



the  
gamedesigninitiative  
at cornell university

# Monetization

# Sources for This Talk

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- Skaff Elias and Richard Garfield
  - *Lessons from CCGs*
  - At GDC 2011 and visited here in 2014
  - Relevant to certain kinds of monetization
- Various talks at **GDC Online** (R.I.P.)
  - Nothing specific that needs a shout-out
  - Monetization is a major conference topic
  - Still not well understood...

# Monetization vs Downloadable Content

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- These two are often lumped together
  - In-game purchases that can enhance play
  - Revenue stream after game initial purchase
- But makes a big difference to the designer
  - DLC does not (typically) alter the core game
    - **Exception:** Can alter level progression in RPGs
  - Monetization is extremely distortionary
    - Must be designed from the **beginning**

# Some Words on DLC

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- Different design philosophy from monetization
  - Target audience is player **finished** with main game
  - Can break the balance of core game
  - Challenge is making sure people still playing
- Pricing is based on how much extra play added
  - **Rule:** \$5 per hour (comes from movies)
  - But historically much resistance to this pricing
  - Harder to gauge in multiplayer settings

# Episodic Content

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- Grey area between DLC and monetization
  - Designed as classic, self-contained content
  - But game is “incomplete” without it
- Business model often not very successful
  - Does not benefit from economies of scale
  - Cost to produce content >> price point of game
  - Only recoup investment after many episodes
- Need loyal audience or established franchise
  - **Example:** Telltale Games (and they *failed*)

# Modern Game Monetization

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- **Cosmetic Enhancements**

- Visuals/items with no effect on the gameplay
- **Example:** *Fortnight* emotes

- **Consumable Resources**

- Items that improve gameplay performance
- **Example:** *Battlefront* one-use power-ups

- **In-Game Items**

- “Permanent” items that significantly alter gameplay
- **Example:** *Battlefront* weapons

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We are okay  
with this

- **Consumable Resources**

- Items that improve gameplay
- **Example:** *Battlefront* one-use items

But less okay  
with these two

- **In-Game Items**

- “Permanent” items that significantly alter gameplay
- **Example:** *Battlefront* weapons

# The Problem of Cosmetics

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- They reinforce the social aspects of gaming
  - Way to stand out from other players
  - Way to forge closer identity with your character
- Only make sense in certain gaming contexts
  - Multiplayer gaming
  - Twitch or game streaming
  - Long-running role playing games
- Not particularly useful in mobile



# Cosmetics in *Lara Croft Go*

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Abandoned in later titles  
(e.g. *Deux Ex Go*)



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Can these two ever be okay?

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# Monetization and Resources

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- Adding *real world currency* to game economy
  - Money becomes a game resource
  - Must be balanced like any other
- Primarily works as a resource **source**
  - Players buy game objects or other resources
  - The new “insert quarter to play”
- But it can also be a resource **drain**
  - Creators of user-created content can get paid
  - Only in apps with heavy user content (e.g. IMVU)

# Components of a Game Economy

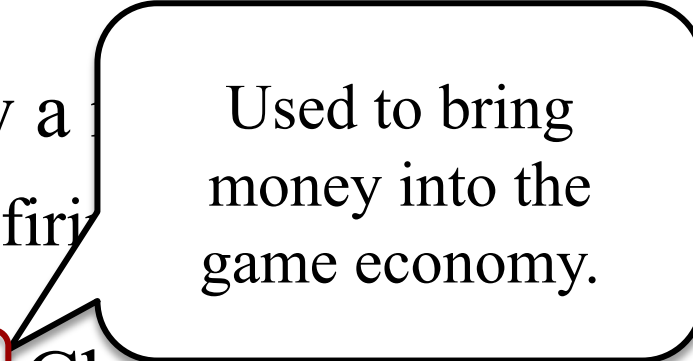
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- **Sources:** How a resource can increase
  - **Examples:** ammunition clips, health packs
- **Drains:** How a resource can decrease
  - **Examples:** firing weapon, player damage
- **Converters:** Changes one resource to another
  - **Example:** vendors, *Starcraft* barracks
- **Traders:** Exchange resources between entities
  - Mainly (but not always) in multiplayer games

