CS/INFO 4154: Analytics-driven Game Design

Class 25:

Revenue
Friends Release Report due 10:10am
Friends Release

- Requirements
  - *Smooth progression* of nine* tasks
  - Tutorials
  - Music
  - Sound
  - Logging

* Negotiable; “task” definition depends on your game
Friends Release Report

- Due BEFORE CLASS by 10:10am on Friday 11/3
Today

- How can analytics help us understand a major shift in video games?
The Good Old Days

game company

you
These Days

you

base game

game company
League of Legends
iOS % of revenue (2014)

79%
South Park Clip
Advantages of Freemium?
Disadvantages of Freemium?
But wait...
5 minutes: pair discussion

• Is this assertion *true*?
• How could we evaluate this assertion?
  • What *information* would we need?
  • What *metrics* would we need?
• Is freemium *ethical*?
Consult the expert: Emily Greer

- Kongregate CEO
- Co-founded with brother Jim Greer
Metric 1: % Buyers

percentage of players who pay

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Metric 2: ARPU

average revenue per user

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Metric 3: ARPPU

average revenue per paying user

Emily Greer, “Core Games, Real Numbers”, GDC 2011
# Kongregate Virtual Currency

<table>
<thead>
<tr>
<th>Kred Pricing</th>
<th>Kreds</th>
<th>Bonus Kreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5</td>
<td>50 Kreds</td>
<td></td>
</tr>
<tr>
<td>$10</td>
<td>100 Kreds + 10 Bonus Kreds</td>
<td></td>
</tr>
<tr>
<td>$20</td>
<td>200 Kreds + 25 Bonus Kreds</td>
<td></td>
</tr>
<tr>
<td>$50</td>
<td>500 Kreds + 65 Bonus Kreds</td>
<td></td>
</tr>
</tbody>
</table>

* All prices are displayed in US Dollars. Ultimate Game Cards purchased in countries outside the US will be converted upon checkout.

Terms of sale
Choose another payment method
Paying Users

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Paying Users

Kongregate depends on the 2%

2.1% of players buy virtual goods on Kongregate.com

75% of our revenue comes from virtual goods

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
$500 Whales

Player Distribution

Revenue

Whales  Normal

Emily Greer, “Core Games, Real Numbers”, GDC 2011
The Biggest Whale

$6700

!!!!!!!!!!

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Still the case...

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
Discussion

- Do most long-term players end up spending money?
Most long-term players do spend $$$

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
Discussion

- Do most long-term players end up spending money?
- What ages of people spend the most?
Age and spending habits

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
Why are these dips here?

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
Discussion

- Do most long-term players end up spending money?
- What ages of people spend the most?
- How quickly do people spend?
Days to first purchase

Emily Greer, “Don’t Call them Whales: F2P Spenders and Virtual Value”, GDC 2015
Discussion

- Do most long-term players end up spending money?
- What ages of people spend the most?
- How quickly do people spend?
- How to get people to spend?
### Strategy 1: Don’t limit spending

<table>
<thead>
<tr>
<th>Swords &amp; Potions</th>
<th>Business Tycoon Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ARPU: $0.50</td>
<td>• ARPU: $0.61</td>
</tr>
<tr>
<td>• 7M players</td>
<td>• 500K players</td>
</tr>
<tr>
<td>• Difficult to spend &gt; $100</td>
<td>• Difficult to spend &lt; $100</td>
</tr>
<tr>
<td>• Buyers: 2.9%</td>
<td>• Buyers: 0.7%</td>
</tr>
<tr>
<td>• ARPPU: $17</td>
<td>• ARPPU: $96</td>
</tr>
</tbody>
</table>

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Strategy 2: Core Feedback Loop

RPG LOOP

EXPLORER

IMPROVE

COLLECT

SPEND
# Case Study: RPG vs. Multiplayer

<table>
<thead>
<tr>
<th>Type</th>
<th>% 50+ Plays</th>
<th>% Buyers</th>
<th>ARPPU</th>
<th>ARPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplayer RPG</td>
<td>2.6%</td>
<td>0.75%</td>
<td>$69</td>
<td>$0.51</td>
</tr>
<tr>
<td>Multiplayer Non-RPG</td>
<td>1.0%</td>
<td>0.45%</td>
<td>$9</td>
<td>$0.05</td>
</tr>
<tr>
<td>Single-player RPG</td>
<td>1.8%</td>
<td>1.29%</td>
<td>$12</td>
<td>$0.10</td>
</tr>
<tr>
<td>Single-Player Non-RPG</td>
<td>0.2%</td>
<td>0.53%</td>
<td>$4</td>
<td>$0.02</td>
</tr>
</tbody>
</table>
## Top 10 Multiplayer Games

### Table

<table>
<thead>
<tr>
<th>% Buyers</th>
<th>ARPPU</th>
<th>Avg Trx Size</th>
<th>Avg # of Trx</th>
<th>ARPU</th>
<th>% of Players</th>
<th>% of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 play</td>
<td>0.03%</td>
<td>$ 6.98</td>
<td>$ 5.02</td>
<td>1.39</td>
<td>$ 0.00</td>
<td>45.5%</td>
</tr>
<tr>
<td>2 to 10</td>
<td>0.40%</td>
<td>$ 11.01</td>
<td>$ 6.63</td>
<td>1.66</td>
<td>$ 0.04</td>
<td>40.3%</td>
</tr>
<tr>
<td>11 to 50</td>
<td>4.93%</td>
<td>$ 19.82</td>
<td>$ 7.92</td>
<td>2.50</td>
<td>$ 0.98</td>
<td>7.7%</td>
</tr>
<tr>
<td>51 to 100</td>
<td>11.14%</td>
<td>$ 33.14</td>
<td>$ 8.97</td>
<td>3.70</td>
<td>$ 3.69</td>
<td>2.3%</td>
</tr>
<tr>
<td>101 to 250</td>
<td>17.11%</td>
<td>$ 63.12</td>
<td>$ 11.11</td>
<td>5.68</td>
<td>$ 10.80</td>
<td>2.2%</td>
</tr>
<tr>
<td>251 to 500</td>
<td>26.94%</td>
<td>$ 123.92</td>
<td>$ 14.09</td>
<td>8.80</td>
<td>$ 33.38</td>
<td>1.0%</td>
</tr>
<tr>
<td>500+</td>
<td>39.39%</td>
<td>$ 270.58</td>
<td>$ 19.03</td>
<td>14.22</td>
<td>$ 106.58</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total</td>
<td>1.89%</td>
<td>$ 102.74</td>
<td>$ 15.03</td>
<td>6.84</td>
<td>$ 1.95</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Emily Greer, “Building Games for the Long Term”, GDC 2013
“Player Journey Funnel”

- aware
- able to access
- in trial
- returning
- loyal

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Getting players to return isn’t so important…

Emily Greer, “Core Games, Real Numbers”, GDC 2011
… but addiction is.

Emily Greer, “Core Games, Real Numbers”, GDC 2011
Strategy 3: Provide New Content
Strategy 3: Provide New Content

- Hot New Games
- Badges added
- Custom User Items
- New zone, XL, etc.
- Equips, Guild bonuses
- Halloween, sale
- Christmas event
- Guild wars
Strategy 3: Provide New Content
Strategy 3: Provide New Content
In summary: true or false?