Idle Games:
The Mechanics and Monetization of Self-Playing Games

Anthony Pecorella
Director of Browser Virtual Goods
Kongregate.com

Who am I?

- At Kongregate for 6 years, directing our browser-based virtual goods business

- Producer for AdVenture Capitalist

- Also an indie designer, cofounder of Level Up Labs

What is Kongregate?

- Open platform for browser-based games
  - Flash, Unity, HTML5, etc.
  - 16M+ 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
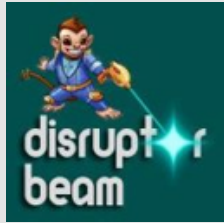- Acquired by GameStop July 2010

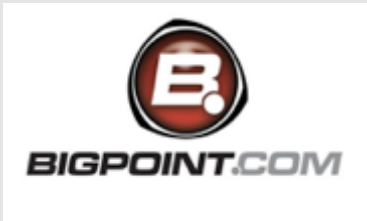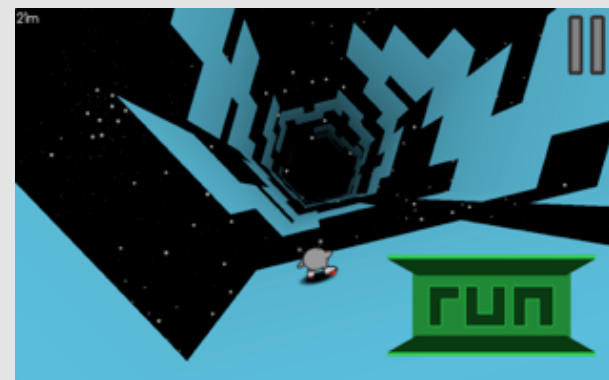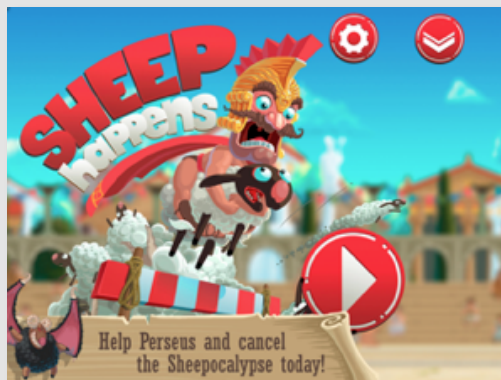# Some of Kongregate's Partners

Kongregate is also a mobile publisher

NUMBER
BY TYLER GLAIEL
🐦@tylerglaiel

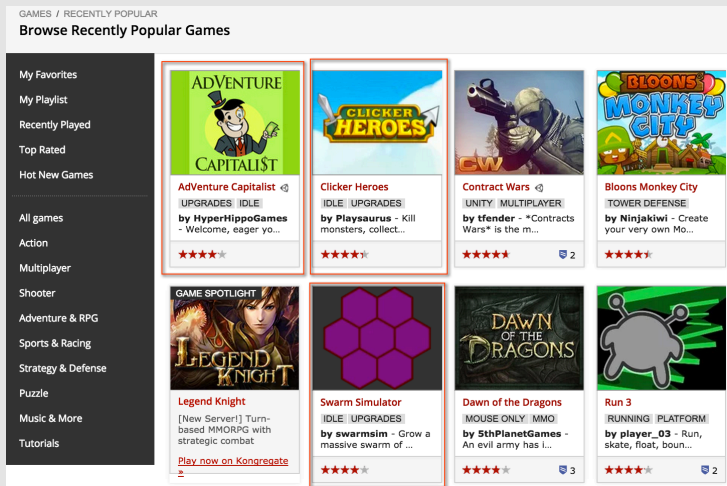RULES: MAKE NUMBER GO UP

NUMBER:
22.5

NUMBER GO UP SPEED:
3.5

MAKE NUMBER GO UP FASTER
(COST: 4.5 NUMBER)

Why Are We Talking About This?

- It's the birth of a new genre
  - Only 2 years old in modern form
- It is becoming very popular!

Why Are We Talking About This?

- Fabulous retention stats
  - Some of the best-retaining games on all of Kongregate.com

- Generates great revenue
  - ARPUs well-above most single-player games on Kongregate.com

History and Evolution

- *Progress Quest* (2002, Eric Fredricksen)
  - Parody of MMORPGs stats and auto-attack
  - A "zero player" game

"Gameplay" [edit]

After character creation the "game" runs its course. The the character has. Then the first act begins, and the cha "executing a passing (*player character*)", only disrupted one monster-specific item of loot, player characters will

History and Evolution

- Kongregate's chat system created early breeding ground for "idle" games
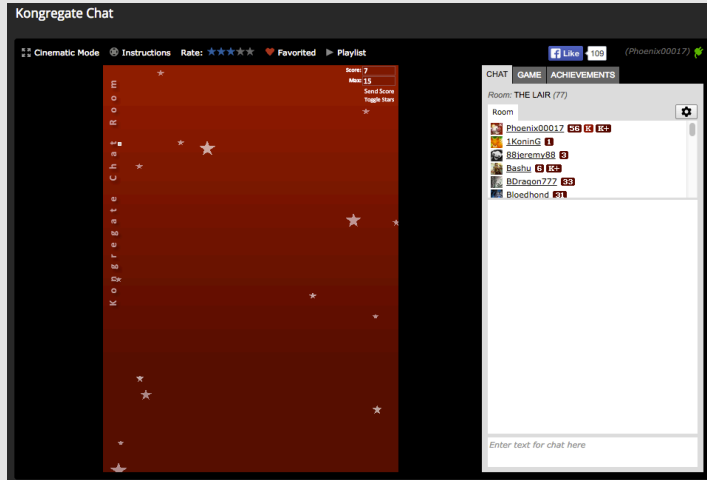
Kongregate Chat (jmtb02, 2007)
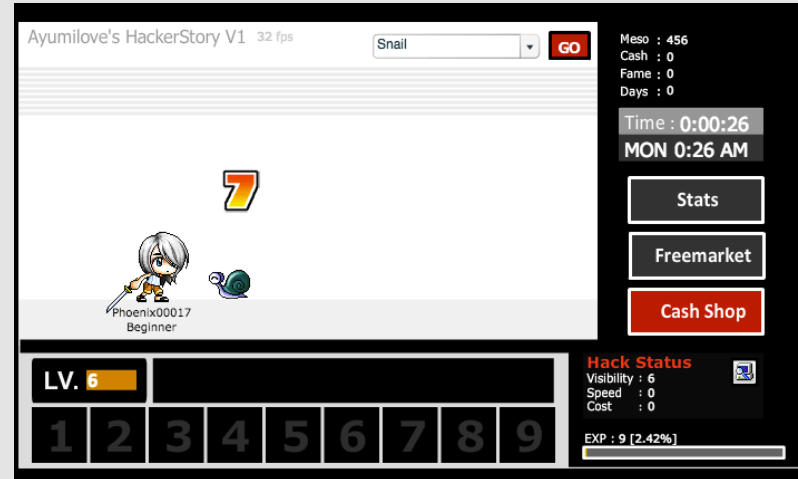
Ayumilove HackerStory V1 (Ayumilove, 2008)

History and Evolution

- *Anti-Idle* (2009, tukkun)
  - Has both active and idle elements
  - Huge, with tons of content
  - Receiving new features and updates 6 years later
    - Literally yesterday!

History and Evolution

- *Cow Clicker* (2010, Ian Bogost)
  - Parody of Farmville and other similar appointment social games

History and Evolution

- *A Dark Room* (2013, Doublespeak Games), *Candy Box* (2013, aniewey)

A Dark Room (Doublespeak Games)

Candy Box (aniewey)

- – Finite, can be beaten, more puzzle-like and exploration-based

History and Evolution

- *Cookie Clicker* (2013, Julien "Orteil" Thiennot)
  - Parody of *Candy Box*

  "At first I couldn't tell if people were just going along with the joke or actually being serious."

  - First major mainstream hit
    - Arguably created the genre in its modern form
    - Established a basis for progression, upgrading, and prestiging imitated by most other idle games
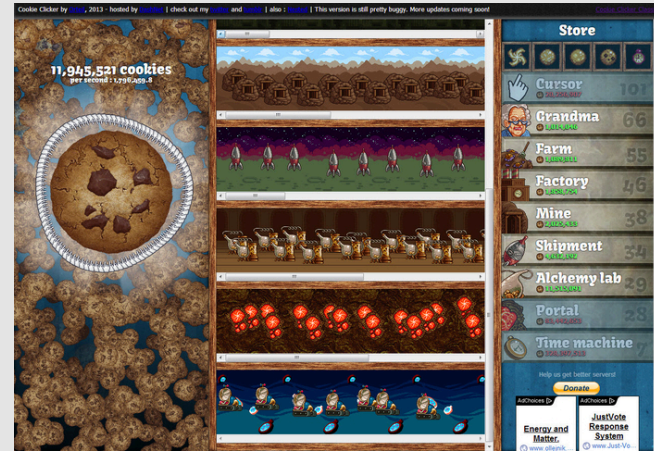
History and Evolution

- *AdVenture Capitalist* (2014, Cody Vigue / Hyper Hippo Games)
  - Parody of capitalism and idle games
  - Offline progress
  - More animated through progress bars

History and Evolution

- *Clicker Heroes* (2014, Playsaurus)
  - Clearer RPG-style progression
  - Addition of cooldown skills
  - Great visuals thanks to clever reuse of assets from their MMORPG (*Cloudstone*)
  - *Tap Titans* (Game Hive) is a close derivative that incorporated great presentation and mobile UI