# Components of a Game Economy

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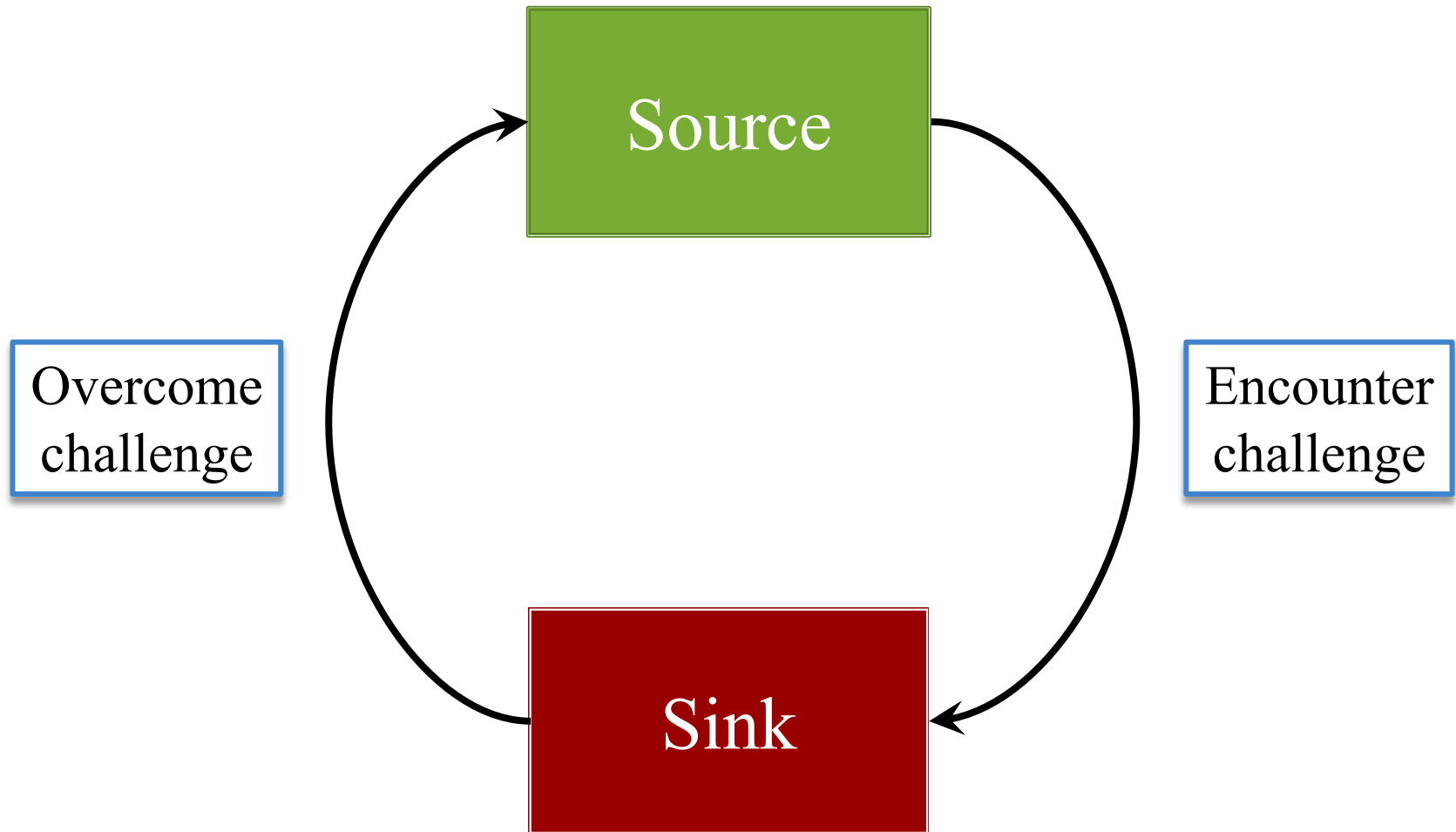
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Used to bring money into the game economy.

