the gamedesigninitiative at cornell university



Monetization

Source for Today's Talk

- 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

- 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

- 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

- 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

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

But less okay with these two



The Problem of Cosmetics

- 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





Monetization

Cosmetics in Lara Croft Go



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





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Can these two

ever be okay?

Monetization and Resources

- 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

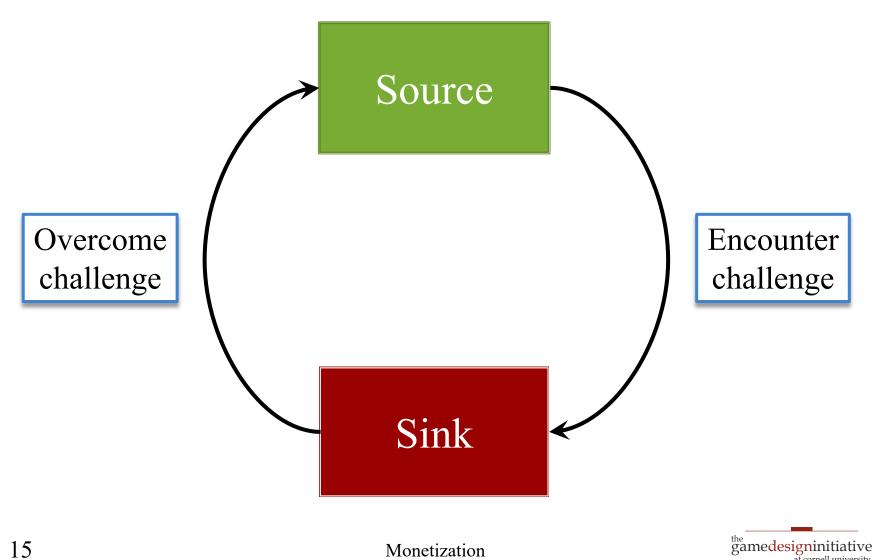
- Sources: How a resource can increase
 - **Examples**: ammunition clips, health packs
- Drains: How a resource can decrease
 - **Examples**: firing weapon, player damage
- Converters: Changes one resource to another
 - **Example**: vendors, *Starcraft* barracks
- Traders: Exchange resources between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



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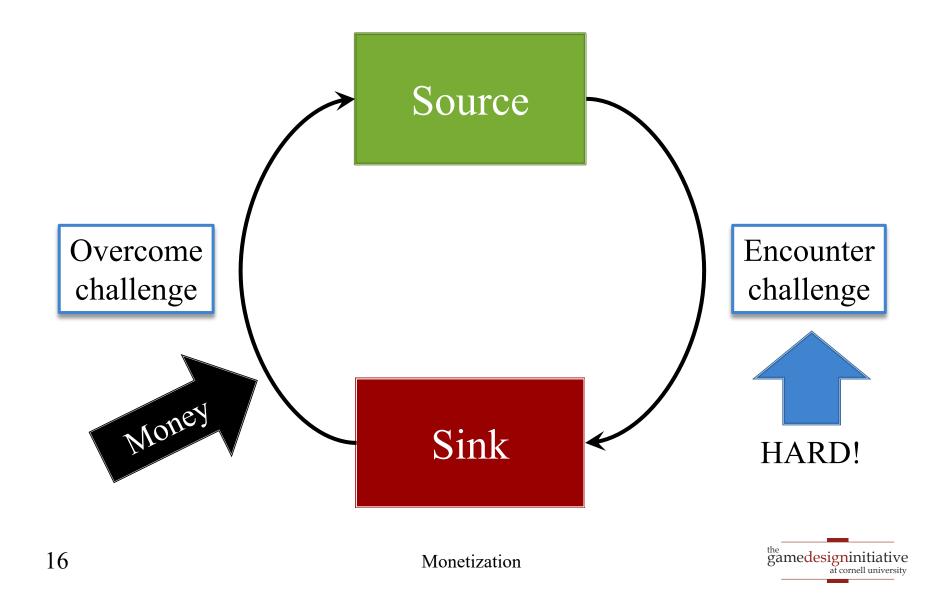
The Core Loop