History and Evolution

- *Make It Rain* (Space Inch, 2014)
  - First major mobile idle game
  - Hilarious concept, very viral
  - Idle elements were heavily limited, requiring check-ins to progress
  - Aggressive ad strategy
  - Pretty brutal FBI monetization
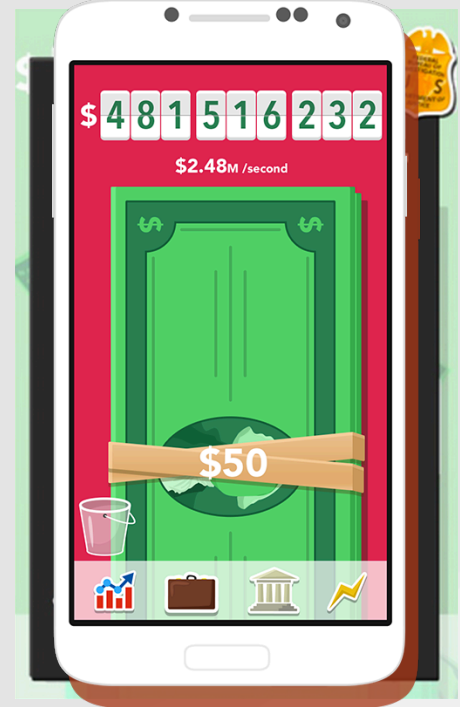
History and Evolution

- *Bitcoin Billionaire* (Michael Stockwell / Noodlecake, 2014)
  - Fantastic style, tone, and topic
  - Very clear goals and presentation
  - Great use of opt-in ads
  - Strong appointment mechanics, very limited offline progress
    - Offline progress is actually a central monetization element…a mistake?
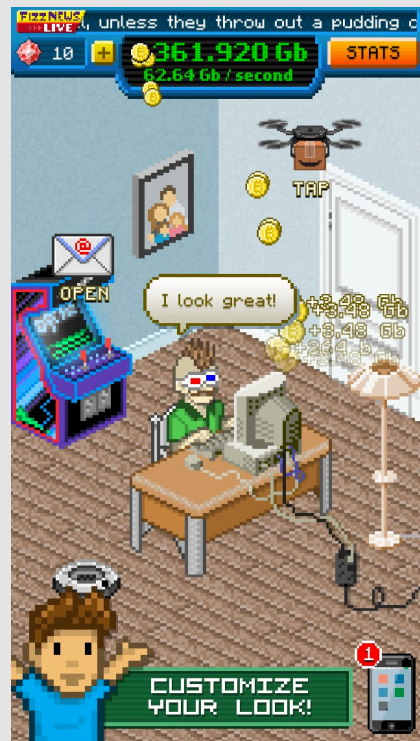
Other Notable Entries

- *DripStat* (dripstat.com/game)
  - Fantastic visualization of information
  - Global live leaderboard
  - Realtime contributions from other players
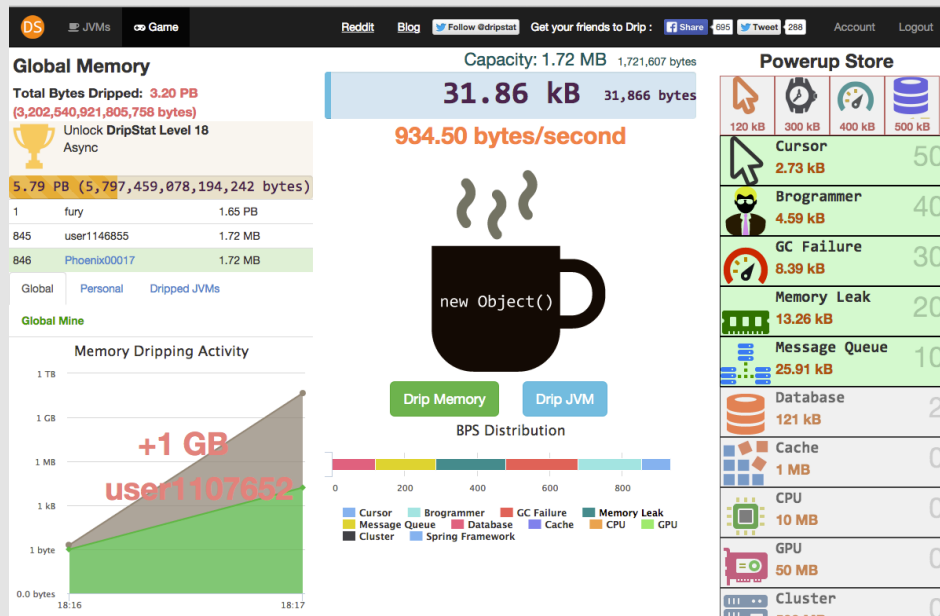
Other Notable Entries

- *Swarm Simulator* (kawaritai, 2015)
  - Explores a new funnel-based economy
  - Proving extremely popular

Published Feb. 16, 2015 with 1,004,264 gameplays

Idle Game Core Mechanics

- Progress without interaction
  - Low pressure experience
  - Constant positive growth and feedback
  - Quick check-ins can be very profitable by shifting up the growth curve
    - Great for social/mobile play patterns

Idle Game Core Mechanics

- Progress without interaction
  - Creates a celebratory moment every time you return to the game
    - The longer you don't the play the game, the bigger the reason to return!
  - Forced appointment mechanics become an unnecessary element
    - Even daily rewards aren't used

AdVenture Capitalist

Idle Game Core Mechanics

- Progress without interaction
  - Retention is often off the charts
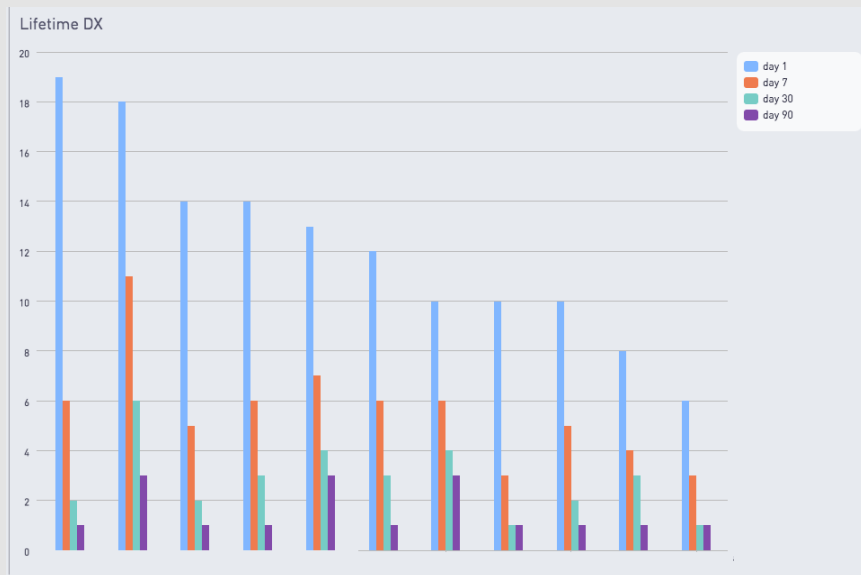
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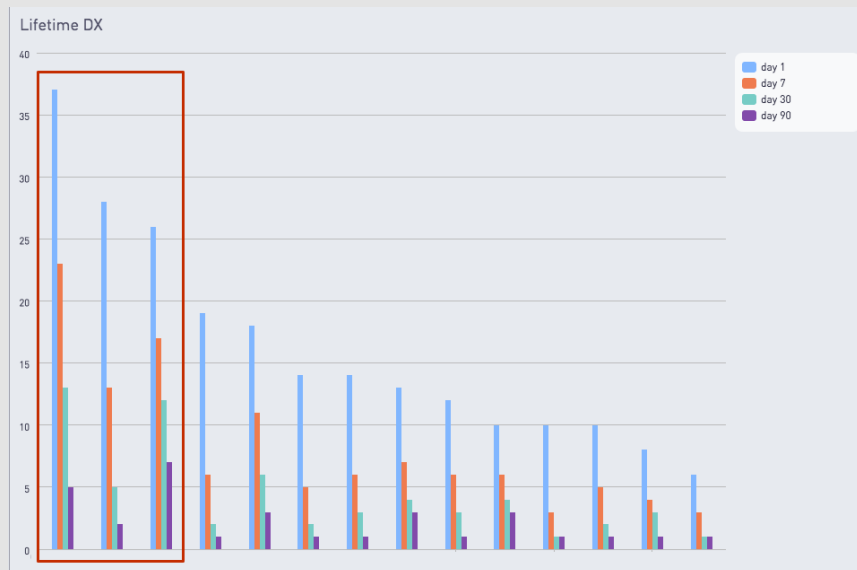
Idle Game Core Mechanics

- Rapid growth of costs and power/rewards
  - Leads to increased sense of progress, psychologically fun and satisfying

$31.954 DUOQUADRAGINTILLION

AdVenture Capitalist

Welcome back! While you were away for 3
- 5.32382e16 <u>greater queens</u>
- 1.01082e24 <u>nests</u>
- 1.43956e31 <u>queens</u>
- 2.76916e46 <u>meat</u>
- 1.09388e10 <u>larvae</u>
- 2.12371e31 <u>territory</u>
- 1,150 <u>energy</u>

2.33e47 meat ⬆   4.35e11 larvae ⬆

Swarm Simulator

Idle Game Core Mechanics

- Rapid growth of costs and power/rewards
  - Core loop:
    - Log in
    - Spend all of your cash
    - Log out, to return in a few hours
  - Sound familiar?

Cityville (Zynga)

Idle Game Core Mechanics

- Rapid growth of costs and power/rewards
  - Creates a "natural" energy system without the need for an energy currency
  - More palatable to players (esp. "gamers")
    - Has real-world analog, makes sense.
      - "I'm out of cash, need to come back when I have more."
    - Player feels more ownership over this decision.
      - "I **could** wait, but my time is worth more than that."

