LIQUID&GRIT

RPG Report

Competitive Research and Actionable Product Recommendations

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AUGUST

2019

REVENUE DRIVERS

MINI-ADVENTURE PUZZLES

Voyage of Wonders in *AFK Arena*

REVENUE ANALYSIS

AFK Arena's revenue increased +23.7% WoW and +16.2% 2Wo2W after the release of Voyage of Wonders. Downloads were up +11.6% and +18.6% during those time periods.

AFK Arena

◼ Revenue — Downloads

Voyage of Wonders

Revenue per Day: $200K, $150K, $100K, $50K

Downloads per Day: 15K, 10K, 5K

5/23/19 6/6/19 6/20/19 7/4/19 7/18/19 8/1/19 8/15/19

SensorTower

Graph data is iOS U.S. only.
xWoxW = X weeks over X weeks.

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FEATURE TEARDOWN

Voyage of Wonders is a new building that gives players intermittent access to limited-time quest events. During each event, players fight battles and solve puzzles to progress across a board and earn rewards.

Details
- Players access the Voyage of Wonders quest feature on the world map (1).
- The feature contains limited-time quest events, like The Forgotten Mine and The Lucent Vault.
- In The Forgotten Mine, players fight battles to move across a board (2).
- The board is a puzzle that players must solve to earn rewards (3 and video).
  - The enemy's strength is determined by a player's level at the start of the event.
  - Hero and enemy health does not refresh after each battle.
- Players can restart each quest an unlimited number of times (4 and video).

Feature References
- This feature is similar to *AFK Arena*'s Arcane Labyrinth and Peaks of Time.

Quickly find more images and videos of a feature

- Download screenshots and watch videos in the Voyage of Wonders Library.
  - The start of the adventure and map puzzles video.
  - The battle, battle rewards selection, and map movement video.

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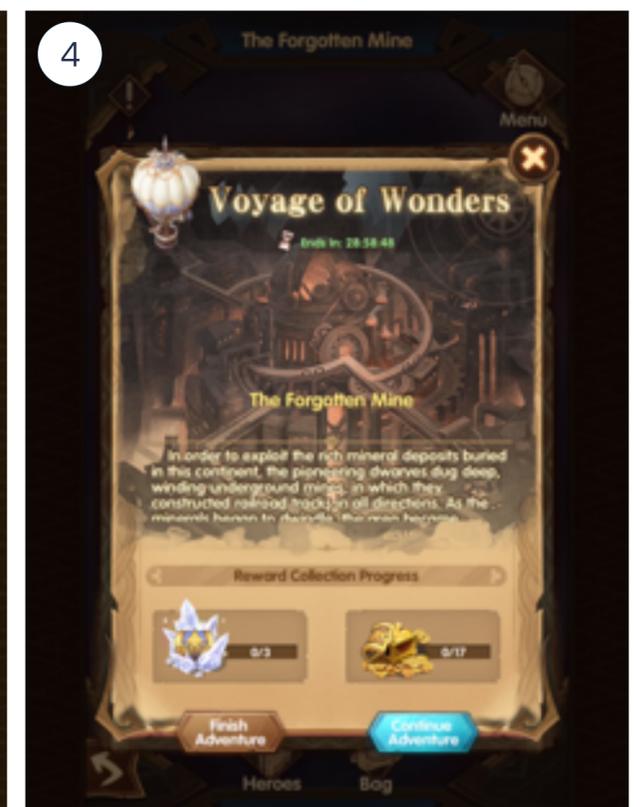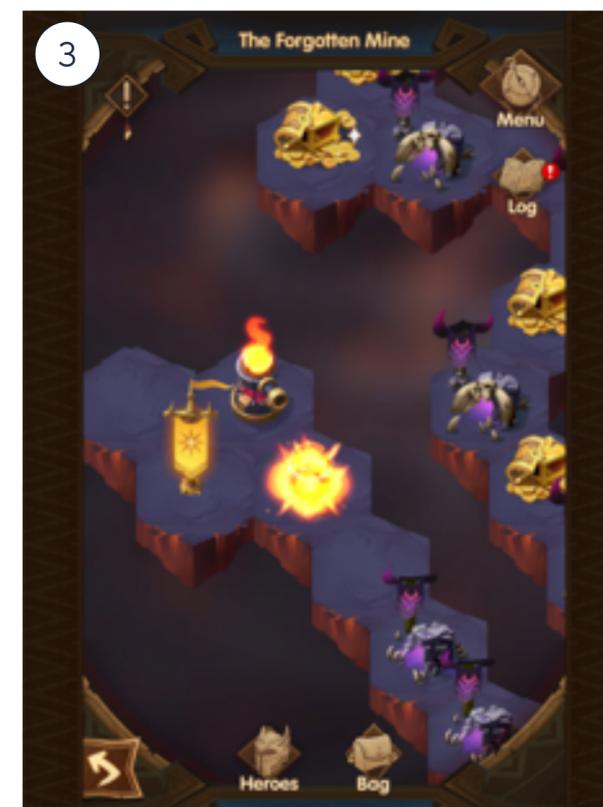
ROADMAP DATA

AFK Arena has invested more in collection features and substantially less in notices and rewards than the top grossing RPG apps.