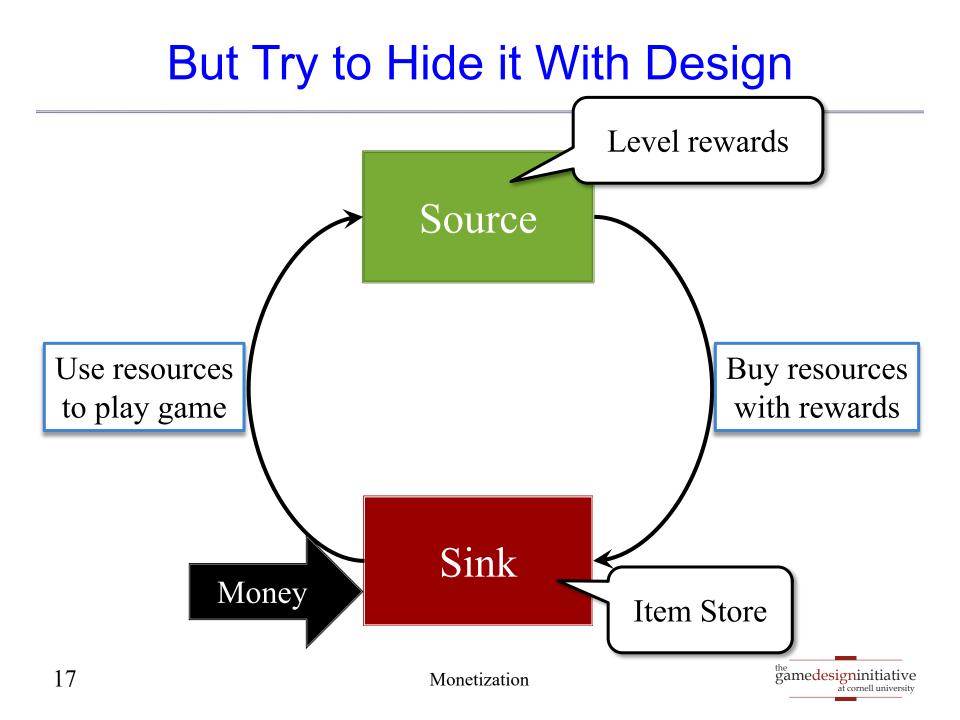


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Many Apps Exploit the Core Loop





Monetization in the Core Loop

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



Case Study: Candy Crush Saga





Case Study: Candy Crush Saga





Monetization in Candy Crush Saga

Gating

- 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

• Temporary (Boosters)

Boosting

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



Monetization in Candy Crush Saga

- 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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 Great for investors; bad for players
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Case Study: Plants vs. Zombies 2





Monetization

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Monetization in PvZ 2

Boosting

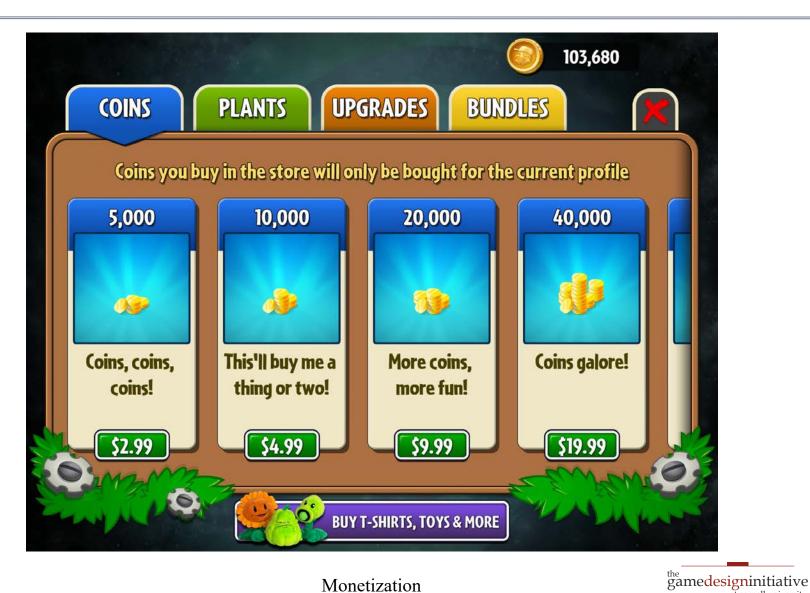
- Consumable attacks
 - Pinching
 - Flicking
 - Electrocuting
- Permanent modifiers
 - # of seeds per game
 - Starting sun/plant food

