LIQUID&GRIT

RPG REPORT

Competitive Research and Actionable Product Recommendations

TABLE OF CONTENTS

JANUARY

2020

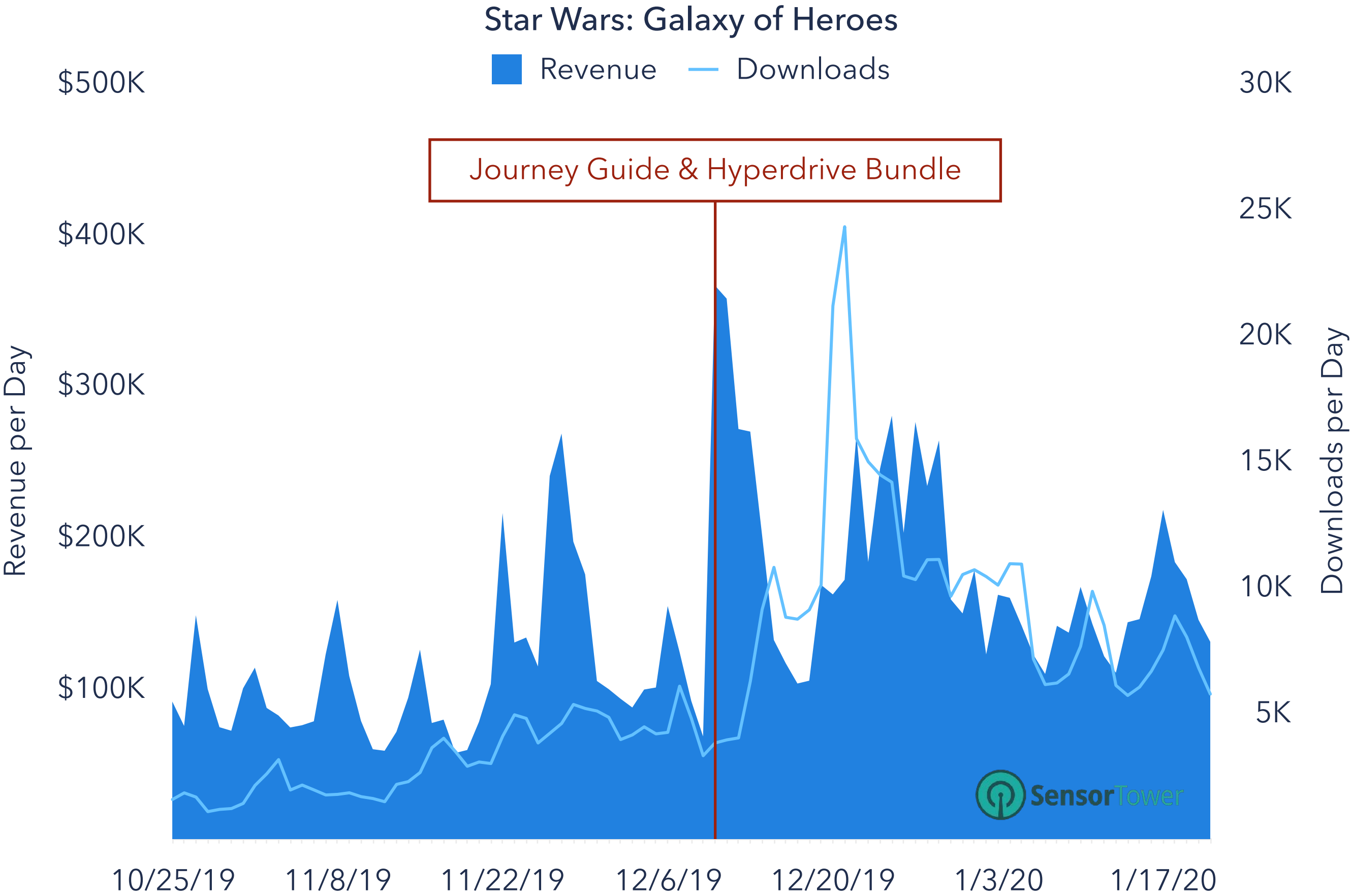# REVENUE DRIVERS

REACTIVATED EVENTS AND LEVELING BOOSTS

Journey Guide & Hyperdrive Bundle in *Star Wars: Galaxy of Heroes*

REVENUE ANALYSIS

Revenue was +51% and downloads were +134% 2Wo2W after the launch of the Journey Guide and Hyperdrive Bundle features. This grew to +70% revenue and +176% downloads MoM.

Star Wars: Galaxy of Heroes

■ Revenue — Downloads

Journey Guide & Hyperdrive Bundle

Revenue per Day: $500K, $400K, $300K, $200K, $100K

Downloads per Day: 30K, 25K, 20K, 15K, 10K, 5K

10/25/19 11/8/19 11/22/19 12/6/19 12/20/19 1/3/20 1/17/20

SensorTower

Releases
12/9: Version update
12/9–12/15: Territory War club event
12/10: Hyperdrive Bundle purchase feature
12/10: Journey Guide notice feature
12/10: Sith Trooper hero content
12/10: General Hux hero content
12/10: Shop update
12/10: Galactic Legends collection feature
12/11: Endurance rewards event
12/11: Crystal Cache Bundles purchase event
12/11–12/13: Double Drops! accelerator event
12/11–12/13: Ruthless General collection event
12/12: Omega Battles mission event
12/12: Galactic Bounties challenge event
12/13–12/15: Emperor's Elite collection event
12/14–1/10: Grand Arena Championships competition event
12/14: Training Droid Smuggling challenge event
No IAP changes during date range.

Graph data is iOS U.S. only.

WoW = Week over week. 2Wo2W = Two weeks over two weeks. MoM = Month over month.

5

Feature Teardown

Players can now access all events released in the last year using a streamlined UI feature. New and low-level players can purchase a bundle to instantly progress to level 85.

Journey Guide Details
- This menu shows daily activities, unlockable heroes, quests, achievements, and guild activities (1).
- Players can access all events released in the last year (2).
- The Journey Guide tab shows information for unlockable heroes and ships (3 and video).
  - This includes hero abilities, relevant activities, and unlock requirements (4 and 5).

Hyperdrive Bundle Details
- This $99.99 IAP bundle advances players to level 85 (6).
- The bundle includes sweeping benefits to jump-start new players, including:
  - Upgrades for up to 65 characters and 16 ships (7).
  - Access to a series of exclusive quests.
  - Access to locked content in the main game (8).
  - A substantial amount of currency, gear, resources, and boosts.

Additional Information
- See the Journey Guide and Hyperdrive Bundle Libraries for more images and videos.

PRODUCT INSIGHTS

As player levels become more dispersed, provide options for accelerated progression. Design centralized UIs to make the game more approachable and less stressful.

User Acquisition
- **As games age, accelerate early-level progression for new players with super-boost packages and XP bonuses.** The Hyperdrive Bundle gives new players the option to skip ahead to current content and reduces switching barriers for whales from other games.[1] *World of Warcraft*, which continues to be the world's most popular MMORPG more than 15 years after its release,[2] speeds up early levels with a variety of XP-boosting events, gear, and quest mechanics.[3]

Engagement
- **Allow players to access previously released content and add challenge incentives for high-level players.** This allows players to progress at their own pace and helps keep high-value players engaged between new content releases. For examples of challenge features that use previously released content, see *Two Dots'* Rewind, which increased revenue by 11% 4Wo4W, and Collect Light Bulbs in *Matchington Mansion* (1).