Roadmap Details

- Data includes all features in the apps, regardless of release date.
- Top grossing RPG apps used in the data:

  Final Fantasy XV, Lords Mobile: War Kingdom, Guns of Glory, Rise of Kingdoms, Summoners War, Dragon Ball Legends, Last Shelter, Empires & Puzzles: RPG Quest, Star Wars: Galaxy of Heroes, Raid: Shadow Legends, MARVEL Strike Force, AFK Arena, King of Avalon: Dragon Warfare, Fire Emblem Heroes, and *BLEACH Brave Souls.*

Analyze competitors' roadmap data
• Download release insights by app using the Data Tool. • See the Appendix for mechanic category definitions.

Feature Investments:
AFK Arena vs. Top Grossing Apps

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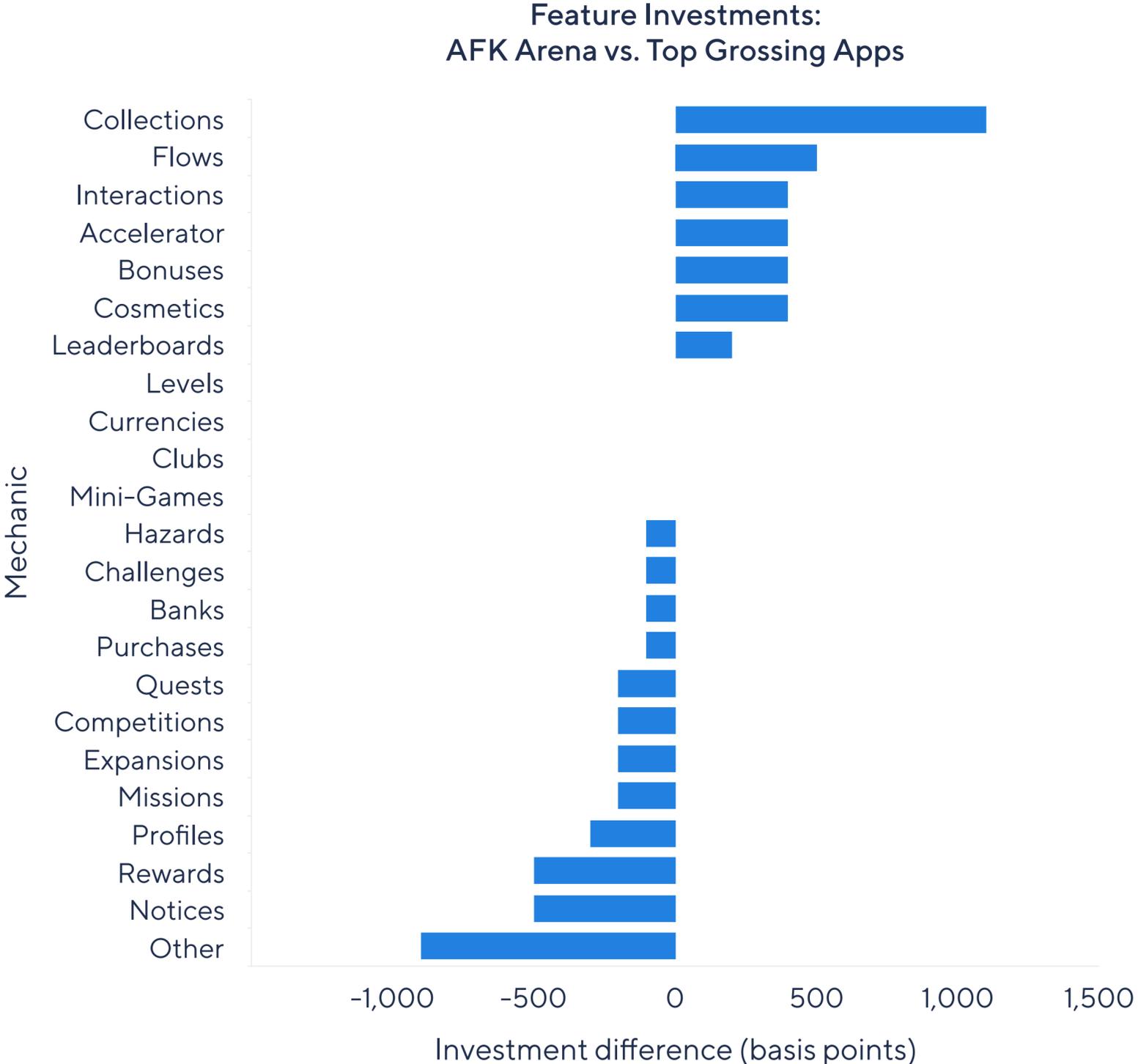
IMPLEMENTATION INSIGHTS

Consider implementing mini-games with core gameplay inspired by either classic games or other genres. Then, use three metrics to improve your event calendar freshness.

