Mariia Krotkykh
Instructor: Jonathan Lessard
CART 415
Dec 4, 2019

Game Design Journal

Stage 1.0 - Original Idea

This is the very first iteration of the game idea. This section is based on the GDD, originally developed for CART215 class (instructor Enric Llagostera).

In italics are the elements that were subjected to change in further stages of game development process.

Point of View
- First person
- *3D environment*
- Highly detailed realistic models

Protagonist

The protagonist, Malcolm, is a former MIT professor suffering from paranoid schizophrenia. His mind often succumbs to violent delusions of otherworldly Lovecraftian creatures roaming the Earth feeding on sanity and souls of the unfortunate. Protagonist's mind can be somewhat stabilized with speciality medication that he's taking, however, it has side effects which include *dizziness, loss of spacial awareness, fatigue, and general decrease of physical agility.*

Story and Theme

The game deals with mental health issues and objective vs. subjective threats. It is about finding the way out in both spacial/physical and metaphorical sense.

The story takes place at the psychiatric institution in the mountain range. After unprecedented snow storm the hospital finds itself completely cut off from the world with phone lines dead, security systems down, and emergency electrical generator on it's last legs. *Hospital stuff becomes more and more high-strung until one of the orderlies starts to demonstrate inexplicable violent behaviour attacking his colleagues and patients. This behaviour soon turns into a pandemic and almost half of the staff goes berserk. The hospital management, feeling threatened by this violent outbreak, flee in a helicopter, the only means of transportation to safety, leaving the staff and patients behind.*

Story Progression

When Malcolm witnesses a shadow creature infiltrating a nurse turning her into incoherent blood-thirsty monster, he assumes that this is a hallucination conjured by his troubled mind and sallies forth on his first quest to find medication. On this quest he discovers that several of his fellow patients have witnessed similar happenings which makes him suspect that all this could be for real and that somewhat more urgent tasks than finding drugs are facing him.

Challenge

The main goal of the game is to find and destroy the source of evil energy before it spreads.

In the process the protagonist needs to arm himself, find his medication, talk to several patients who are now trapped in different parts of the hospital in order to figure out the nature and the scale of the looming catastrophe and come up with a plan of stopping it from spreading.

Apart from all these tasks, Malcolm has to constantly confront his inner demons which makes things much harder. He soon discovers that only taking his meds makes him capable of identifying possessed people from the rest, whereas when the drugs wear off almost everyone looks and behaves possessed and potentially deadly. Some everyday objects become unrecognizable and therefore impossible to use.

To enter a new location, player needs to collect necessary items and solve a puzzle which unlocks a new map section and allows for further exploration.

Decision-making

In this scenario everything that seems dangerous actually is dangerous i.e. otherwise harmless NPC may harm the protagonist when he's in the state of delusion. In their turn (likewise in delusional mode), friendly NPCs can also be killed which results in penalties for the player (e.g. lost content when a character was supposed to provide some information about the quest etc).

On the other hand, when medication kicks in, apart from the clarity of thought it entails all side effects which makes it almost impossible to fight efficiently, run fast enough, or quickly find the way through the hospital corridors.

Similarly some puzzles are meant to be solved in either "lucid" or "delusional" mode, which player has to figure out either through trial and error or using the clues collected during the course of the game.

Therefore when and whether to take their meds becomes one of the biggest tactical decisions for the player throughout the entire game. Apart from health bar the player has a meds bar that counts down the effect of medication.

Malcolm's inventory is limited which means that at times the player needs to make a decision in favour of either carrying around extra meds or extra items that could be potentially useful in *combat.*

Strengths/Weaknesses Distribution

	Lucid State	**Delusional State**
Enemy Recognition	100% identification	20% chance of correct identification
Key Object Recognition	100% identification	50% chance of correct identification
Logical Skills	All puzzle clues are available	Many clues are missing or disguised
Map Availability	Reference map area is limited	Reference map area is unlimited
Speed	Limited	Highest possible
Strength	Limited	Highest possible

Skill, strategy, chance, and uncertainty

The gameplay consists of puzzle-solving, map exploration, and *survival shooter style combat.*

The player will face both physical and mental challenges. Enemy slaughter/evasion requires skill and practice (with a little element of chance) which is why the number of enemies will increase towards the end of the game.

Searching for clues and solving puzzles involves logic and skill whereas strategy is vital in exploration and choosing optimal routs and, importantly, making decisions as to *taking medication to preserve lucidity and the ability to identify enemies and artifacts versus plunging into delusion but preserving physical agility.*

Staying in delusional state creates uncertainty since the player can't be sure if they're facing friend or foe and are not always capable of identifying needful items.

