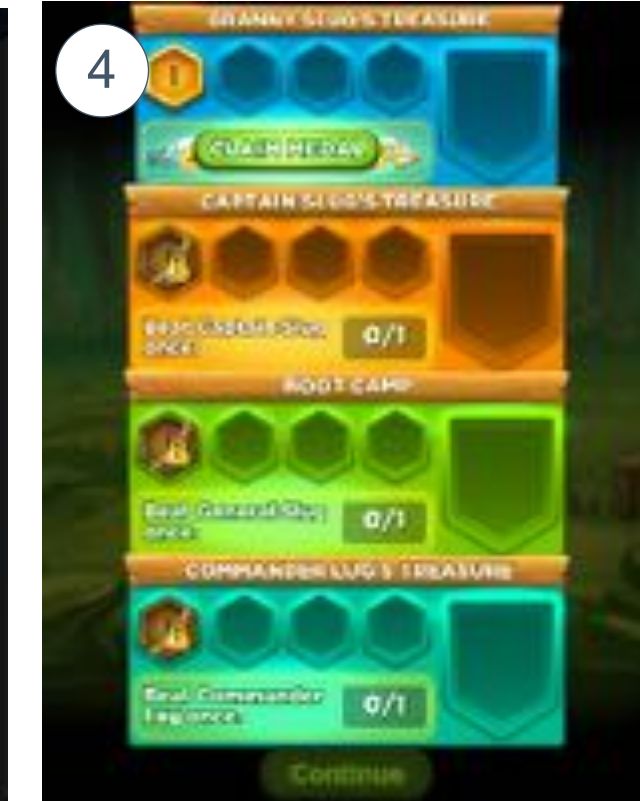
- In Wizard of Oz: Magic Match's *Lifelines*, a 'Help' notification appears on the map screen when a friend has requested help (image 1).
- The *Lifeline* tab in the *Social Center* displays requests with options to 'Help Now' or 'Decline' (image 2).
- Accepting a *Lifeline* request opens a level dialogue, displaying the friend needing help with a particular level (image 3).
- Completing a *Lifeline* level for a friend earns players *Courage Medals*. A player's *Courage Medals* are visible in the *Social Center* and on the player's profile screen (image 4).
- After a certain number of attempts at a level, a *Lifeline* button will appear next to the 'Replay' button (image 5).
- Clicking *Lifeline* opens a dialogue to search and select friends to send *Lifeline* requests (image 6).



# EVENT CALENDARS / MEDALS

Create an event calendar to announce new features. Incorporate a medal collection system to reward players