Retention
- **Simplify engagement with a user-friendly menu of tasks, events, and promotions.** Unfinished tasks are less stressful when users have a plan for how to complete them, leading to better focus and comprehension.[4] Like Journey Guide, *Cash Frenzy*'s recent Events & Offers UI feature facilitated a 14% increase in revenue. Consider adopting the unobtrusive notification system used in this feature to inform players of new content (2).
- **Prominently display completed tasks.** According to psychologist Dr. David Cohen, the sense of achievement people get from viewing finished to-do lists is a major factor behind the enjoyability of ordered tasks.[5] In the Journey Guide, players can view their completed tasks from the last year (3).
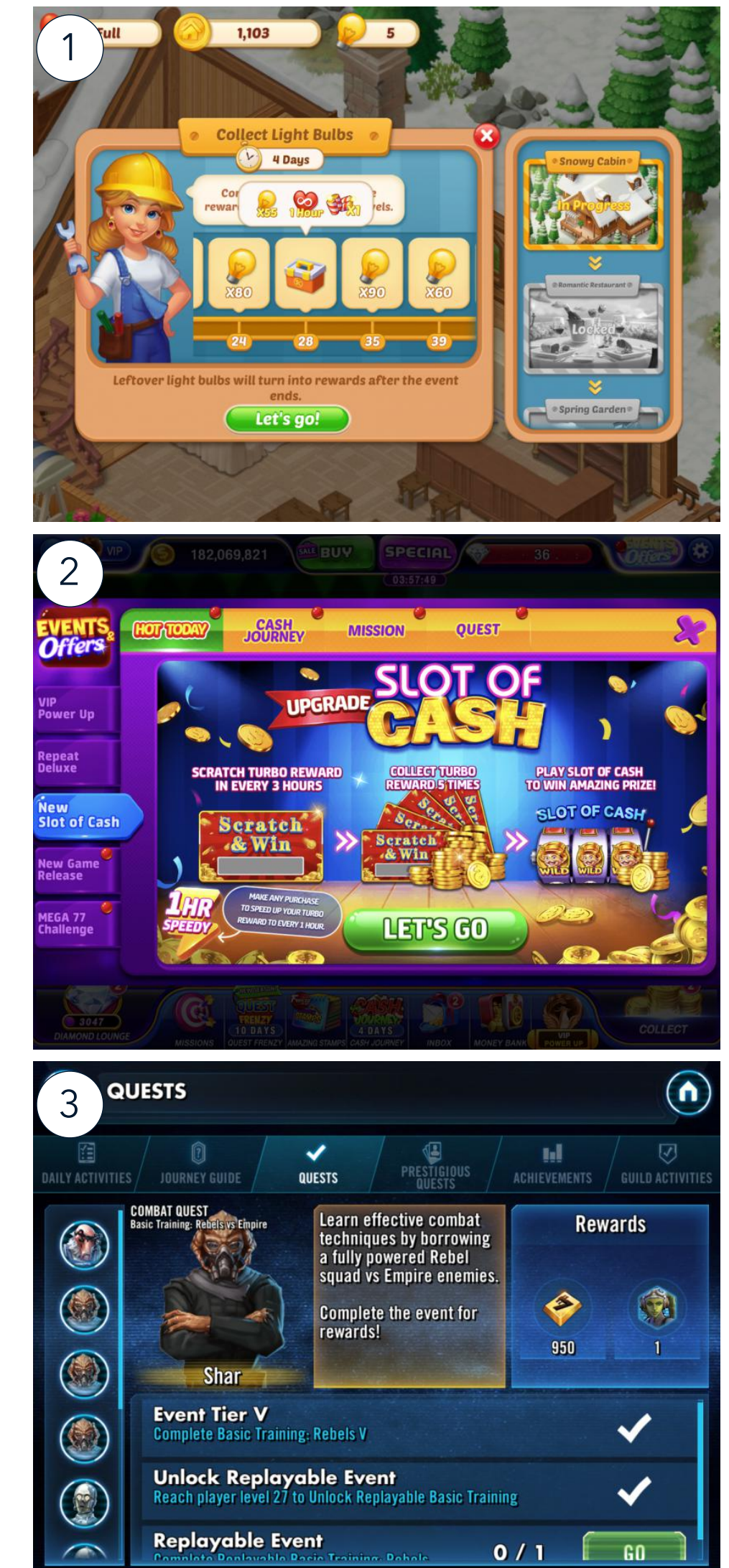
[1] Switching Barriers and Repurchase Intentions in Services, p. 268
[2] Top 6 Most Popular MMORPGs Sorted by Population (2020)
[3] World of Warcraft: Guide To XP Boosts In BFA
[4] Consider It Done! Plan Making Can Eliminate the Cognitive Effects of Unfulfilled Goals, p. 3–4
[5] The psychology of the to-do list – why your brain loves ordered tasks
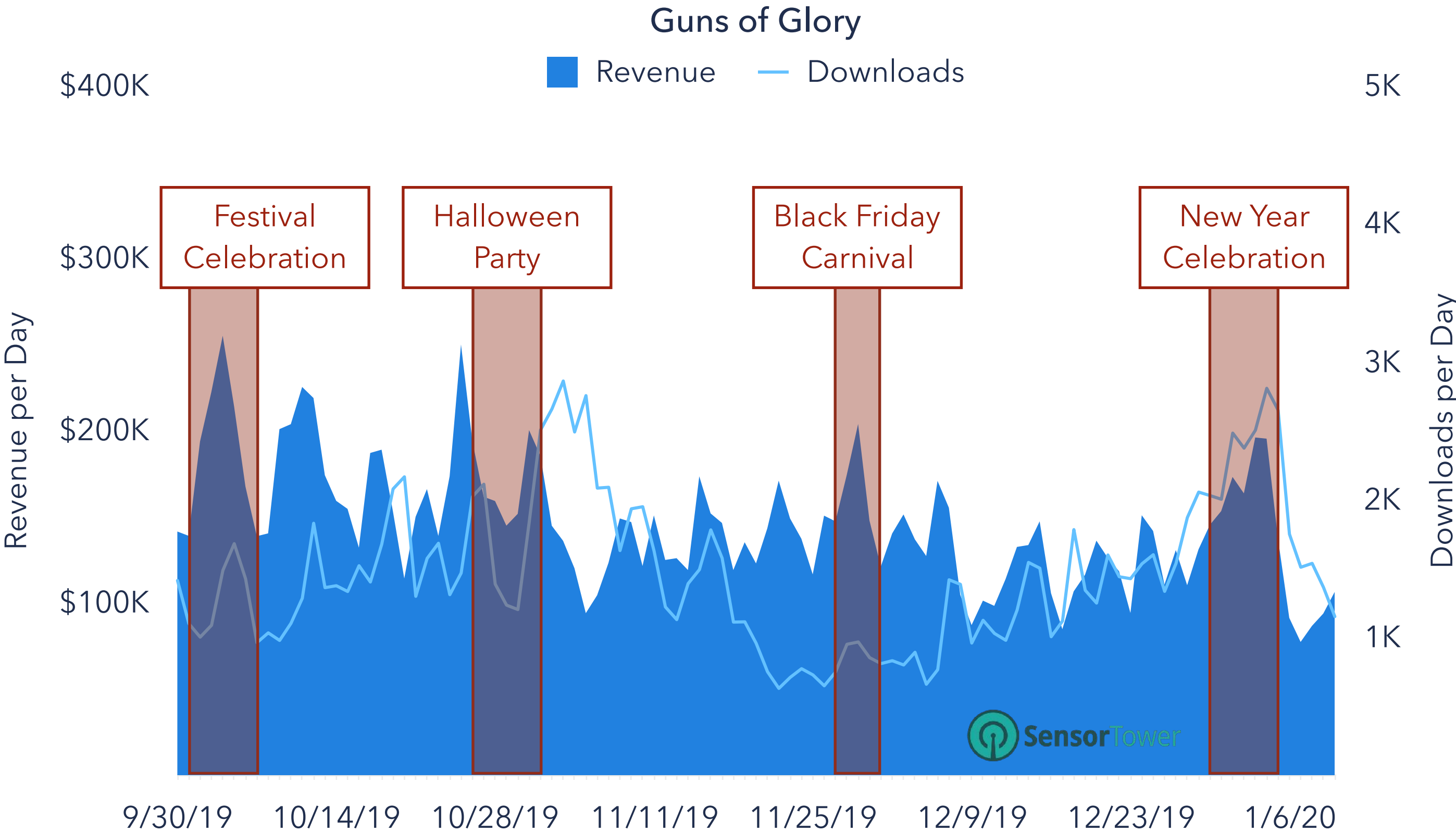

7

COLLECTION EVENTS WITH PURCHASE BOOSTS

New Year Celebration in *Guns of Glory*

REVENUE ANALYSIS

After the release of New Year Celebration, revenue was +34% and downloads were +48% WoW. Revenue averaged +13% during the previous three releases of this event.