Product Recommendations

- **Design the mini-game as a simplified version of a classic game or core mechanic from another genre.** This design is driving revenue in several top grossing apps in Adventure, Casino, and Puzzle genres (see image 1 and this video).
    - In Bingo Blitz, revenue increased +38% WoW after the release of a simplified slots machine (see image 2 the Wiki page Simplified Slots Machine).
    - Survey players to determine the broadest player appeal between classic games or other genres.
- **Adjust time lengths—particularly in reskins—to add an inexpensive variation to features and events.** *AFK Arena*'s three similar quest features—Arcane Labyrinth, Voyage of Wonders, and Peaks of Time—remain open for varying durations: the first for 48 hours, the second for approximately two weeks, and the third is continuously available.
    - In Casino, *House of Fun*'s event calendar includes daily, multi-day, and multi-week events. A collection event called HoF Legends 3 drove a +32% increase in baseline revenue during its 10-week period (see image 3 and HoF Legends Content Releases).
- **Know your event calendar freshness and exceed your competitors using key metrics.** An important job of an event calendar is to keep your game fresh for highly-engaged players. These metrics help determine the freshness level:
    - New events released per month: The level of new content available to players each month.
    - Total available events per day: The number of options players receive each day.
    - Unique events per week: The variation players get day over day.

Easily read more insights on any mechanic
• Review previously-released revenue drivers in the Wiki Tool.   • Find all the information on specific mechanics, like collection features.
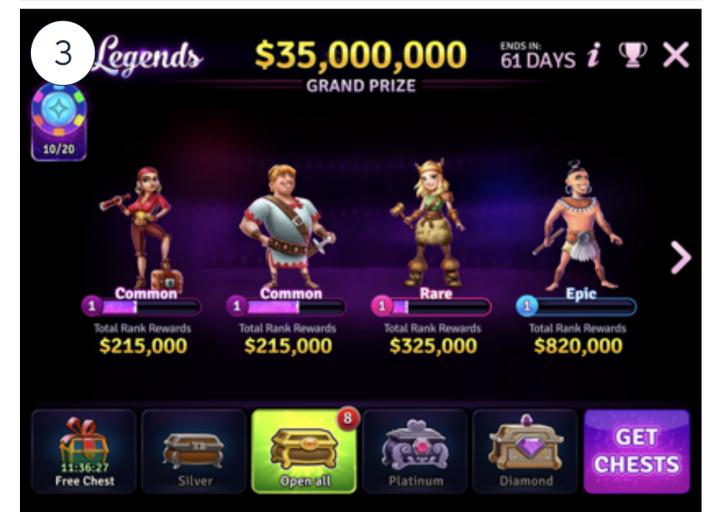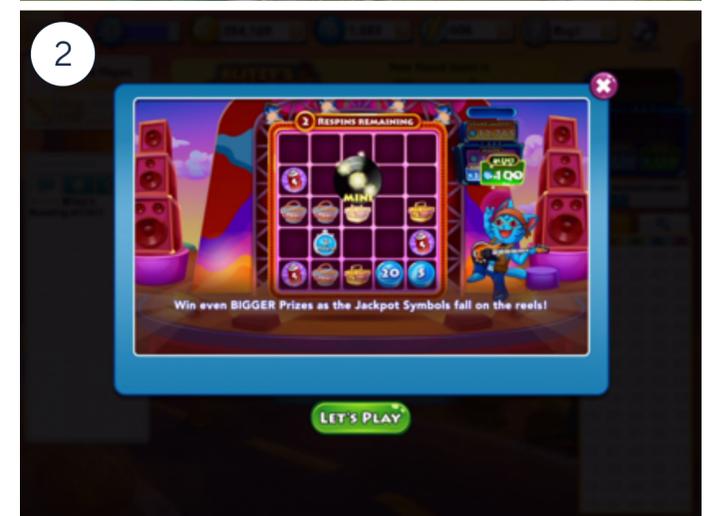
# MULTI-EVENT FESTIVALS

Qixi Festival Events & Offers in *Rise of Kingdoms*

REVENUE ANALYSIS

Revenue in *Rise of Kingdoms* increased +47.5% WoW for the one-week duration of the Qixi Festival Events. Downloads were down −21.1% during this period and revenue returned to baseline shortly after the event completed.