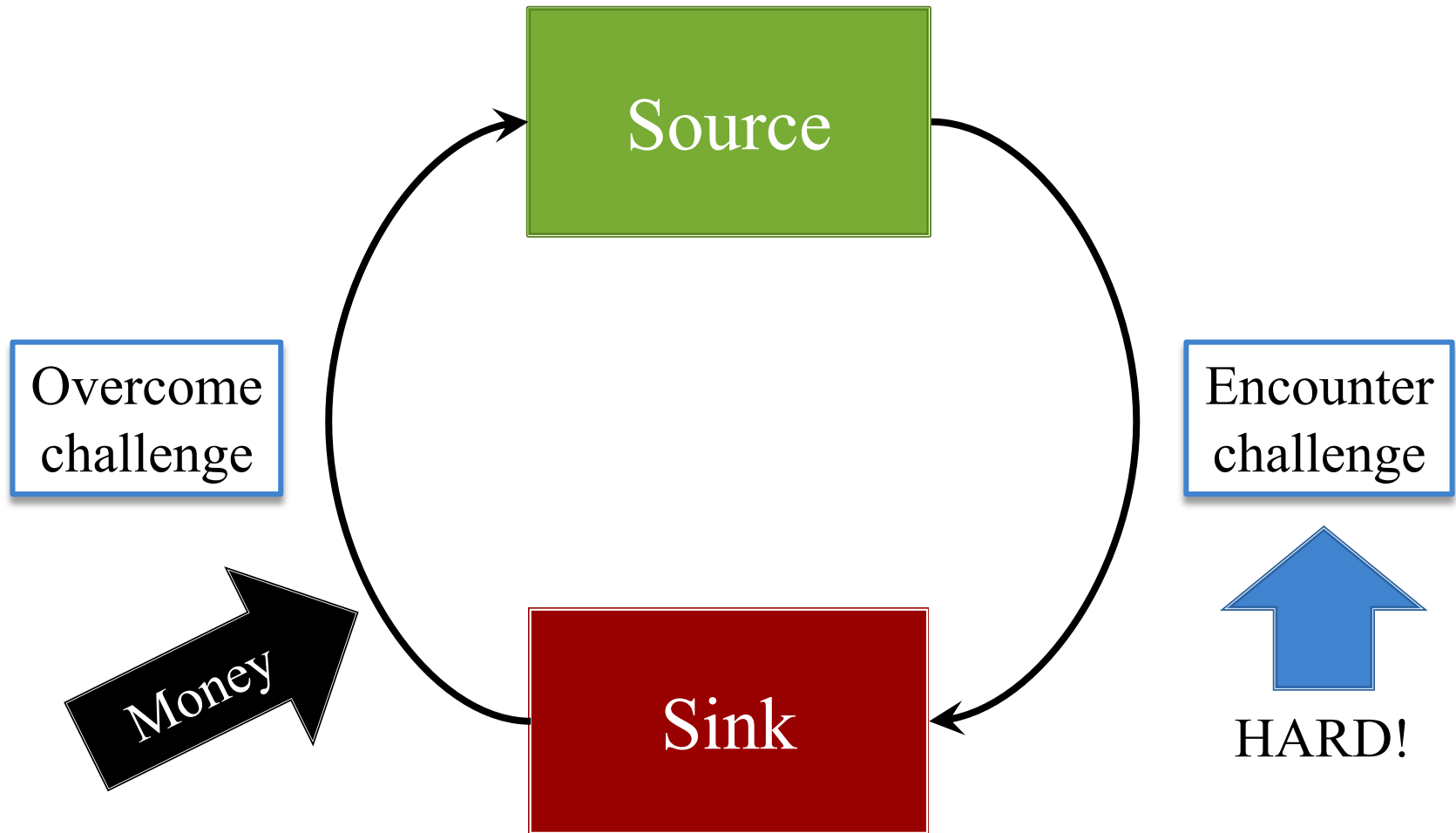
# The Core Loop

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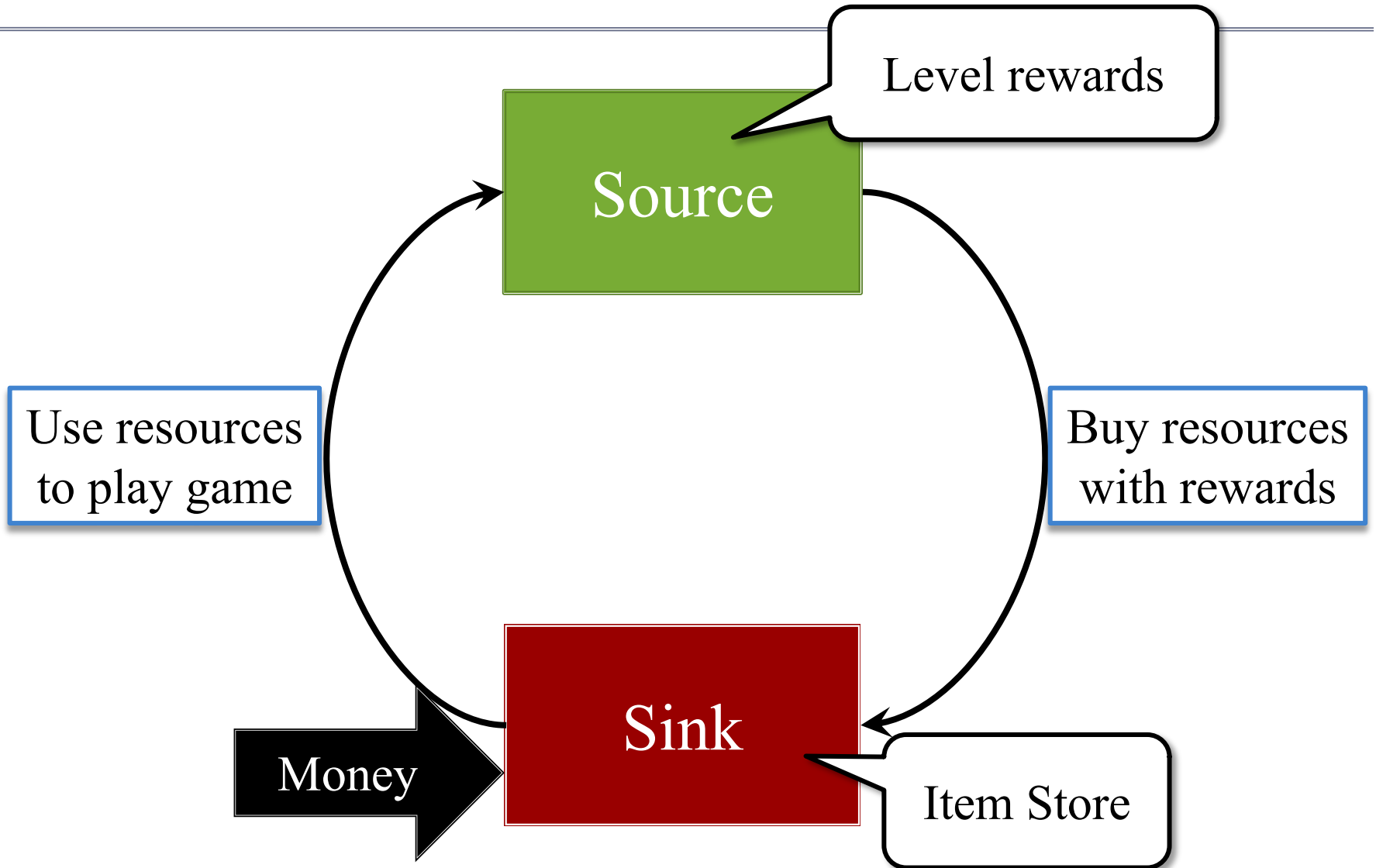
# Many Apps Exploit the Core Loop

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# But Try to Hide it With Design



# Monetization in the Core Loop

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- **Gating**

- Limit how often the game can be played
- Player can pay to play immediately

- **Boosting**

- Resources to reduce game difficulty
- Can be permanent or consumable

- **Differentiating**

- Game has multiple ways to play/succeed
- Resources unlock alternate play modes

# Monetization in the Core Loop

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- **Gating**

- Limited
- Play

Every Zynga game ever made

- **Boosting**

- Resources
- Campaign

Any game with upgrades

- **Differentiating**

- Gameplay
- Rewards

Strategy games with “units”

# Case Study: *Candy Crush Saga*



# Case Study: *Candy Crush Saga*



# Monetization in *Candy Crush Saga*

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## Gating

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- Lives limit level retries
  - Lost each time you fail
  - Heal every 30 minutes
  - Pay for more lives now
- Quests unlock levels
  - Need 3 quests to unlock
  - Limited to 1 per 24 hours
  - Pay to do quests sooner

## Boosting

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- Temporary (Boosters)
  - Extra moves
  - Special candies
  - Lost when level is over
- Permanent (Charms)
  - Striped paint brush
  - Freeze time
  - No longer available

# Monetization in *Candy Crush Saga*

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- Used *social manipulation* to get people playing
  - **Easy** levels to build player confidence, enjoyment
  - **Hard** levels to frustrate player and get them to seek aid
- Used the game economy to exploit all levels
  - Gating for when players were enjoying the game
  - Boosting for when players were frustrated
- Was a monetization **success**
  - Started the entire mobile gold rush
  - Has largely defined monetization to this day

