

# Free-to-Play For Indies

**Anthony Pecorella**

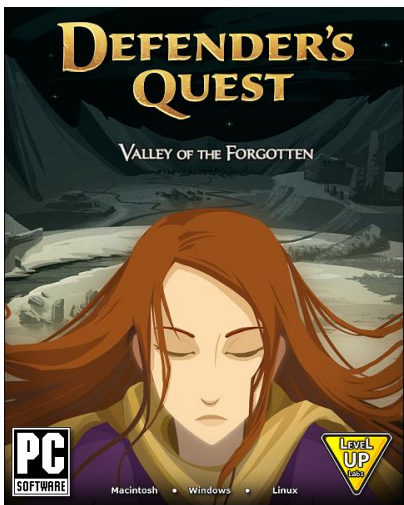
Director of Production  
Kongregate / GameStop



**GAME DEVELOPERS CONFERENCE™ EUROPE**  
CONGRESS-CENTRUM OST KOELNMESSE · COLOGNE, GERMANY  
AUGUST 11-13, 2014 · EXPO: AUGUST 11-12, 2014

## Who am I?

- At Kongregate for 6 years, directing our browser-based virtual goods business
- Also an indie game designer, cofounder of Level Up Labs



## What is Kongregate?

- Open platform for browser-based games
  - Flash, Unity, HTML5, Java, etc.
  - 96%+ of users already have Unity installed
- 20M+ monthly unique visitors worldwide
- Core gamers – 85% male, average age of 22
  - MMOs, RPGs, CCGs/TCGs, TD, shooters, etc.
- Platform level virtual currency “kreds” for F2P games
- Acquired by GameStop July 2010

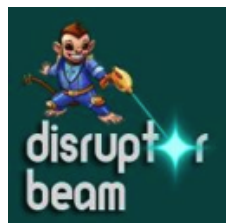


# KONGREGATE

## Some of Kongregate's Developer Partners



**R<sup>2</sup> GAMES**  
REALITY SQUARED GAMES



**KONAMI**



# KONGREGATE

Kongregate is also a mobile publisher



## What is Free-To-Play?

- The most disruptive recent change in the Western games industry
- A completely different way of designing, building, launching, and running games. Games as a service!
- Top free-to-play (F2P) games rival the top retail games, with billion-dollar games found on both sides



## What is Free-To-Play?

- Most of the game is free for anyone to enjoy
  - Demos and “light” versions are not really F2P
- In-app purchases provide competitive advantage, convenience, personalization, or content
  - This is often a money-for-time exchange
- Variable spending enables small and big spenders
  - Top spenders may spend \$1000 or even \$10,000+ in their favorite games



## What is Free-To-Play?

- It is a business model and a marketing decision
  - In an effort to distribute your game as widely as possible, you set the price of the game to 0
  - Players have the option to support the game later by spending money if they see value in it
- The fundamental, crucial, design-guiding difference is that revenue comes after players start playing instead of before

## Is F2P Right For Me?

- Paid games are simpler
  - It is a more comfortable and familiar business model for many developers
  - Pick a price, perhaps do a launch discount, then fix bugs
  - No need for data and analysis, unlikely to do paid marketing
  - Great for hobbyists and in situations where you don't need steady revenue over time
  - Some vocal players will reward you for not having in-app purchases. It's a good feeling, though don't let the vocal minority sway you too much.

## Is F2P Right For Me?

- Why F2P then?
  - On Aug 11, 2014, only 1 game in the top 50 grossing games on iOS is paid
    - It's *Minecraft*, so it doesn't count
- Only 4 in the top 100 are paid, and those other 3 also have in-app purchases
- Less than 20% of top 500 are paid, and many of those are licensed brands and console ports
- Many more people will play your game if it is free
- Paid user acquisition is (potentially) possible, giving you more control over the success of your game



## Is F2P Right For Me?

- Evaluate Your Game
  - What are your goals for your game?
  - Can most of the game be free but still have compelling purchases?
  - Is there a sense of progression players can invest time or money in?
  - Is there enough depth or competition to support players playing for months? Is the game extensible in terms of new content?
  - If this is a midcore game focusing on IAPs, can players spend \$1000+ in a meaningful way on the game?
  - Is there a natural place to use opt-in advertising? Will the game get enough volume to make ads generate revenue?
  - Are there opportunities in the game design to make use of proven F2P monetization?