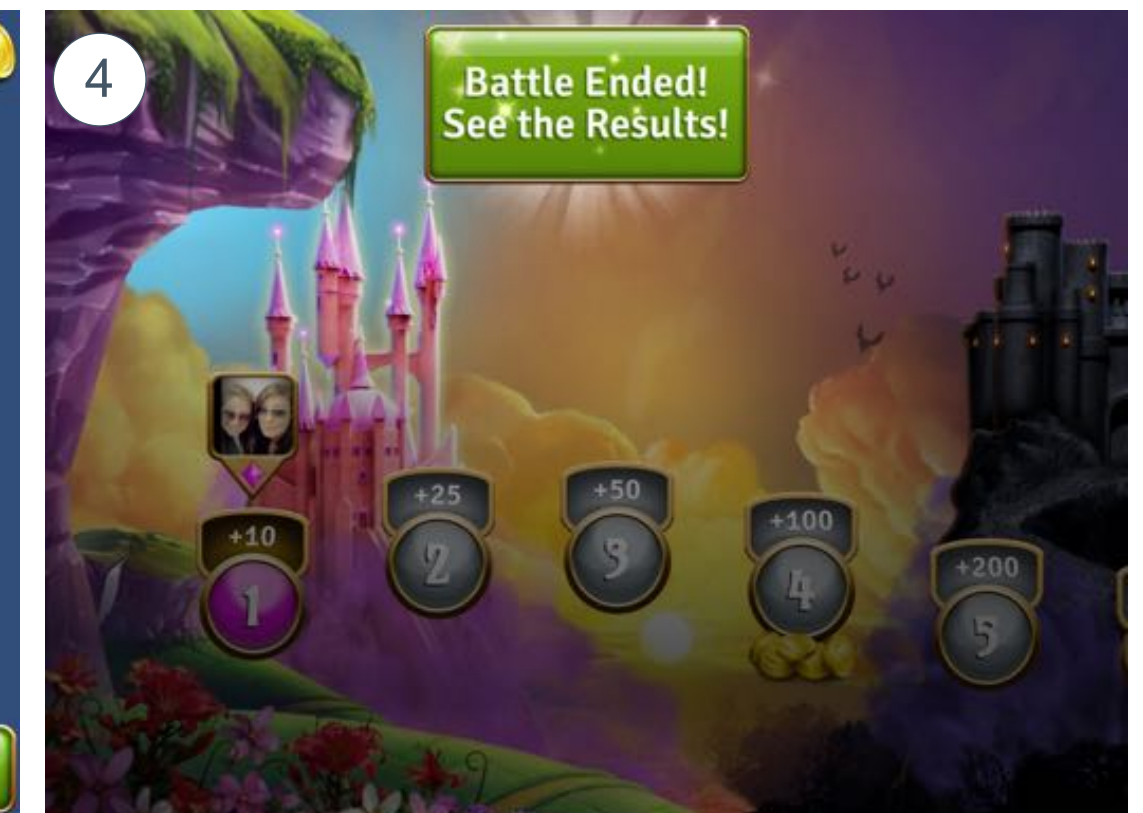
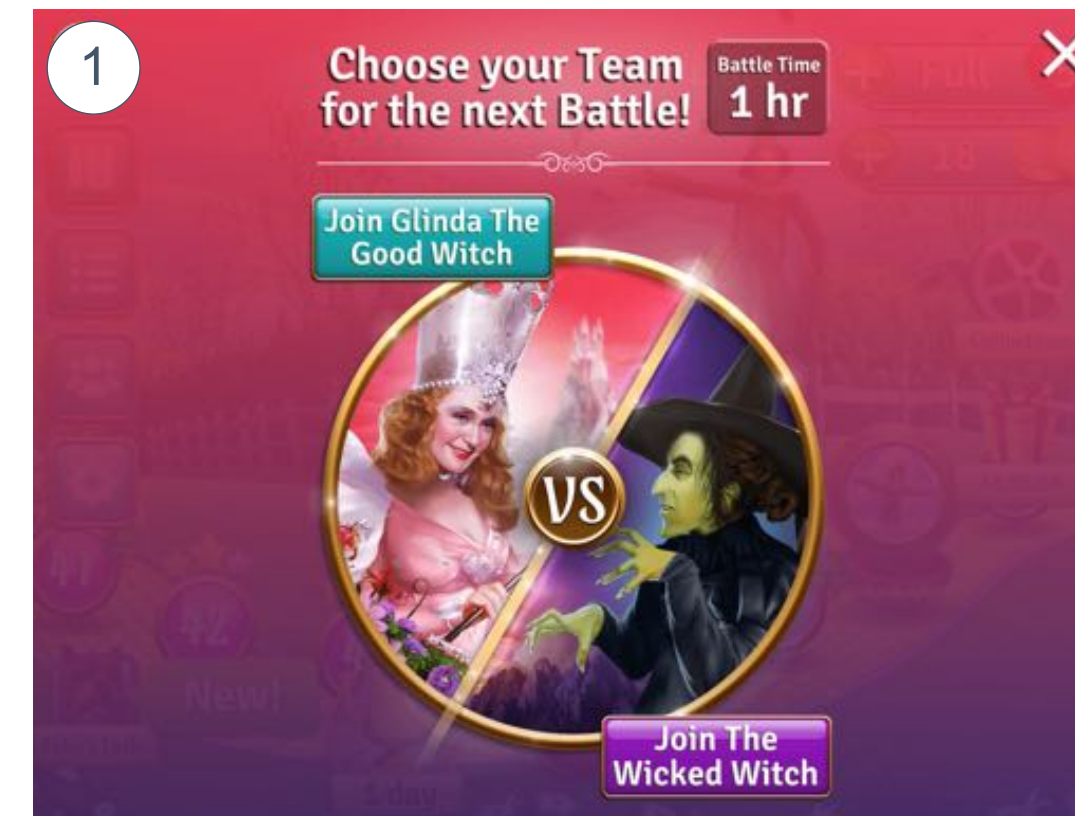
- Best Fiends' *Event Calendar* is visible inside the event screen (image 1).
- The *Event Calendar* provides information for each event (image 2).
- A Medals collection now accompanies weekly events, with an additional icon on the map screen (image 3).
- Completing any of the weekly events will award one of five medals.
  - Three of the medal collection events are not played on the main map area and require players to complete five levels in one life. New event levels are added weekly.
  - The fourth medal collection event is available four times a week and is played on the main map. This requires players to reach a number of treasure chest levels before time runs out (image 4).
- Collecting a medal rewards players with various game currencies. In this example, \$2.42 worth of various currencies were awarded for earning the *Medal of Bravery* (image 5).
- A medal counter appears in *Challenges* once an event has been completed and a medal has been collected (image 6).