Rise of Kingdoms

■ Revenue — Downloads

Qixi Festival Events
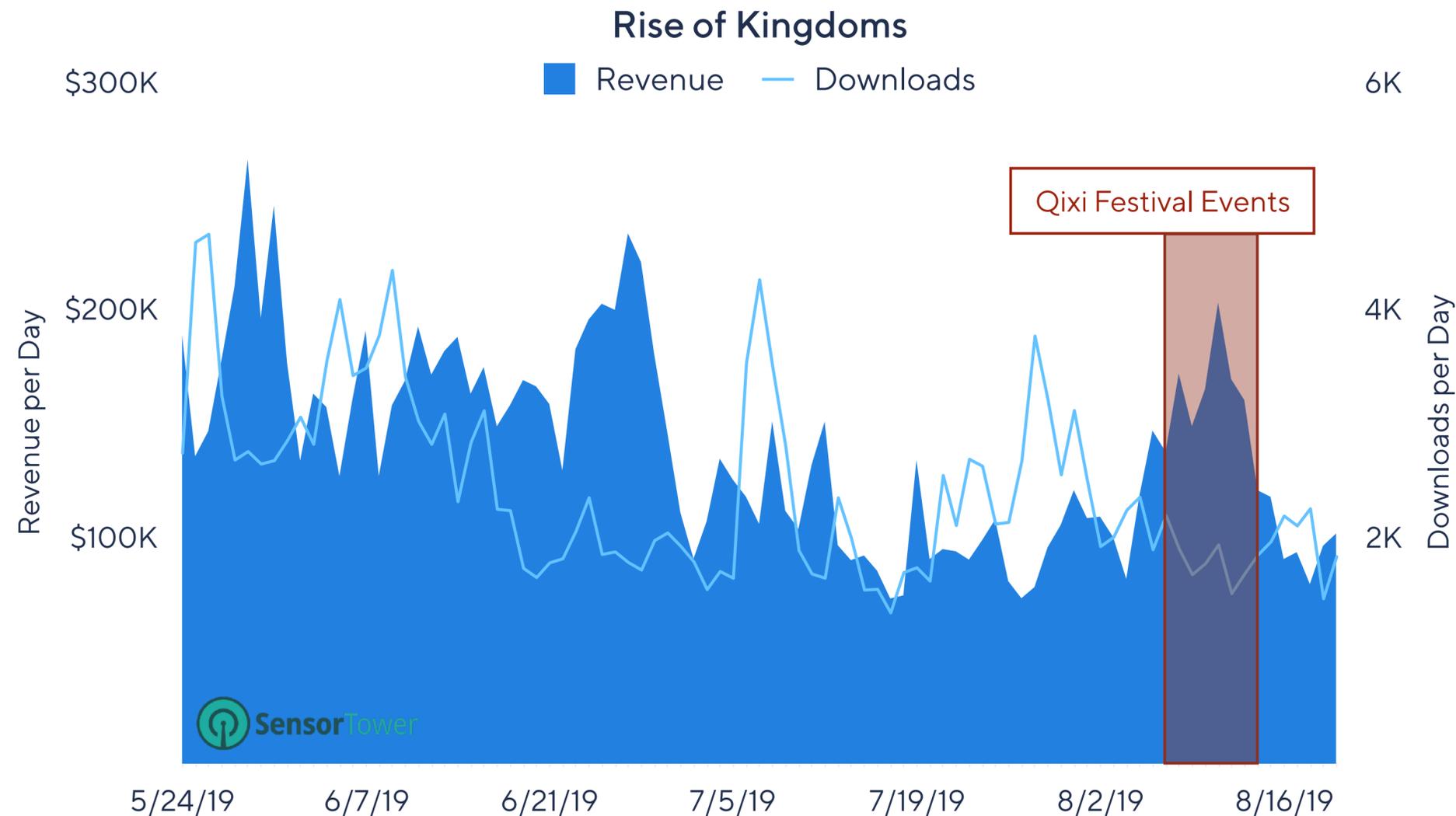
Releases during this period

8/4–8/6 Lohar's Trial — Mission event
8/5–8/6 War Forever — Challenge event
8/5 Version update
· Sunset Canyon Arena — Competition feature
· Osiris League — Club feature
· Qixi Festival Events — Challenge event
· The Lost Kingdom — Club event
8/5—8/9 Rome and Imperial Wealth — Challenge event
8/6–8/8 Card King — Mini-game event
8/7–8/14 Qixi Festival Events — Challenge event
8/8–8/14 Autumn Dew Offer — Purchase event
8/8–8/14 Recharge Rewards — Purchase event
8/12–8/13 Bankrupt the Boutique — Purchase event
8/10–8/11 Sharp Eyes and Quick Hands — Challenge event
8/10–8/11 Picking Up Pieces — Challenge event
8/7–10/16 The Lost Kingdom — Club event
8/6 IAP change — $4.99 War Pack +1 to #7
8/8 IAP change — $4.99 Resource +1 to #7
8/8 IAP change — $9.99 Festival Special Offer to #10 (not previously listed)
8/9 Lord of War — Challenge event
8/9 IAP change — $4.99 War Pack +1 to #7
8/9 IAP change — $9.99 Festival Special Offer +1 to #9
8/10–11/3 Osiris League — Club feature
8/10 IAP change — $9.99 Festival Special Offer +3 to #6

FEATURE TEARDOWN

In this multi-phase event, players complete challenges and collections across several events to earn rewards and permanent decorations. Each phase and its events are available to players for a limited time on the festival's calendar.