Idle Game Core Mechanics

- Rapid growth of costs and power/rewards
  - Counter-balances offline play: yes, you get big rewards, but they grow linearly
    - Time loses value without interaction

Idle Game Core Mechanics
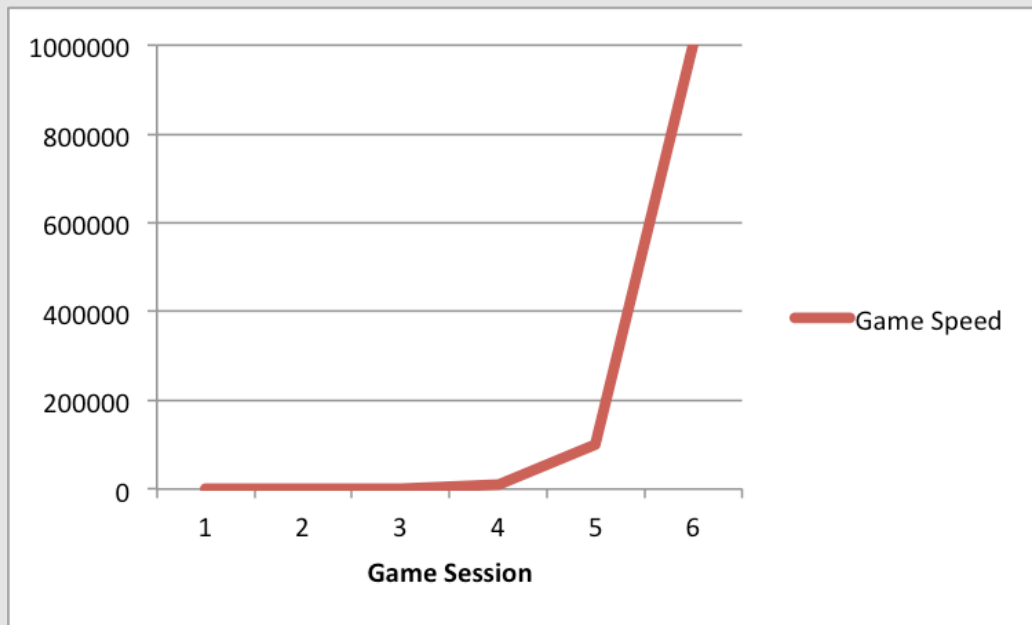
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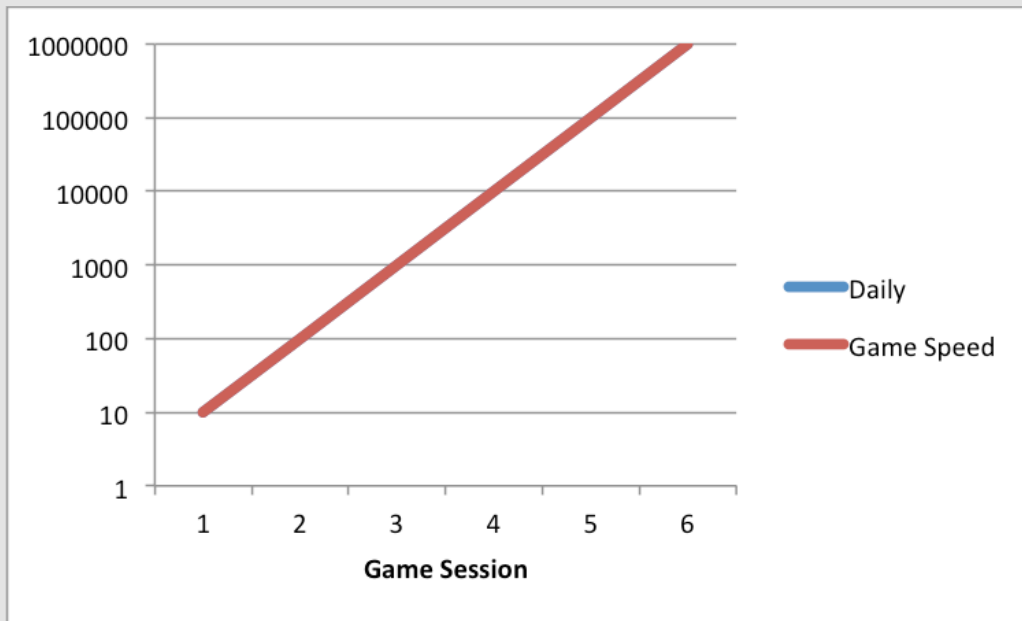
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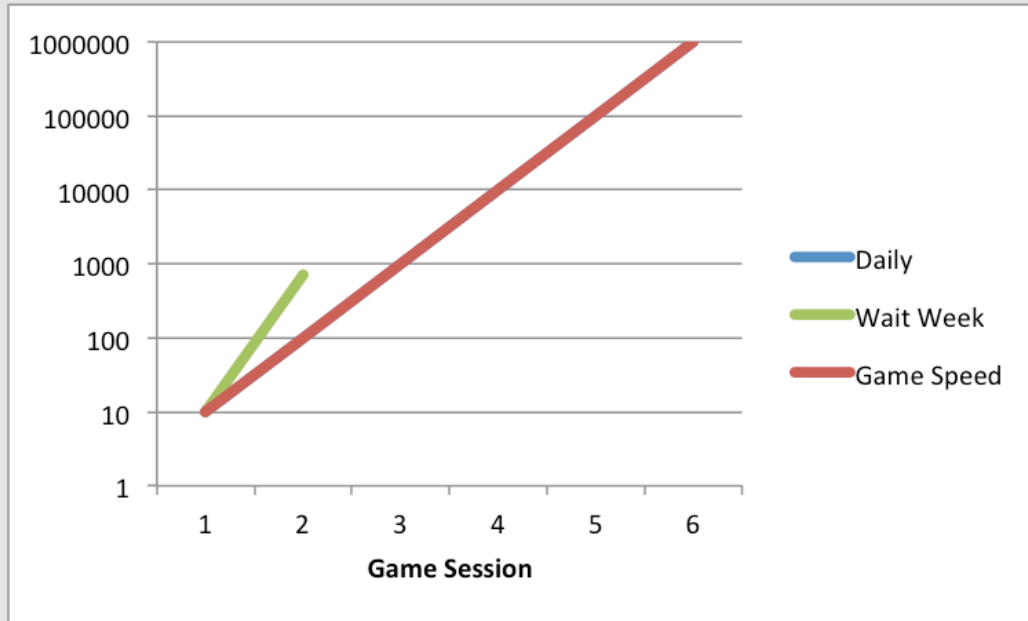
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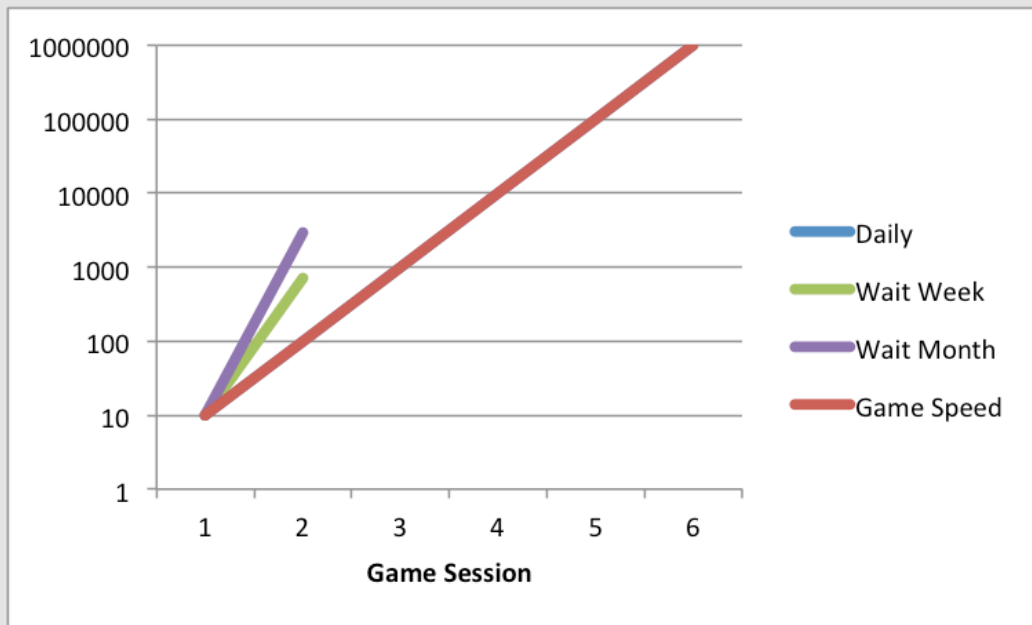
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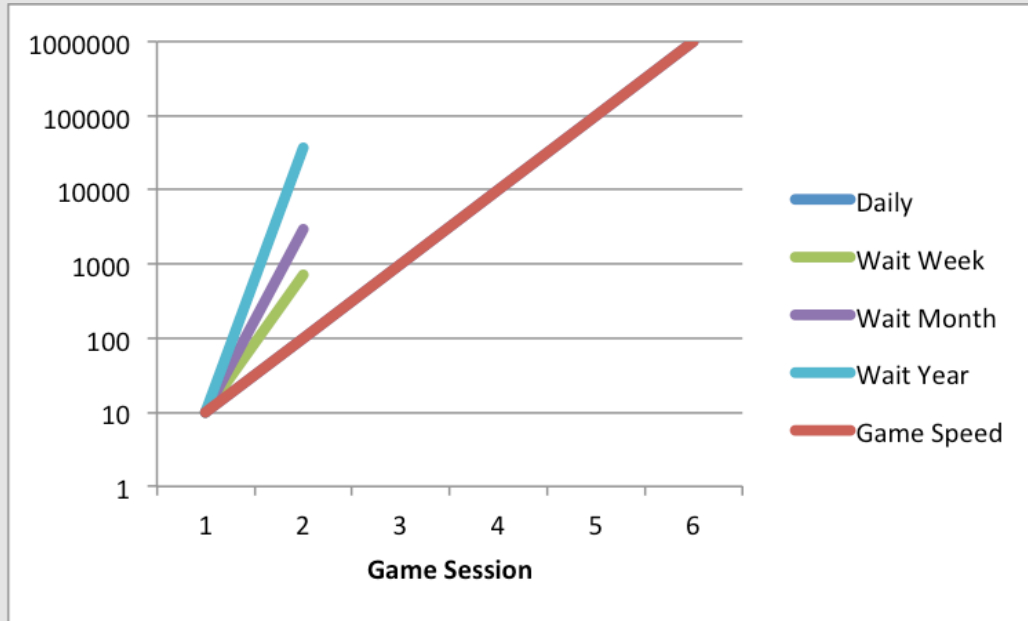
Idle Game Core Mechanics