# TEAM BATTLES

Give highly-engaged players an intimate team competition feature that awards team and individual performances. Determine winners based on levels won in a single life

- Wizard of Oz: Magic Match's Team Battle event allows players to choose their team. Teams compete in multiple one-hour battles until the event is over (image 1).
- A countdown timer appears once each team has 10 players (image 2).
- Team Battles feature 20 levels, battle timer, team point meter, and leading team indicator. Event levels must be completed in a single life. Team points increase for each completed level. Players who fail to complete a level may start again at level one, until the battle is over (image 3).
- A 'See the Results' button appears at the conclusion of each battle (image 4).
- Each team is notified with a dialogue displaying the winner, final points of each team, and prizes (image 5). Members of the non-winning teams see: 'These are the Prizes you missed out on!' with a 'Continue' button.
- The Top Player for each battle is awarded prizes based on individual performance, even if not on the winning team (image 6).





# RAINBOW ROADS

Take players back only one step in a win-streak mechanic. Increase non-savable boosts awards as players progress

- Candy Crush Soda Saga's *Rainbow Road* features five *Super Bows* to collect, each with increasing boosts awards (image 1).
- Players collect *Super Bows* by completing new levels without losing a life. After a new level is achieved, a notification appears displaying the new *Super Bow* and boosts awarded (image 2).
- Boosts for *Super Bows* are added at the beginning of each new level to help players keep their winning streak going (image 3).
- The final *Super Bow* to collect is the *Rainbow Bow*. This includes 15 minutes of unlimited lives and the highest boosts awards (image 4).
- Quitting, or failing to complete a level, triggers a 'Keep Going' dialogue and the loss of one *Super Bow* level. Players may choose to purchase the 'Keep Going' option for a chance to keep the *Super Bow* level (image 5).
- Levels completed with active *Super Bows* are visible on the map with rainbows (image 6).



# QUICK HITS

Decrease churn on hard levels by clearly setting expectations. Add concurrent live ops events to boost retention. Consider a *Piggy Bank* to drive conversion

- **Decrease churn and increase spend by setting expectations on harder levels:** In Farm Heroes Saga, players are notified of a *Super Hard* level with a banner on the level information (image 1), and a message on the goals bar (image 2).
- **Show future level awards won if completed within a certain time:** In Candy Crush Soda Pop, players are shown the gifts awarded at different levels if completed within a certain amount of time (images 3 & 4).
- **Release a *Piggy Bank* to convert players:** In Candy Crush Saga, players fill up a *Piggy Bank* with every play (image 5). Once the bank is full, players are notified that for \$2.99 they may open the bank (image 6).
- **Boost retention from live ops with multiple concurrent events:** In Cookie Jam, multiple events are going on at once (image 7).
- **Let players spend to continue their retention bonus streak:** In Candy Crush Jelly, players may spend two gold bars to continue their daily check-in streak or go 'Back to day 1' (image 8). The prize to revive increases the further along a player is paying to revive.



# LIVE OPS

# FLOWER FESTIVALS

Release event-specific currencies to increase engagement. Include limited time collection and store items. Allow players to exchange the event currency for permanent currency after the event concludes

- Fishdom's *Flower Festival* debuts a new special *Flower* currency earned exclusively during the timed event (image 1).
- Players earn *Flowers*, in addition to regular awards, for bonuses and level completion (image 2).
- Limited time collection items may *only* be purchased with the new event currency (image 3).
- Event-themed items purchased will remain in a collection after the event is over.
- After the event concludes, players may exchange *Flowers* earned for coins, a permanent currency (image 4).



# LEVEL DESIGN

# NEW LEVEL DESIGNS

Three new level designs were released in the past month: *Boom Boxes*, *Water Lily*, and *Shipwrecked*

- **Boom Boxes in Gardenscape:**
  - Players must make matches next to the *Boom Box* using pieces that match the colors on the sides of the box (images 1 & 2).
- **Water Lily in Gardenscape:**
  - Pieces cannot rest on a closed *Water Lily*. Making matches next to the *Water Lilies* opens them up (images 3 & 4).
  - For more information: <https://goo.gl/zNWYSf>
- **Shipwrecked in Fishdom:**
  - Players must drop all the coins down to the bottom by making matches underneath the coins (image 5).
  - Players do not want to match pieces next to the *Jerrican*.
  - Matching pieces next to *Jerricans* burst them open and spills oil over onto adjacent tiles, making it harder to complete the level (image 6).