## Is F2P Right For Me?

- Evaluate Your Team
  - F2P games are a service and require commitment; are you ready to keep delivering content and events for the next 2 years in this game?
  - You will need to spend a lot of time doing non-game things like marketing, ad network optimization, and analytics
  - You should be comfortable with having players spend \$1000+ on your game when it becomes a true hobby for them
  - Even if you work with a great, knowledgeable publisher, you need someone on the team who understands F2P philosophy and design

## The Tragedy of *Threes*

- *Threes* was an original, clever, well-polished puzzle game that cost \$1.99
  - It did gross a decent amount thanks to a strong launch
- *2048* was free, and became a huge phenomenon



Asher Vollmer  
@AsherVo



Follow

It's hard feeling like one misstep (not making the game free) led to us missing our chance to be part of global culture.

## F2P Key Concepts

### Retention

- F2P success is all about keeping players in the game

Top 10 Multiplayer Games	% Buyers	ARPPU	Avg Tx Size	Avg # Tx	ARPU	% of Players	% of Revenue
1 play	0.03%	\$6.98	\$5.02	1.39	\$-	45.5%	0.1%
2 to 10	0.40%	\$11.01	\$6.63	1.66	\$0.04	40.3%	0.9%
11 to 50	4.93%	\$19.82	\$7.92	2.50	\$0.98	7.7%	3.9%
51 to 100	11.14%	\$33.14	\$8.97	3.70	\$3.69	2.3%	4.3%
101 to 250	17.11%	\$63.12	\$11.11	5.68	\$10.80	2.2%	<b>12.0%</b>
251 to 500	26.94%	\$123.92	\$14.09	8.80	\$33.38	1.0%	<b>16.9%</b>
500+	39.39%	\$270.58	\$19.03	14.22	\$106.58	1.1%	<b>62.0%</b>
<i>Total</i>	<i>1.89%</i>	<i>\$102.74</i>	<i>\$15.03</i>	<i>6.84</i>	<i>\$1.95</i>	<i>100.0%</i>	<i>100.0%</i>

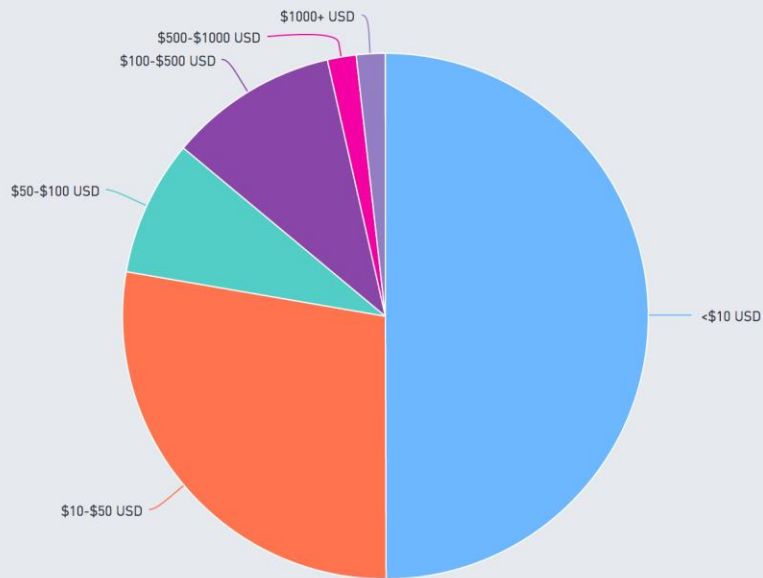
## F2P Key Concepts

### **Monetization**

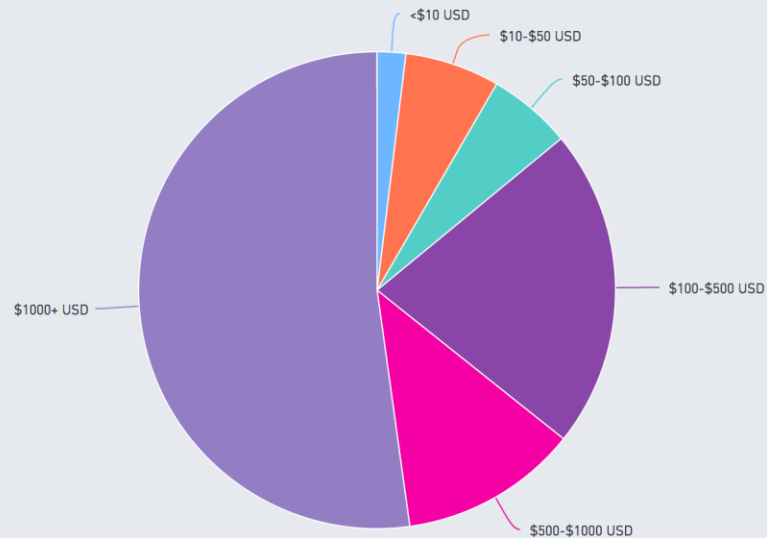
- Roughly 2% of players will spend money
  - Could be 0.5% - 10% depending on platform and definition
- Of that 2%, for midcore games most revenue comes from the top 5% of them
  - In other words, most of your revenue comes from 0.1% of your players
  - This is a fundamentally different way of thinking about monetizing your game, but it needs to be considered from the start of design