- Tons of goals and achievements
  - Provides moments of joy spread out through the experience
  - Allow for moment-to-moment optimization and (temporarily) meaningful choices
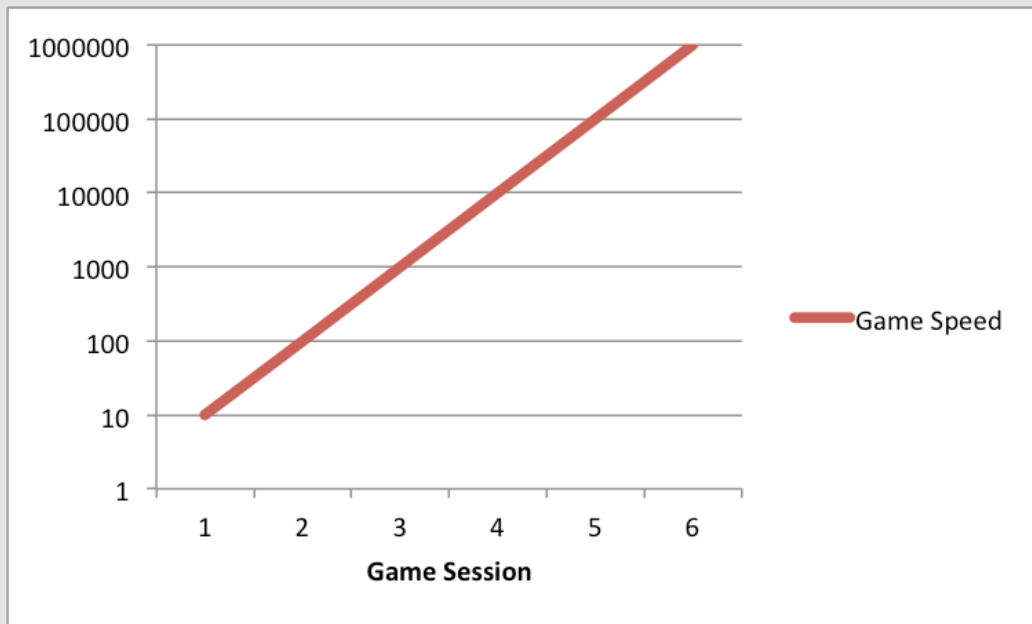

AdVenture Capitalist

Idle Game Core Mechanics

- "Prestiging" (New Game+)
  - Choose to reset your game to get a boost the next time through
  - Start back over, but with much more power than before
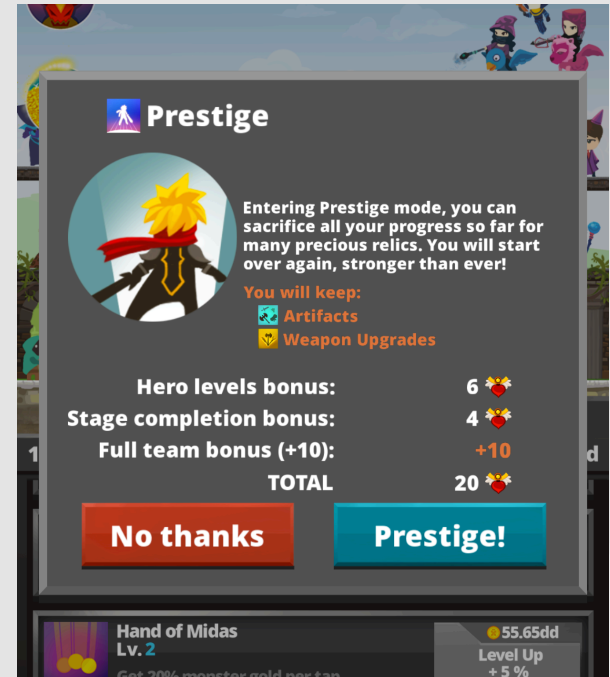
Tap Titans

Idle Game Core Mechanics

- "Prestiging" (New Game+)
  - Provides a crucial strategic decision for the player
  - Often tied to a separate currency
    - This lets you transform exponential growth back to linear
  - Leads to a new gameplay loop

Idle Game Core Mechanics
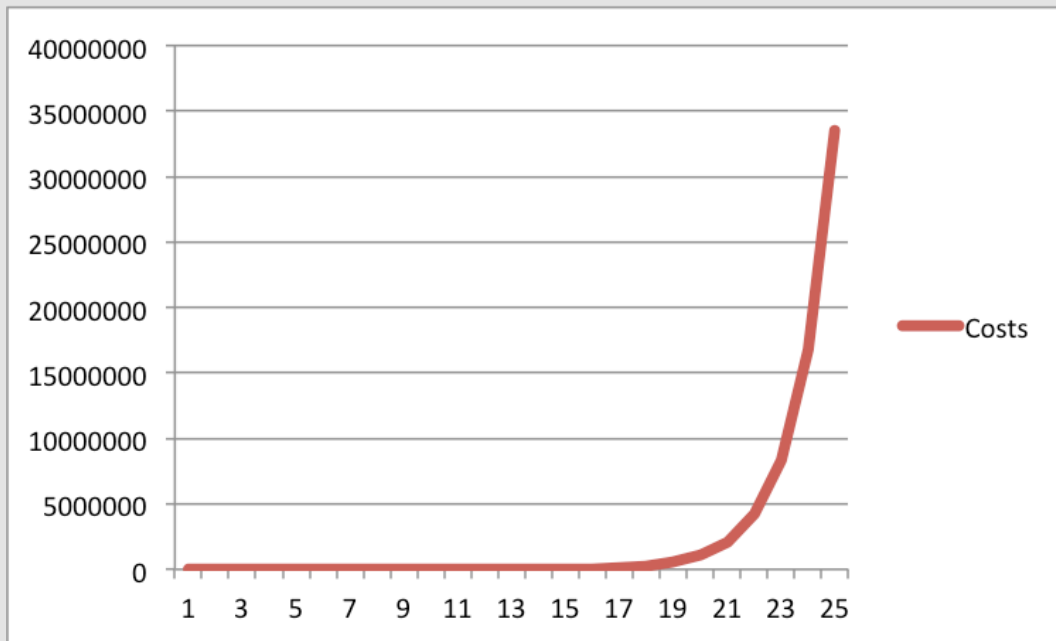
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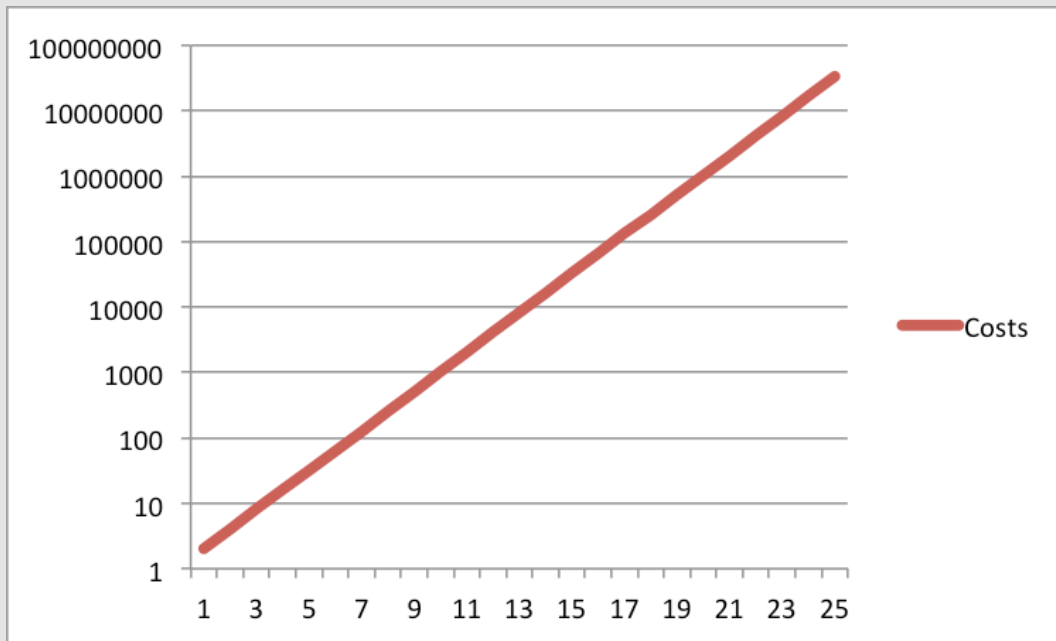
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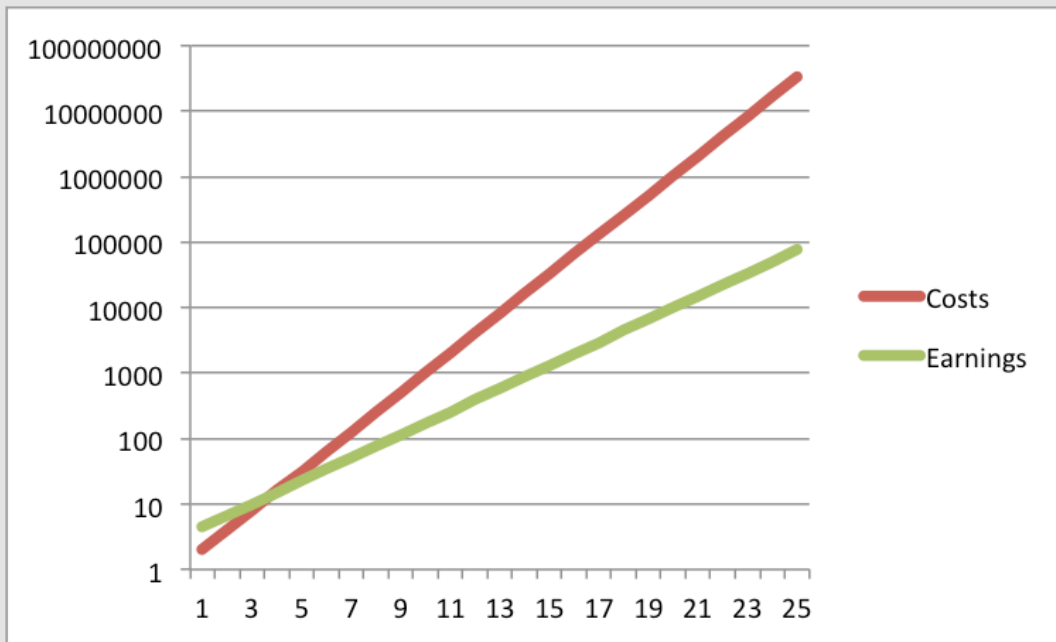
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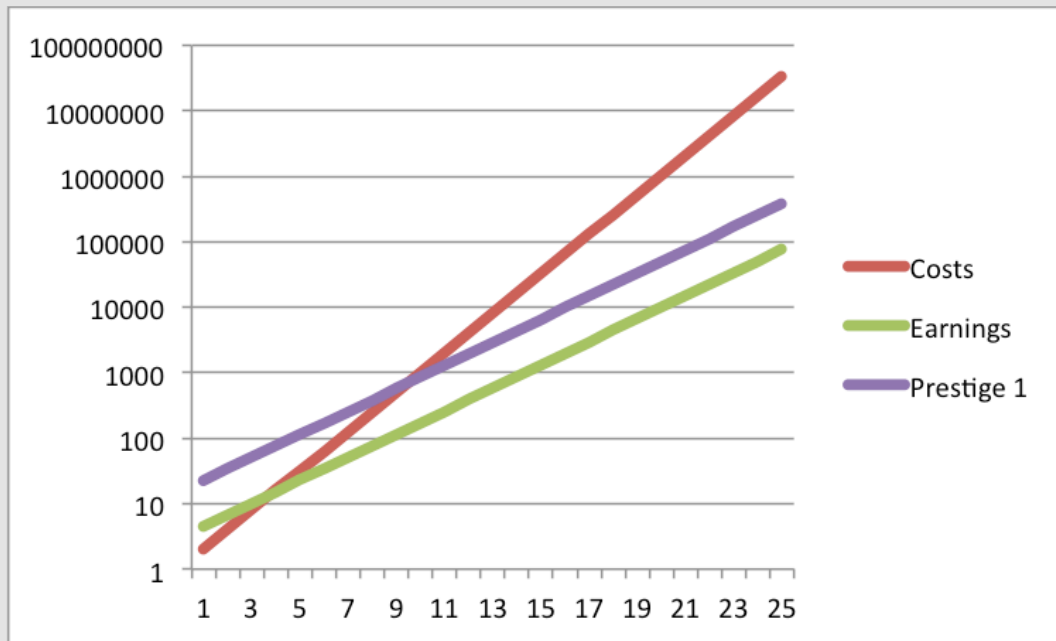
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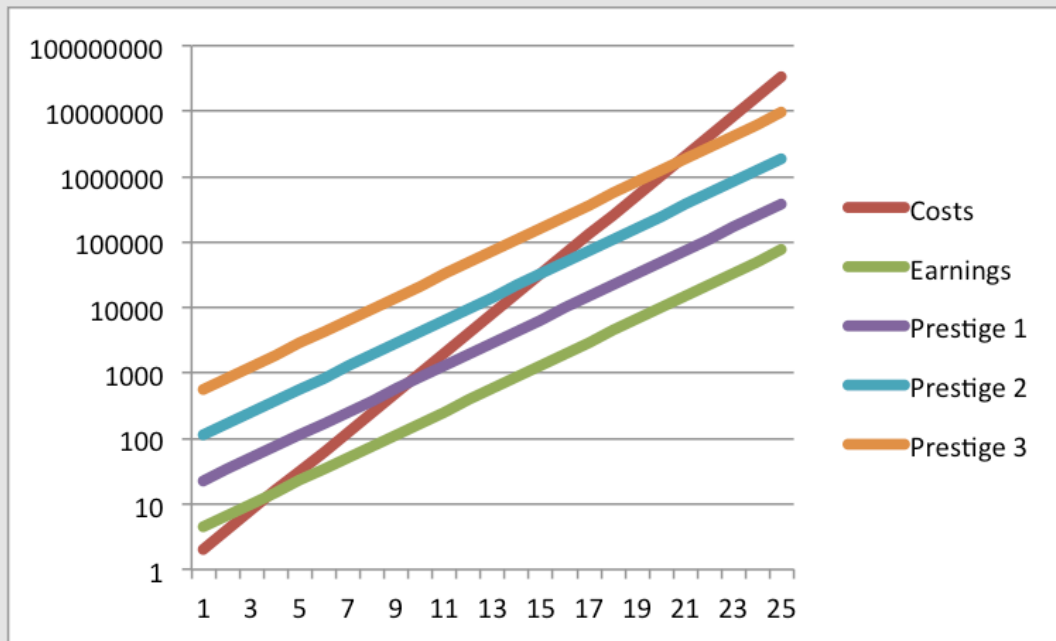
Idle Game Core Mechanics

