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

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

### Differentiating
- Optional plant types
  - Squash
  - Potato
  - Torchwood
- Not required to play
  - Do not add more power
  - Replaced by new plants
  - Restore **classic** *PvZ* style
Case Study: *Fairway Solitaire*
Case Study: *Fairway Solitaire*
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
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 *Lara Croft Go*
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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Top Apps Exploit the Core Loop

Source

Sink

Overcome challenge

Money

Encounter challenge

HARD!

Monetization
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

But Still Part of Core Loop

Source

Level rewards

Buy entities with rewards

Use entities to play game

Money

Sink

Item Store

Buy entities with rewards

Use entities to play game

Money

Sink

Source
Case Study: *Mass Effect 3* Multiplayer

Monetization
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” when they leave?

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

Monetization
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 apps can succeed in some markets
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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