## F2P Key Concepts

Payers by Spender Category, All Games



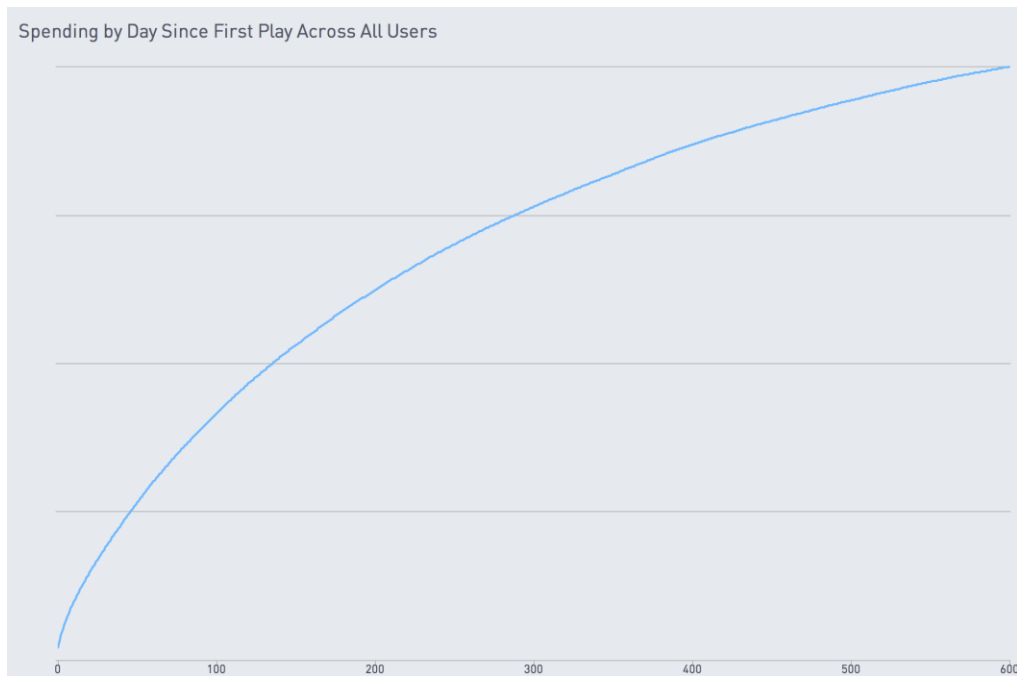
Revenue by Spender Category, All Games



## F2P Key Concepts

### Monetization

- Most of your revenue will come much later than the first few days from a player
- This again is why there is such a focus on retention in the F2P world
- Be ready to be in it for the long haul!



## User Acquisition

- Like any business, you need customers to make money with F2P games
- You can gain customers through promotion, virality, and paid marketing
  - Virality can still happen, but is harder than the early Facebook days
- Acquiring a player for a free game is surprisingly expensive
  - \$2.50 - \$5.00 if you're good, more if you don't optimize well or use a managed buyer

## User Acquisition

- Can your game support paid acquisition?
- LTV (Lifetime value): the amount of money you can expect from a player
- If  $LTV > \text{cost to acquire a user}$ , you can (numerically) do paid marketing!
- User acquisition is a full-time job
  - Build relations with ad networks
  - Manage priority, optimize targeting
  - Regularly adjust spending rates
  - Time around promotions, updates, and chart-pushes

## First Generation F2P Mechanics

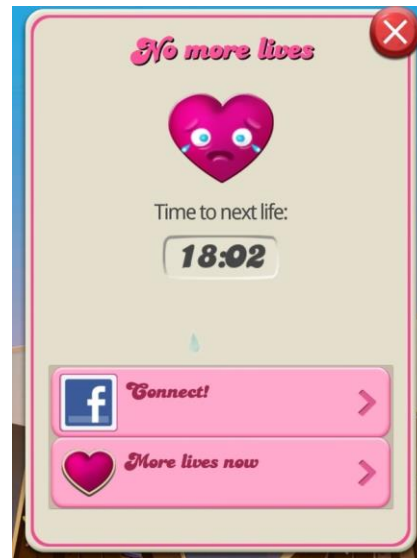
- Heavy Energy Focus (*Mafia Wars*, *Cityville*): Strict energy requirements for all actions
- Aggressive Social Sharing (Facebook games): Constant requests to share and invite, taking advantage of opportunity in the Facebook platform at the time
- Buy Fixed Upgrades (*Candy Crush Saga* 2012): One-time permanent upgrades
- Punitive Retention (*Farmville*): Come back to the game...