Details

- The festival calendar unfolds in four overlapping phases (1).
- Phase One: Magpie Bridge Rendezvous/Language of Lanterns/Lantern's Shadow/Lotus War
  - Players defeat barbarians, collect resources, and complete quests to earn flower lamps (2).
  - Flower lamps are used to decorate the Magpie Bridge, unlocking tiered rewards and a Qixi theme (3).
  - In Lotus War, players defeat as many barbarians as possible in an expedition to earn lotus flower lamps.
  - At the end of Lotus War, players are ranked based on lotus flower lamps collected.
  - The top 100 players win rewards (4).
- Phase Two: Day and Night/Paper Stars
  - Players defeat barbarians, collect resources, and make purchases to earn ingredients for lanterns.
  - Players release lanterns to earn rewards (5).
- Phase Three: Sharp Eyes and Quick Hands/Picking Up Pieces
  - Players help alliance members, defeat barbarians, and make purchases to earn puzzle pieces.
  - Players use puzzle pieces to complete a series of jigsaw puzzles to earn tiered rewards.
- Phase Four: Bankrupt the Boutique
  - The Mysterious Merchant offers players event-exclusive deals.
  - Each purchase adds a 10% discount to random items in the same category as the purchase.
  - Discount accumulation stops at 90% (6).
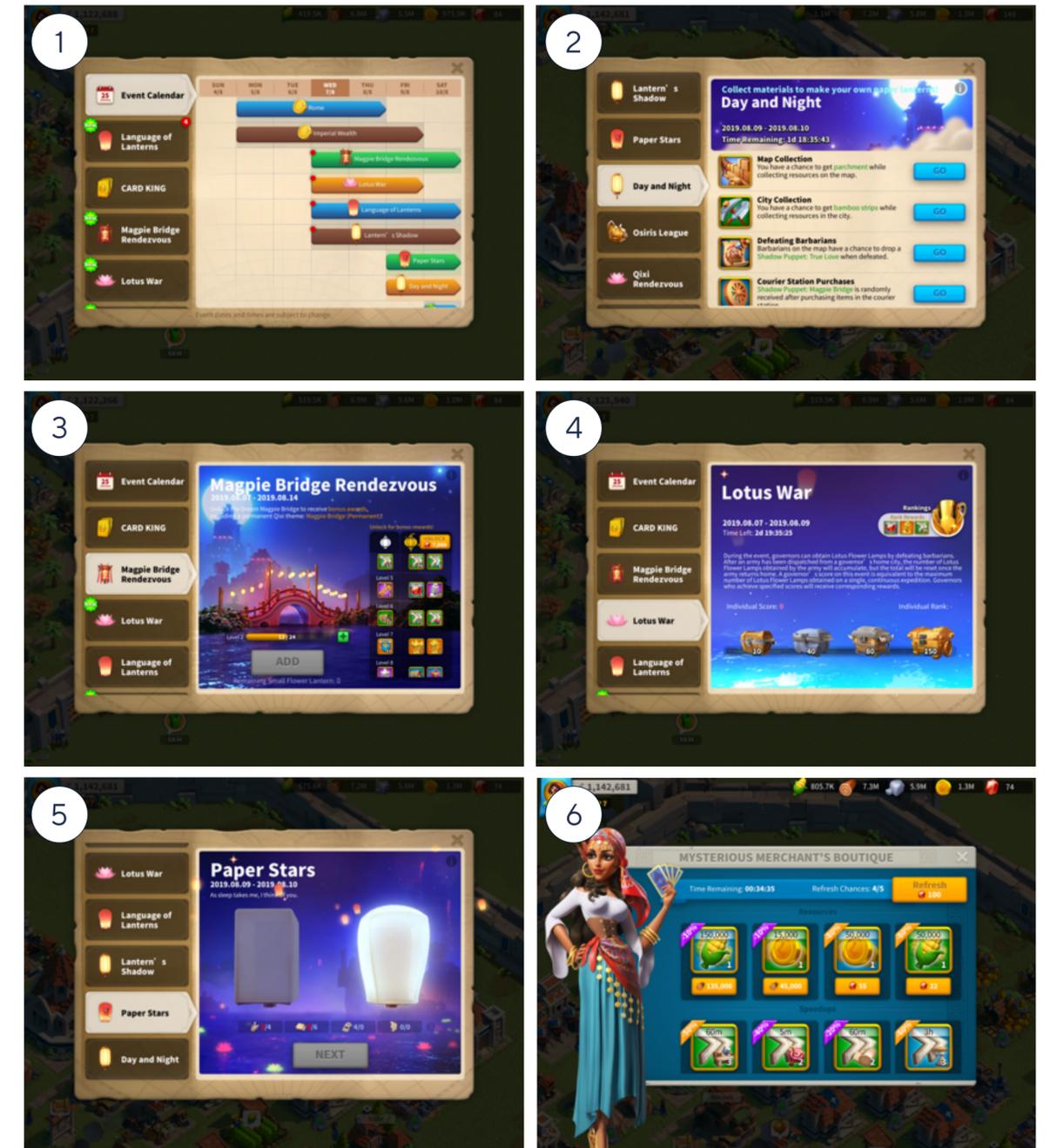
Additional Information Online

- Watch videos in the Qixi Festival Events Library.
  - The flower lamp collection video.
 - The Magpie Bridge rendezvous event video.

ROADMAP DATA

Rise of Kingdoms invests more heavily in club features and places a lower priority on reward and collection features compared to the top grossing RPG apps.