Experience

- *Evading or confronting enemies*
- *Making decisions as to lucidity vs. agility*
- Strategizing the walk-through
- Engaging in quests and puzzles to find out details for quests and unlock new locations

Emotions

The game's pace is moderate, sometimes slower than average to conjure viscid dreamlike feel. The general mood is anxious and horror like. Ambient lighting changes its temperature to indicate the protagonists current state (i.e. lucid or delusional).

Visual Inspirations

1 - Resident Evil 7: Biohazard (Dev.: Capcom)
3 - Layers of Fear (Dev.: Bloober Team)

2 - The Evil Within (Dev.: Tango Gameworks)
4 - Nevermind (Dev.: Flying Mollusk)

Stage 1.1 - Game Idea Pitch

Number of changes were made to the original idea for the initial presentation of the project. Majority of them were linked to the fact that the prototype had to be physically executed and my personal limitations in programming and Unity environment proficiency as well as relatively short period of production time.

- Firstly and most importantly, the genre of the game was changed. All shooter and action elements were removed in order to concentrate on escape room logic and puzzle-solving.

  Although there wasn't a technical issue of introducing a shooter element, it felt like the slow-pace progression without combat pressure and the empty environments were more important for the overall experience of the gameplay in both mechanics and aesthetics respect.

- The question arose whether it was sensible to operate in *3D environment*. At this point it was still a possibility but a thought of building a pseudo-3D environment was introduced. Since the shooter element was no longer relevant, a simple point-and-click mechanics would suffice for this project.

- Although the main storyline and the protagonist remained unchanged, there were some adjustments of the story progression. Instead of beginning with hospital staff and inmates being possessed and getting aggressive and violent, the game now begins «after the events»; after the hospital management have evacuated leaving the facility in a total lockdown. Narratively, this helped to avoid the necessity of combat. Due to elimination of fight mechanics, there are no more «enemies» in the course of the gameplay.

  Very few of those who stayed behind survived the events and now it's the protagonist's duty to find and question them in order to prevent the upcoming catastrophe.

- State switch mechanics stays the central mechanics of the game. Yet its manifestation was also subjected to change. Originally, the UI was supposed to include «medication state» indicator that would show how much time the player has before the medication runs out. With action element gone from the gameplay, it felt inconsistent introducing another form of time pressure. Since the game genre shifted towards adventure, all time-based elements seemed inappropriate.

  Now another way of switching between the modes had to be invented. At this stage this mechanics was still being decided on.

- Directly related to the previous point, decision making of the game had to change completely. Before both states were supposed to have their pluses and minuses. In «lucid» state the protagonist was supposed to be able to interact with everyday objects and tell apart «friends» and «foes» but due to side effects he would lose significantly in physical agility; whereas in «delusional» mode he was supposed to be much stronger and quicker but unable to identify the possessed neither interact efficiently with common objects.

  This mechanics was not completely clear at this point of development process and looked as follows:
  In «lucid» mode protagonist:
  - *Can easily interact with everyday objects*
  - *Can read and understand journals and tech. Documentation*
  - *Cannot recognize potential threats*
  - *Side effects of dizziness and decrease of physical agility*

In «delusional» mode:
- *Can see mystical clues and potential threats*
- *Physical strength and high speed*
- *Some everyday objects become hostile or unusable*
- *Cannot read / count / interpret human speech efficiently*

Each mode gives a unique perspective of the surroundings and the majority of situations can only be solved through experiencing both modes.

- Strengths / weaknesses distribution became completely obsolete other mechanics change and game genre change.
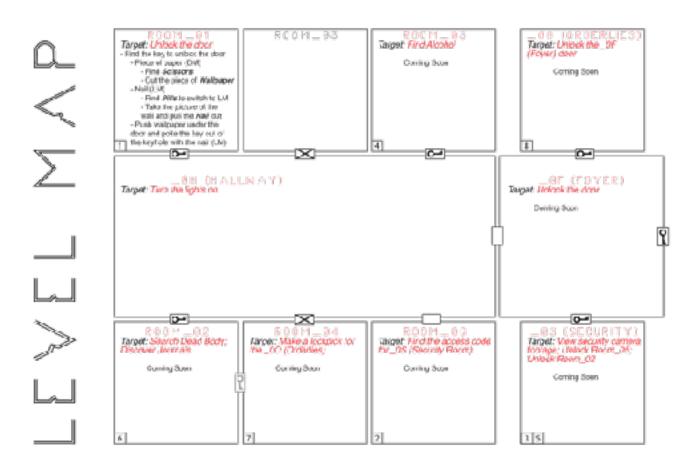
- Aesthetic inspiration for level design:

Stage 1.2 - First Prototype

At this point the first prototype was being build and particular technical limitation helped decision-making as to game mechanics.