# Monetization in *Candy Crush Saga*

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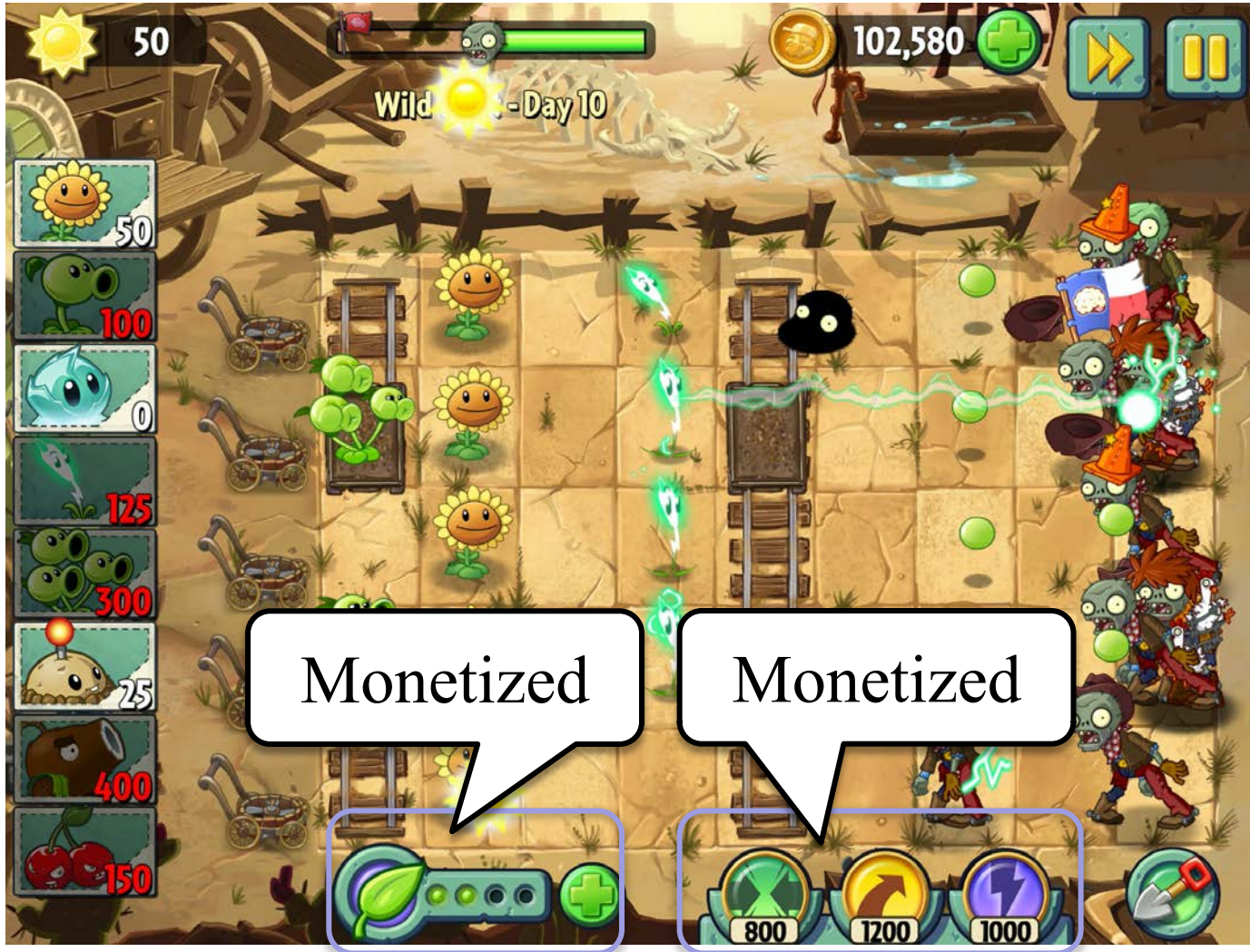
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# Case Study: *Plants vs. Zombies 2*



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# Monetization in *PvZ 2*

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## Boosting

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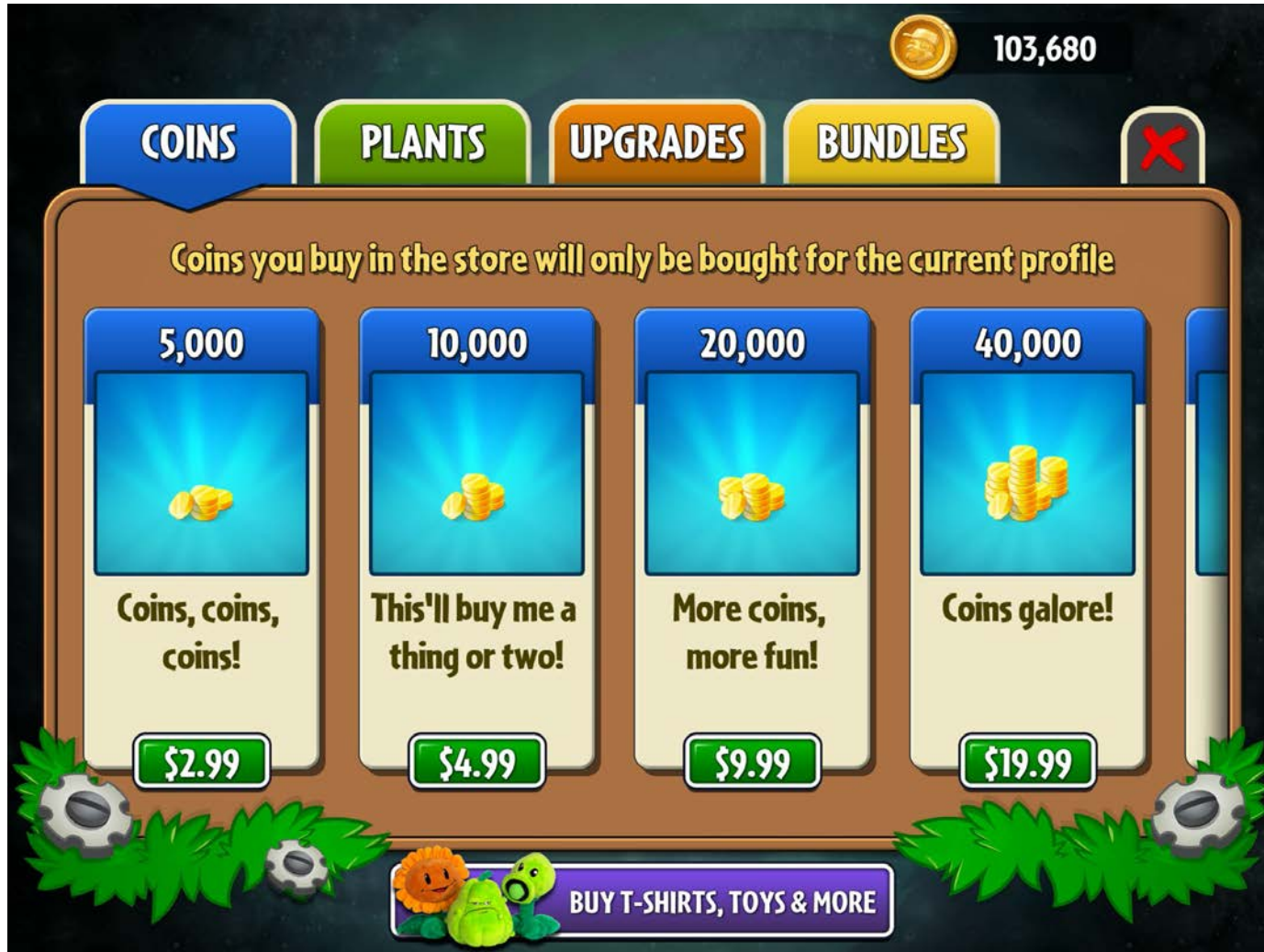
- Consumable attacks
  - Pinching
  - Flicking
  - Electrocuting
- Permanent modifiers
  - # of seeds per game
  - Starting sun/plant food