*...or your corn dies!*



## Second Generation F2P Mechanics

- Skill-based energy (*Boom Beach*, *Candy Crush Saga*): If you're good enough you can keep your "energy" longer



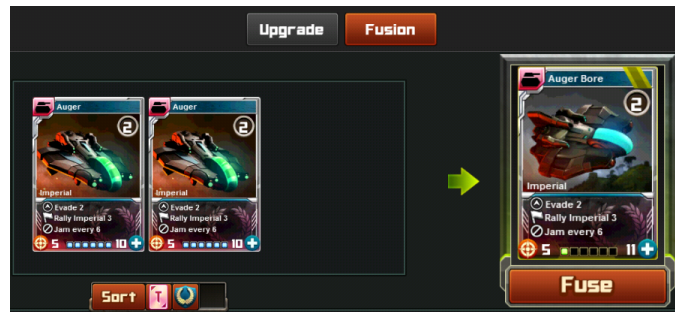
## Second Generation F2P Mechanics

- Guilds (*Clash of Clans*, *Modern War*): Powerful retention, monetization, and social engagement



## Second Generation F2P Mechanics

- Gacha ("gachapon") Fusion (*Brave Frontier*, *Tyrant Unleashed*): Randomized rarity-based draws and combination features



## Second Generation F2P Mechanics

- Invested Continues (*Candy Crush Saga*, *Puzzle & Dragons*): Continuing after a near success



## What about the Valve/Riot Model?

- *League of Legends, DotA 2, and Team Fortress 2* use purely-aesthetic monetization
  - Heralded by players, and the developers, as being the ideal of F2P and not having “pay to win” elements
- Unfortunately just not practical, especially for indies
  - Requires a massive audience for reasonable revenue and for players to get invested and care to spend
  - The model has yet to work on mobile
  - Per-user metrics are likely not as good as other successful F2P games
  - This is a red-flag for us, and we have yet to see an indie developer succeed at this endeavor

## Is a Publisher Right For Me?

- Publishers can allow you to focus on the game while they handle things marketing and app store relations and help with analytics
- May be able to provide royalty advances and/or marketing guarantees
  - Make sure you find out how advances recoup – you want them to recoup at 100%, not at your revenue share!
- May also contribute design consulting, localization services, and more favorable CPM terms with advertisers
- You will typically share 30% - 50% of revenue based on the services provided

## Your Core Metrics

- Free to play game development is about the relationship with your audience
- We need ways to measure and understand the health of this relationship



## Your Core Metrics

### Retention

- Most common measurement is  $D(N)$ 
  - The day a player first plays your game is  $D0$
  - $D1$  is the % of players who play on the day after they first play
  - $D7$  is the % who play on *exactly* the 7<sup>th</sup> day after they first play
  - Typical wisdom is that  $D1/D7/D30$  should target 40%/20%/10% as a very rough benchmark for core and midcore titles

S	M	T	W	T	F	S
	0	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## Your Core Metrics

### **Monetization**

- ARPDau (Average Revenue Per Daily Active User): Total revenue for a day divided by the number of users that day
- This is a great way to look at the effect of events, sales, promotions, and updates
- It's very narrow in scope though, and doesn't account for lifespan
  - An ARPDau of \$0.10 with an average lifespan of 20 days is twice as valuable as an ARPDau of \$0.20 with a lifespan of 5 days

## Your Core Metrics

### Monetization

- % Buyers: What percentage of players make a purchase?
- ARPPU (Average Revenue Per Paying User): How much does a paying player spend on average?
- ARPU (Average Revenue Per User): The product of those numbers ( $\% \text{ Buyers} * \text{ARPPU}$ ) tells you how much the average player has spent in the game.
  - Can also calculate as  $\text{Total Revenue} / \text{Total Users}$
- LTV (Lifetime Value): Predictive value of a player.
  - One calculation:  $\text{ARPDau} * \text{Avg. Lifespan in days}$

## Understanding the Metrics

### Retention

- What do you do with these numbers? Are they actionable?
  - If possible, see if you can get benchmarks to compare against.
- Early (D1)
  - What is the first impression of the game? Do players give it a second chance?
  - Concentrate on your FTUE (first time user experience) and tutorial if this number is low. Keep the tutorial swift or integrate it smoothly into gameplay.
  - Track your tutorial flow, see if players are dropping out at a certain point. Maybe something is particularly confusing.
  - If players are dropping out after one play you have a communication problem – they aren't seeing why it is fun.
  - Or maybe you have a game-breaking bug: look at per-device numbers!

