LUDOLOGY
Psychology Of Fun
• Join Discord

• Game Ideas are due tonight 11:59 PM
  • Submit up to 3 ideas
  • Less than 280 characters each
  • Submit them here: https://forms.gle/kRWphNVSBEU2xa63A

• Game Jam #2 happening on Saturday, September, 21st
  • BA 3200 10am – 4pm
DEFINITION OF A GAME

• People play games because they experience emotions that are closely related to the main factors of happiness.

• It’s hard to define what a game is.

• There are 4 elements that constitute a game.
Having a clear goal
EXAMPLE

Nidhogg
EXAMPLE
Lovers in a Dangerous Spacetime
Having a set of rules

ELEMENT #2
EXAMPLE

Pac Man
Willingness to overcome obstacles or challenges

ELEMENT #3
EXAMPLE
Mario Maker
Continuous Feedback

ELEMENT #4
EXAMPLE
GTA 3
EXCEPTIONS

Not everything that fits is a game
EXAMPLES
HOW TO BUILD A FUN GAME
Finding the Fun

STEP #1
UNDERSTANDING FUN GAMES

• We will help you identify features and avoid biases.

• Then we start testing and collecting evidence:
  • Case studies.
  • Expert analysis.
  • Empirical research.
THE PRODUCER’S ROLE

- Understand what will make a game fun
  - Know gamers
  - Know game inside out
- In many cases, they are responsible for managing the team
  - Communicating goals and priorities
  - Organizing tasks and team members
THINK LIKE A PRODUCER

• How does one begin to make a "fun" game?

• Start by asking these questions:
  • What is your audience?
  • What kind of game are you creating?
  • What kind of experience are you creating?
  • What resources are available?
  • What budget is available?
HOW PRODUCERS SUCCEED

• Not everybody is meant to be a producer
  • Have a vision
  • Communicate that vision
  • Incorporate team feedback
NOBODY WANTS TO MAKE A BAD GAME
GAMES ARE NEVER FINISHED, JUST RELEASED
OTHER EXAMPLES
Creating an Experience

STEP #2
HOW DO YOU MAKE A FUN GAME?

• This is the approach in most game companies:

1. Consider your audience.

2. Determine what kind of experience you want to create.

3. Construct that experience, layer by layer.
CONSIDER YOUR AUDIENCE
THE GAME DESIGN PROCESS

1. Start with a good mechanic
   - One good level
   - Tutorial
   - Extensions

2. Establish a solid UI
   - Controls
   - Communication & Rules
   - Progress & Feedback

3. Make it challenging
   - Know your audience
   - Optimal flow
   - Balance
   - Playtesting

4. Polish the look & feel
   - Immersion & Consistency
   - Stimulation
   - Music & Sound
• Game mechanics refer to the elements your game uses to engage the player.

• Gameplay usually refers to the experience that you want your players to have.
  • Employs game mechanics in order to achieve it.

• What are examples of fun (or good) game mechanics?
DESTROYING THINGS
• Always start with a **game mechanic** that is fun to do.
  • Build your game around that.
• This is what makes it difficult to build games around existing IP.
  • Unless interacting with the IP itself is the fun part of the game!
DO ONE THING WELL

- You want your game to be unique
  - Draw from successes of other games
  - Use what works, but have some novel elements that stand out
  - Avoid temptation to look too hard at existing games
TESTING THE BEST IDEAS

• Your idea might be fun in theory. Prototype to verify this in practice.

1. Start with an innovative idea.
2. Build it quickly.
3. Playtest it.
4. Iterate.
   • Identify elements to keep, discard the rest
   • Go to step #1 if the game is not working.
A GAME IS MORE THAN A SET OF FEATURES

Creating a good game

A set of game features

A set of game features

Creating a good game

Leads to

CSC404: Video Game Design © Elias Adum
FEATURE CREEP

What gamers consider “fun” (according to Metacritic.com)

- Interesting storyline
- Action and/or violence
- Co-op gameplay
- Lots of playable characters
- Elaborate arsenal
- Great graphics
- DLC

What game companies do to make their games “fun”

- Amazing graphics
- Familiar characters
- Popular gameplay styles
- Stimulating atmosphere
- Sex and violence
- Killer soundtrack
- Cinematics
- Sequels (what made the original popular)
STEP #3

Constructing the Game
FROM IDEA TO EXECUTION

• Most games have the potential to be fun.

• There are general rules (like these ones) that help people make sure that the game doesn’t fail.
  
  • That’s why critiques are good, to find these mistakes before it’s too late.
EXAMPLE
Guitar Freaks
VS
Guitar Hero
GUITAR FREAKS

• Released in 1999

• **Gameplay:** Players press plastic buttons and strum a plastic filter on a guitar-shaped controller in time with the game’s music.

  • Players able to raise the guitar in the air for extra points
GUITAR FREAKS

• Play version bundled with a guitar controller manufactured by Red Octane.

• Red Octane partnered with Harmonix
  • Added 2 more buttons
  • Added a whammy

• Voila, I present to you: Guitar Hero (2005)
GUITAR FREAKS VS GUITAR HERO

• Why was Guitar Hero more successful (or more fun)?
  • Note Highway
  • Licensing

• Guitar Hero franchise has generated over $2 billion

• Red Octane acquired by Activision for $100 million in 2008
LAYERS OF A GAME

- Each game layer builds on the layer before
- Consider the order of layers
• UX > UI

• Creating an effective user experience means establishing key game elements:
  • Controls
  • Communication & Rules
  • Progress & Feedback

• Find things your players hate, and get rid of them!
• Controls need to reflect gameplay.