Guns of Glory

Graph data is iOS U.S. only.

Releases
12/19–1/15: Musketeer's Fort competition event
12/23–12/30: Kingdom Arms Race competition event
12/23–12/30: Creation Arena competition event
12/23–1/5: Blood War club event
12/24–12/31: Castle Event competition event
12/25–12/30: Christmas Event collection event
12/28–12/29: Kingdom Threat competition event
12/28–12/30: Night Siege club event
12/28–1/11: Crown Invasion club event
12/30: Version update
• 12/30: Toyotomi Hideyoshi hero content
• 12/30: Wildfire Set equipment content
12/30–1/5: New Year Celebration collection event
12/30–1/6: Guard's Crucible quest event
12/30–1/7: Gold Event - Kingdom Raid competition event
12/30–1/10: New Year Mega Sale purchase event
12/30–1/13: Ultimate Alliance Campaign club event
12/30: $99.99 Wagon of Gold IAP moved +1 to #10
12/31: New Year Redemption Code reward event
1/2: Happy New Year Gift reward event
1/2: Top-Up Rewards purchase event
1/3:
• $0.99 Pouch of Gold IAP moved +1 to #2
• $19.99 Daily Gift Pack (Royal) IAP moved +1 to #9

Feature Teardown

Players use two event currencies to purchase cosmetic items and boosts, including a boost that doubles the amount of gold awarded with any purchase.

Details
- Challenges and purchases award fireworks (1 and 2).
- Beasts, Red Guard camps, and gathered resources award champagne (3).
- Fireworks and champagne can be used to purchase boosts, a profile frame, a profile portrait, and a building (4 and video).
- Each boost can be purchased a limited number of times.
- The Double Gold boost doubles all gold purchased for its duration (5).

Additional Information
- See the New Year Celebration Library for more images and videos.

Key Takeaway
Let players _earn_ event-specific packages. Consumers are more likely to participate in promotions when they think they can gain an advantage through greater effort.[1] The effort required to earn the Double Gold boost increases its perceived value and encourages players to increase their advantage by making more purchases.
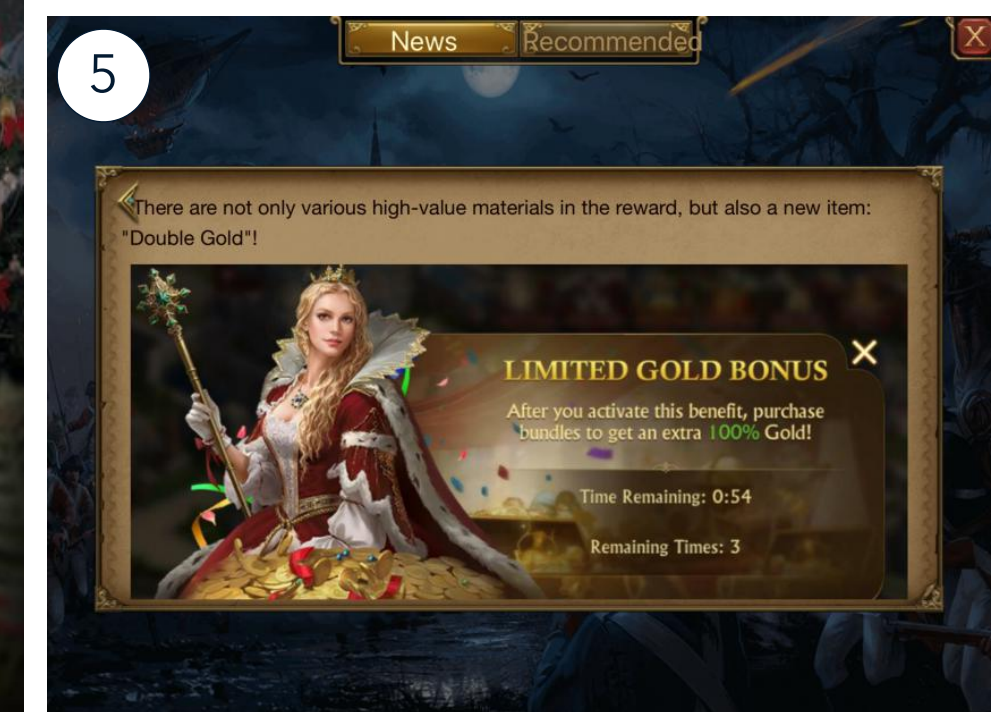
[1] The Idiosyncratic Fit Heuristic: Effort Advantage as a Determinant of Consumer Response to Loyalty Programs, p. 463
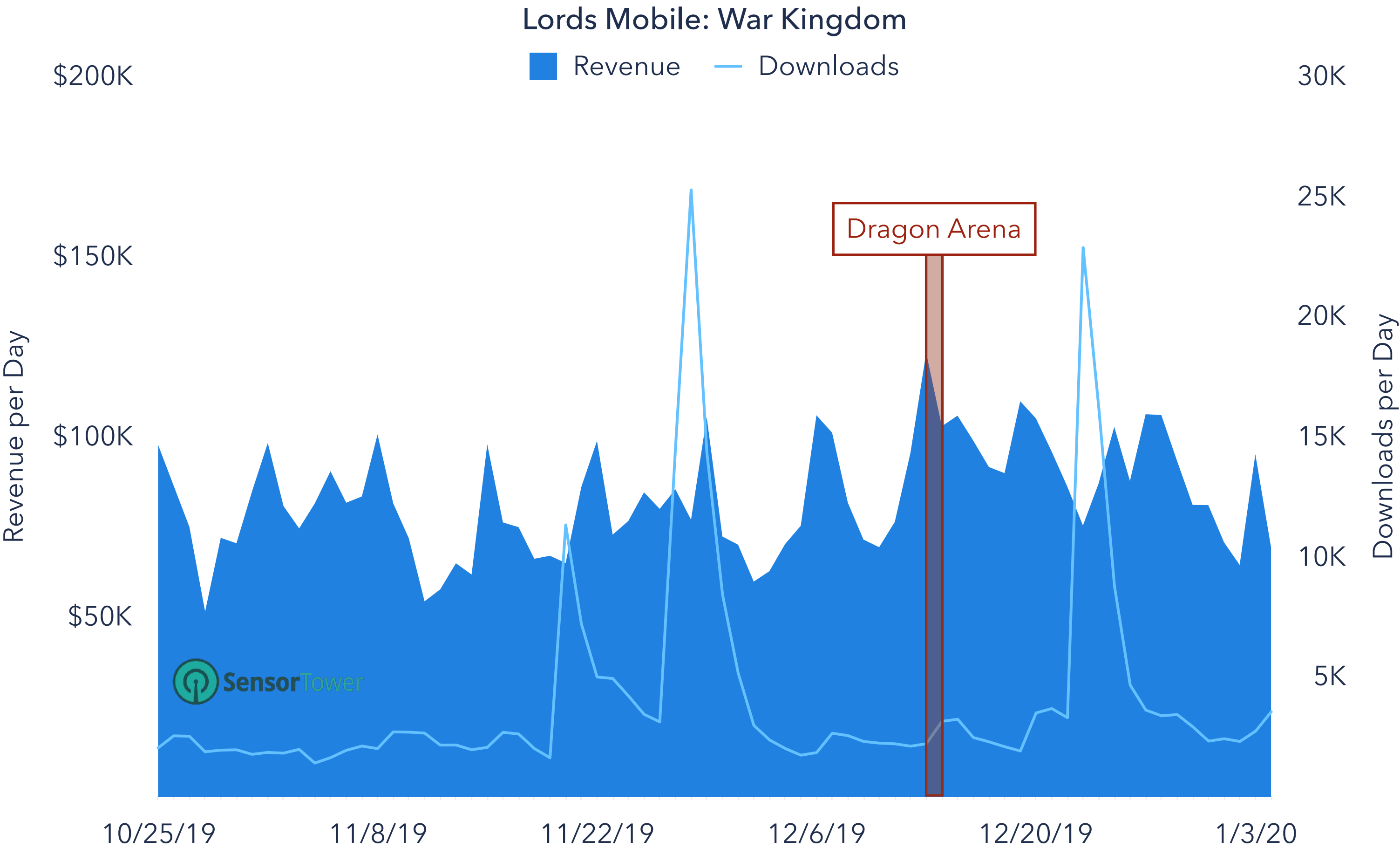
GUILD VS. GUILD COMPETITIONS

Dragon Arena in *Lords Mobile: War Kingdom*

REVENUE ANALYSIS

Revenue was +20% and downloads were +9% WoW after the launch of Dragon Arena.