Differentiating

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



Resource Monetization in PvZ 2



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Item Monetization in PvZ 2





Monetization in PvZ 2

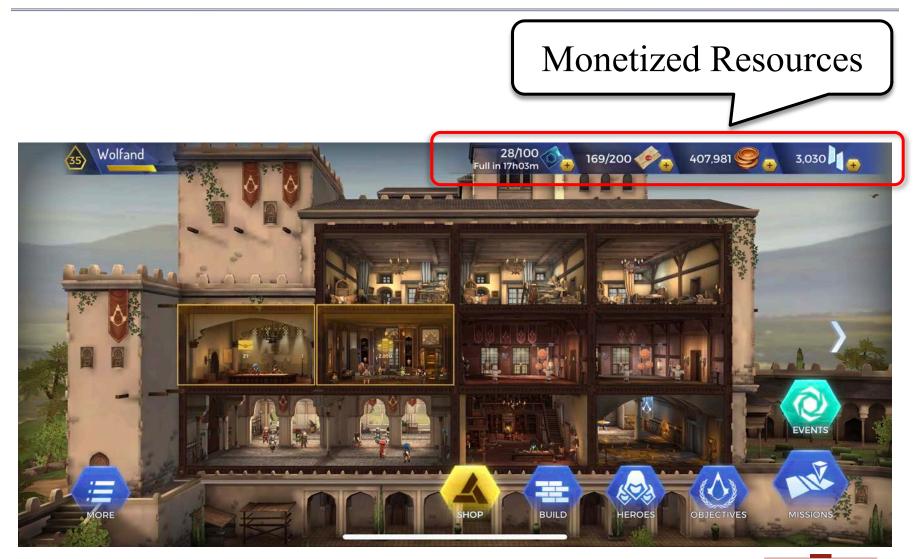
- *Plants vs. Zombies 2* got great reviews
 - Game was perfectly balanced for the new plants
 - Never needed to buy any of the new plants
- The core economic loop was not abused
 - Almost always have enough coins for boosts
 - Only a problem with heavy, heavy boost usage
- Was a monetization **failure**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



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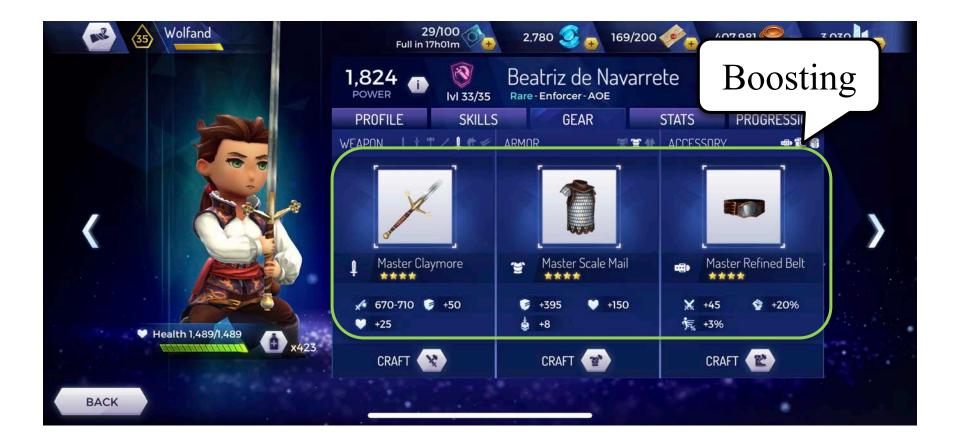