## Differentiating

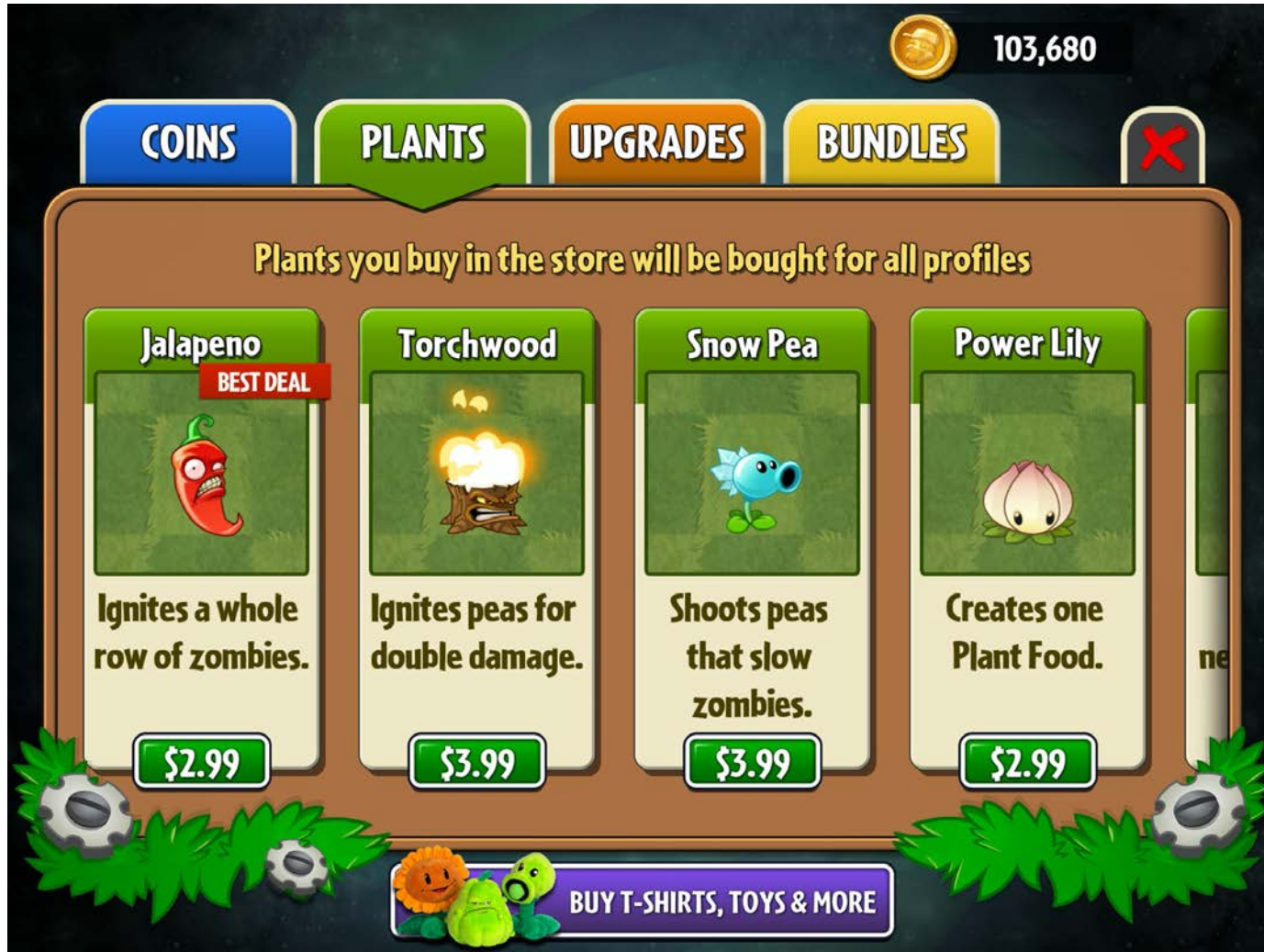
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- Optional plant types
  - Squash
  - Potato
  - Torchwood
- Not required to play
  - Do not add more power
  - Restored **old PvZ** style