- "Prestiging" (New Game+)
  - Ladder climbing
    - Start over, but get a rung higher each time
  - Gives a great sense of progress, flying through early content quickly. Feel incredibly powerful

Idle Game Core Mechanics

- Regular updates
  - Simple design and code allows for rapid iteration
    - Balance
    - UI/UX
    - Features & content
  - True for every successful idle game on Kongregate.com

Version 1.0.X

1.0.24 · 2015/02/26
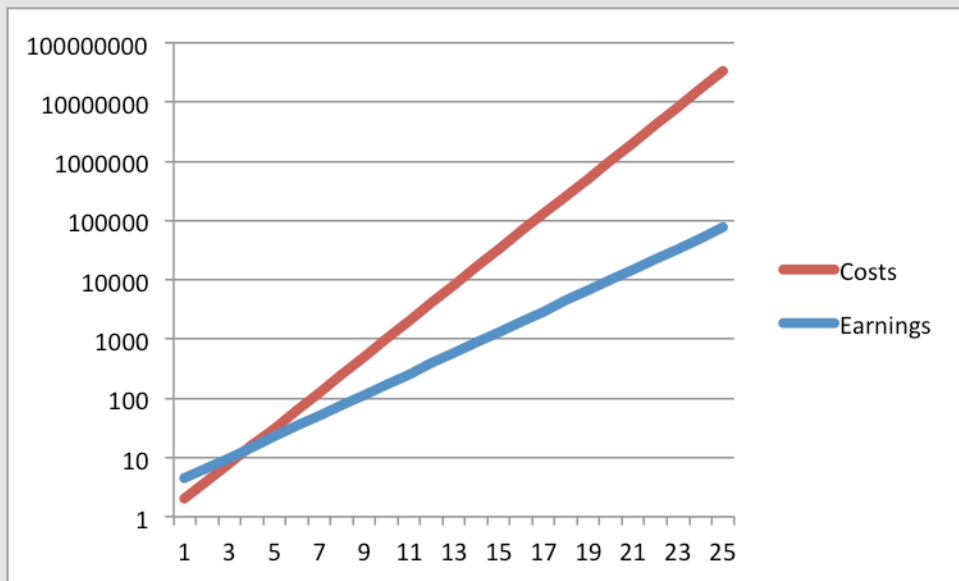- The game should now load properly on Kongregate with Flash or Kongregate's APIs disabled.

1.0.23 · 2015/02/26
- Fixed a typo in the description for hatcheries.
- Added a warning to hatchery mutations about the pitfalls of spending mutagen too soon.
- Fixed a bug where predicted hatchery/expansion mutagen gains were too low. (Actual mutagen gains have not changed; this was a display error.)
- Changing the Kongregate scrolling style from autoresize to lock-mousewheel now resizes the window properly.
- Some invisible changes to how Kongregate embeds the game. Fixes some bugs around Kongregate statistics reporting and other Kongregate API use. (There is a small chance this affected Kongregate's scrolling behavior for some of you, though it's not intended to - let me know if scrolling's broken now.)

1.0.22 · 2015/02/25
- After ascending for the first time, you'll see a tutorial message reminding you that unspent mutagen generates larvae.
- Fixed a bug that prevented mutant hatcheries from being displayed as part of the bonus multiplier on the "larva" screen. (They've always correctly affected larva production; this was a display error.)
- Added more details to the description of hatcheries about larva production. It should now be easier to tell how much larvae your hatcheries are producing, compared to your mutagen.

1.0.21 · 2015/02/24
- Added a "reset upgrade notifiers" button on the ascension screen.
- Kongregate users now have the option to lock mousewheel scrolling to the Swarm Simulator window, instead of the whole Kongregate page, while the mouse is over the game. This is still a bit experimental. You'll find it on the **options screen**.
- The standalone/non-Kongregate game now has the option to sync your saved progress to a **Dropbox** account. Check out the options screen!
  - Dropbox doesn't sync automatically just yet - you'll have to go to the options menu and export/import by hand. This should be automated soon!
  - Kongregate users - I'm working on another form of online syncing for you, too. Patience! (Kongregate's terms won't let me show you Dropbox's login screen; sorry.)
  - Thanks to **Shoelace** for **contributing this code**!
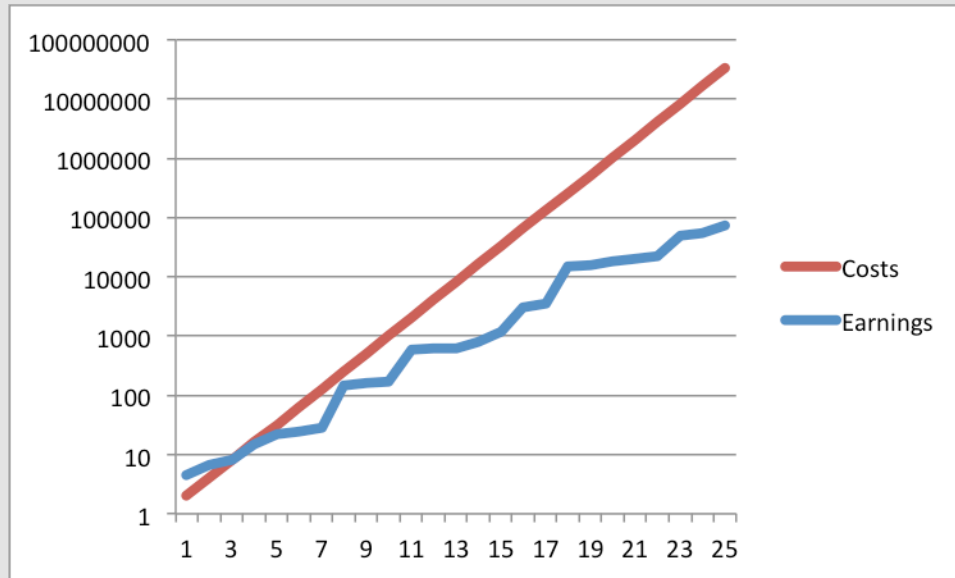
1.0.20 · 2015/02/23