Lords Mobile: War Kingdom

Revenue ■ — Downloads

Graph data is iOS U.S. only.

Releases

11/22–1/1: Instagram Milestones interaction event
12/9–12/12: The Arena Cometh rewards event
12/10–12/15: Code 66 club event
12/12: Version update
12/12–12/20: Treasure Galleon purchase event
12/13–12/14: Dragon Arena club event
12/13–12/14: SurPRIZES Galore! purchase event
12/13–12/31: Design Contest interaction event
12/15–12/16: Kingdom Clash club event
12/15–12/26: Winter Gala club event
No IAP changes during date range.

FEATURE TEARDOWN

In this guild versus guild competition event, players occupy strongholds to earn points for guild and individual rewards.

Details

- Guilds battle one-on-one to occupy strongholds by defending them for three minutes ([video]).
- Strongholds award guild and individual points when they are occupied, and for every second they are held.
- In phase one, players can occupy outposts and transporters.
  - Outposts award a small number of points.
  - Transporters increase guilds' relocations.
- In phase two, players battle for citadels, hot springs, and ancient remains ([1]).
  - Citadels award a large number of points.
  - Hot springs boost healing speed.
  - Ancient remains increase attack.
- In phase three, caravans begin traveling toward occupied strongholds.
  - Caravans award points to the occupying guild on arrival.
- The guild that earns the most points wins a victory reward ([2] and [3]).
- The losing guild gets a consolation prize ([4]).
- Players receive individual awards for their performance.
- Individual rewards include an event currency that can be spent in an event store ([5]).
- All troops and buildings return to full health at the end of the event.

Additional Information

- See the [Dragon Arena] Library for more images and videos.

New Content

Content Releases I

RPG > Content > Abilities, Equipment, and Heroes

12/10: Arthur Pendragon — *AFK Arena* hero (1)
12/30: Khazard The Frozen Terror — *AFK Arena* hero (2)
12/16: Santa Claus Summons: Holy Night — *BLEACH Brave Souls* heroes (3)
12/31: 2020 New Year's Card — *BLEACH Brave Souls* equipment
12/31: Thousand-Year Blood War Round 7 — *BLEACH Brave Souls* heroes
12/4: Awakened You stay here! No. 1 — *Dragon Ball Legends* equipment
12/4: He's mumbling to himself in fear. — *Dragon Ball Legends* equipment
12/5: Ultra Space-Time Summon #18 — *Dragon Ball Legends* heroes (4)
12/12: Blast It! — *Dragon Ball Legends* equipment
12/18: Awakened Hold on to My Shoulder! No. 1 — *Dragon Ball Legends* equipment
12/18: Challenging a God! God of Destruction Beerus — *Dragon Ball Legends* equipment
12/21: Baby's Counterattack — *Dragon Ball Legends* equipment
12/21: Legends Force of Saiyans — *Dragon Ball Legends* heroes
12/25: Leave the rest to me! — *Dragon Ball Legends* equipment
12/1: Grimble — *Empires & Puzzles: RPG Quest* hero (5)
12/4: New Fables of Grimforest — *Empires & Puzzles: RPG Quest* heroes
12/5: Elena — *Epic Seven* hero
12/5: Stella Harpa — *Epic Seven* equipment
12/12: New Exclusive Equipment — *Epic Seven* equipment
12/19: New Year Cookies — *Epic Seven* equipment
12/24: Unfading Memories — *Epic Seven* equipment
12/26: Benevolent Romann — *Epic Seven* hero
12/6: Fire Emblem: Thracia 776 — *Fire Emblem Heroes* heroes
12/6: Peony: Sweet Dream — *Fire Emblem Heroes* hero (6)
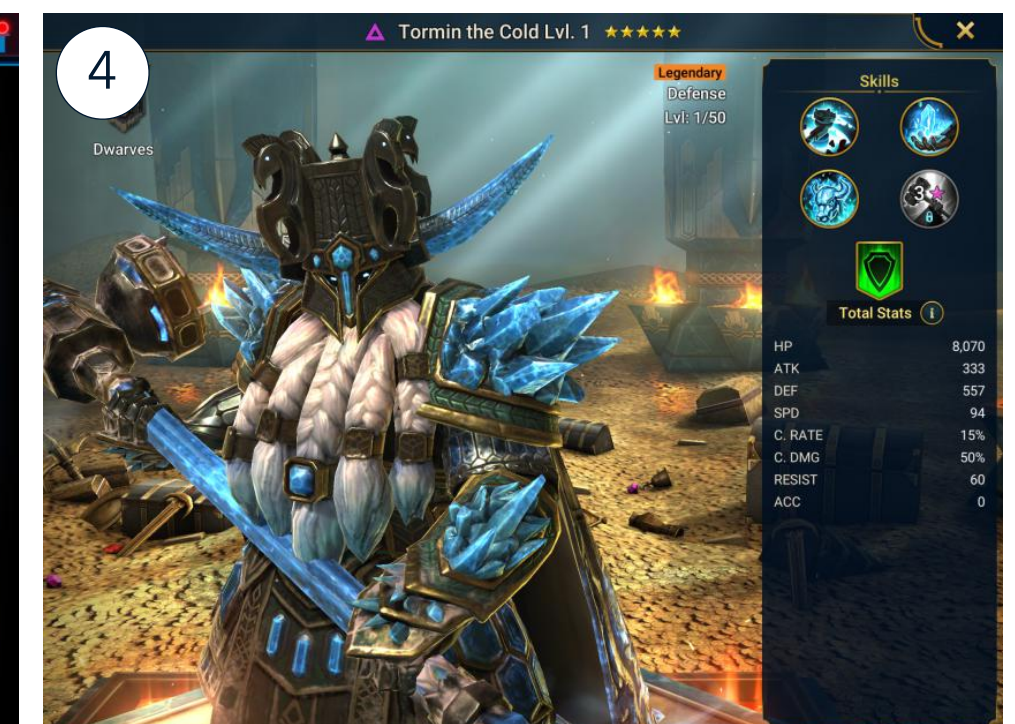12/11: Kempf: Conniving General — *Fire Emblem Heroes* hero
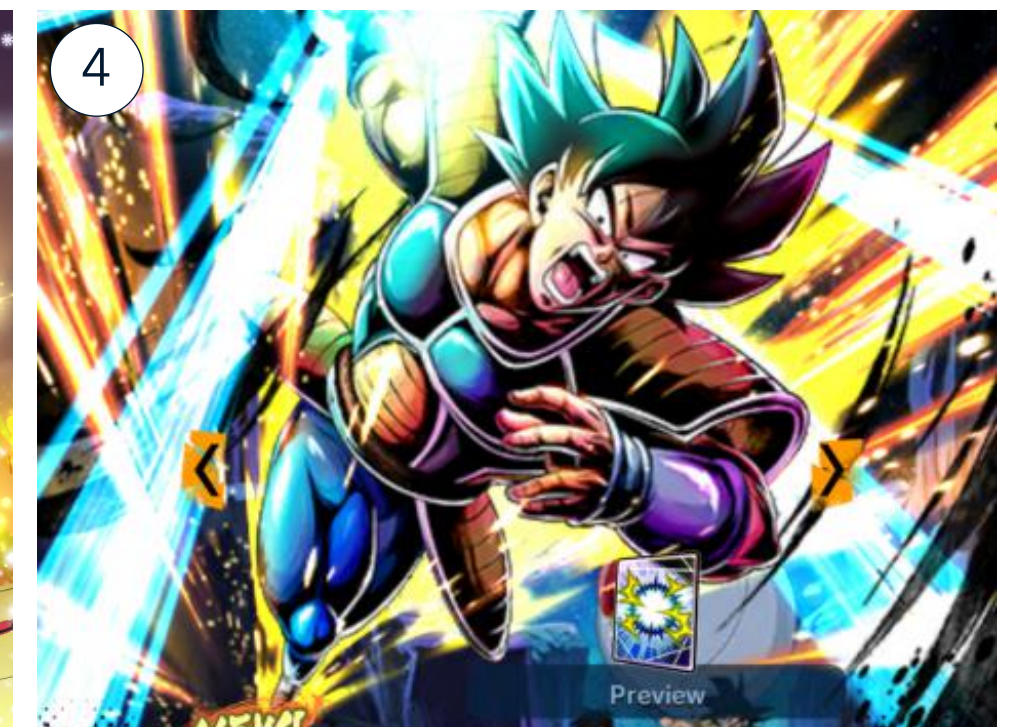
CONTENT RELEASES II