## Understanding the Metrics

### Retention

- Middle (D7)
  - Do players start to understand the game? Is it compelling enough to give it a fair chance?
  - Incentives (bribes) to come back can help (*Cityville*).
  - Make sure players are able to get into the fun, compelling part of the game fairly quickly.



## Understanding the Metrics

### Retention

- Late (D30)
  - Are players really engaged? Do they keep coming back to explore the game?
  - Success here requires substantial content or multiplayer elements (PvP, guilds).
  - Players should continue to feel like they are progressing and improving, and getting to a state of expertise and mastery.
- Elder (D90, D180, D365)
  - These are your most valuable players.
  - Is your game deep enough for this? Can players create wikis and argue about strategies in forums?
  - This will almost certainly need updates with new content from you to achieve.
  - Do we as an industry pay enough attention to this? We rarely hear numbers beyond D30 cited and that's likely a mistake.

## Understanding the Metrics

### Monetization

- % Buyers:
  - Try to identify what is going to be the most compelling first purchase for a player, then make sure players are aware of it.
  - If there isn't a clear one, create one! A one-time "first time buyer package" that is a good value can help get people to make a first purchase.
  - It's easier to get a second purchase once a player has made one buy (typically 50% - 70% of purchasers will spend at least twice).
  - Messaging and presentation are important: players need to understand what they are buying and why they want it. This is advertising, just like any other product someone wants to sell.

## Understanding the Metrics

### Monetization

- ARPPU:
  - ARPPU targets vary based on game types. Midcore games probably should target \$30 - \$60, more core games can be in the \$100 - \$300 range
  - If your ARPPU is low, that indicates a lack of compelling purchases for players after they made their first one, or underpricing
  - Look at average number of transactions: if only 2 or 3 you probably have a value proposition issue
  - Start off pricing confidently, it's easier to lower prices than raise them
  - Depth of spend is generally going to come from elder game: players are willing to invest more heavily in games they are more deeply involved in

## Single Player F2P

- Players are less sensitive to paid advantages without competition
- Long-term retention is likely harder without multiplayer
- Big spenders can still exist, but at a different scale than multiplayer games

## Single Player F2P

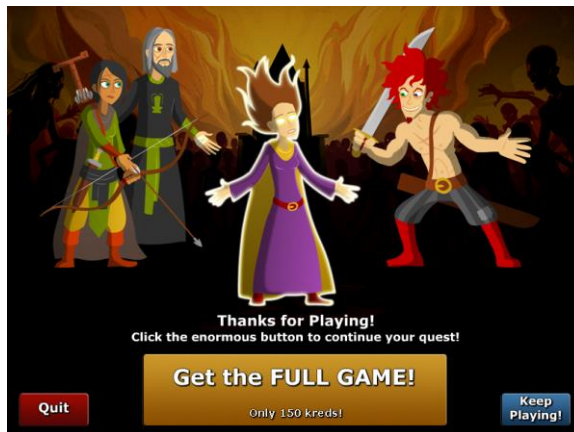
- Simplest method is the “premium” version of a game
  - Similar to a demo, but 95% of the game is free
  - A reasonable fee (\$3USD - \$10USD) gives players a package of benefits. Perhaps a few extra levels, a unique character, a special ability, and some currency or skill points to spend
  - Your ARPPU will be fixed and capped, no big spenders
  - Relatively easy to design, retention and live-servicing not as important, but revenue also likely more limited

## Single Player F2P

- “Premium” vs. demo version of tower defense games



*Kingdom Rush* (Ironhide Studios)  
Premium buyer rate: 1.8%



*Defender's Quest* (Level Up Labs)  
Demo buyer rate: 2.8%



*GemCraft: Labyrinth* (Game in a Bottle)  
Premium buyer rate: 3.4%

- Kingdom Rush* and *GemCraft* had more players and generated quite a bit more revenue

## Single Player F2P

- More sophisticated economies and systems can also be incorporated
  - Currency system
  - Daily events and rewards for returning
  - Progressive, persistent upgrades, potentially with timers
  - Lots of content can help retention
  - Gacha mechanics too!
    - Small “gotcha”: probably requires server-side validation