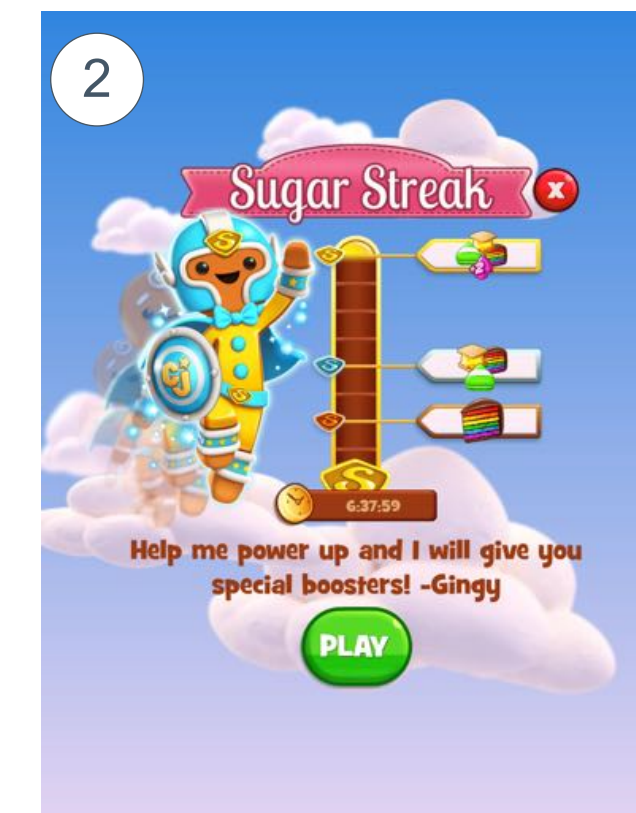


# MARKET WATCH

8/1/17 – 8/31/17

# PUZZLE: TOP GROSSING 1 – 5

App	Notable Features Released
Candy Crush Saga	<ul style="list-style-type: none"> <li>• <i>The Emoji Movie Levels</i> challenge players with five levels to complete for rewards (see image 1 and the following pages for details)</li> </ul>
Candy Crush Soda Saga	<ul style="list-style-type: none"> <li>• <i>Rainbow Road</i> feature awards <i>Super Bows</i> and boosts for each new level completed in one life (see New Innovations for details)</li> </ul>
Gardenscapes	<ul style="list-style-type: none"> <li>• Two new level features:               <ul style="list-style-type: none"> <li>• <i>Boom Boxes</i> force players to complete matches of same colors and sectors to trigger explosions (see Level Design for details)</li> <li>• <i>Water Lily</i> forces players to complete matches next to closed <i>Lilies</i> to open them (see Level Design for details)</li> </ul> </li> </ul>
Fishdom	<ul style="list-style-type: none"> <li>• <i>Flower Festival</i> live ops awards special flower currency used to purchase new collection items (see Live Ops for details)</li> </ul>
Cookie Jam	<ul style="list-style-type: none"> <li>• <i>Sugar Streak</i> event to complete levels in one life to fill meter for rewards (image 2)</li> <li>• <i>Level Jam</i> event for players to reach levels on the map before timers run out (image 3)</li> </ul>





