Lecture 4

Monetization
Source for Today’s Talk

- Skaff Elias and Richard Garfield
  - *Lessons from CCGs*
  - At GDC 2011 and presented two years ago
  - 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
Modern Game Monetization

- 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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Monetization

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Used to bring money into the game economy.
The “Core Loop”

Source

Sink

Overcome challenge

Encounter challenge

Monetization
Examples of Monetization

- **Resources**
  - Gold, Zynga coins, just about any currency
  - Energy bars (to perform activities)
  - Time limits (insert quarter to continue)

- **Entities**
  - **Examples**: weapons, armor, cool hats
  - This requires a complete in-game store
  - Designing and balancing this is very difficult
Types of Game Monetization

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

- **Boosting**
  - Resources/entities to reduce game difficulty
  - Can be permanent or consumable

- **Differentiating**
  - Game has multiple ways to play/succeed
  - Resources/entities unlock alternate play modes
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**Monetization**

- Every Zynga game ever made
- Any game with upgrades
- True CCG-style games
Case Study: Candy Crush Saga

Monetization
Case Study: Candy Crush Saga

Monetization
## 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

### Boosting
- Temporary (Boosters)
  - Extra moves
  - Special candies
  - Lost when level is over
- Permanent (Charms)
  - Striped paint brush
  - Freeze time
  - No longer available
Case Study: *Plants vs. Zombies 2*
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# Monetization in *PvZ 2*

<table>
<thead>
<tr>
<th>Boosting</th>
<th>Differentiating</th>
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</thead>
<tbody>
<tr>
<td>• Consumable attacks</td>
<td>• Optional plant types</td>
</tr>
<tr>
<td>• Pinching</td>
<td>• Squash</td>
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<tr>
<td>• Flicking</td>
<td>• Potato</td>
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<tr>
<td>• Electrocuting</td>
<td>• Torchwood</td>
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<tr>
<td>• Permanent modifiers</td>
<td>• Not required to play</td>
</tr>
<tr>
<td>• # of seeds per game</td>
<td>• Do not add more power</td>
</tr>
<tr>
<td>• Starting sun/plant food</td>
<td>• Replaced by new plants</td>
</tr>
<tr>
<td>• New plant types</td>
<td>• Restore <em>classic PvZ</em> style</td>
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</tbody>
</table>

- [game design](#) initiative at cornell university
Case Study: *Fairway Solitaire*
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Monetization
Monetization in *Fairway Solitaire*

**Boosting**
- Consumable abilities
  - Golf club irons
  - Extra moves
  - Minigame cheats
- Permanent modifiers
  - Remove cards at start
  - See cards remaining
  - Peak at next card

**Downloadable Content**
- Extra golf courses
  - Three courses per day
  - Permanent courses
  - Both free & purchasable
- Cosmetic packs
  - New card backs
  - New card fronts
  - New backgrounds
Some Common Patterns

- **Gating**
  - Almost always resources, not entities
  - Resource must have time-based recharge

- **Boosting**
  - Either resources or entities
  - Either consumable or permanent

- **Differentiating**
  - Always entities, but might purchase with resource
  - Close in spirit/design to DLC
Gating Entities: DA Legends

Use friends to make a party
Limited friend use per day

Monetization
Resource Monetization

- Entities are typically not bought directly
  - Money buys the resource, not the entities

- Resource monetization can lead to *grinding*
  - User can get the resource, but it takes (much) time
  - User is paying money to get back their free time
  - **Goal**: Get to the good bits of gameplay

- *Gating* is an extreme version of grinding
  - Pay to not have to wait for the delay
Resource Monetization in *PvZ 2*
Entity Monetization

- Money buys entity directly (not resources)
  - Feels a lot more like traditional DLC

- Excludes gameplay from non-paying players
  - Cannot grind for entity with in-game resource
  - Ideal for differentiating gameplay

- Classic variation: randomization
  - Player buys a “box”; opens it to get entities
  - Virtual version of the CCG business model
Entity Monetization in *PvZ 2*

Plants you buy in the store will be bought for all profiles:

- **Jalapeno**
  - BEST DEAL
  - Ignites a whole row of zombies.
  - $2.99

- **Torchwood**
  - Ignites peas for double damage.
  - $3.99

- **Snow Pea**
  - Shoots peas that slow zombies.
  - $3.99

- **Power Lily**
  - Creates one Plant Food.
  - $2.99

**BUY T-SHIRTS, TOYS & MORE**
Entity Monetization in *Free Realms*
When is Monetization Successful?

- *Plants vs. Zombies 2* got great reviews on Kotaku

- Resource monetization did not lead to *grinding*
  - Almost always have enough coins for boosts
  - Only a problem with heavy, heavy boost usage

- Entity monetization was for *differentiation* only
  - Game perfectly balanced for the new plants

- But it is a monetization *failure*
  - Good players never need to spend a dime
  - Never cracked revenue top 10; fell out of top 40
When is Monetization Successful?