## Single Player F2P

- *Sands of the Coliseum* (Berzerk Studios)
- Had a simple gacha-style crafting system to create rare weapons and armor
- Able to get ARPPU up to \$10.36



## Single Player F2P

- *The Grinns Tale* (Nexon)
- Tons of content with an extensive campaign
- City-building, led to extremely high long-term retention
- Equipment-crafting from collectible materials was very engaging
- Premium currency could buy materials, chest keys, resource buildings, speed-ups, and revives
- Had an ARPPU over \$20



## Multiplayer F2P

- Bringing in other players opens up cooperation, guilds, and competition
- Players are typically more willing to invest heavily in games with other players
  - LTV should be higher, more likely to be able to do paid user acquisition
- Your focus is truly on long-term retention using PvP, guilds, and social features
- Monetize typically through power progression
- Events and updates become a central focus

## Multiplayer F2P

- Building and maintaining a server is much harder and riskier
  - Be especially careful about spikes from app store features or marketing pushes
  - Get scalable server services that allow you to move up and down as demand requires
- Having a large user base is more important, you need to be able to scale up and hit a critical mass
- Multiplayer means having a community: this is awesome, but also means that community management will be important (and can easily be a full-time job)

## Multiplayer F2P

- Multiplayer is not a golden ticket though
  - Multiplayer without real progression (that is, purely skill based without growth) shows lower metrics than even single player games with meaningful RPG-like growth

Type	% 50+ Plays	% Buyers	ARPPU	ARPU
Multiplayer RPG	2.6%	0.75%	\$69	\$0.51
Multiplayer Non-RPG	1.0%	0.45%	\$9	\$0.05
Single-player RPG	1.8%	1.29%	\$12	\$0.10
Single-Player Non-RPG	0.2%	0.53%	\$4	\$0.02

## Synchronous vs. Asynchronous PvP

- We almost always recommend asynchronous, AI-controlled PvP
- This is even more important for indie developers
  - Requires less data, simpler to program and debug
  - Synchronous PvP requires very high concurrent users to have good matchmaking and keep queues short
  - Have to deal with connectivity issues and drop-outs, especially on mobile
  - With AI-controlled battles, players are free to stop mid-battle and come back later (again, great for mobile)
  - Live gameplay can exacerbate feelings of “pay to win”

## Synchronous vs. Asynchronous PvP

- Beyond simplifying things, it asynch tends to monetize better too!

Type	% 50 Plays	% Buyers	ARPPU	ARPU
Synchronous	1.4%	0.54%	\$43	\$0.25
Asynchronous	3.6%	0.80%	\$88	\$0.66
Both	2.9%	1.07%	\$51	\$0.55
Single-Player	0.8%	0.85%	\$7	\$0.05

## Multiplayer F2P

- *War of Omens* (Fifth Column Games)
  - Has one of the highest buyer rates on Kongregate (4.8%)
  - Making any cash purchase makes your soft currency much more powerful
  - Beneficial to all players
  - Extremely compelling, is a great investment with unknown, long-term potential returns



## Multiplayer F2P

- *Bush Whacker 2* (DJ Arts / Codename Entertainment)
  - Highly efficient event structure allows them to do new original, content monthly
  - Have one of the highest long-term retention rates of any game on Kongregate, primarily due to their great live-servicing

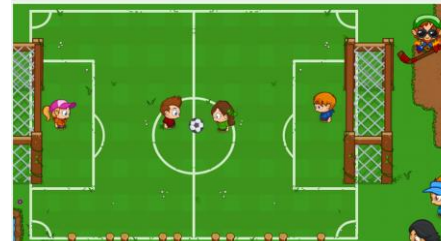
Junior Bush Whackers Event 2013 (27 Sept -11 Oct 2013) [Edit](#)



Dog Days of Summer 2013 (29 Aug - 12 Sept 2013) [Edit](#)



Sports Event 2013 (31 May - 14 June 2013) [Edit](#)



Patriot Event 2013 (28 June - 12 July 2013) [Edit](#)