• Gave rise to specialized devices:
  • Wiimote, Kinect, Rock Band instruments.
CONTROLS

• If the players want to do something, let them do it.

• Things to consider when setting controls:
  • Responsiveness
    • Sensitivity
    • Speed
    • Simplicity
  • Power
  • Accuracy
EXAMPLE
Assassin’s Creed
COMMUNICATION

• Games are software
  • Basic information must be conveyed back to the user.

• Key items to communicate:
  • Controls
  • Actions
  • Objectives
  • Motivation
  • Rewards
COMMUNICATION IN GAMES

• Techniques:
  • Controls: Tutorial levels, on screen instructions
  • Actions: Dialog boxes, highlighted objects
  • Objectives: Maps, arrows
  • Motivation: Storyline
  • Rewards: Points, powerups, etc

• Feedback can be through text, audio, sound, music or the level itself.
  • The more cues, the better
EXAMPLE

Prince of Persia
**PROGRESS & FEEDBACK**

- If the player is doing well, tell them.
  - ALL THE TIME!

- Constant feedback is critical
  - Reinforcing behavior
  - Indicating Progress
  - Providing stimulation

- Feedback needs to be both visual and auditory.
EXAMPLE
Rock Band
• Rewards reinforce behavior and add gameplay.
  
  • Challenge + Rewards = Addiction

• As with other game elements, rewards can take several forms:
## REWARDS

<table>
<thead>
<tr>
<th>Sensory Content</th>
<th>Items</th>
<th>Positive Reinforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Music &amp; Sounds</td>
<td>• Loot or money</td>
<td>• Points or score</td>
</tr>
<tr>
<td>• Cutscenes &amp; animations</td>
<td>• Weapons, items &amp; upgrades</td>
<td>• Achievements</td>
</tr>
<tr>
<td>• Advancing storyline</td>
<td>• Unlockables</td>
<td>• Levelling Up</td>
</tr>
</tbody>
</table>

CSC404: Video Game Design © Elias Adum
EXAMPLES
ACHIEVING OPTIMAL CHALLENGE

- The challenge of games is what turns them from simply interactive to addictive.
- Several different types of challenge elements
  - Example: enemies and bosses
- Optimal flow
  - Technique for increasing difficulty level
  - Helps player acquire and enjoy new skills
- Difficulty elements
  - Reflex skills
  - Enemies vs bosses
  - Adaptive AI
EXTENSION TO BASIC MECHANIC

- Tutorial levels
  - Once you perfect a basic level, keep simplifying it until you can’t anymore

- Extensions
  - Further levels are created when you consider other applications of the basic mechanic.

- Examples?
CHALLENGE IN DIFFERENT FORMS

- Introduce the challenge element depending on audience and domain of the game
- Examples:
  - **Strategy games:**
    - Problem solving
    - Using environment
    - Cooperation
  - **Resource management games:**
    - Ammo/items
    - Health
    - Money
    - Time
BALANCE

- Balance is necessary when multiple options are available
  - No character has an unfair advantage
  - Each player type can win multiple ways with multiple characters
PLAYTESTING

- Testers can spot potential issues that developers aren’t able to anticipate
EXAMPLE
Portal #1
EXAMPLE
Portal #2
EXAMPLE
Portal #3
**POLISH LOOK & FEEL**

- **Immersion** is a key goal of your game
- Enhanced by **cohesion** and **consistency**
- Disrupted by **distractions** and **glitches**
• Immersion ≠ Realism
  • Need aspect of both realism and “unrealism”
  • As long as it is consistent
• Achieving immersion:
  • Well-designed environment
    • Visual cues
    • Physics
    • Interactive/destructible
  • Freedom
  • Customization
    • e.g. Sims
• Stimulation might be the most obvious game component for most people. It is connected to the senses:
  • Visual & auditory
    • Graphics, sound effects, responsive environment
  • Physiological arousal
    • Adrenaline, Physical activity, humour, emotional response
    • Examples: DDR, Kinect, Fear, Five Nights at Freddy’s
MUSIC & SOUND

• Have you ever played a game with no sound?

• Music is the best way to establish mood and tone

• What is this track telling you?
TIME

- Prototype early, and always have something working
- All of these factors can be enhanced to the fullest, given unlimited time
  - Time has to be considered and allocated to a game, just like any other
  - Beware feature creep!
WHAT CAN MAKE A BAD GAME

- Bad controls
  - Bad interface
  - Cryptic user menus
- Bad planning
  - Bad directions for user
  - Poor respawning
  - Stupid cameras
- Poor gameplay
  - Repetitive tasks
  - No challenge
  - Poor AI
  - Unethical games

- Not meeting expectations
  - Deviating from past versions
  - Not meeting user expectations
    - Miss match with demos/trailer
    - Too much hype
  - Untapped potential
  - No target audience

- Severe penalties
  - Weak characters
  - Severe death

- Game assets
  - Annoying graphics and sound
  - Unrealistic environment/characters (bad physics)
  - Irrelevant content