Swarm Simulator

Idle Game Core Mechanics

- Make It Bumpy
  - Smooth curves are boring, lack surprise and delight

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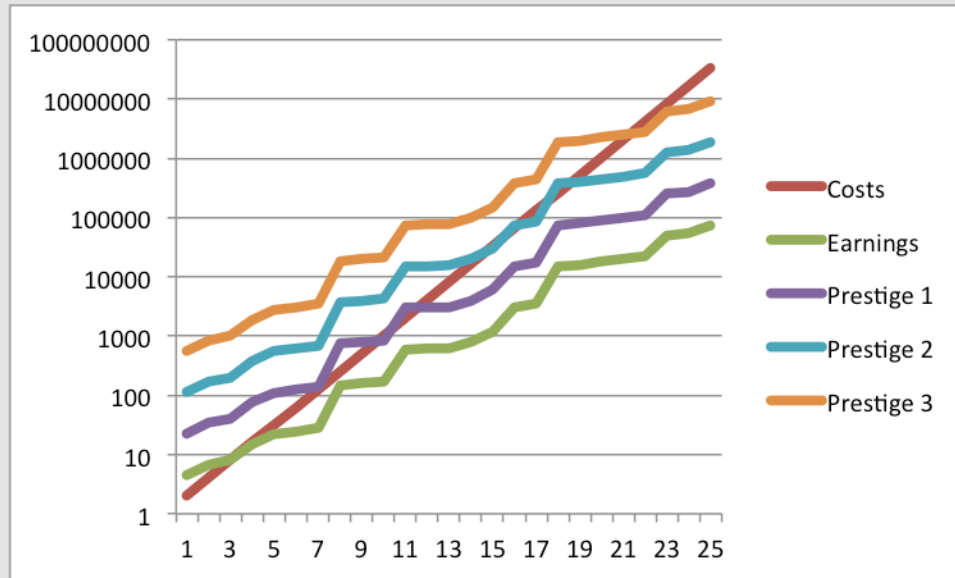
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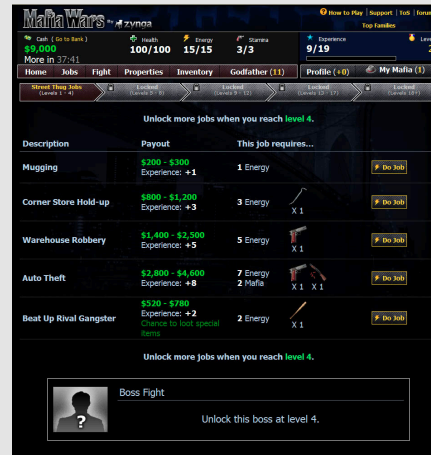
Idle Elements in Other Genres

- Real-time social and strategy games
  - Progresses while gone, though with hard caps (crops planted or max resource storage)

Hay Day (Supercell)

Mafia Wars (Zynga)

Game of War (Machine Zone)

Idle Elements in Other Genres

- Chinese MMORPGs
  - Current trend is becoming heavily auto-play
  - Can include "afk" mode
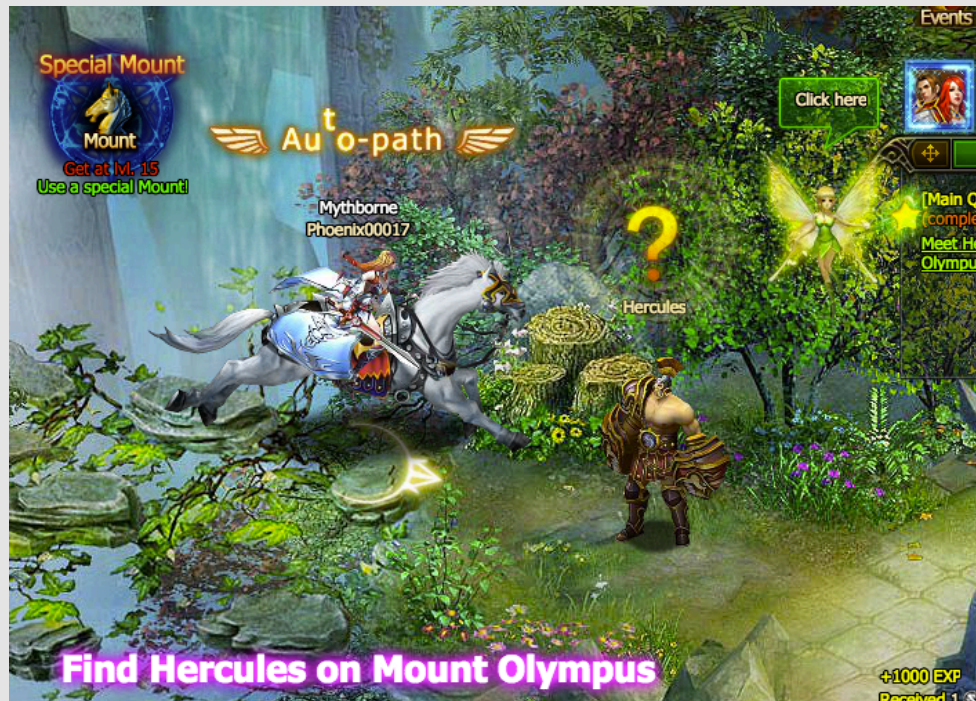
Mythborne (R2 Games)

Idle Elements in Other Genres

- Chinese MMORPGs
  - About min-maxing stats, making decisions optimize power gains
  - Western audiences seem to be resistant to this
    - Expectation management?

Wartune (R2 Games)

Idle Elements in Other Genres

- Launch games
  - Tight-loop prestige systems
  - Usually no choice over prestige point, but similar feel of ladder-climbing progression

Curl Up and Fly (John Cooney / Kongregate)

Monetization

- Cash infusion
  - Get a percentage of current rate
  - Time warp
- Speed multipliers
  - Buy a permanent x3 multiplier

Clicker Heroes

AdVenture Capitalist

Monetization

- Instant prestige

- Protection against negative events
  - Bribe money for FBI (*Make it Rain*)
  - Shield for your heroes (*Tap Titans*)

- Gacha system (random pulls of upgrades)

- Event currencies

AdVenture Capitalist

Monetization

- Banner/Interstitial ads

- Opt-in ads
  - Short burst of cash
  - Small bit of premium currency
  - Brief powerful boost
  - Relief of a negative status
  - Medium-length small boost
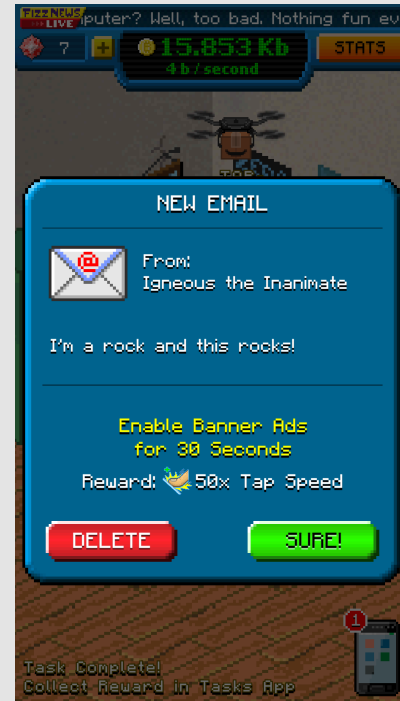
Bitcoin Billionaire

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Bitcoin Billionaire

Case Studies

- *Idling to Rule the Gods* (Ryu82, 2014)
  - Branched out with some new mechanics
    - Many new systems added post-launch
  - Made a ton of UI changes early on to address player concerns

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Case Studies

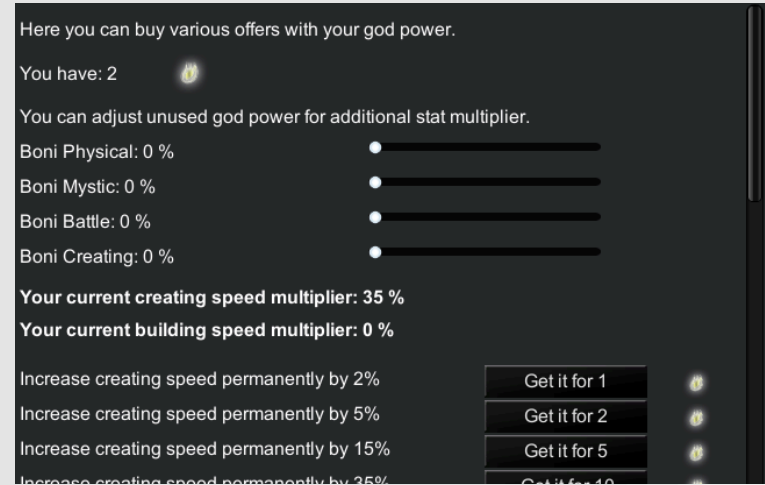- *Idling to Rule the Gods*
  - Complicated interactions with deep, dense systems and lots of content

Case Studies

- *Idling to Rule the Gods*
  - Monetization is heavily focused on "God Power" premium currency, buying permanent boosts
  - Temporary (90 min and until-prestige) boosts exist, but only about 12% of revenue