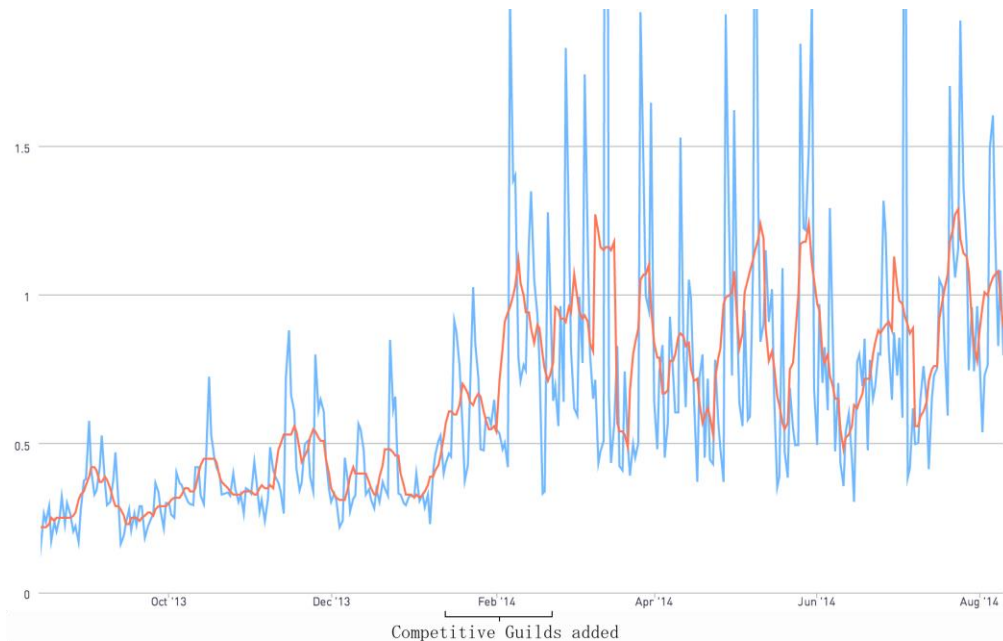


Summer Carnival 2013 (26 July - 9 Aug 2013) [Edit](#)



## Multiplayer F2P

- Tyrant Unleashed* ARPD AU...what happened?



### Guild War

10s left

<b>Eclipse</b> 12,704	<b>OVERLOAD</b> 13,594
*soundwave+ 2,222	Dbcooper5 3,449
RPTBuddy 1,820	curleyce 1,173
Venzha 1,637	Frisalme 899
RickyKarnage 1,069	Fyrefiend 852
makkamburger 847	chazzymoto 631
junket0420 652	ghregorr 622
Heahengel 406	Kernax 587
pr4ctice 379	AmericaTilDeath 545
AlexV385 254	enigman02 413

**Battle**

+ 0/10 1m, 36s

## Single vs. Dual Currency

- Single is simpler, but can lead to crazy price inflation, doesn't allow for aspirational currency, and doesn't permit variable prices between free and paid

## Single vs. Dual Currency

- Dual currency has a “soft” currency that is easily earned in game, and a “hard” currency that is primarily paid-for
- Hard currency is a valuable carrot to give away, allows for paid-only content (without friction of going through app store purchase every time), and makes it easier to track analytics of spending habits
- Serious F2P games will almost always want to go with a dual currency system

## Energy Systems

- In most cases, energy systems are less about monetization and more about retention
  - Gives gameplay value, player wants to come back to keep using their energy currency and advance
  - Games can remind players to come back when energy is full
- Exceptions are around games where energy is the primary mechanic (*Mafia Wars*, *Dawn of the Dragons*), and in time-limited events
  - In these types of events, players aren't buying because they want to keep playing, they buy because they want the reward from the event

## What About Ads?

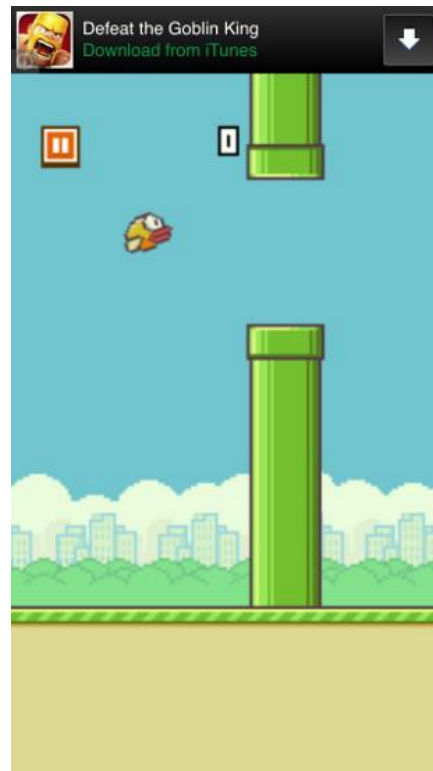
- Ads, when done properly, can enhance or even drive monetization in games.
- Per-user values are fairly low, so ad-supported revenue generally requires very high volume.
- If you have 100K DAU, can get 1.5 video ad impressions per DAU, and an eCPM of \$7.50, that's over \$1k / day.