RPG > Content > Abilities, Equipment, and Heroes

12/16: Glorious Gifts – *Fire Emblem Heroes* heroes
12/17: Jaffar: Angel of Night – *Fire Emblem Heroes* hero
12/25: Celica: Queen of Valentia – *Fire Emblem Heroes* hero
12/2: Sky Iron Airship Parts – *Guns of Glory* equipment
12/17: Elina – *Guns of Glory* hero (1)
12/17: Guard Skills – *Guns of Glory* abilities
12/21: Lord of the Caribou – *Guns of Glory* hero
12/30: Toyotomi Hideyoshi – *Guns of Glory* hero
12/31: Wildfire Set – *Guns of Glory* equipment
12/20: Dream Gemstones – *King of Avalon: Dragon Warfare* equipment
12/20: Hero Skills – *King of Avalon: Dragon Warfare* abilities
12/20: Lord of the Caribou – *King of Avalon: Dragon Warfare* hero (2)
12/13: Boommeister – *Lords Mobile: War Kingdom* hero
12/4: Heimdall – *MARVEL Strike Force* hero (3)
12/17: Sif – *MARVEL Strike Force* hero
12/13: Tormin the Cold – *Raid: Shadow Legends* hero (4)
12/16: Ultimate Galek – *Raid: Shadow Legends* hero
12/17: Guan Yu – *Rise of Kingdoms* hero
12/17: Leonidas I – *Rise of Kingdoms* hero (5)
12/25: Ishida Mitsunari – *Rise of Kingdoms* hero
12/16: Deep Space Update Ships – *Star Trek Fleet Command* heroes
12/11: General Hux – *Star Wars: Galaxy of Heroes* hero
12/11: Sith Trooper – *Star Wars: Galaxy of Heroes* hero
12/19: Resistance Hero Finn – *Star Wars: Galaxy of Heroes* hero (6)
12/12: Beast Rider – *Summoners War* hero

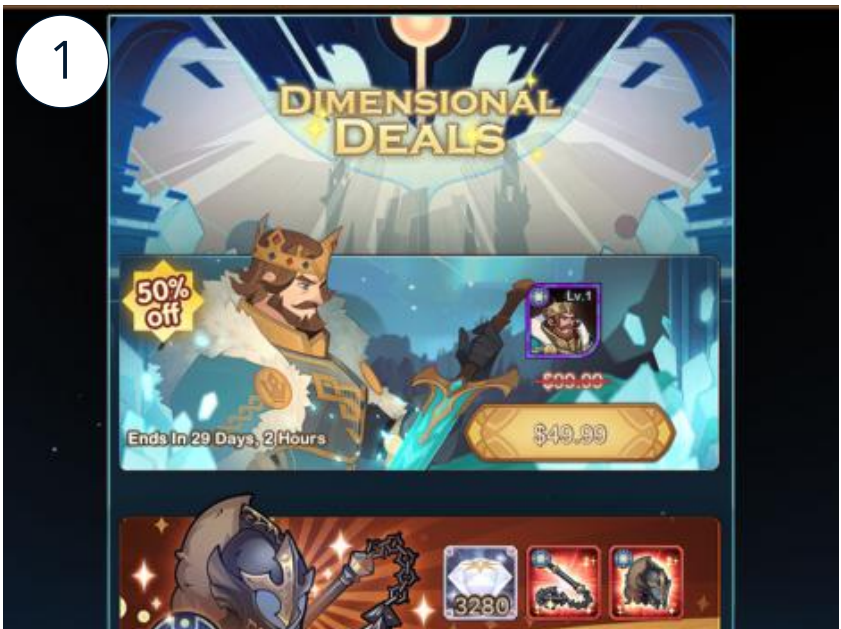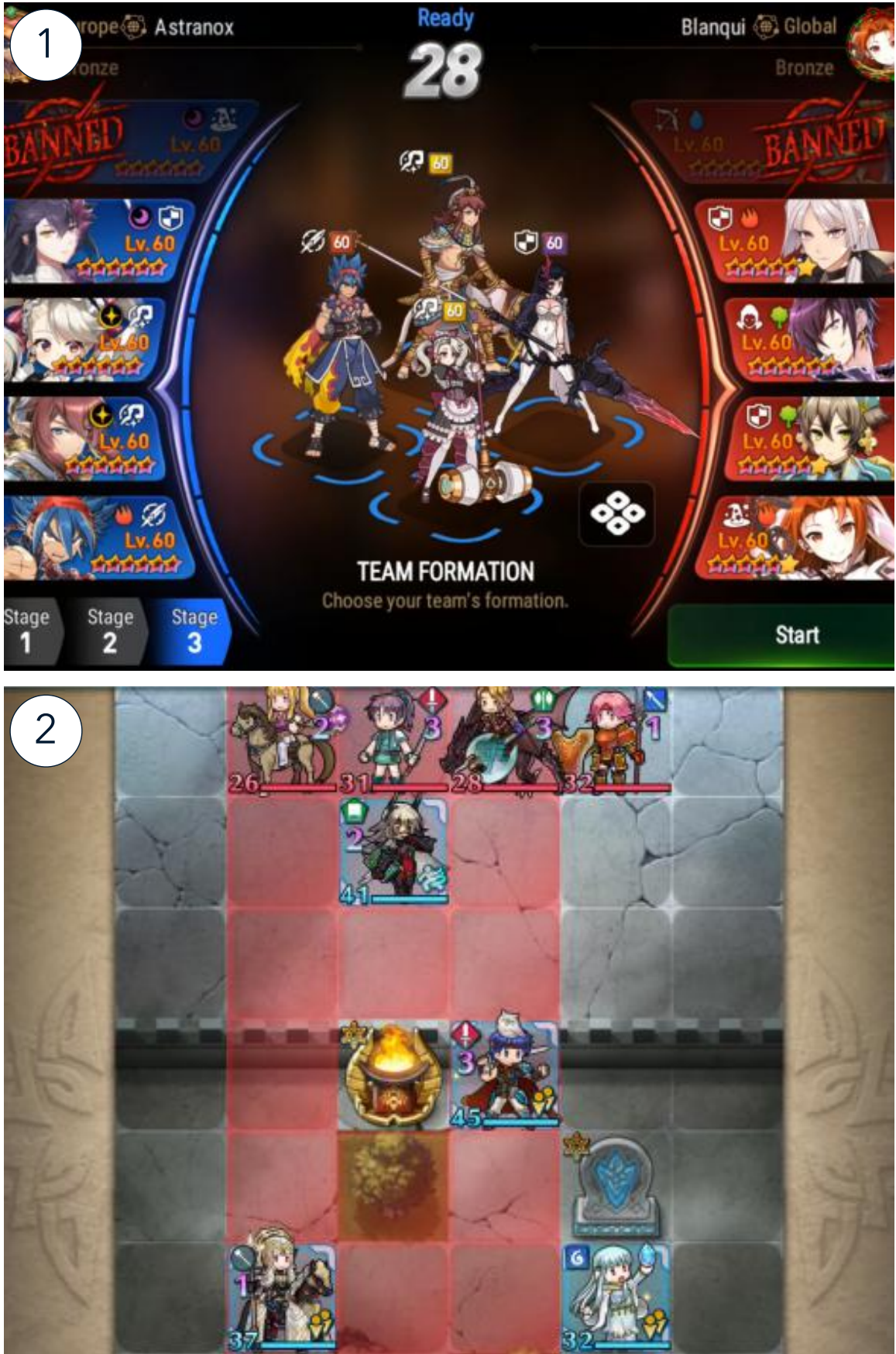# MARKET WATCH