Case Studies

- *Idling to Rule the Gods*

Lifetime % Buyers

Lifetime ARPPU
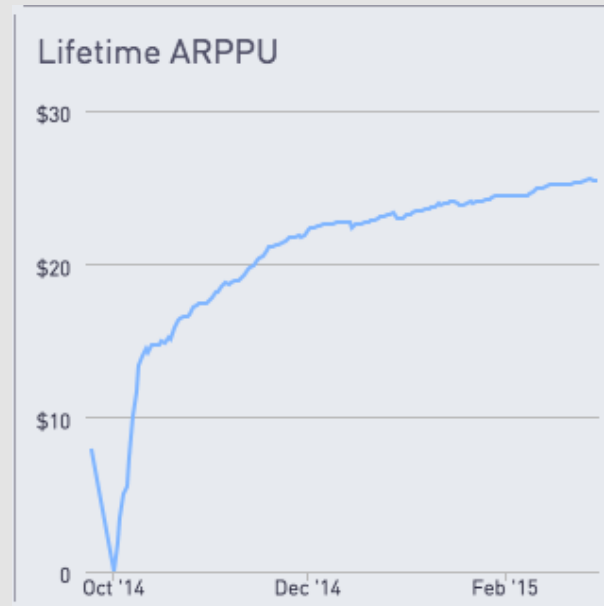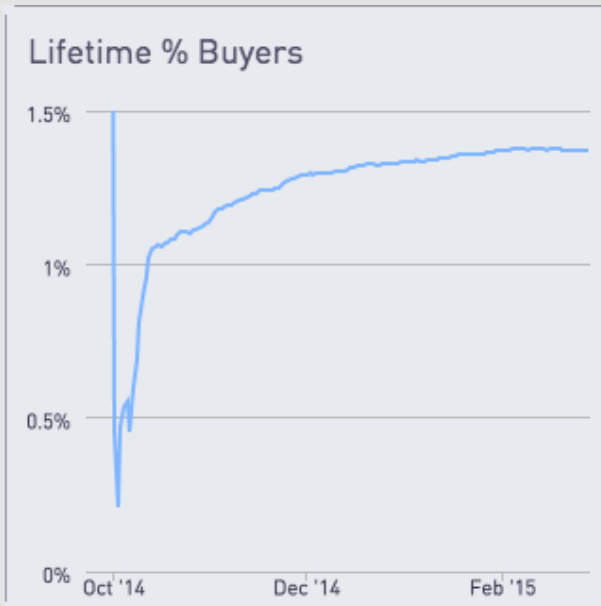
Case Studies

- *Clicker Heroes*
  - Does a great job spreading value across heroes

Case Studies

- *Clicker Heroes*
  - Use of RPG-like cooldown skills provides quick action gameplay and very light strategy

Case Studies

- *Clicker Heroes*
  - Prestige system involves a currency system (Hero Souls) with a trade-off between DPS bonus and ancient summoning


Choose one ancient to summon for 1 Hero Souls. Ancients are permanent and last through Ascensions. BE WARNED, however! You will lose 10% Hero Soul DPS for each Hero Soul spent.

Dogcog, Ancient of Thrift
-2% Hero Hiring and Level-Up cost

Cost for lvl 2: 2, bonus becomes -4%
Cost for lvl 3: 3, bonus becomes -6%
Cost for lvl 4: 4, bonus becomes -8%
Cost for lvl 5: 5, bonus becomes -10%
Maximum Level: 25

Your heroes unanimously voice a great amount of displeasure at the notion that you might use this ancient.

Reroll 1

Case Studies

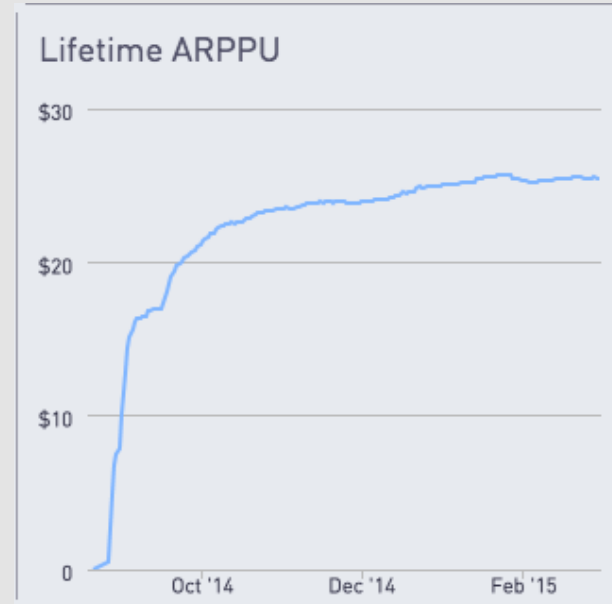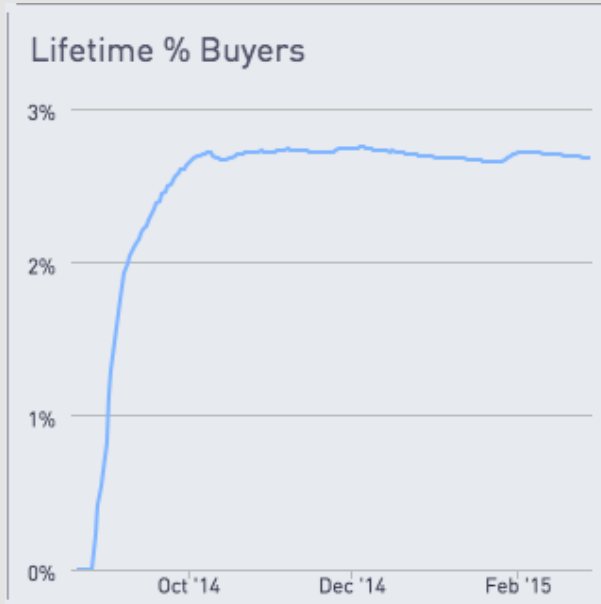- *Clicker Heroes*
  - Cash infusion and instant prestige

Case Studies

- *Clicker Heroes*
  - Simple but effective gacha system
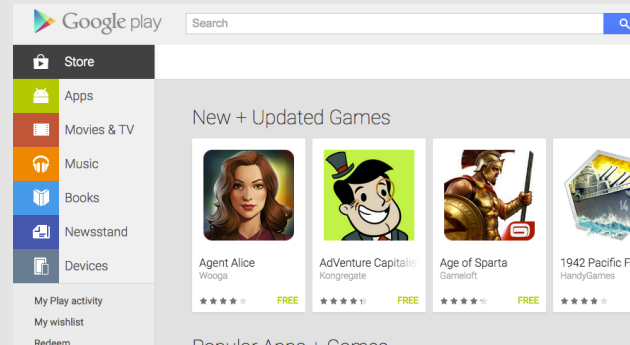   - Allows for multiple, valuable purchases
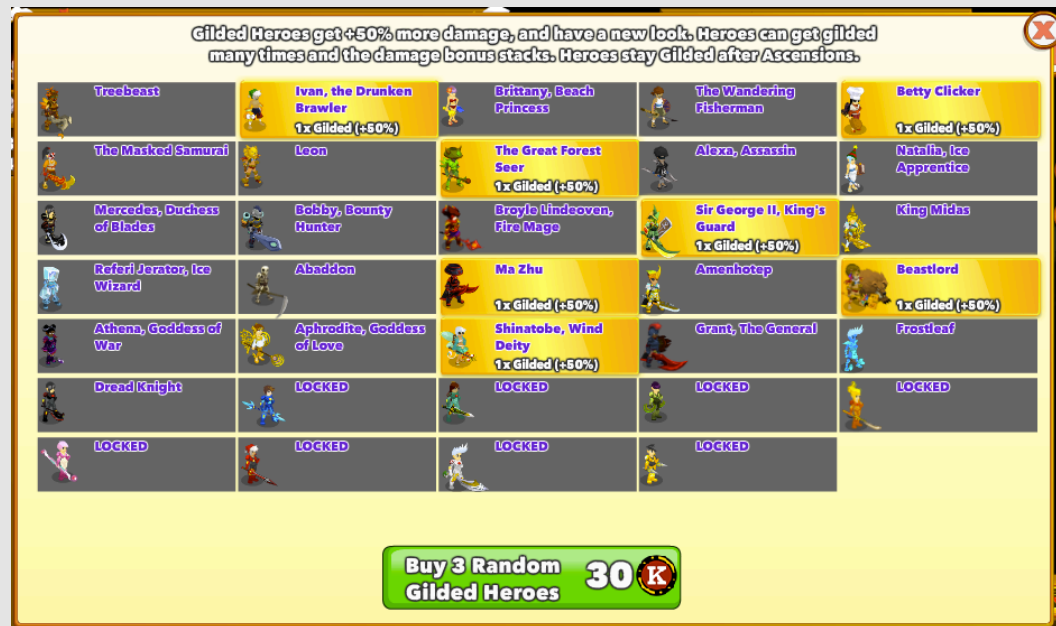
Case Studies

- *Clicker Heroes*

Lifetime % Buyers

Lifetime ARPPU

Case Studies

- *AdVenture Capitalist*
  - Appeal to both browser and mobile audiences
  - Heavy use of theme, tone, and humor
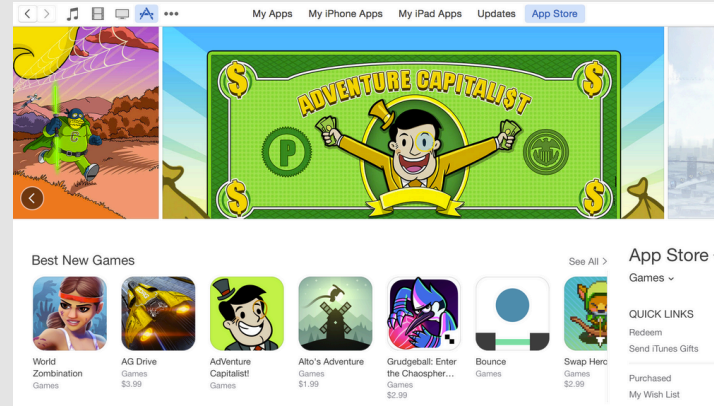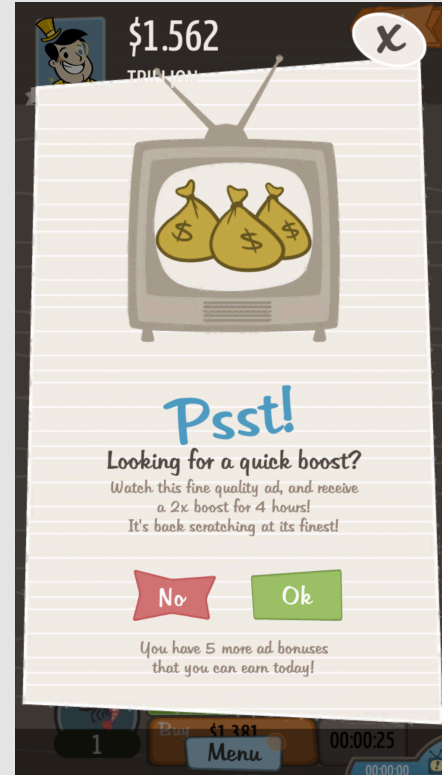
Case Studies

- *AdVenture Capitalist*
  - Appeal to both browser and mobile audiences
  - Heavy use of theme, tone, and humor

Case Studies

- *AdVenture Capitalist*
  - Effective ad implementation
    - Fits the theme well
    - Provides high value to player
    - Is relatively scarce, keeps tolerance high from players
    - Has some bugs, people complain that they can't watch ads!