Roadmap Details

- Event data can be found in the Data Tool.
- Top grossing apps included in data:

  Final Fantasy XV, Lords Mobile: War Kingdom, Guns of Glory, Rise of Kingdoms, Summoners War, Dragon Ball Legends, Last Shelter, Empires & Puzzles: RPG Quest, Star Wars: Galaxy of Heroes, Raid: Shadow Legends, MARVEL Strike Force, AFK Arena, King of Avalon: Dragon Warfare, Fire Emblem Heroes, and *BLEACH Brave Souls.*

Feature Investments:
Rise of Kingdoms vs. Top Grossing Apps
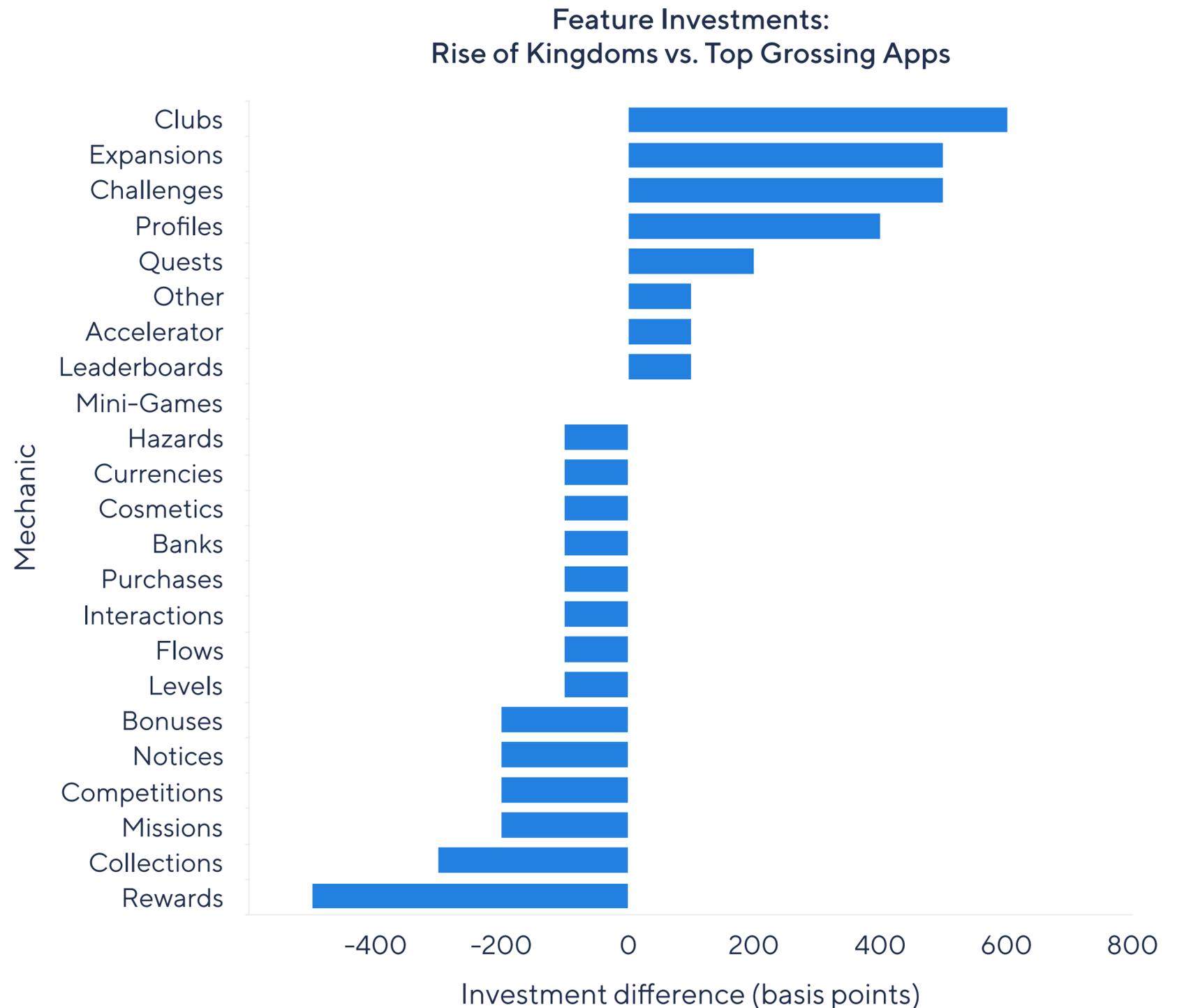
IMPLEMENTATION INSIGHTS

Release purchase flow innovations during longer events to intensify IAP purchases and in-game spend. Purchase flow innovations are becoming a key investment for a number of the top grossing apps.

Product Recommendations

- *Rise of Kingdoms* **used purchase flow innovations—categorized as purchase events in L&G's taxonomy—to boost revenue.** During Qixi Festival Events, three purchase events were released: Autumn Dew Offer, Recharge Rewards, and Bankrupt the Boutique. See the Revenue Analysis for a full list of released events, features, and IAP package changes.

- **Purchase events are becoming a major investment for several of the top grossing apps.**
  - *Matchington Mansion*'s primary roadmap event investment is in new purchase events, releasing nine new purchase events this year—up from six in 2018. In Spring Bundle, players earn additional value from an IAP purchase by completing levels and growing a seed into a tree (see image 1 and Engagement Bonus Bundle).
  - *House of Fun*'s second biggest event investment in 2019 are purchase events, representing 24% of new events. In Days of Fun, players spin a wheel to determine the number of days of goodies that are added to a $4.99 package (see image 2 and this video).

- **Use a "refresh" mechanic in a currency store to sink players' wallets.** In the Mysterious Merchant's Boutique, players can refresh the time-limited store five times. The first time is free and the following four cost gems. Refreshing the store changes the discounted items within the store. All the items in the store also cost gems or resources (see image 3 and this video).