# PUZZLE: TOP GROSSING 6 – 15

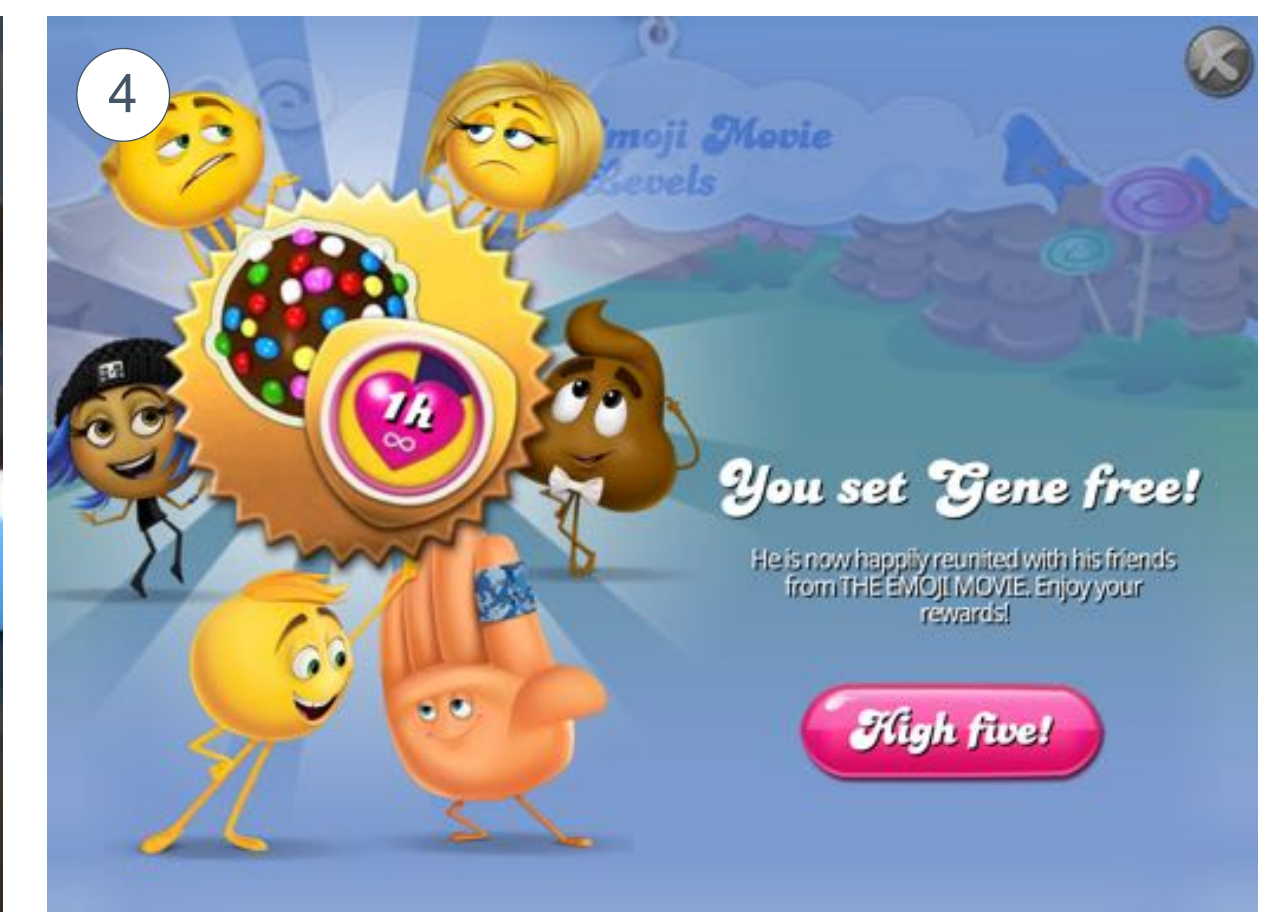
App	Notable Features Released
Farm Heroes Saga	<ul style="list-style-type: none"> <li>• <i>Super Hard Levels</i> added to map (see Quick Hits in New Innovations for details)</li> </ul>
Wizard of Oz: Magic Match	<ul style="list-style-type: none"> <li>• <i>78<sup>th</sup> Anniversary Raffle</i> event with every level played counting as an event entry (image 1)</li> </ul>
Genies & Gems	<ul style="list-style-type: none"> <li>• <i>Soaring Streaks</i> to complete levels without losing a life to fill meter for prizes (image 2)</li> </ul>
Cookie Jam Blast	<ul style="list-style-type: none"> <li>• <i>Sprinkles Collection</i> system with new recipes to earn (image 3)</li> </ul>
Best Fiends (Link 3)	<ul style="list-style-type: none"> <li>• <i>Win Streak Bonus</i> added for levels 80 and above to earn extra moves</li> <li>• <i>Event Calendar</i> announces features and awards medals (see New Innovations for details)</li> <li>• Visit <i>Minutia</i>, a watch-to-earn on YouTube. This was released with <i>Visit Minutia Mission</i> to complete 30 <i>Coconut Challenges</i> to win <i>VIP Gene</i> and currencies</li> </ul>



# THE EMOJI MOVIE LEVELS

Candy Crush Saga released *The Emoji Movie Levels* to compliment the release of *The Emoji Movie*

