Game Design and Idea Creation

From the perspective of a random engineer dude who has done this as a hobby for way too long

0.1 Who is this random dude

- I am Alex, the Secretary
- Been developing various tech demos and games for more than a decade.
- Been involved in the GDC for 5 years
- Been a major project contributor 4 of those 5 years and Programming Lead on 1+.5+.5 projects
- Been Secretary for 2.5 of the 5 years

0.2 Cool, why should I listen

- Started making random tech demos of mechanics around 2000-1

- Started modding games and creating maps in 2004ish in UT:GOTY and UT2004

- Started AI scripting in 2006, creating simple bots to accomplish tasks, been programming robotic projects looooooonnnng before that.

- Currently developing a mod for Minecraft called Carbonization (shameless plug is shameless)

0.3 But you're an engineer...

- Yup, game design is a hobby
- Enjoy working on human-machine interaction and interfacing, specifically in biomedical applications
- NOT a coder

0.4 Golden Rules (some stolen)

- LaBerge's Rule #1: If it isn't written down it doesn't exist. As a sub-rule, if you can't find it, it isn't written down.

- Mal's Rule #1: Any action in utter ignorance provides information to progress.

- Mal's Rule #2: The only decision that is worth regretting is not making a decision.

- LaBerge's Rule #3: Every (engineering) problem is a design problem.

1.0 So you want to make games

- Cool. Stuff to go over first.

- Creating AN idea isn't hard, I just made one up now

- Creating a GOOD idea is hard

- You're going to make lots and lots of terrible games before you produce something lots of people will like

- But don't despair! Game Design is FUN!!

1.1 So how does this apply in the club?

- Part of the work of separating the ideas is done in the project proposal meeting and prototype jam

- This is good and bad!

- Good: It speeds up the process of keeping the club focused on projects that will be completed

- Bad: It doesn't allow the creator to know why the idea didn't work out.

1.2 So my idea wasn't chosen :(

- Don't despair! Ideas flop for lots of different reasons!

- Scope. We have limited time so anything too complicated must be trimmed down

- Advertising. The best game that isn't advertised still isn't played

- It was just bad. :[Again, don't despair and refer to Mal's Rules 1 and 2.

2.0 So how do I make a good idea?

- There are there different criteria for a good idea (to me anyway)

- Basic Premise of the Game (the fun hook)
    - Should be simple and easy to understand
    - Save the princess! Kill the demon! Keep the dwarfs alive!

- Core Mechanics and Gameplay (the fun chorus)
    - Should be related to the premise and support it
    - Save the princess by launching birds into castles doesn't make much sense :|

2.1 More things

- Reason to play (the fun verse)
    - Why should I care about the dwarfs?
    - Why do you think that saving people or killing things are popular premises?

- Re-playability
    - Why should I kill the demon more then once?
    - Not as important as the other three, but still good to think about

2.2 So how do I apply this?

- These concepts are things to keep in mind when designing the game

- There are mechanical aspects to keep in mind as well, things like platform, engine, control scheme, and art style

2.4 Mechanical Aspects

- Platform

  - Which platform you want changes what engines are possible and influences game mechanics

  - Common choices are PC, mobile (iOS or Android), or XBox

  - Keep in mind that XBox, PS3, and Wii development requires external licenses that the club doesn't have.

2.4.2 Engines

- Since we are a club, making an engine and a game isn't practical, so we use existing engines

- Engines that we use frequently include:

    - FlatRedBall, an XNA/C# engine that is good for 2D games

    - Unity, a 3D engine with it's own scripting language

    - Unreal, another 3D engine

2.4.3 Control Scheme

- This bit is pretty simple, usually the control scheme is defined by the platform, consoles use controller, mobile uses touchscreen, blahblah...