MARKET WATCH

NOTABLE RELEASES I

App	Library	Description
AFK Arena	Tavern Bargains > Collection event	• During this collection event, players summon heroes to fill a meter and earn rewards. • Each full meter unlocks a chest. • After 500 hero summons, players receive additional rewards (1). • By community request, the event was extended for an additional month.
	Mercenaries > Interaction feature	• Players can hire friends' heroes as mercenaries for up to one week (2). • Players can hire up to three mercenaries and send up to five hiring requests at once. • Heroes must be upgraded to Legendary tier or higher to be hired. • Each mercenary can be used in one winning battle per campaign type.
Rise of Kingdoms	Osiris League > Club feature	• This is a three-month, single-elimination tournament version of the Ark of Osiris event. • Alliances compete in AvA battles each Sunday (3). • Winners receive rank rewards and progress to the next stage. Losers are eliminated. • Players can bet on battles for additional rewards. • Players cannot participate in the Ark of Osiris and Osiris League at the same time.
	Shadow Legion > Expansion feature	• This three-day event pits player alliances against an invasion of Shadow Legion armies. • A Dark Fortress on the kingdom map sends out 25 waves of armies to attack player cities (4). • An elite army appears every five waves. Defeating this army earns extra rewards. • When a player's city is defeated twice, they are eliminated from the event. • The event concludes if all alliance members are eliminated. • If at least 15 players survive all 25 waves, the alliance can attack the Dark Fortress. • Defeating the Dark Fortress unlocks a new difficulty level for the next event. • Alliances who fail the same difficulty level twice will be demoted to a lower difficulty.
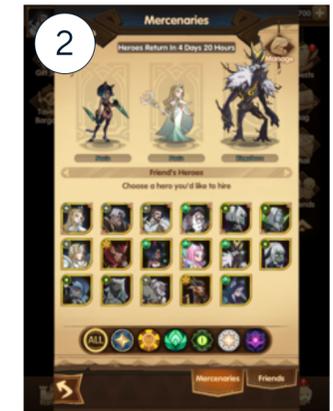
NOTABLE RELEASES II

| App	Library	Description
Dragon Ball Legends	Wish Upon a Star > Collection event	• Players win battles to collect Star Pieces. • Players can exchange Star Pieces in the event's shop for a wide selection of rewards.
Star Wars: Galaxy of Heroes	Grand Arena Championships > Competition event	• This PvP tournament runs during the four weeks of Grand Arena matches (1). • There are three rounds each week. • Players are ranked in leagues based on their records at the end of the week. • Players win matches, progress through leagues, and complete challenges to earn rewards and increase their championship score.
Star Trek Fleet Command	Threat From Beyond > Challenge event	• Players participate in solo and alliance challenges to battle a new enemy (2). • Players complete event missions and daily challenges to build and upgrade a new ship.
RAID: Shadow Legends	Champion Chase Tournament > Competition event	• In this PvP tournament, players collect champions—through missions, events, purchases, tournaments, and more—to earn tournament points. • Players earn individual milestone and PvP rank rewards based on points collected.

	Multi-Battle > Expansion feature	• This auto-battle feature allows players to automatically play through multiple runs of a previously beaten stage in order to earn XP and rewards.
		• Players can customize the settings for each Multi-Battle, including:
		  • The number of battles to be fought.
		  • A queue of champions to switch out for those who have reached max level (3).
		  • An auto-sell option for loot below a specified rank.
		• Players can complete up to 15 Multi-Battles per day for free or up to 40 with a Raid Pass.

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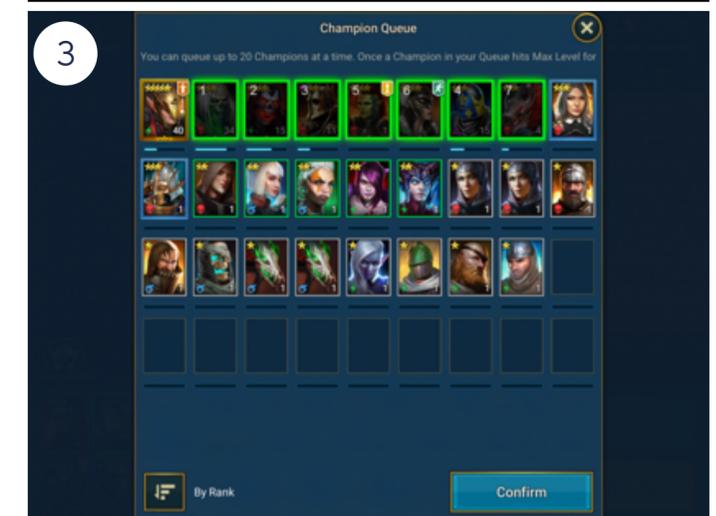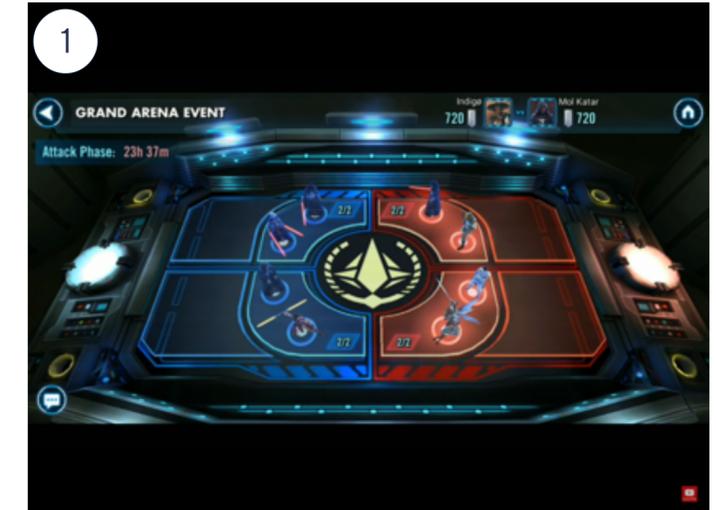
NOTABLE RELEASES III

