Class 12:

Incentives
Alpha

- three functioning levels: easy, medium, hard
- core game mechanics for these levels
- minimal art/UX integration
- a list of input keys
Review: Flow
Now: Achievement

Washington State Algebra Challenge
Outline

1. Setting the stage
2. A brief history of video game incentives
3. Experiments regarding incentives
4. Group activity: incentives
Outline

1. Setting the stage
2. A brief history of video game incentives
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Pair activity: quick discussion

- Pick your favorite game (again)
  - How many hours have you played it?
  - What motivated you to play that long?
  - What were you *doing* for most of that time?
Outline

1. Setting the stage
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In the beginning, there were arcades

Pacman (1980)
In the beginning, there were arcades

Pacman (1980)
Then there were side quests...
Then there were side quests...

Elder Scrolls IV: Oblivion (2006)
Then there were achievements…
Then there was busy work...

*Saracens Flag Collected*

9 / 100 Saracens Flags were collected from Damascus.

_Assassin’s Creed (2007)_
Progress Quest

(2002)
Farmville

(2009)
Cow Clicker

Ian Bogost (2010)
Clicker Heroes
Outline

1. Setting the stage
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## Distribution of Play Time

<table>
<thead>
<tr>
<th>Game</th>
<th>#players observed</th>
<th>observation period</th>
<th>#months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just Cause 2</td>
<td>5,331</td>
<td>03-23-2010 to 10-07-2010</td>
<td>7</td>
</tr>
<tr>
<td>Tomb Raider: U.</td>
<td>146,233</td>
<td>12-01-2008 to 01-31-2009</td>
<td>2</td>
</tr>
<tr>
<td>Battlefield B.C. 2</td>
<td>87,126</td>
<td>03-14-2010 to 12-26-2011</td>
<td>21</td>
</tr>
<tr>
<td>Crysis 2</td>
<td>4,364</td>
<td>04-13-2011 to 11-23-2011</td>
<td>6</td>
</tr>
<tr>
<td>Medal of Honor</td>
<td>12,328</td>
<td>11-03-2010 to 12-18-2011</td>
<td>14</td>
</tr>
</tbody>
</table>
Visualizing Engagement

% of players

Time (minutes)
Pair Activity: pick one game and plot

% of players

Time (hours)

BF2: Battlefield Bad Company 2
CR2: Crysis
MOH: Medal of Honor
JC2: Just Cause 2
TRU: Tomb Raider: Underworld
Distribution of Play Time

BF2: Battlefield Bad Company 2
CR2: Crysis
MOH: Medal of Honor
JC2: Just Cause 2
TRU: Tomb Raider: Underworld

Bauckhage et al. *Computational Intelligence in Games* 2012
GSN Games: Video Bingo

Revenue +13.9%

GSN Games: Video Bingo

Revenude +11%

GSN Games: Video Bingo
GSN Games: Video Bingo

Revenue +12.3%
Bounce Rate -25.8%

Returning to this question…
Returning to this question…
Players

24,000 players

3,000 players
With coins, engagement...
With coins, engagement...
With coins, engagement…
With coins, engagement...
With coins, engagement…

no change

no change
The Hope: people play longer.

% of players vs. Levels Completed.

With Coins

Levels Completed
Reality: coins distracted players
The Hope: people play longer
Reality: some do, some do not
Making things easier
Making things easier
Time

% of players

On-path Coins
Distribution of Time Played in Refraction

- **No Coins**
- **Off-Path Coins**
- **On-Path Coins**

**Axes:**
- **Y-axis:** Percentage of Players
- **X-axis:** Time Played (minutes)

The graph shows the distribution of time played among players under different conditions of coin collection.
Figure 1.—Average number of late-coming parents, per week

Gneezy and Rustichini “A Fine is a Price” Journal of Legal Studies 2000
Normal Side Quests

Main Narrative Track

Side Quest  Side Quest  Side Quest
Final Fantasy XIII (2009)

Main Narrative Track

Linear

Erik’s furthest progress

Side Quests
Key Lesson of this Class #4

incentive design is tricky
Braid’s Slow-moving Cloud
Outline

1. Setting the stage
2. A brief history of video game incentives
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4. Group activity: incentives
Group Activity

- Consider incentive design for your game
  - Extra points?
  - Score?
  - Side quests?
  - Badges?
  - Achievements?

- How do you prevent them from distracting the player?