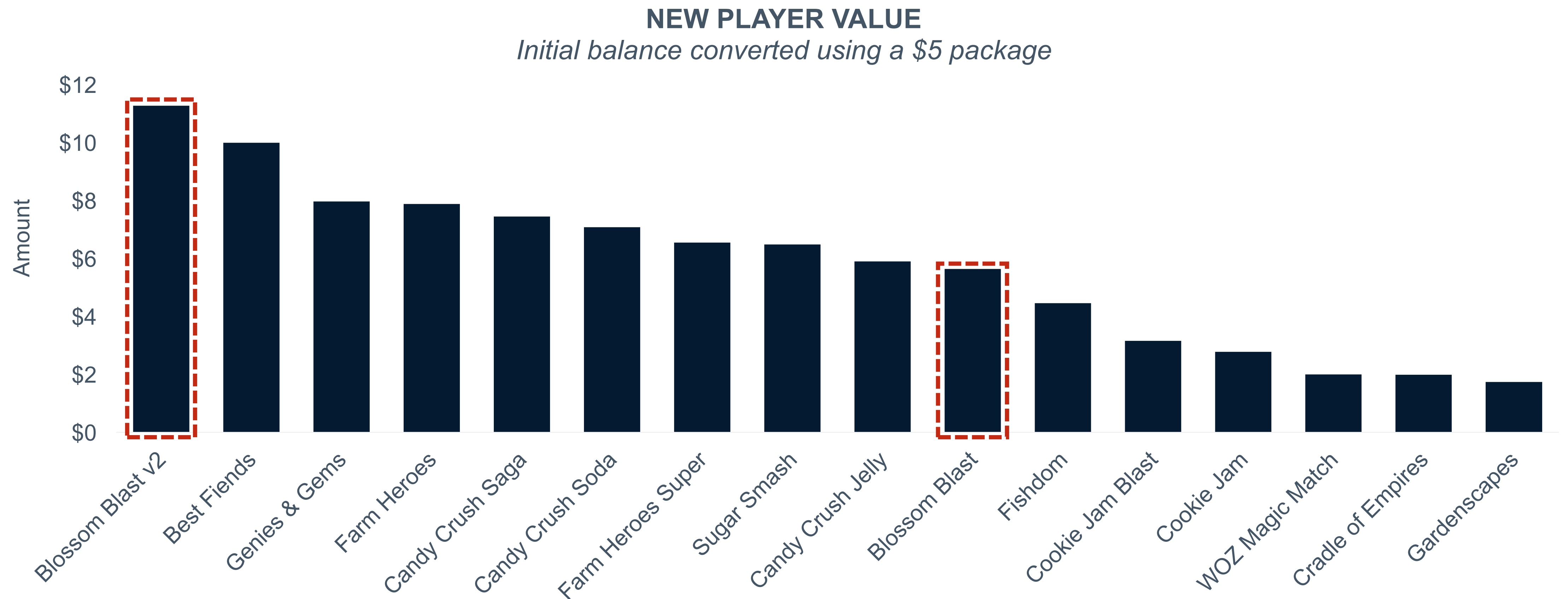
- In Candy Crush Saga's *The Emoji Movie Levels*, players are challenged to set Gene free for a sweet reward (image 1).
- *The Emoji Movie Levels* features a movie character for each of the five levels with an event timer (image 2).
- Players are reminded at the beginning of each level the goal to set Gene free. Failing to complete a level will not reset progress (image 3).
- Completing all five levels before the time runs out awards players with one-hour of unlimited lives, and boosts (image 4).
- *The Emoji Movie* was released in the USA on 7/28/17. Here is the trailer: <https://goo.gl/zzcViK>