App	Library	Description
RAID: Shadow Legends	Daily Bonus Update > Bonus feature	• During this 90-day event, players can log in every day to earn rewards (1). • Players earn special event champions by hitting milestones at 30, 60, and 90 days.
BLEACH Brave Souls	4th Anniversary Celebration > Reward event	• This anniversary celebration includes campaigns, boss rushes, and special rewards. • A smaller calendar of events led up to the celebration. • Players get 10 free summons every day of the event. • Players can buy a limited-time Starter Pack for $7.99 and a Golden Pack for $79.99.
Fire Emblem Heroes	Three Houses Events > Other event	• This cross-promotion for the Nintendo Switch game Fire Emblem: Three Houses (released 7/26/19) includes quest and summon events featuring characters from the Switch game. • Players who purchased Fire Emblem: Three Houses receive one of the featured characters as a promo gift (2).
Dragalia Lost	Alliances > Club feature	• Players can form alliances of up to 30 members. • Alliance members can chat with each other and join up for co-op play. • The feature launched with a commemorative event of daily login rewards (3).

Fire Emblem: Three Houses Promo

Players who purchase the Fire Emblem: Three Houses game—releasing for Nintendo Switch on July 26—can also receive a version of that game's main character, Byleth: Tested Professor!

In order to collect this promotional gift, you must have a Nintendo Account, and the account linked to your Nintendo Switch must be the same as the account linked to your Fire Emblem

Quickly review all the events and features released

• Use the Library Tool and filter by year and month to see all the releases.

APPENDIX

MECHANICS TAXONOMY

Family	Definitions
Accelerators	Increases the power, impact, or efficiency of play
Banks	Saves a % of spend that can be unlocked later
Bonuses	Free bonuses given to players (e.g., retention or W2E)
Challenges	Players must play, complete, and win
Clubs	A group accomplishing goals or competing with other groups
Collections	A set of items players collect (often for a completion prize)
Competitions	Players competing against other players
Conflict	Players engaging in battle with their characters
Cosmetics	Improvements or updates to the app or a feature
Currencies	Changes to currencies, economies, stores, and items
Custom Design	Options to customize the look
Expansions	Additional rooms, worlds, play modes, VIP lounges, etc.
Flows	Specific flows, like the NUX, ratings, and surveys

Family	Definitions
Hazards	Level elements/blockers that make levels more difficult
Interactions	Any social feature with direct or indirect interaction
Leaderboards	Stand-alone leaderboards
Levels	Anything to do with leveling
Mini-Games	Smaller, shorter games within a game (e.g., scratcher cards)
Missions	A linear set of tasks that players must accomplish
Notices	Feature or product announcements
Other	Miscellaneous features and outliers
Profiles	Related to a player's setup, profile, settings, and controls
Purchases	Anything to do with purchases
Quests	Completing tasks to progress along a map or map-like feature
Rewards	Any reward players receive for engagement or spend (other than the bonuses family)

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UTILIZE L&G'S TOOLS

Uncover new puzzle trends and understand competitor investments with Liquid and Grit's tools and capabilities. A benchmarking Matrix tool is releasing very soon.

DATA TOOL

1. Find new trends using the Data Tool's categorization.
2. Benchmark your app's output against competitors.
3. Export data into .csv to do more in-depth analysis.

WIKI TOOL

1. Reference all Liquid and Grit's insights.
2. Find and download previous reports.
3. Uncover revenue-driving features from other genres.

LIBRARY TOOL

1. Watch videos to understand animations and flows.
2. Download images to use as design templates and spec references.
3. Check out level-locked machines and features.

SLACK REPORTS

1. Read the reports in any Slack channel.
2. Start a team conversation about new designs and innovations.
3. Quickly review any report's Executive Summary.

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

Market Research

Quadrant Strategies website

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.

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.

Player Personas

Kinrate Analytics website

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.

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.

The products of Kinrate Analytics have been developed in university-led research projects in collaboration of economists, psychologists, game scholars, and data scientists.

Mobile App Store Intelligence

Sensor Tower website

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.

Clients harness Sensor Tower's suite of app intelligence tools to...

‣ Evaluate app economies and app vitality
‣ Drive organic growth with the leading App Store Optimization platform
‣ Get the best global download and revenue estimates for the App Store and Google Play
‣ Discover top creatives and better shape user acquisition strategy

"There's a way to do it better – find it."

– Thomas Edison

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