NOTABLE RELEASES I

App	Library	Description
AFK Arena	Dimensional Faction collection feature	• This new faction of heroes can be fused with heroes from any other faction. • When fused, dimensional heroes are given the fused hero's level. • Dimensional heroes cannot be used in the same battle as their fused heroes. • Heroes can be unfused for 100 diamonds. • Unfused dimensional heroes return to level 1. • Dimensional heroes, diamonds, and equipment can be purchased from the in-app store (1).
	Midwinter Feast club event	• Guild members collaborate to complete a series of seven daily quests. • Quests require five hero formations of two mandatory heroes and three optional heroes. • Guild members contribute heroes to formations to meet these requirements. • During quests, guilds may be prompted with emergency hero requirements. • Optional and emergency heroes increase rewards. • Each quest awards a chest and a winter feast (video). • Winter feasts fill an event prize meter (2).
Dragon Ball Legends	Guilds club feature	• This new club feature allows players to form guilds. • Guild members complete challenges to earn guild points and rewards (3). • Guilds are ranked in seasons based on points. • Players can cheer for up to three guild members per day to award energy to both players.
	Hyperdimensional Co-Op club feature	• Players team up with partners by inviting friends or using a matchmaking service. • Co-op teams work together to defeat bosses in real-time battles. • Co-op battles feature unique team-based combat mechanics (4). • Defeating bosses awards time-limited rewards and guild points. • Players receive more guild points for partnering with guild members. • Players receive a bonus reward for winning battles using the matchmaking service.

NOTABLE RELEASES II

| App	Library	Description
Epic Seven	[World Arena](#) competition feature	• Players level 60 and higher can compete in real-time PvP battles. • Matched players take turns selecting five heroes each ([1](#)). • Players cannot select the same heroes. • Each player can ban one of their opponent's heroes. • During the battle, players take turns attacking. • Each turn has a time limit, after which an attack will automatically be chosen. • As the battle progresses, damage increases and health recovery decreases. • The event begins with two pre-season periods, followed by a regular season. • During the first pre-season, participation is free but players do not earn rewards. • During the regular season, players will be able to watch each other's battles. • Regular season battles will award an event currency that players can use to purchase exclusive rewards from an event store.
Fire Emblem Heroes	[Mjölnir's Strike](#) club event	• Players complete individual battles to contribute toward a cooperative game-wide event. • Battles unfold in three phases: brace, shield, and counter. • In the brace phase, players set up their defenses using teams of eight heroes. • In the shield phase, players choose a difficulty level and battle against waves of attacks ([2](#) and [video](#)). • In the counter phase, players attack the enemy and deal damage based on their scores during the shield phase ([video](#)). • Players win by dealing more damage than the total damage of the enemy army. • Defeating the army awards individual and collective rewards.

NOTABLE RELEASES III

App	Library	Description
Rise of Kingdoms	Garden of Infinity mini-game event	• Players spend gems to purchase silver dice. • Players roll dice to advance on a game board (video). • Silver dice rolls are limited to 30 per day. • Board spaces award prizes, gold dice, and bonus events. • Gold dice rolls award double the indicated prize or trigger a special gold dice version of the indicated event (1).
Raid: Shadow Legends	Amazon Prime Content purchase feature	• A series of heroes and loot bundles are available exclusively to Amazon Prime subscribers (2). • Players must log in to Amazon Prime through the app to claim drops.
Star Trek Fleet Command	Deep Space expansion feature	• This large expansion raises the level cap to 50 and introduces 120 new areas, 12 new ships, 60 new upgrades, and over 400 new missions (3). • A new building, the Scrapyard, allows players to dismantle unused ships to recover resources.

Quickly review all features and events

Filter the Library Tool by month and year to see all the new releases.
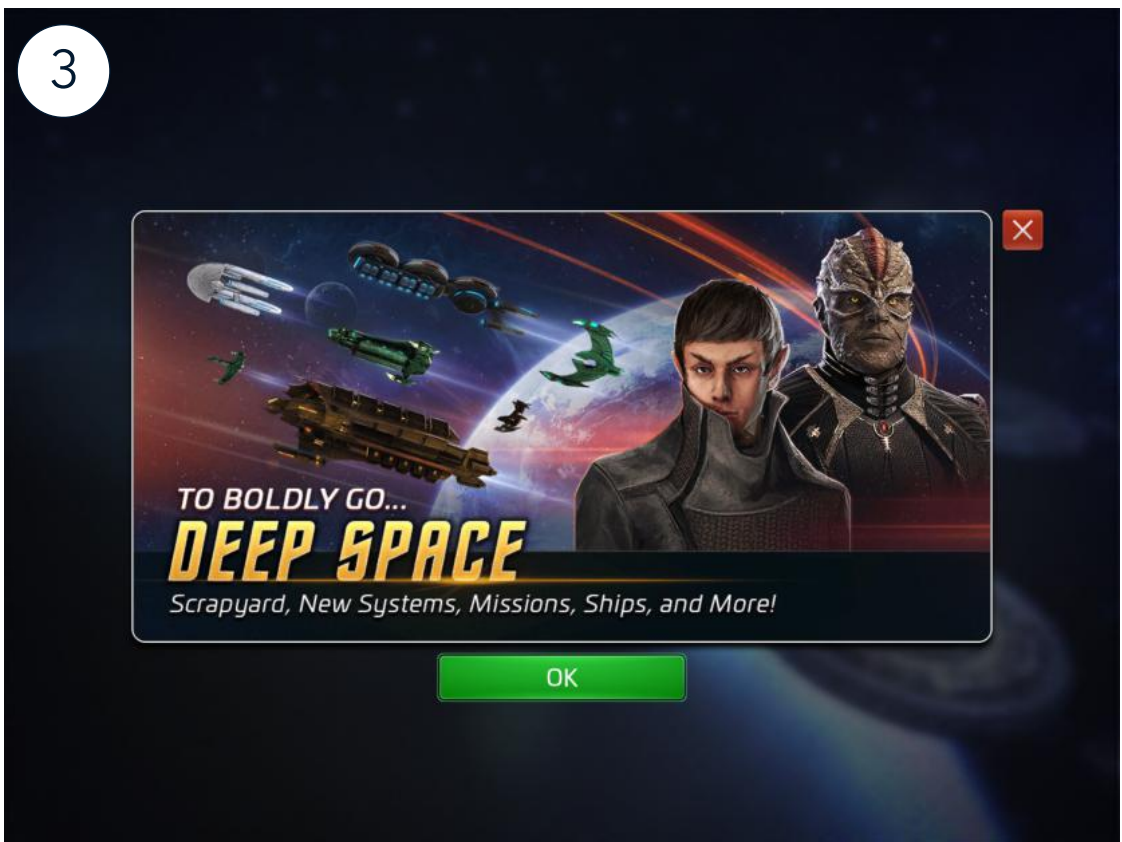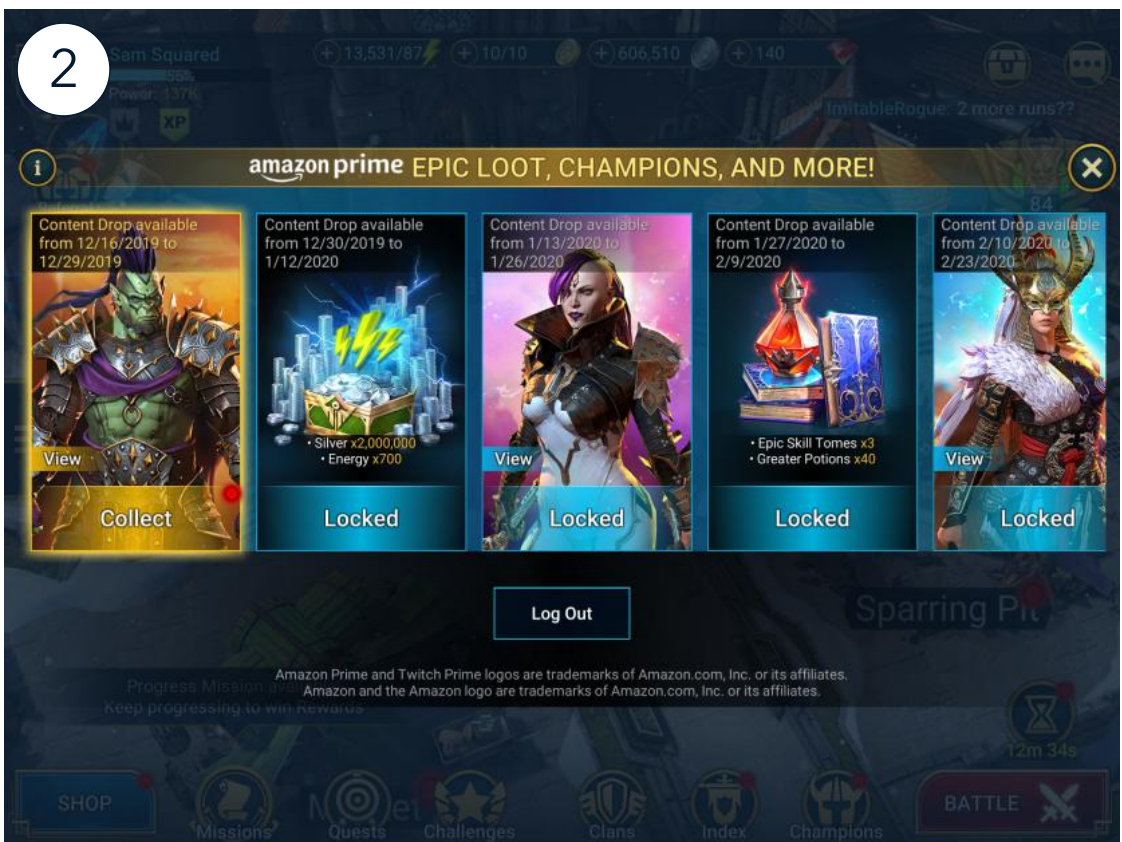
PLATFORMS & REGULATIONS