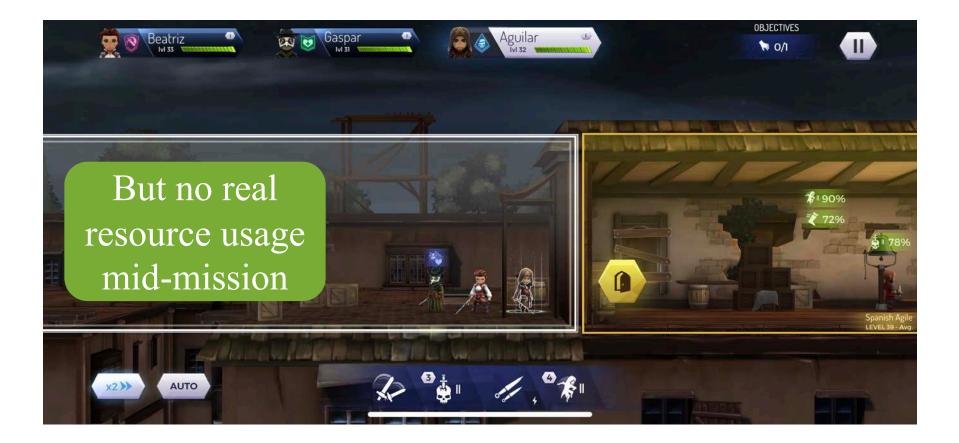














Monetization in AC Rebellion

- 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



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How to Make Everyone Happy?

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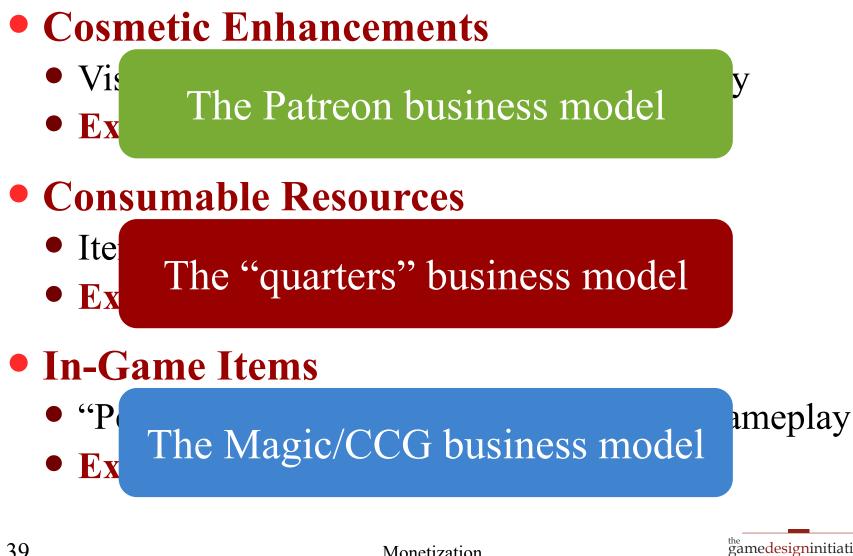
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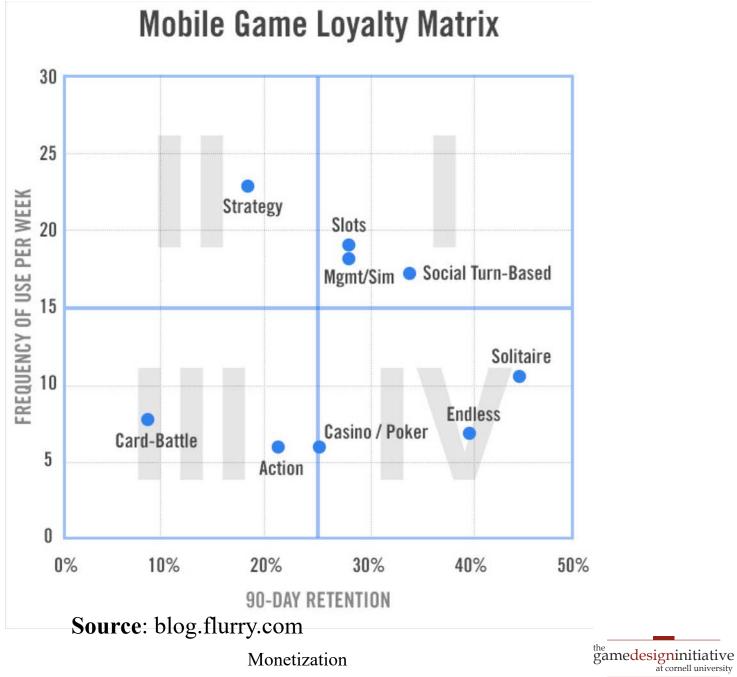
How to Make Everyone Happy?



The Patreon Business Model

- 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





The "Quarters" Business Model

- 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



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Game studios have

no one to blame

The Magic/CCG Model

- 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?

- 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?

- 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





Monetization

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?

ME Andromeda

Anthem





Did BioWare Learn from This?





Monetization

Summary

- 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

