Game Design

the dark art of human motivation

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An Offer You Can’t Refuse
The Answer: Game Design
My Background in Games

1993: Universal
1996: Spyro
1999: CERNY GAMES
2003: Gear
2006: EA
2007: GlassLab
2012: City of San Francisco
2015: SF3D
What is this Game Design?
What isn’t Game Design?
Mario Demo
xcom in excel

http://exlcom.jimdo.com
Game Design contains Multitudes

This is *mechanics* or *gameplay*
Challenge
Achievement
*Higher Achievement*
Failure

This can go on for minutes or hours or days
or years...
Game Design:

We paint on your brain

A Craft of Experience
Let’s look at some of the specific tools of the craft.
Ball speed
Gravity
Reflection angle
Speed of paddle
Number of bricks
Spacing of bricks
Spacing between bricks and walls
Number of balls (lives)
Ball acceleration
Number of balls
Ball speed
Gravity
Reflection angle
Speed of paddle
Number of bricks
Spacing of bricks
Spacing between bricks and walls
Number of balls (lives)
Ball acceleration
Number of balls
Unit move speed
Unit DPS
Elixir recharge rate
Unit attack cooldown
Use of bridges
Valid placement areas
User communication channel
Visibility of opponent strategy
Player movement speed
Player agility
Placement of spaces/tower
Paths – force player thru cave
Puzzle states
Character movement
• Run
• Jump
• Slide
• Double-jump

Attacks
• Speed
• Radius
• Cooldown
• Damage
• Damage

Pickups

Enemy attacks

...
Player input
• Nonlinear response
• Braking curve

Camera
• Positioning
• Distance
• Rotational speed/hysteresis
• FOV
Then there’s all the rest!
Juicy breakout

this is only the seed
this is the ‘micro’
all the rest is ‘macro’
all the rest is ‘macro’
Engagement

- Hours
- Minutes
- Days
- ??
3 engagement patterns

growth pattern

grind pattern

expression pattern
1. Growth Pattern

‘suzanne’ by John Collins
Engages us with our inner love of learning
“I didn’t think I could do that…”

“… and then I did it.”

Growth Pattern
Growth Pattern
Growth Pattern
Growth Pattern
<table>
<thead>
<tr>
<th>Week</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial planning</td>
</tr>
<tr>
<td>2</td>
<td>Development start</td>
</tr>
<tr>
<td>3</td>
<td>First iteration</td>
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<tr>
<td>4</td>
<td>Testing phase</td>
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<tr>
<td>5</td>
<td>Refinement and bugs</td>
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<tr>
<td>6</td>
<td>Final reviews</td>
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<td>7</td>
<td>Launch preparation</td>
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<tr>
<td>8</td>
<td>Launch day</td>
</tr>
<tr>
<td>9</td>
<td>Post-launch analysis</td>
</tr>
</tbody>
</table>

**Growth Pattern**
Design Elements

Mechanical Gameplay

Pacing and Challenge

Scaffolding and Reward

Growth Pattern

‘suzanne’ by John Collins
2. Grind Pattern
Meditative State

Repetition to reach a goal

Image: massiveeffort.org

Grind Pattern
Meditative State

Repetition to reach a goal
Meditative State

Repetition to reach a goal
Extrinsic Goals

Non-linear progression curve

Grind Pattern
Non-linear progression curve

Grind Pattern
Gamification Tends to Focus on Grind Pattern
Gamification Tends to Focus on Grind Pattern
Gamification Tends to Focus on Grind Pattern
Also consciously designed

Grind Pattern
Design Elements

*Extrinsic rewards*

*Nonlinear goals*

*High Accessibility*

*Time-Oriented Systems*
3. Expression Pattern

Panda, by Robert Lang
OMG MY BABY IS ON FIRE

GOTTA PUT THIS ON FACEBOOK

The Sims

Sim City

Expression Pattern

Minecraft
Design Elements:

- Systemic Design
- Freedom of Movement
- Sharing Systems

Expression Pattern

Panda, by Robert Lang
Three Very Different Patterns

All produce powerful motivational effects
[and there are many more]

etc...
Most Games use an amalgam of patterns
(A single pattern alone almost never works)
This Alchemy Produces Engagement
3 parts Growth

5 parts Grind

1 part Expression
5 parts Growth
2 parts Grind
1 part Expression
1 part Growth
4 parts Grind
5 parts Expression
1 part Growth
5 parts Grind
4 parts Discovery
It’s much more than just game mechanics.
RIP, Alan Rickman 😞

That’s the Dark Art
Thanks

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