# Resource Monetization in *PvZ 2*



# Item Monetization in *PvZ 2*



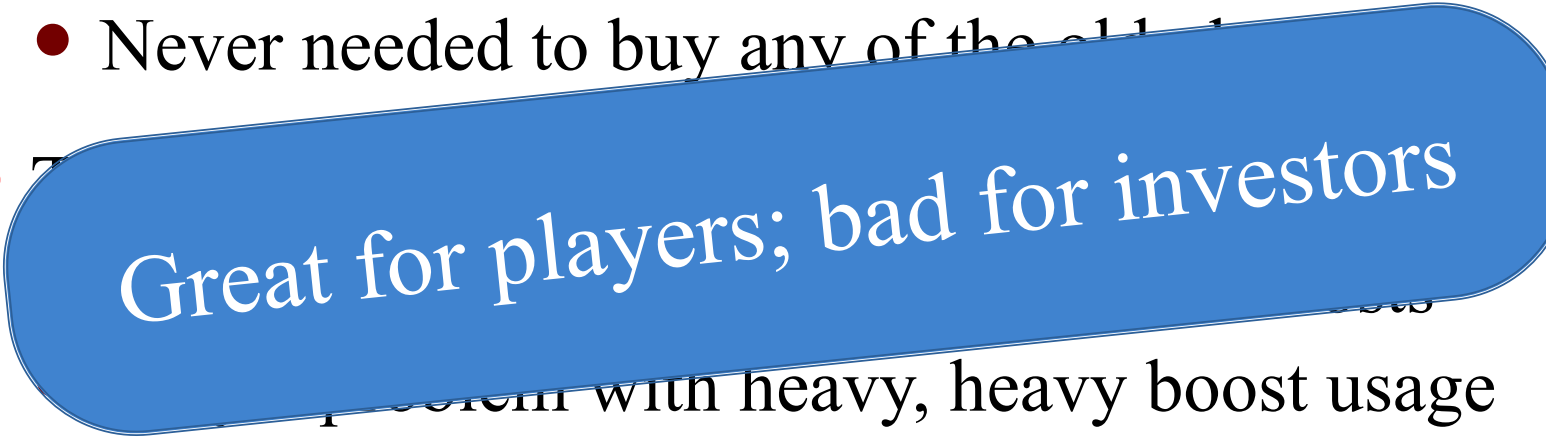
# Monetization in *PvZ 2*

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- *Plants vs. Zombies 2* got great reviews
  - Game was perfectly balanced for the new plants
  - Never needed to buy any of the old plants
- The core economic loop was not abused
  - Almost always have enough coins for boosts
  - Only a problem with heavy, heavy boost usage
- Was a monetization **failure**
  - Good players never need to spend a dime
  - Never cracked revenue top 10; fell out of top 40

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# Case Study: AC Rebellion

Monetized Resources

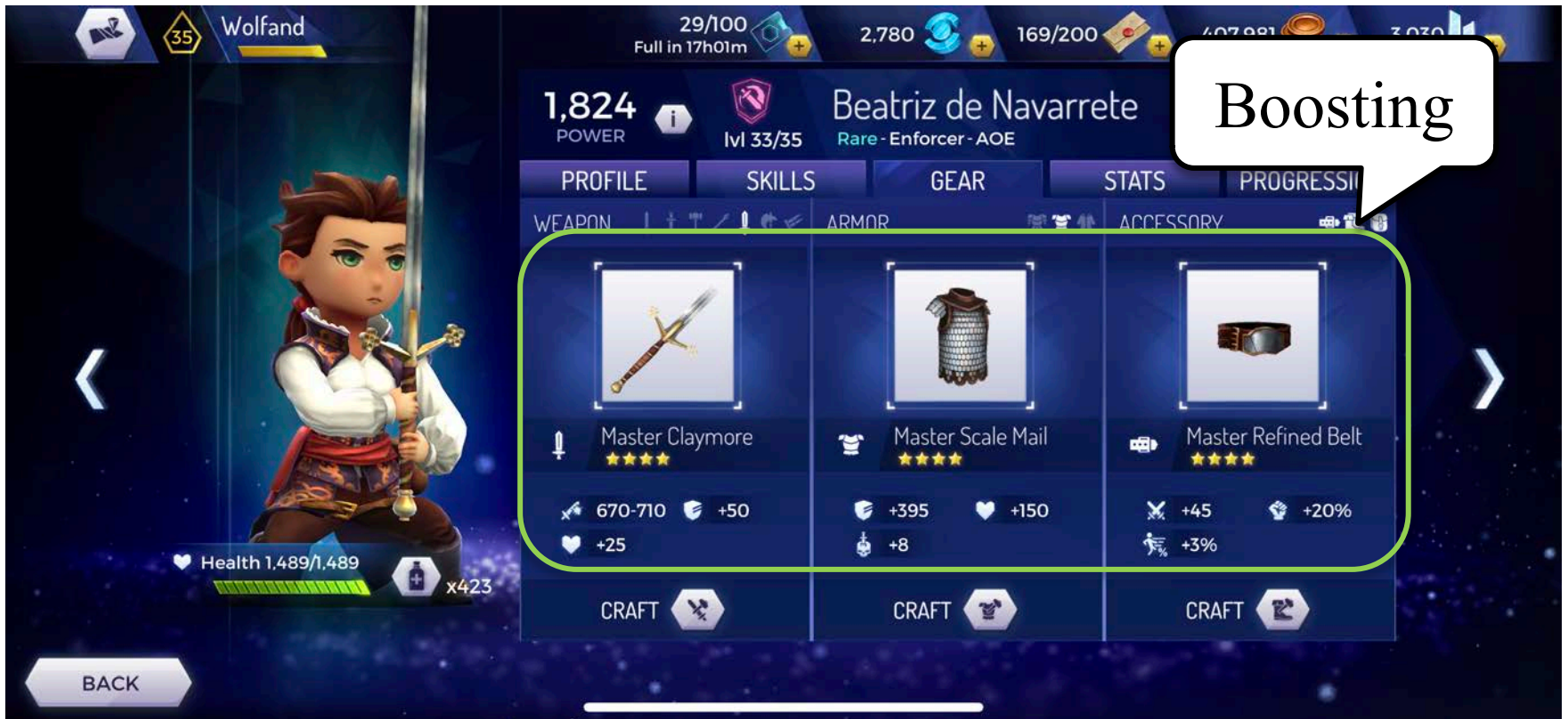




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# Case Study: *AC Rebellion*