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- Resource monetization did not lead to *grinding*:
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Great for players; bad for investors.
Top Apps Exploit the Core Loop

Source

Sink

Overcome challenge

Encounter challenge

Money

HARD!
The Monetization Holy Grail

- Want to please gamers, but also make money
  - Players should *want* to give you money
  - But should not feel like they *have* to give money
- Requires monetization outside of the core loop
  - PvZ 2: monetized core loop, but loop was too easy
- Successful business model: *Magic CCG*
  - Need a small amount of cash to get started
  - Everything spent after that is for *differentiation*
Monetizing Differentiation

- Purchases should not be an **arms race**
  - Players should not have to spend money to excel
  - Want different items, not better
  - *Randomness* helps a lot here

- **Reconfiguration** is important
  - Limit number of items at a time
  - Large part of gameplay is choosing which items
  - “Strategy” discussion keep your community lively
Entity Value Should Be Logarithmic

- Value is measured by % boost to player success
  - Early value to get initial purchases
  - But drop off so that money != success
- Leads to a new notion of “balance”
But Still Part of Core Loop

Source

Level rewards

Sink

Buy entities with rewards

Item Store

Money

Use entities to play game

Monetization
Case Study: *Mass Effect 3* Multiplayer

![Origin Store interface](image)

**Recruit Pack**
- 5000 Credits (Not Enough Credits)
- A great way to upgrade and unlock your basic weapons, mods and characters.
- Includes 5 random items or characters, with a small chance for an Uncommon.

**Starter Pack**
- FREE

**Battlefield 3 Pack**
- FREE

**Veteran Pack**
- FREE
Case Study: *Pocket Tanks*

Monetization
Designing for Differentiation

- **Repeat purchase** revenue model
  - Huge benefit to not have to purchase all at once
  - Robust enough for long-term involvement
  - But this is difficult for players and designers

- Designing for the **long-term**
  - Helps to rotate items (not just out, but in and out)
  - Avoid *complexity creep*; keep core mechanics small
  - Items should just be exploration of *possibility space*
Importance of Rotating Out

- **Power creep** is a danger
  - Want players to buy new items
  - Easy way is to make an item “better” than existing items
  - But value of the old items is shot

- Rotation allows **alternatives**
  - New item is “like” previous item
  - But item is different enough to encourage experimentation
Virtual Property vs. Experiences

- How do you rotate items out?
  - Is it enough not to offer it for sale?
  - Can you actually revoke the items?

- Is revoking a “violation of contract”?
  - Is player paying to have the item forever?
  - Or just paying to have it right now?

- In Magic, enforced by tournaments
  - What is analogue for computer games?
  - Does this only work with multiplayer?

Item degradation is undesirable…
Other Lessons from CCGs

- How should items be purchased?
  - Individually at different prices?
  - Randomized packs of different rarity?
  - Combination of the two?

- What about player trading?
  - Particularly valuable if using randomized packs
  - Might get a rare item that does not fit your style
  - Can players “cash out”?

No one Agrees
Difficulties of the Freemium Model

- **Freemium**: free except for item purchases
  - Will have a lot of players that spend nothing!
  - Purchases will be by a small number of players
  - …and good content is expensive to make

- **Rule**: first purchase is the hardest
  - Once player buys, later purchases are easier
  - So goal is often to encourage just one purchase

- Also, try to minimize player turnover
  - Longer they play, more likely to buy
Mobile Game Loyalty Matrix

Source: blog.flurry.com
Final Words: Is Freemium a Bubble?

- Freemium games depend heavily on *whales*
  - Gambling term: players that pay a lot
  - Whales subsidize game for everyone else

- Recruiting whales is becoming harder and harder
  - Person can only be a whale of one game at a time
  - Early freemium games had no competition at all
  - Cost to recruit is now twice the revenue of the whale

- **Bad News**: Freemium is not viable for everyone

- **Good News**: Paid app prices are rising!
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Are consumers re-evaluating game value?
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 integrated into design early
  - Can distort economy and threaten balance
  - Need to ensure player has proper incentives

- **Differentiation** is the most interesting variation
  - Player is paying for new play styles
  - Essentially a digital form of the CCG market