## What About Ads?

- Ads should be optimized regularly, this requires active participation on your part
- Using an ad mediation layer can help with this process
- Make sure you integrate multiple ad partners!
  - Allows you to cascade down the value of ads and still keep the fill rate up.
  - Can lead to 2x – 4x revenue compared to using only one partner.

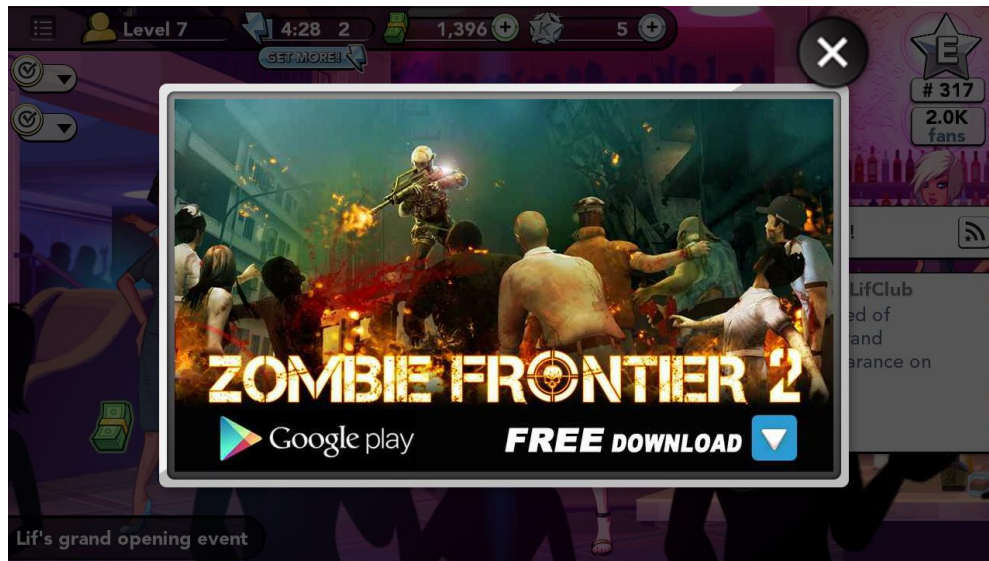
## What About Ads?

- Banner ads are probably not be worth it: easy, but fairly intrusive with very low pay-outs
- Yes, *Flappy Bird* made \$40k a day briefly, but it was a huge fluke



## What About Ads?

- Interstitial image and video ads pay a lot better (10x – 20x compared to banners)
- Try to work them naturally into gameplay breaks



## What About Ads?

- Opt-in (or “incentivized”) video ads have the best payouts and the best user experience when designed well.
- Impressions will be lower, especially if you don’t surface well and have players excited about watching ads
  - It’s your job to design the game to make ads enticing to participate in!

## What About Ads?

- *Disco Zoo* (Milkbag Games)

**(IAP/Opt-in Video Ads) percentage of revenue:**

- Disco Zoo: 50/50
- Tiny Tower: 60/40
- Pocket Planes: 68/32
- Pocket Frogs: 62/38

Source: David Marsh (Nimblebit)



## Thank You!

- Check out [developers.kongregate.com](https://developers.kongregate.com)
- Browser games: [apps@kongregate.com](mailto:apps@kongregate.com)
- Mobile games: [bd@kongregate.com](mailto:bd@kongregate.com)

## Conflicted Developers

- “We probably would make more money if we were more manipulative, but it's okay to make less money if it means we're not abusing our players.”
  - Matt Rix, Milkbag Games (*Disco Zoo*)
- “A free game no longer means a terrible one.”
  - Andrew Webster, TheVerge.com, “Free To Play Games Don’t Have to Suck”
- “[Pay-to-win is the] worstest worst possible thing that any game company could be involved in. Giving any advantage for paying...contributes to the world being a worse place.”
  - (Very passionate) game developer

## What's the Controversy?

- Concern that F2P means you have to be manipulative and unethical.
  - A recent Ubisoft study discovered that big spenders are exceptionally rational, making calculated purchases
  - Kongregate data shows that big spenders make steady repeat purchases over the long term
- If you assume it's about tricks and manipulation you will design your game incorrectly

## What's the Controversy?

- There is gamer outcry against “pay to win”
  - Some truth here, paid advantages are compelling purchases and drive revenue
- Paid advantage, mixed with skill, is normal in our world (sports, clothing, food, etc.) You can buy nicer things if you choose. [images of nice stuff]
- The “pay to play” model kept people who couldn’t afford to pay from playing at all. Free to play allows players to really evaluate a game and decide if it’s worth their money.