- It was decided that the game design environment would be Unity

- It was finally decided that the environment would be 2D with 3D modelled environment rendered and and set as backgrounds for 2D scenes (pseudo 3D). This way I could avoid building unnecessary assets and this type of environment fitted perfectly with point-and-click mechanics.

- The mechanics of switching between two modes of reality was established. In current iteration, with combat mechanics gone, old system didn't make any sense and had to be completely reconsidered. Duality of perception is still the centre of the game idea but now certain events trigger «delusional» state, while «lucid» state is still triggered by the medication that needs to be found at every stage of the game. There are still puzzles that can only be solved in either one or another state. Also interactable objects can be found in one of the states.

- Pros and cons of «lucid» vs. «delusional» states were removed as unnecessary in current design development. Since at this point the protagonist didn't have any stats and didn't have to fight or run, the effects of the medication were no longer relevant. Now certain objects are only available to the player in either one or another state as well as some actions that player can perform.

- The level map for the first floor of the hospital was designed:

- As well as some preliminary 3D renders for the environments to try and decide on the overall mood of the game:

Room_0 (Lucid state)   Room_0 (Delirious state)

- At this point most major systems were implemented: scene navigation, basic inventory system, basic interactions with interactable objects were working (pickup, popup feedback).

- However some issues were still present:

• *collected objects could not be used or applied to the objects inside the scene which derives from the major problem of passing values between different scenes,*

• *inconsistency of inventory panel that wouldn't close on the game start and, apparently, gets stacked on top of itself each time the scene is entered,*

• *sometimes collected objects didn't display in the inventory, or would reappear in the scene after being collected,*

• *state switch wasn't consistent - occasionally didn't save the state on scene change.*

Stage 1.3 - Second Prototype

By this point most technical problems were resolved:
- All interactable objects were placed in corresponding scenes and properly scripted. Now interactions with collected objects function consistently and as designed.

- A setup scene was introduced that helped fix issues with the inventory system and the state switch. All setup now is done before the first game scene is loaded which prevents multiple inventory panels spawn on top of each other. Also this scene deals with user prefs making sure that all objects that have previously been collected do not appear in the scene again, and that all actions that player performed are saved and taken into account. This means that when the player leaves and then reenters a scene, they find it exactly as they left it and if a puzzle was started its current state is saved and reproduced on the next visit to the scene.

   Also, to prevent dead-end scenarios, some objects cannot be collected unless all necessary conditions are satisfied. In the case of this Room_0 it's the pills that cannot be acquired until all objects only visible in «delusional» mode are collected.

- I also learned a bit about static variables which helped me greatly to pass values between different scenes. This enabled interaction of inventory items with current scene items.

- All specific interactable objects' scripts were parented to the main Pickup script that saved a lot of coding.

- Sound was introduced. Now the main ambient sound is present that changes according to the protagonist's current state. Also a pickup sound accompanies every picked up object.

- Navigation script moved from the scene level to the overall game level to optimize scripting amount.

From the aesthetics perspective some improvements have also been made:
- Interactable objects images were retouched and implemented

- Inventory icon was added

- Better 3D models were implemented (some of them, such as the piano and the bedding, are Creative Commons). Light flickering animation was improved. The room itself was re-textured and re-rendered. This time I used different lens angles to represent different states.

Room_0 (Lucid state)

Room_0 (Delirious state)

Stage 2.0 - Future development and challenges

In current state the project is looking promising. There are still minor issues to resolve. It is necessary to make inventory items disappear after being used as well as make an inventory item icon follow the mouse pointer or be displayed in some different fashion.

Other than that all vital systems work well and can be expanded upon. I would say that this part of the project is a successful working prototype.

Once mentioned imperfections are dealt with, technical part may be considered accomplished. From this stage on it is possible to continue building the game world to accommodate the narrative.

Most puzzles for the first floor of the hospital are already created, and the next step will be planning other levels.

Aesthetics wise, future steps will be creating 3D assets for new scenes as well as preparing interactable objects and soundscapes.

It would be nice to figure out a way to create smoother transition between states since at the moment the transitions feel a little choppy.

Overall, I feel that the goals set for this projects were met although, of course, there is lot for me to learn about Unity and C#.

I will most definitely continue working on this game and I hope that I will be able to finish it.