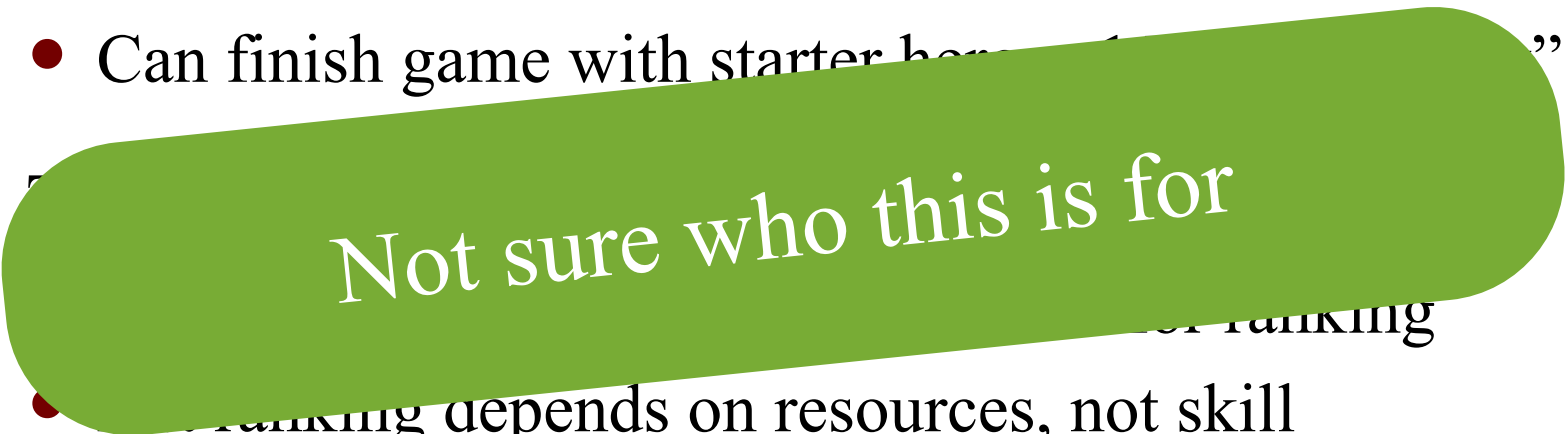
# Monetization in *AC Rebellion*

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- The boosting features are largely **irrelevant**
  - Weapons become obsolete as rise in levels
  - Can finish game with starter heroes 15 levels “early”
- The gating model completely **breaks the game**
  - Events are competitive with rewards for ranking
  - But ranking depends on resources, not skill
- Monetization success is ***unknown***
  - Built by same people who did *Fallout Shelter*
  - But started add-free and is no longer

# Monetization in *AC Rebellion*

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- The boosting features are largely **irrelevant**
  - Weapons become obsolete as rise in levels
  - Can finish game with starter horse “*AC Rebellion*”
-  Not sure who this is for
  - Ranking depends on resources, not skill
- Monetization success is **unknown**
  - Built by same people who did *Fallout Shelter*
  - But started add-free and is no longer

# How to Make Everyone Happy?

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- **Cosmetic Enhancements**

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# How to Make Everyone Happy?