SIGN IN WITH APPLE

Apps on iOS that require players to sign in using a third-party or social media login service must also offer Sign in with Apple by April 2020.

Sign in with Apple Details
- Users can sign in to third-party apps using their Apple IDs.
- Apple does not collect data beyond names and email addresses.
- Apple IDs come with built-in two-factor authentication.
- Users can also sign in using Face ID or Touch ID.
- Apple IDs work on all Apple operating systems for mobile devices, computers, and TVs.
- Apple automatically flags suspected fake accounts for developers to review.

App Store Guideline Details
- Apps that exclusively use third-party login services (e.g., Facebook Login or Google Sign-In) must also offer Sign in with Apple.
- Apps with developer-based accounts and sign-in services do not need to add Sign in with Apple.
- Developers must implement Sign in with Apple by April 2020.

Sign-In Flow Examples
- *Homescapes* with Sign in with Apple (1)
- *TikTok* with Sign in with Apple (2)
- *Hidden City* G5 Games Account without Sign in with Apple
- *Candy Crush Saga* King Account without Sign in with Apple
- *Caesars Slots* Playtika Games Account without Sign in with Apple

Additional Information
- Sign in with Apple Information
- App Store Guidelines (Section 4.8)

22
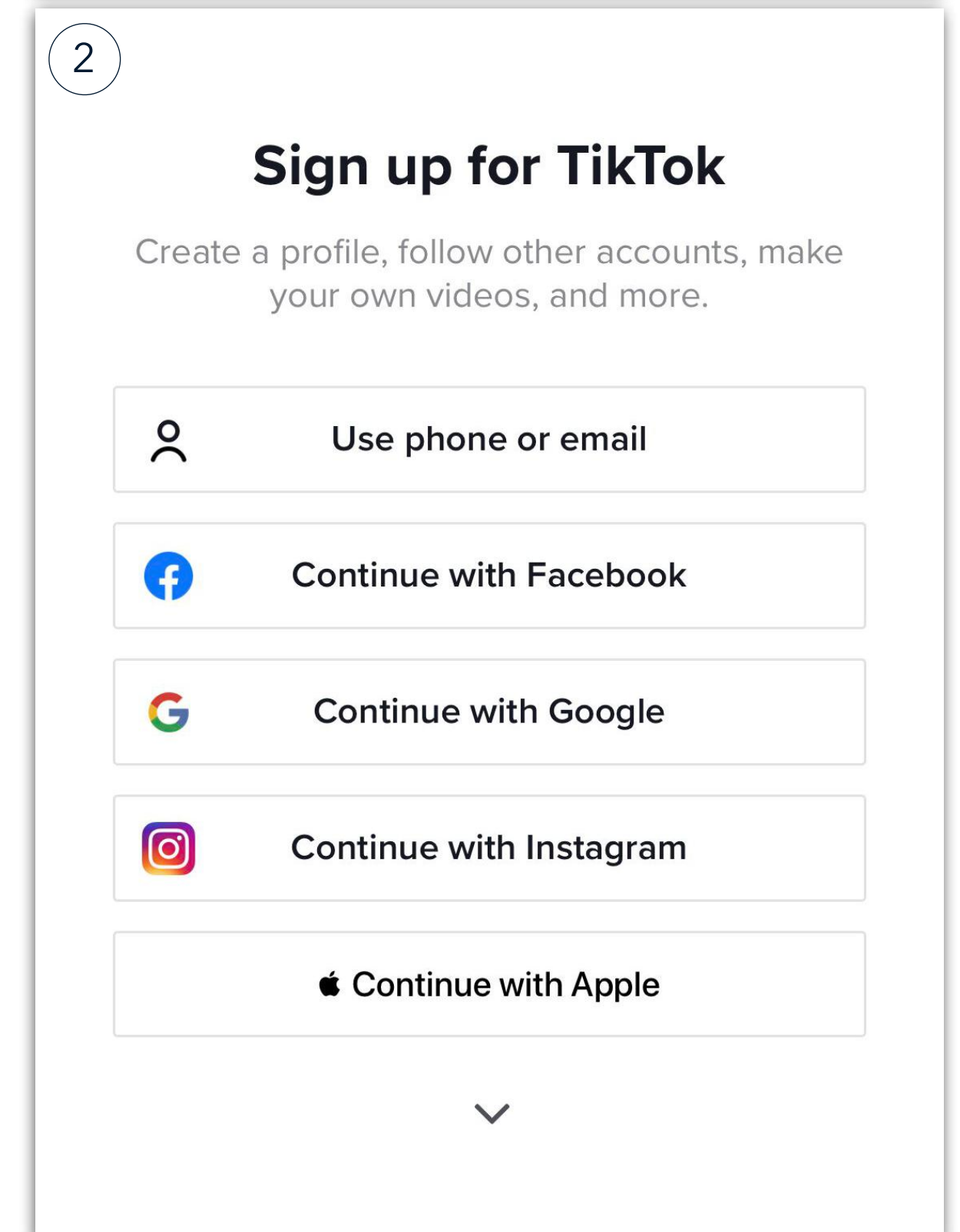
CCPA (CALIFORNIA CONSUMER PRIVACY ACT)

California's CCPA contains a few key differences from the EU's GDPR that companies must adopt by January 1, 2020 in order to comply with both regulations.