# ECONOMY TEARDOWN

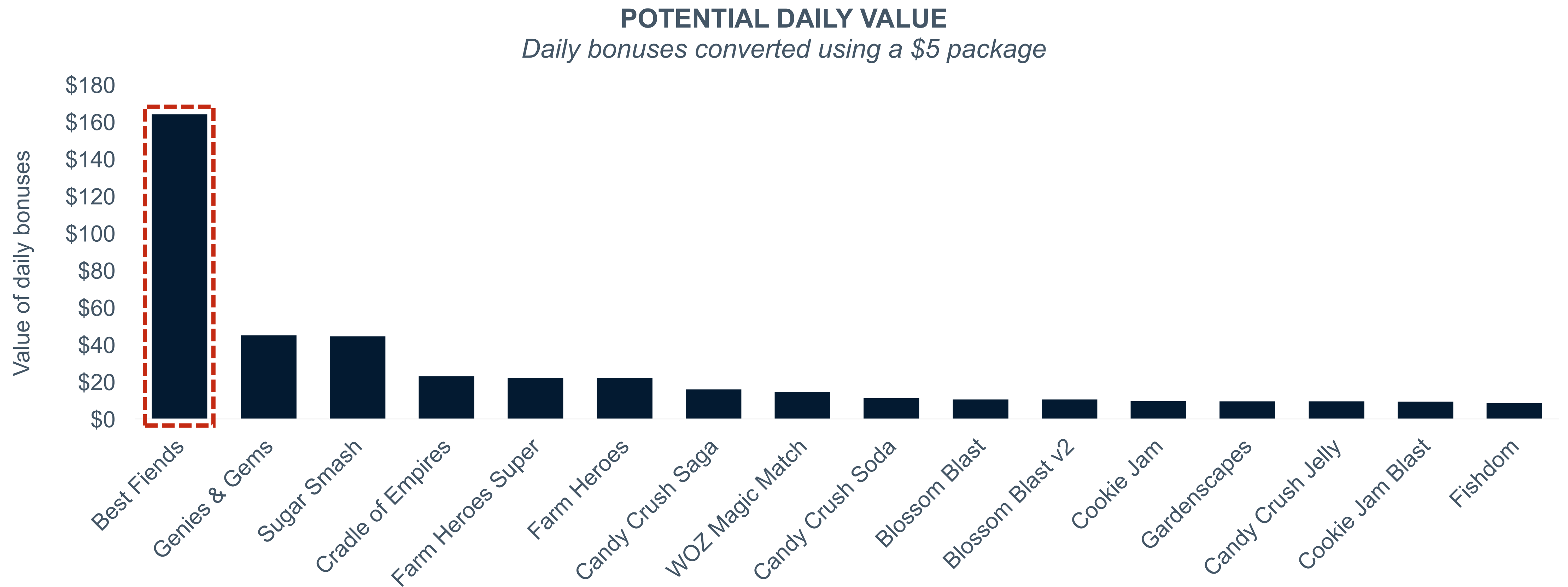
# NEW PLAYER VALUE

Blossom Blast is testing two different buy page conversions for new players: 50 *Gold Bars* for either \$5.00 or \$10.00. One test gives away the most value to new players when using a conversion system based on the buy page's numbers



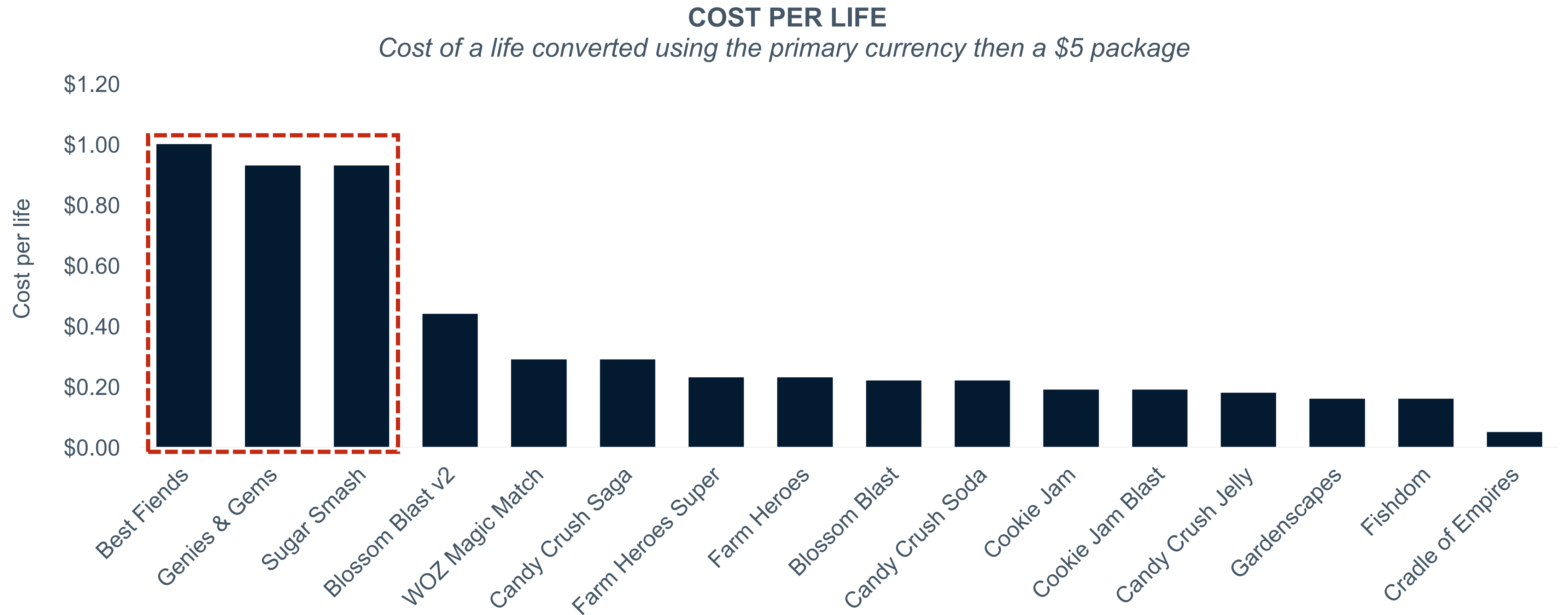
# POTENTIAL DAILY VALUE

Best Fiends, a Link 3 Puzzle game, gives players a potential for \$163.95 of value daily in their three bonus systems. Most of the value is in the secondary bonus (given out 144x per day) and the tertiary bonus (given out 288x per day)