- The exception is PC, since both keyboard/mouse and controller are reasonable control schemes

2.4.4 Art Style

- I put art style here, since it's more important then third tier things, but not something that is critical (shut up artists)

- Changing the art style can change the feel of the game greatly without changing any mechanics at all

- Having a clear art style that is documented well is important for keeping your artists organized

2.5 Other Things

- Story; An interesting story snippet can build interest and adds flavour

- Multiplayer; It's something to keep in mind, though anything more then a basic system is probably outside the scope of what we can accomplish

3.0 So I'm finally ready to make this thing?

- Yup. I've rambled enough, hopefully mostly about game design

- So let's put this together, with an example game pitch!

- Let's start with a bad pitch:

3.1 The "Bad" Example

My game idea would be you play as the last warriorprincess, Celindia as she is tasked to complete the quest of ...assume there is a lot of text here... using the mechanic of creating the correct holy words to defeat the enemies as they come in view. This game would run on the GBA using a plug-in keyboard attachment I found on eBay 8 years ago. The artstyle would be SteamGothPunk.

3.1.1 Major Facets

- Game Premise
  - The last of the great warriorprincesses, Celindia, is tasked with...blah blah blah blah blah this isn't a premise, it's a backstory

- Core Mechanics
  - Your quest is accomplished by lining up the holy words to... blah blah this sounds like an educational game and a mechanic that has nothing to do with the premise is why those games suck.

3.1.1 Major Facets

- Reason to Play

  - Beats the hell out of me, dunno about anyone else but forming up "holy words" to accomplish some quest that I didn't bother finishing to write isn't that interesting.

- Replayability

  - Well at least the mechanic supports this...

3.1.2 Minor Facets

- Platform and Engine

    - GBA... 1) isn't made anymore, 2) we can't get access to the technology to make the game

- Control Scheme

    - Some peripheral I made up? no.

- Art Style

    - Isn't well defined, SteamGothPunk dafuqisthat..

3.1.3 Sucks, yeah?

- There have been lots of ideas that are like that, no clear premise, inconsistant mechanic, poorly chosen platform, a control scheme that doesn't work with the platform, etc.

- The other end of the scale is the pitch is missing major parts, like a mechanic or a platform.

- So let's try again with another game pitch:

3.2 The other example

This game would be a third person mech game where the player is trying to defeat all the other mechs in the arena using primarily missiles. It would be developed for PC and use controllers, possibly with some keyboard support as well.

If you've been in the club before this should sound very familiar...

3.2.1 Major Facets

- Game Premise

    – Run around and shoot things until they stop moving.

- Core Mechanics

    – A bit vague, but missiles and mechs imply some sort of aiming mechanic in conjunction with moving your mech around, probably dodging enemy shots too.

3.2.1 Major Facets

- Reason to Play
    - Sounds pretty fun, it's hard to mess up explosions, missiles, and mechs and there seems to be a good opportunity for skillful play

- Replayability
    - Similar to FPSes, different arenas and multiplayer make good replayability points, though not explicitly mentioned

3.2.2 Minor Facets

- Platform
  - PC, very common and easy

- Engine
  - Not stated, but clearly 3D, so probably Unity

- Control Scheme
  - States controller and possibly keyboard

- Art Style
  - Not stated clearly, but the Mech genre gives options that are widely known

3.2.3 So much better, eh?

- It still could be improved

- I really want a lot of good ideas, good ideas lead to good projects, lead to growth for the club.

4.0 Final Notes

- Since I've been rambling for a while and Paul is probably desiring my death, or at least my tongue, I'll finish up with more rambling I guess

4.0 Final Notes

- Keep records and documents of everything! Remember LaBerge's Rule #1?

- Don't be afraid to change things! With tweaking everything can be improved and veterans can help you if you ask.

- Get to know people, there have been plenty of good ideas that got lost just because the person who pitched them wasn't known by anyone else.

4.1 Ending

- We are all here to make games, because we enjoy games, and we enjoy to make games
- So let us make games that we enjoy to play

- Any Questions?