CCPA Key Details
- Businesses must enable and comply with users' requests to opt out of the sale of their personal information.
  - Websites must include a "Do Not Sell My Personal Information" link in a clear location.
  - After consumers opt out, businesses cannot request reauthorization for 12 months.
- Developers cannot sell personal information of users under age 16 without consent.
  - Users aged 13–16 can provide consent themselves.
  - Users under age 13 require parental consent.
- Companies have 30 days to cure violations to avoid statutory damages.
  - Consumers may seek actual damages (i.e., provable financial losses) without giving prior notice or allowing for a cure period.
  - If violations are not adequately cured within a 30-day period, consumers may seek the greater of actual damages or statutory damages ranging from $100 to $750 per individual.
  - California's attorney general may bring actions for civil penalties up to $2,500 per unintentional violation and up to $7,500 per intentional violation.

Actions
- Review and update privacy policies and data practices to address CCPA requirements.
- Provide opt-in and opt-out options where appropriate.

Implementation Examples
- Playtika
  - Privacy Policy (see Annex 1 at the bottom for CCPA specific notices)
  - Privacy Request Portal
  - Network Advertising Initiative Consumer Opt-Out Page
  - Digital Advertising Alliance Opt-Out Page
- Zynga's CA Notice
- Apple's CCPA Disclosures

Additional Information
- California Consumer Privacy Act of 2018, Full Text
- What Interactive Digital Entertainment Companies Are Doing to Prepare for the California Consumer Privacy Act
- Practical Law's CCPA and GDPR Comparison Chart
- Proxyclick's GDPR and CCPA compliance: The 5 differences you should know
- Truyo's The CCPA Hidden Game Changer: "Do Not Sell My Personal Information"

23

NEW L&G CAPABILITIES
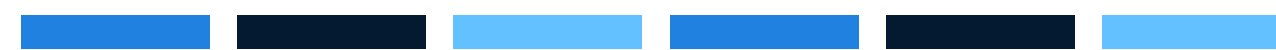
FEATURE DATABASE TOOL: NOTIFICATIONS

Stay on top of the latest apps, features, events, and more using our new email notifications tool in the Feature Database. Log in to your Liquid and Grit account to get started.

How to Use Notifications
1. **Go to the Feature Database and create a search.** For instance, search for all new RPG Features or all new releases from AFK Arena.
2. Click on the "Add Filter Notification" button.
3. Create a name for your notification.
4. Choose when and how often you want to receive notification emails.
5. Click "Save".
6. Click "My Notifications" to view, edit, or delete notifications.

Suggested Notifications
- All RPG features
- All RPG events
- Features from Lilith Games apps *AFK Arena* and *Rise of Kingdoms*
- Features from FunPlus apps *Guns of Glory* and *King of Avalon: Dragon Warfare*

Note: If you have access to Liquid and Grit through a company-wide subscription, email support@liquidandgrit.com to set up an account.

SLACK SHARED CHANNELS

Get answers fast with a shared Liquid and Grit Slack channel. Ask us questions directly, download resources, start a discussion, and receive our monthly reports—all from your company's existing Slack accounts.

How to Set Up a Channel (Estimated Time: 15 Minutes)
1. Discuss the shared channel with a Slack admin.
2. Email us to receive a shared channel link.
3. Have the Slack admin accept the invitation.
4. Add members to the channel.

Potential Applications
- Request RTP spreadsheets.
- Get advice on Feature Database searches.
- Add users to your account.
- Discuss recent reports.
- Receive hilarious GIFs.

Note: If you have access to Liquid and Grit through a company-wide subscription, email support@liquidandgrit.com to set up an account.
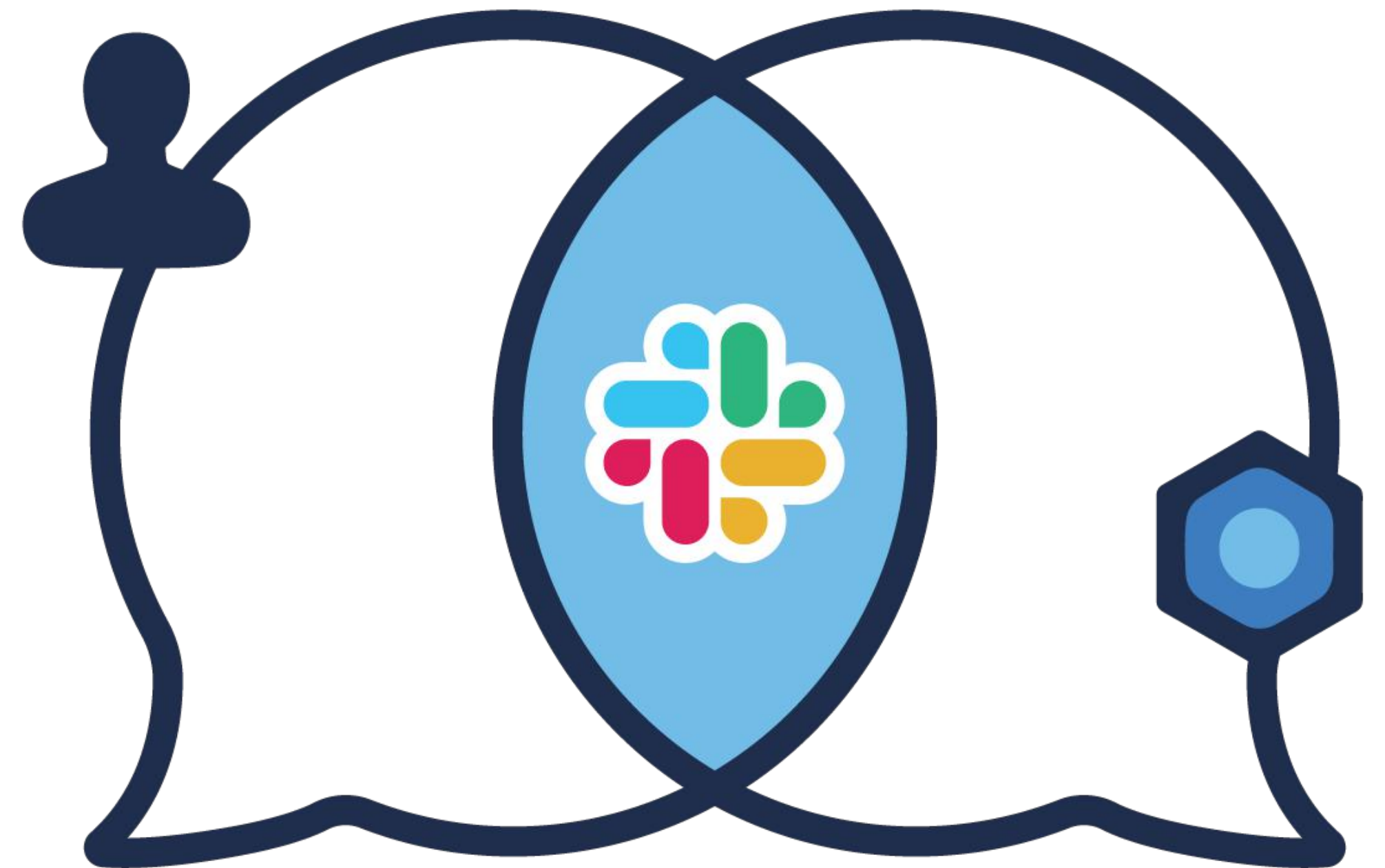
APPENDIX

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	**Player Personas**	**Mobile App Store Intelligence**

Quadrant Strategies

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.

Kinrate Analytics

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 with economists, psychologists, game scholars, and data scientists.

Sensor Tower

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.

RPG 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	Goal-oriented tasks for players to complete
Clubs	Groups that accomplish goals or compete 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 aesthetics
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 those in the bonuses family)

"Life doesn't give us purpose. We give life purpose."

– The Flash, *Blackest Night #8*

LiquidandGrit.com

Brett.Nowak@LiquidandGrit.com