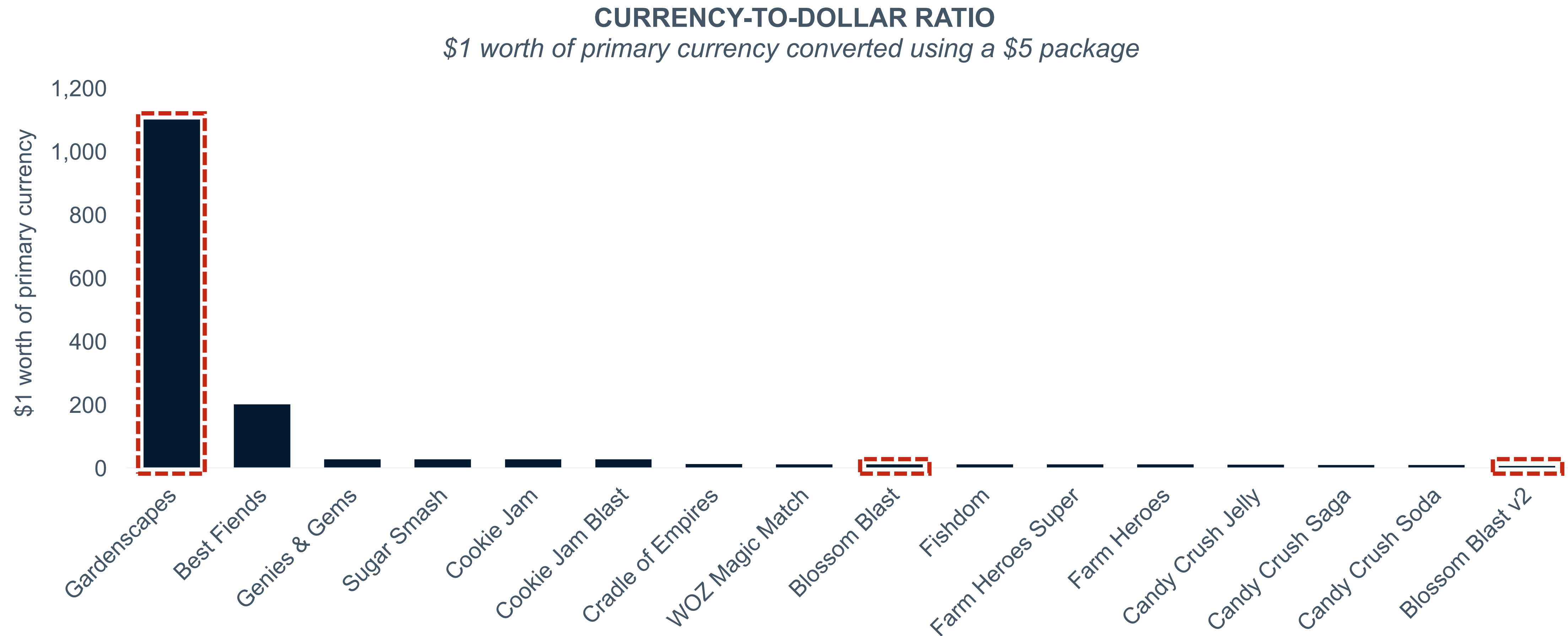
# COST PER LIFE

Best Fiends gives out a lot of value daily but is also very expensive to purchase a life with the primary currency. Genies & Gems and Sugar Smash are also expensive to purchase a life



# CURRENCY-TO-DOLLAR RATIO

Gardenscapes has the most inflated economy compared to the other Puzzle apps. Blossom Blast is testing two different currency-to-dollar ratios that are both comparatively deflated



# APPENDIX



# DATA COLLECTION PROCESS

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Recommendations, information, and data comes from market research, app intelligence tools, and deep analyses 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 Store Intelligence.

## App information

- App information comes from a deep-dive analysis of each app.
- In the Economy Teardown 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 coins and players can purchase 500 coins for \$5, the value of the item is \$10. For apps without a \$5 package, the next closest package is used.
- The cost of each level is determined by how many currencies are needed to complete the level. Then, that amount is converted to a dollar amount using \$5 worth of non-sale purchasable currency, as mentioned above.

*Disneyland will never be completed. It will continue to grow as long as there is imagination left in the world.*

– Walt Disney

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