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- Vis

- Ex

The Patreon business model

- **Consumable Resources**

- It

- Ex

The “quarters” business model

- **In-Game Items**

- “P

- Ex

The Magic/CCG business model

ameplay

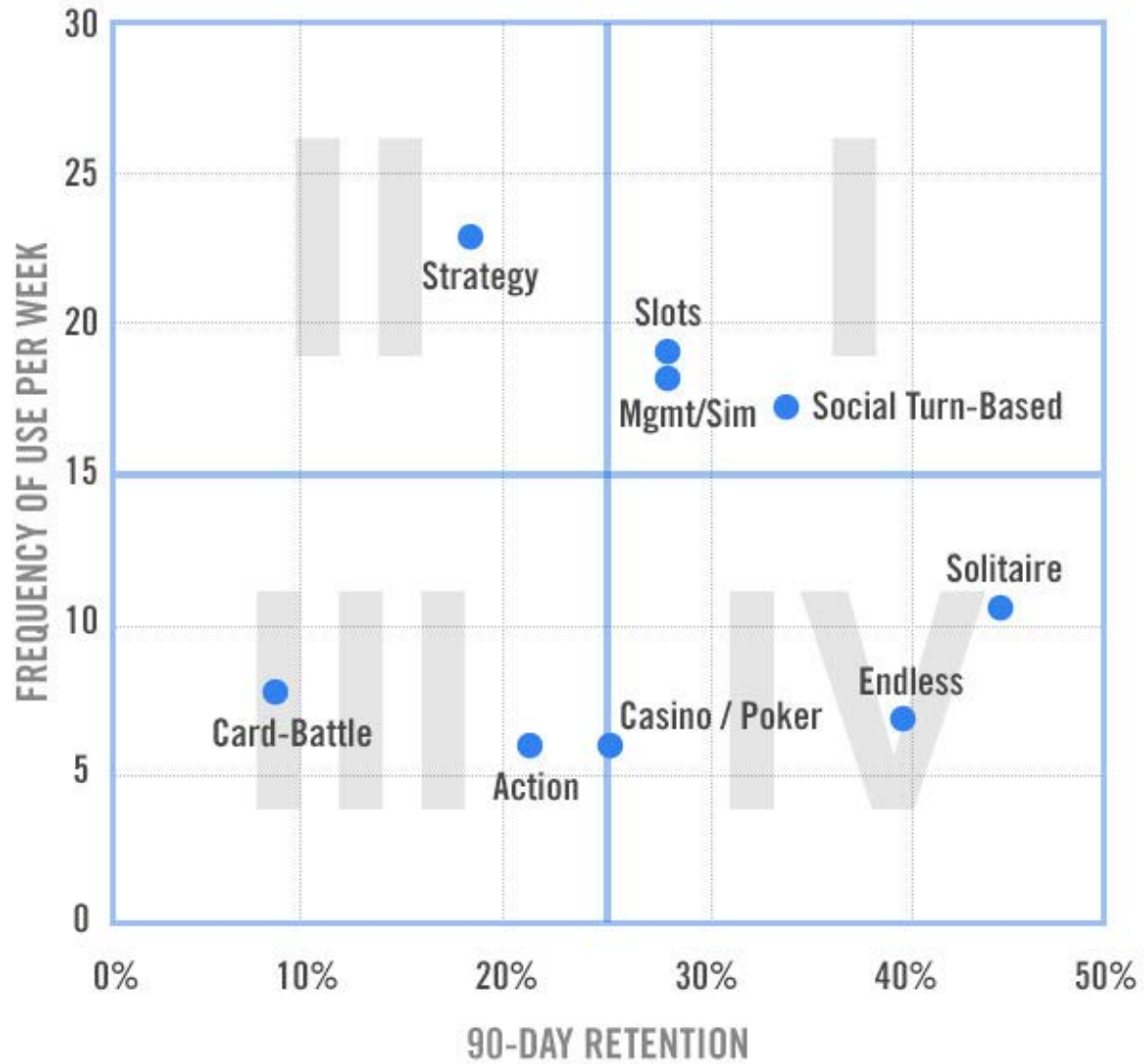
# The Patreon Business Model

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- Give the players a fun basic game experience
  - Treat the players well and respect their time
  - *Some* players will eventually want to support you
- Provide players with a high-visible social outlet
  - Need a way for them to *brag* about their support
  - Easy in multiplayer; hard elsewhere
- This is a **very high risk** approach
  - Needs games with long-running engagement
  - Unclear it will pay off at all



# Mobile Game Loyalty Matrix



Source: [blog.flurry.com](http://blog.flurry.com)

# The “Quarters” Business Model

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- Give the players **value for money**
  - Outright buying the game (or similar) is expensive
  - Economy is a way for the player to *rent* game
  - Only committed players ever reach “purchase” price
- Really only makes sense in poorer countries
  - Monetization is at very low price points
  - Gulf between that and purchase price is large
- Because of abuse, **regulation is coming**

# The “Quarters” Business Model

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Game studios have  
no one to blame  
but themselves

# The Magic/CCG Model

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- Provide a good value at a **fixed initial cost**
  - The base game is designed to be fun by itself
  - Should engender loyalty, as in Patreon model
- Purchases should not be an **arms race**
  - Players do not need to spend money to excel
  - Sell different items/experiences, not better
  - What power gains exist should be limited
- This works and people are (mostly) happy.

# Why Does the CCG Model Work?

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- Any power gain is **logarithmic**
  - Big early value to justify initial purchases
  - But eventually drops off so that money != success
- New items are introduced **rarely and in bulk**
  - Typically on an annual release schedule
  - Similar to the “seasons” seen in MOBA market
  - Enforce by the tournament circuit in *Magic*
- **Result:** *Capped expenditure* per season

# Why Does the CCG Model Work?

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- Real power comes from **item combinations**
  - Items are flexible and combine in many ways
  - Individual power is flat with minimal upgrades
- **Reconfiguration** encourages different styles
  - Game has limited number of items at a time
  - Large part of gameplay is choosing which items
  - Strategy discussion keep your community lively
- Way to sell more items *without power gain*

# Case Study: *Bioware Multiplayers*

## Mass Effect 3



## Dragon Age Inquisition



# Case Study: *Bioware Multiplayers*

- **Shallow** power structure
  - Limited item upgrades
  - Max level (20) was fast
  - Reconfiguration very easy
- **Fair** player rewards
  - Minimal consumable use
  - Wide, interesting variety
  - Bulk updates/expansions
- Hit all of the CCG lessons
- Extremely successful

## Mass Effect 3





# Case Study: *Bioware Multiplayers*

- **Deep** power structure
  - Items heavily upgradable
  - Even classes need crafting
  - Rewarded narrow styles
- Heavy **consumable** use
  - Were bulk of loot drops
  - Getting permanents harder
  - Loot was extremely *grindy*
- Violated the CCG lessons
- Not that successful

## Dragon Age Inquisition



# Did BioWare Learn from This?

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## ME Andromeda

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## Anthem

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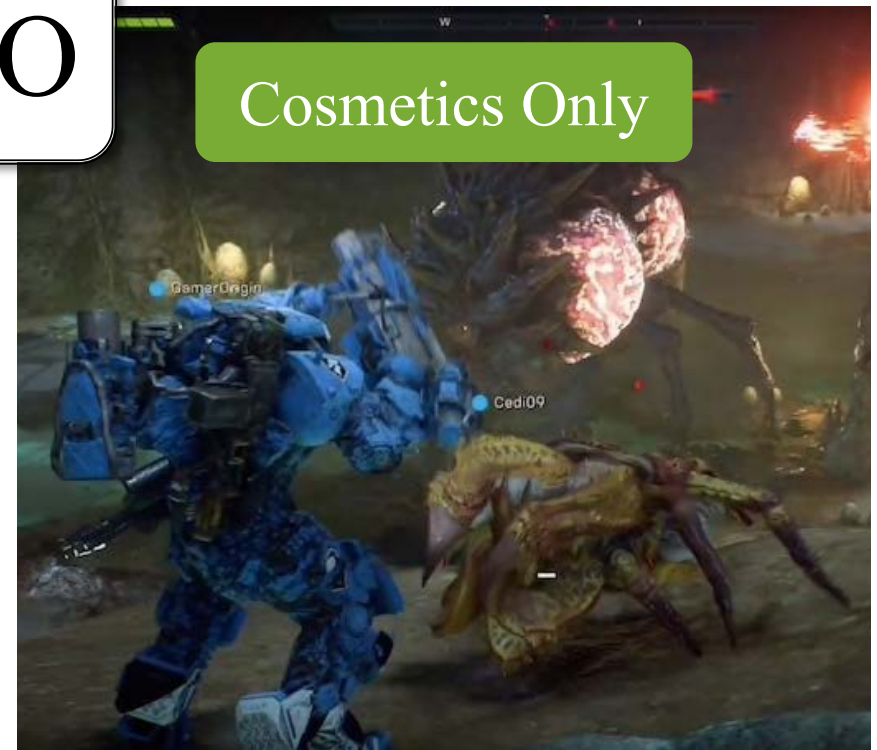
# Did BioWare Learn from This?

## ME Andromeda

## Anthem



NO



# Summary

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- Monetization is distinct from downloadable content
  - DLC is for after player has completed main game
  - Monetization is integrated into the “core loop”
- Monetization must be **designed early**
  - Can distort economy and threaten balance
  - Need to ensure player has proper incentives
- Can be done without **exploiting the player**
  - Right approach depends on the business model
  - The CCG market has the best lessons here