Case Studies

- *AdVenture Capitalist*
  - Early purchase of a x3 multiplier is extremely compelling
    - One of the highest buyer percentages on Kongregate.com
  - Unlocks bulk multipliers over time

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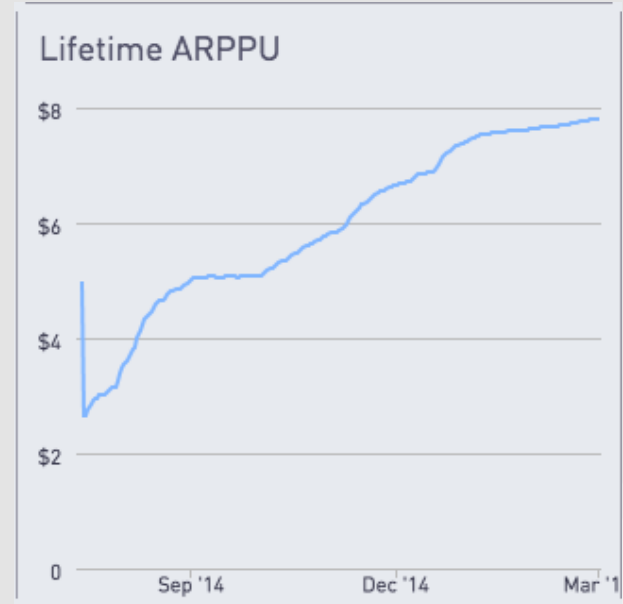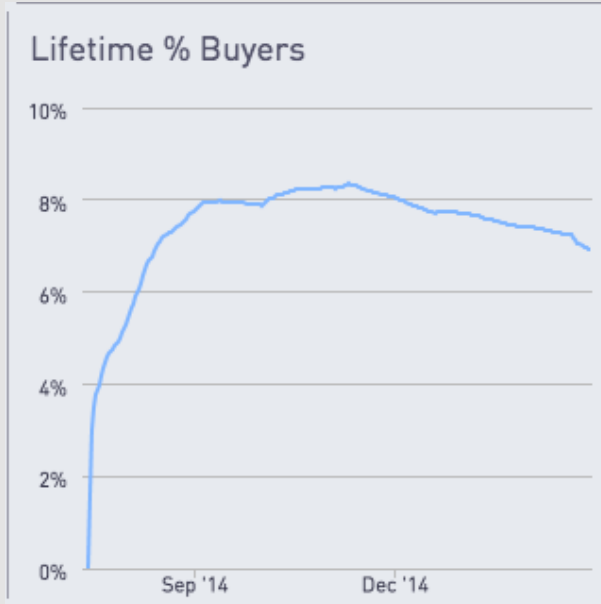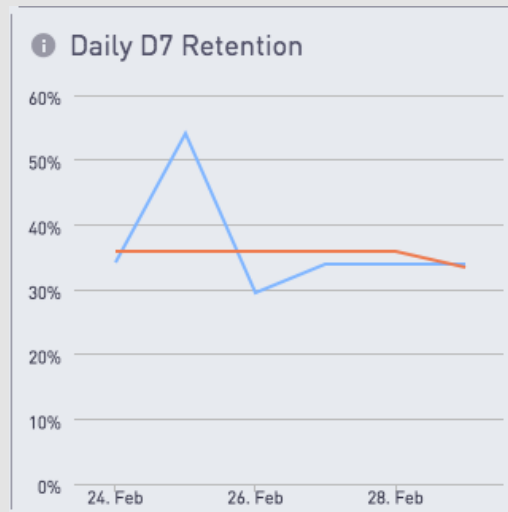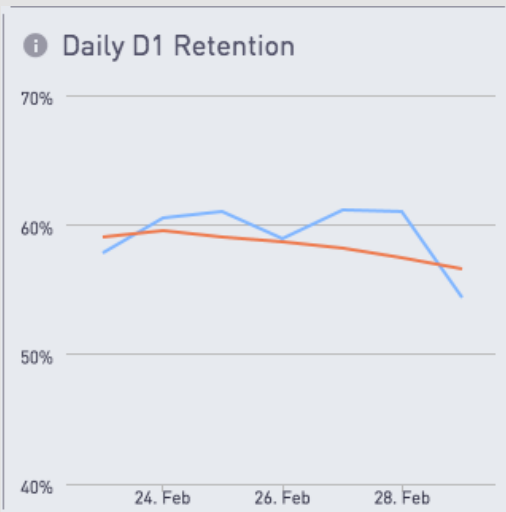 - Unlocks bulk multipliers over time

Case Studies

- *AdVenture Capitalist*

Case Studies

- *AdVenture Capitalist*
  - Mobile retention held up well

Case Studies

- *AdVenture Capitalist*
  - As did mobile ARPPU

AdVenture Capitalist Lifetime ARPPU in Monthly Cohorts

	DATE	1	2	3	4	5	6	7	8	9	10
3	2014-07-01	$3.25	$4.82	$4.96	$5.51	$6.13	$6.64	$6.79	$6.89		
4	2014-08-01	$4.96	$5.15	$5.81	$6.47	$7.00	$7.17	$7.25			
5	2014-09-01	$4.57	$5.65	$6.75	$7.55	$7.56	$7.82				
6	2014-10-01	$7.45	$8.82	$9.74	$9.90	$9.96					
7	2014-11-01	$11.44	$11.46	$11.83	$11.82						
8	2014-12-01	$17.59	$17.30	$17.10							
9	2015-01-01	$13.18	$13.77								

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$17.9

Lifetime ARPPU

iOS

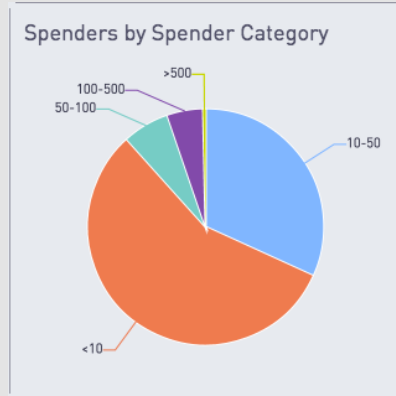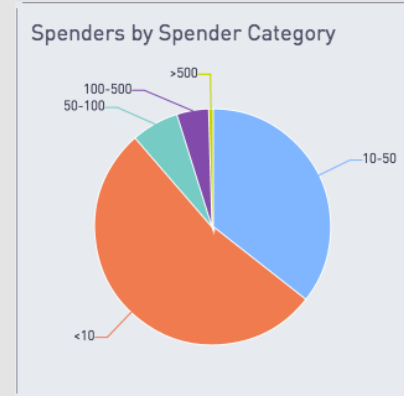| COUNTRY	ARPPU
Average	$12.97
United States	$12.60
United Kingdom	$13.76
Germany	$11.65

Android

Case Studies

- Spender categories let us see distribution
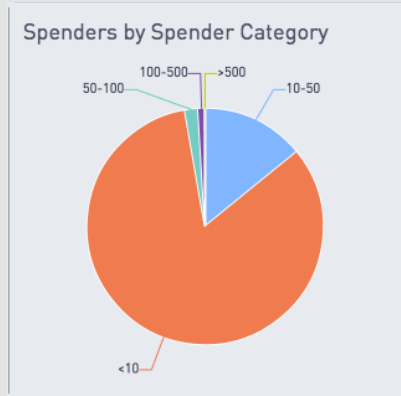
AdVenture Capitalist

Clicker Heroes

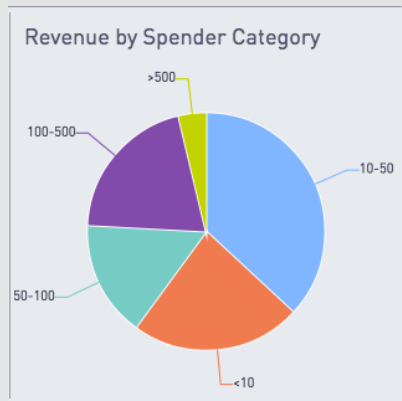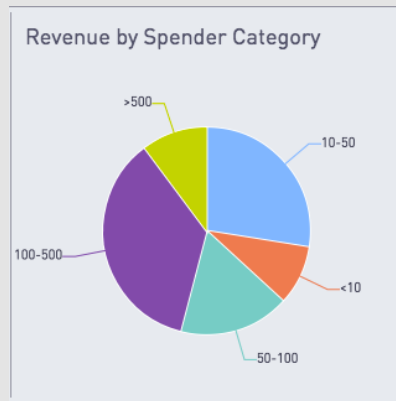*Idling to Rule the Gods*

- Each game has $1000+ spenders
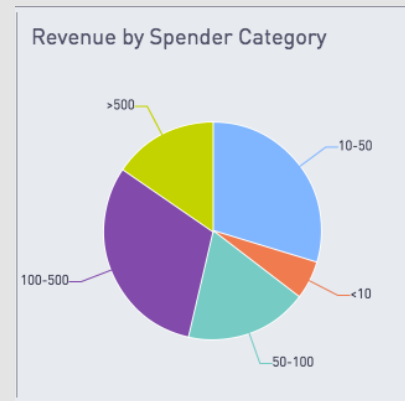
Case Studies

- Revenue distribution shows a very different picture

AdVenture Capitalist

Clicker Heroes

Idling to Rule the Gods

- This picture is common for successful games though

What's Next?

- "Classic" spreadsheet-like idle games lose favor to more sophisticated visualization and presentation

- Idle spin-offs of games and brands

Adventure Quest: Dragons (Artix Entertainment)

What's Next?

- "Idle" becomes a modifier like "RPG"
  - Idle Tactics, Action Idle RPG, Idle Match-3
- Idle design philosophies integrate into meta-game of standard genres

Puzzle Fuzz: Idle Stories
(Andrew Pellerano / Kongregate)

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Thank You!

- Check out developers.kongregate.com

- Browser games: apps@kongregate.com

- Mobile games: bd@kongregate.com

- Me: anthony@kongregate.com